

Street children in Tehran and risk factors for substance abuse

Hamid Reza Ahmadkhaniha¹, Mitra Hakim shooshtari², Mehrdad Mohammadian³
Morteza Naserbakht⁴, Farzad Ghazaiepour⁵

Mental Health Research Center of Tehran Psychiatric Institute, Iran University of Medical Sciences, Tehran, Iran.

Received: 27 December 2009

Revised: 14 April 2010

Accepted: 24 April 2010

Abstract

Background: Economy, lack of welfare and social services, AIDS and civil war, and also substance abuse are predominant factors that attributes with street children.

Methods: 576 street children of 10-19 years were evaluated. Data were gathered by demographic and substance use check list. Theses check lists were designed by the researchers and included some simple question about type and duration of substance use. Several psychiatrists confirmed the content of check list.

Results: 36.7% of the children had lifetime smoking of cigarette. The frequency of smoking in boys was significantly higher than girls ($P<0.05$). The mean age of the girls with smoking habit was significantly lower than the boys ($P<0.05$).

Conclusion: It should be noted that street children are at high risk group for using tobacco. Theses children are also exposed to the dangerous behaviors and sexually transmitted diseases.

Keywords: street children, substance use, Iran

Introduction

More than 150 millions children live in street worldwide [1,2]. This phenomenon is often attributed to multiple factors such as economic stagnation, unequal distribution of wealth, lack of welfare and social services, AIDS and civil war. According to WHO statistics, 25% to 90% of street children use substances. More than 200000 street children live in Iran based on UNICEF statistics that are at high risk to use substances [3,4]. Some reports show that 80% of street children in Iran use substances.

One study in 108 street children in Pakistan found that most of them live in overcrowded families whom recently immigrated to the city to obtain economic opportunities. Their parents had low education and unemployed or had simple job. The poverty was an important factor leading them to streets. Most of theses children come to streets to raise their family's income [5].

In Nigeria, 20 street children were examined by several interview and group discussion. The results showed that most of them did not finish primary school, 27% of these children experi-

1. Psychiatrist, Assistant Professor, Mental Health Research Center of Tehran Psychiatric Institute, Iran University of Medical Sciences, Tehran, Iran. Email: dr_ahmadkhaniha@yahoo.com

2. **Corresponding author**, Child and Adolescent Psychiatrist, Assistant Professor of Iran University of Medical Sciences, Shahid Mansouri Alley, Niayesh Alley, Satarkhan Avenue, Tehran Psychiatric Institute. Email address: mitra_hakim2000@yahoo.com, Tel: +98 2166509024

3. Child and Adolescent Psychiatrist, Assistant Professor of Iran University of Medical Sciences, Mental Health Research Center of Tehran psychiatric institute. Email: mehrdad@docotor.com

4. Social Medicine, Specialist Mental Health Research Center of Tehran Psychiatric Institute. Email: mnaserbakht@gmail.com

5. Mental Health Research Center of Tehran Psychiatric Institute. Email: ghazaiepour@yahoo.com

enced expulsion from school and 47% had truancy, 69% history of alcohol use and 14 % used substances. 24% of these children delivered the substances, 81% were boys with mean age lower than 10 years of old. These children experienced important issues such as arresting by police, exploitation by their parents, child abuse and the impact of peer group [6].

Demographic characteristics of street children in Egypt confirmed that they had problematic familial background. They were the victims of familial disruption, physical and sexual abuse. Moreover they suffered from somatic problems, malnutrition and lack of access to academic opportunities [7].

It is very crucial to get more in depth data about these children, demographic and social risk factors, in order to design preventive measures for substance abuses. Present study was conducted with this purpose for street children in Tehran.

Methods

In this study various variables were examined e.g. age of substance abuse or dependence (this variable was evaluated with a check list), current living status for year and their economic status.

Based on multistage sampling method, 22 areas of Tehran were divided to 5 clusters. From each cluster, one domain was selected randomly and 576 street children were evaluated. Street children were defined to 10-19 years of age children that spend days in the streets and at nights join their families or live in streets or other places.

15 interviewers were trained to fill the check list, and they filled the check list in the street. Interviewers had M.A level and were trained for one month. Each 5 interviewers were monitored by a supervisor and all of the supervisors guided by the main supervisor. They collected data by demographic and substance use check list. Theses check lists were designed by the researchers and included 30 questions about sub-

Table1. Demographic status of street children in Tehran.

| | |
|------------------------|------------------|
| Age(Mean±SD) | 13.4±0.19 |
| Sex: | |
| Male | 491(84.6%) |
| female | 88(15.4%) |
| Living with: | |
| Mother & Father | %71.6 |
| Only Mother | %4.8 |
| Only Father | %9.4 |
| Mother & father in law | %3.6 |
| Father & mother in law | %2.7 |
| Other family | % 7.9 |

stance use disorders based on DSM-IV. At first the interviewers took consent form children by explaining the goal of study and emphasizing on confidentiality of their outcomes.

