A descriptive study on street children living in a southern city of Turkey

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We aimed to determine the social-demographic characteristics and rate of occurrence of hepatitis B infection of children living/working in the streets in Adana, southern city of Turkey. The application forms of 52 children were assessed. Physical examination could be performed for 39 children. The median age was 14 years. The educational status of the children and parents was low. Shoe polishing (22%), selling different goods (22%) and scavenging (33%) were the most common type of work activities. Eighteen (35%) pointed out that they were exposed to beating and attack, three (6%) were sexually abused. Twenty-one (40%) of them were involved in physical fighting and two (4%) were involved in fights resulting in stabbing. Twenty-four (67%) of the children were under 50 percentile for height. Nineteen percent of the children were heavy or medium smokers. Among the 38 children whose hepatitis B markers were checked, HbsAg was positive in 2 (5%), anti-HbcAg in 12 (32%), and anti-HbsAg in 9 (24%). Fifteen (39%) blood samples had negative results. A more nationwide, institutional approach to the problem must be created and maintained.

Key words: street children, hepatitis B virus infection, violence, child abuse.

Children working in the streets are those who spend part of the day in the streets working in order to contribute to the family budget or to meet heir own financial needs, and who come back home early or late at night. They still have some contact with their families; however, they spend a considerable part of the day in the streets away from family protection and far from the environment in which they live. Children living in the streets, on the other hand, maintain their lives in the streets for short or long periods. Children who are driven away from home, who do not have parents, or who are left on their own although they have parents constitute this group[1].

Children living and/or working in the streets are at risk of encountering or interfering in violence, sexual abuse, substance addiction and of acquiring infectious diseases including HIV and hepatitis B[2-5].

At least 100 million children worldwide are believed to live at least part of the time on the streets. These street children are first and foremost working children[5].

In Turkey, there is a considerable problem of many thousands of street children, although their precise numbers vary from city to city and often depend on the season of the year. Police sources in İstanbul have reported that there were between six and seven thousand children on the streets. There is an almost permanent problem in the western, southern and south eastern cities, with large numbers of migrants[6].

In this study, it was aimed to determine the social-demographic characteristics and rate of occurrence of hepatitis B infection of children living/working in the streets in Adana, a southern city of Turkey.

Material and Methods

The study was a descriptive study performed in Adana, a city in the southern part of Turkey (Fig. 1). The total population at the time of the study was 1, 689, 155 and of the 7-18 year age group was 389,127.

Fig. 1. Adana, a city in the southern part of Turkey.

The data was collected from 52 children who referred to the Society for Street Children of Adana between December 1, 1997 and June 25, 1998. An application form was completed for every child who had visited the Society regularly for meals, taking a bath and meeting their friends. We assessed the forms as a questionnaire for social-demographic characteristics of the children. The children were then asked to visit the Society for a lung organization. Those who came were interviewed, and a physical examination was performed for each. The children were informed beforehand and permission for the procedure was taken.

The following variables were assessed on the questionnaire: gender; age; birth place; educational status; the origin of the family; period of time in Adana; sleeping place; age, education, occupation, income and social security of parents; number of siblings; reasons for being in the streets; period of living in the streets; street friends; income; means of earning money; substance use; violence.

Use of cigarettes, alcohol, smelling adhesives, cannabis and heroin was queried in order to assess the substance use. Smoking was grouped as heavy (10 and more per day), medium (1-9 per day) and rare (a few in a week). For other substances, no density was assessed.

Encountering violence was determined as recipient of physical violence if they were subjected to beating, injury or sexual abuse. Interfering in violence was determined as physical violence that they themselves initiated such as having been involved in fights or having abused anyone.

A team of a pediatrician, practitioner and three nurses performed the physical examination. A social worker helped to complete the questionnaire and to have an easier relation with the children during examination. The personal and family health histories of the child were asked including surgery and accident histories. The physical examination was begun with inspecting the skin for icterus, ecchymoses, and lesions such as wounds or cicatrices. Scalp and body skin were also examined for symptoms of pediculosis and scabies. The limbs were inspected for any deformation. Any determined disability was assessed. The ear, nose and throat of the child were evaluated. Respiratory and cardiovascular system examinations were performed. Abdomenal and neurological exams were performed. No genital examination could be performed.