Statistical analysis: Statistical significance was estimated by Chi -square and Fisher's exact test. Significance was defined as $p < 0.05$. Odd ratio was also calculated, and multivariate analysis was excuted using logistic regression.

Results

In this study 576 of street children with mean age of $13/4 \pm 0/19$ were examined. %84/6 of them was boy and %15/4 girl. %71/6 were living with theirs both parents (mother and father), and %14 with one of theirs parent (%9/4 with father and %4/8 with theirs mother). Demographic and social characteristics of the cases are shown in table 1. Thirty six percent of the children had lifetime consumption of cigarette.

The frequency of tobacco smoking in boys was significantly more than girls ($P < 0.05$) (Table 2). The mean age of the girls that smoked was significantly lower than the boys ($P < 0.05$). The children that quitted school and those with primary school level of education had more smoking experiences than other groups ($P < 0.05$). Children with lower economic status smoked significantly more than others

Table 2. Relation between sex and cigarette consumption in street children.

| Gender | smoking | No smoking | Total |
|--------|-------------|------------|-----------|
| Male | 191(39%) | 300(61%) | 491(100%) |
| Female | 21(23.9%) | 67(76.1%) | 88(100%) |
| Total | 212(36.7%)* | 367(63.3%) | 579(100%) |

* p value < 0.05 is significant.

($P < 0.05$). Smoking was significantly high in children with family history of substance abuse especially in their fathers ($P < 0.05$). It was also significantly related to living situation of their fathers and mothers ($P < 0.05$), and smoking was higher, in children of divorced or lost parents.

7.8% ($n=45$) of the children had history of alcohol consumption, with no differences in frequency between boys and girls, but the mean age of alcohol consumption in girls was significantly lower ($P < 0.05$).

3.6% ($n=21$) of these children used narcotics. In the boys that drop out of schools, the consumption of the narcotics were significantly higher than the other groups ($P < 0.05$). It is not observed in the girls.

Cigarette, alcohol and narcotics use were significantly higher ($P < 0.05$) in street children with history of legal condemn of family members. 16% of their parents had history of alcohol use. 43% used narcotics. Alcohol consumption was higher ($P < 0.05$) in children with family history of substance abuse of narcotics. Street children used significantly more narcotics If more than one of their family members had history of narcotic consumption significantly ($P < 0.05$) (Table 3).

Discussion

The purpose of this study was to determine the characteristics of substance use among the street children. 36.4% of the children used tobacco, 7.8% alcohol and 3.6% narcotic. Overall, 47.8% of these children had history of substance use. The strategic geographic situation of Iran and its long borders with the countries of the Golden Crescent (Afghanistan and Pakistan), where a substantial proportion of the world's heroin is produced, have confronted Iran with the problems of drug trafficking and concomitant drug addiction within the country (8). The youth are not an exception and make up a considerable population of substance users. One estimation of rate of substance use is approximately 80% among the street children in Tehran (9). Nonetheless It should be emphasized that, alcohol and substance use is illegal in Iran and, therefore the reported rate is lower than the actual rate of their consumption in this population. Substance use in Iran is similar to other countries around the globe.

For example a study in New Delhi showed that more than half (57.4%) of the subjects had indulged in substance use [8].

Table 3. Logistic regression analysis for odds ratio determination of family history with addiction for narcotic in street children

| Variables in the Equation | B | S.E. | Wald | df | Sig | Exp(B) | 95% C.I. for EXP(B) | |
|-----------------------------|-------|---------|--------|----|------|--------|---------------------|--------|
| | | | | | | | Lower | Upper |
| ≤one addict case in family | 20.32 | 12118.6 | 1.2 | 1 | .754 | 6.731 | .004 | 49.541 |
| > one addict case in family | 2.629 | .472 | 30.956 | 1 | .004 | 13.85 | 5.488 | 34.972 |
| Constant | .875 | .307 | 8.115 | 1 | .000 | 2.400 | | |

Based on the research in Lahore, Pakistan of the total sample, 17.0% reported never used drugs, 15.9% reported being former drug users, and 67.1% reported used drugs in the month before registration [5].

Studies carried out in Egypt indicated that inhalants top the list of drugs consumed. Children sniff glue to deal with the hunger, pain and violence they are exposed to on the streets. Glue is preferred because is cheap, and has a long-lasting with mild withdrawal symptoms. Glue is usually consumed in groups. Many youngsters also consume tobacco, cannabis and over-the-counter drugs. They are generally unaware of or indifferent to the numerous risks encountered in substance abuse [11].

One study in Nigeria found that were alcohol, kolanut, tobacco and cannabis the most commonly used psychoactive substances. Length of stay on the street was a significant predictor of current psychoactive substance use. The readily available and a relatively cheap substance was in common use among street children [12]. Unfortunately we do not have access to such data in present study.

The present study shows that the mean of age of girls for substance use was significantly lower than the boys. There are not similar findings in the other studies. The low age in girls make them vulnerable to unsuitable environmental conditions that cause psychopathologic disorders. The low opportunity of employment for the street girls can lead to them in trafficking substances to obtain income.