The children were weighed and heights were measured. Height and weight percentiles specifically prepared for Turkish children were used to evaluate their development[7]. Height compared to age, weight compared to age and weight compared to height were determined.

In order to determine the existence of hepatitis B virus infection, 3 ml of blood was taken.

Routine screening for hepatitis B requires assay of at least two serologic markers. HBsAg is the first serologic marker of infection to appear and is found in almost all infected persons. Because HBsAg levels fall before the end of symptoms. Search for anti-HBcAg is also required because it rises early after infection and persists for

many months. Anti-HBcAg is the most valuable single serologic marker of acute HBV infection because it is present almost as early as HBsAg and continues to appear. Anti-HBsAg and anti-HBcAg are detected in persons with resolved infection[8]. The samples were tested at the laboratory using RIA (radioimmunoassay) method and assessed for HBsAg, anti-HBcAg, anti-HBsAg. Thirty eight blood samples for hepatitis B markers were evaluated. One blood sample was omitted because of hemolysis. Blood samples of 13 children could not been taken because they were not reached.

The data analysis was done with SPSS 10.0 statistics package. The frequencies and percentiles and medians (minimum-maximum) were given as descriptive statistics.

Results

The application forms of 52 children were assessed. The physical examination could be performed for 39 children.

Only 2 (4%) of the study group were girls. There were 50 boys (96%). The median age was 14 (7-18) years. The birthplace record was available for 47 (90%) children. Nineteen (40%) were born in Adana, where as 28 (60%) were born in a city or town in southeastern Turkey. The educational status of the children is given in Table I.

Table I. The Educational Status of the Children

Education*	n	%
Never attended	15	29
Left primary school	16	30
Attending primary school	8	15
Primary school graduate	5	10
Attending junior high school	1	2
Junior high graduate	1	2
Unknown	6	11
Total	52	100

* Schooling period is approximately five years in primary school and three years in junior high school.

Most (84%) of the parents had migrated to Adana from various cities in east and southeastern Anatolia. They had been in Adana for 12 (1-30) years. The living place was recorded for 47 (90%). Forty-two (89%) were living with their families, two with relatives, one with friends, one in a social organization, and one alone in the street. Four of them had lost their fathers and three their mothers. Twenty-five (96%) of 27 mothers and 24 of 31 fathers never attended school. There was only one father with a secondary school degree and one with a high school degree. The educational status of 25 mothers and 21 fathers was not known. The mean age of the mother was 40 (27-60) years and of fathers was 45 (32-70) years. They had 6 (1-15) siblings. Most of the mothers (86%) were housewives and 13% of fathers were unemployed. Fifty-three percent of the families had no social security, 40% had a green card (a low-coverage social security given to very low income group by the government) and SSK [Sosyal Sigortalar Kurumu (Turkish) or Social Security Organization] covered 7% of them.

During the day, 91% had no certain place to stay. Fifty-five percent had been in the streets for five years or more, 29% for 2 to 4 years and 16% for less than two years. Shoe polishing (22%), selling different goods (22%) and scavenging (33%) were the most common work activities. Twenty two percent were also sometimes unemployed. Most of them (93%) were giving the money they gained to their family in order to support the family budget.

The substance use of the children is given in Table II.

Table II. Substance Use of the Children

	n	%
Substance use		
Never	5	10
Unknown	21	40
Cigarette use	24	46
Heavy (10 and more per day)	8	15
Medium (1-9 per day)	2	4
Rarely (a few in a week)	14	27
Smelling adhesives	1	2

The children were also asked whether they had been subjected to beating, injury, or sexual abuse. Eighteen (35%) indicated that they were exposed to beating and attack, and three (6%) were sexually abused. One of the three children that were sexually abused had also been kidnapped. In order to determine whether they themselves initiated or were involved in violence, they were asked about fights and injuries. Twenty-one (40%) were involved in physical fighting and two (4%) were involved in fights resulting in stabbing.

Life histories of almost all of the children included a physical injury resulting from a traffic accident, from falling from a height, or

from being stabbed, etc. The results of the physical examination revealed that almost all of them had cicatrices caused by traffic accidents, injuries, or self-mutilation by razor, and newly developed or healing wounds on their bodies. One girl had a physical disability as a result of falling form stairs. Four children had scabies. Their dental care was poor.