In our study tobacco and substance use were significantly higher in the children with the history of academic dropout and low socioeconomic status. This is consistent with street children in Brazil. In that study a much higher prevalence of use of both alcohol and tobacco were shown in the children who spent all day long in the streets. Only less than 12% of children that lived with their families and went to school used illicit drugs [13]. It appears that being at school or other healthy social groups can

transfer social skills to the children that lead to decreased risk of substance abuse. Children with family history of substance use, especially in their fathers, used cigarette and alcohol and narcotics more than others. Modeling and biological vulnerability could explain this phenomenon.

Divorce and loss of two parents were associated with higher tobacco use in street children, and lack of healthy familial structure and also inappropriate emotional relationship with children may increase tension in them and lead them to smoking.

Study among street children in Delhi showed that substance use was associated significantly with domestic violence and maltreatment of the child.

8.3% of the studied children had legal involvement [10]. In Pakistan 52.7% of street children had been arrested by the police, and odd jobs, begging, and pick pocketing were the primary sources of reported income [5].

According to logistic regression the history of condemnation was the only factor that increases cigarette, alcohol and substance uses in the present study. Alcohol consumption in the father increases the chance of alcohol use in their children 4.7 times, and being male was a predictive factor for substance use. History of condemnation increases the possibility of substance use, because of the experience of living with the peer group that consumed substances. In the study conducted in Lahore, some variables had significant relationship with substance use in street children. Variables that were significantly correlated with being a current drug user (vs. never) in the presence of other variables included: being 13 years or older [adjusted odds ratio (AOR)=3.0; 95% confidence interval (95% CI)=1.3-7.0]; reporting a daily income \geq Rs 60 (AOR=2.7; 95% CI=1.1-6.4); having a history of arrest (AOR=3.3; 95% CI=1.3-8.3); wanting to return home (AOR=0.3; 95% CI=0.1-0.8); feeling hatred from the public (AOR=5.1; 95% CI=2.0-12.9); ever ex-

changing sex for food, shelter, drugs, or money (AOR=3.4; 95% CI=1.3-8.9); and ever having cut themselves (AOR=15.4; 95% CI=3.4-70.7) [14].

Conclusion

Tobacco, alcohol and narcotic use were significantly higher in street children with familial history of legal involvement. In these families substance use was more common and this lead to similar behavior in children.

It should be noted that street children are a high risk group to use substances. Theses children are also exposed to the conduct-like behaviors and sexually transmitted diseases. The government and organizations must address these issues and their outcomes on the community.

Acknowledgments

This study was supported by " Mental health research center" of Tehran psychiatry institute. We would like to thank Mohamed shams for management of data collection.

References

1. Abdelgalil S, Gurger RG, Theobalds-Cuensus LE. Household and children in aracaju, Brazil. *Archive of disease in childhood* 2004; 89: 817-820.
2. Street children. Community Children World Wide Resource Library; [Cited 13/06/2005]. Available from: http://pangaea.org/street_children/kids.htm
3. UNICEF, Street and working children. Incocenti global seminar, summary report. Florance;1993. pp. 20.
4. The support Committee for Iranian's street children. Iran has over 200000 street children. Retrieved on 2005-06-22 from <http://www.Iranstreetchildren.com/index.php/article/more/177.SS>.
5. Ali M, Shahab S, Ushijima H, Muynck Ade. Street children in Pakistan: a situational analysis of social conditions and nutritional status, *Social Science and Med* 2004; 8: 1707-1717.
6. Olley BO. Social and health behaviors in youth of the streets of Ibadan, Nigeria, *East Mediterranean Health Journal* 2002; 8: 64-73.
7. Salem EM, Abd-el-Latif F. Sociodemographic

characteristics of street children in Alexandria. *Journal of Urban Health* 2005; 3 Suppl 4: 113-124.

8. The Joint United Nations Program on AIDS (UNAIDS)/World Health Organization(WHO): Report of the global HIV/AIDS epidemic. Geneva; 2002. pp. 31.

9. Society of Iranian Youth News Agency. Available from URL: <http://www.syna.ir/news/news120.html> . Accessed April 18, 2004. [In Persian]

10. Pagare D, Meena GS, Singh MM, Sahu R. Risk factors of substance use among street children from Delhi. *Indian Pediatrics* 2004; 3: 221-225.

11. United Nations Office on Drugs and Crimes (UNODC) Website/ Stories [Cited 26 Apr 2009]. Available from: www.unodc.org.

12. Morakinyo J, Odejide AO. A community based study of patterns of psychoactive substance use among street children in a local government area of Nigeria. *Drug and Alcohol Dependence* 2003; 2: 109-116.

13. Forster LM, Tannhauser M, Barros HM. Drug use among street children in Southern Brazil. *Drug and Alcohol Dependence* 1996; 2: 57-62.

14. Sherman , Plitt S, Hassan Sul,Cheng Y, Zafar ST. Drug use, street survival, and risk behaviors among street children in Lahore, Pakistan. *Journal of Urban Health* 2005; 3 Suppl 4: 113-124