The median height was 151 (112-175) cm. When height percentiles of the examined children were considered, 24 (67%) of the children were under 50th percentile, and one child was under 3rd percentile. The mean weight was 34 (12-70) kg; only three (8%) were over 50th percentile. Seven (19%) children were under the 3rd percentile. When their weight was compared to their height, all of them except four were at the lower side.

Among the 38 blood samples in which hepatitis markers were evaluated, HBsAg was positive in 2 (5%), anti-HBcAg in 12 (32%), and anti-HBsAg in 9 (24%). Fifteen (39%) blood samples had negative results. Among the children with HBsAg, anti-HBcAg and anti-HbsAg negative, HBV vaccine was given to the ones who could be reached. Eight children were vaccinated for one dose, four for two doses and two received three doses.

Discussion

Children living and working in the streets are an increasing problem in developing countries as well as in developed countries.

Struggles against poverty, and in some cases social unrest, have pushed many rural families in Turkey to the cities. Internal migration has increasingly become one of the main survival strategies of poor families, especially those from the eastern part of the country. These families come to the city and are challenged by lack of skills and unemployment. An outcome of this social situation is children working in the streets[9].

The same phenomena can be observed in the population of the current study as well. Most of the children participating in the study were from various towns and cities of southeastern Turkey. The educational level of the parents was low. Parallel to our social structure, almost all were male, since the family expected boys to contribute to the family budget.

In the current study, all children except one stayed with their families. However, some of these children might temporarily leave their homes. In a previous study of ours it was found that 78% of children had steady relations with their families[10]. Intervention efforts of the Adana Society for Street Children might have led to this positive result.

In studies done in developed or developing countries it has been emphasized that children are especially at risk of substance use and addiction, and this factor has increased as a result of urbanization and socialization. The studies also report that the age at which substance use is started has become increasingly lower[11]. In a study done in İzmir, Turkey, 20% of the children smoke regularly; in another study in Ankara, Turkey, 25% were found to smoke regularly. In both cities, 6% of the children were found to be using alcohol[12]. In a study done on 105 youth living and working in the streets in Brazil, 58% were regular smokers, and 25 used alcohol[13]. In the present study 19% of the children were heavy or medium smokers. However, alcohol use was low.

The problem of being involved in violence and encountering violence is prevalent all over the world[2,3]. In some Latin American countries street children have been shot by "death troops" because they are involved in plundering, they commit crimes and use substances[2]. In the present study as well, we found that most of the youth had encountered violence or been involved in violence, and three of them had been sexually abused.

In a study done in Colombo to investigate abuse prevalence, and health and life styles of street children, it was reported that 20% smoke regularly, 38% are workers, and 16% are sexually abused, and skin infections, injuries, and traffic accidents are significant reasons of morbidity[14]. The results of the present study were also in line with findings in the literature. Almost all of the children reported histories of accidents and injuries, and they had newly formed injury or scars tissue. Four of them also had scabies. The children had poor physical hygiene. They had not bathed for a long period. They had old and dirty clothes. They were not accustomed to brusing teeth. The children had the opportunity to bathe at the Society and were given clean clothes.

In a study carried out in Jakarta, on 89 children living and working in the streets, 52% were under the 3rd percentile for height; however, distribution of weight to height was near

reference values for the population[15]. In the same study, 7% of the children were underweight (under 3rd percentile). In the present study, the height of only one child was under the 3rd percentile, and the weights of seven (19%) children were under the third percentile. When weight to height ratio was considered, body weight of all children except four was low.

In a study done in İstanbul, Turkey, 4.3% had a positive HbsAg and 13.0% had positive anti-HBsAg in the 10-14 years old age group. There were 9.9% with a positive HBsAg and 25.3% with positive anti-HBsAg in the 15-19 years old age group[16]. In another study in Adana, Turkey, the prevalence of positive HBsAg was 11.4% in the 8-11 years old age group, and 11.9% in the 12-15 years old age group[17]. In the current study, HBsAg was found in 5.3% of children and anti-HbsAg in 23.7%. The lower findings when compared to the other Adana study might have been due to the small study group.

Porto et al.[18] investigated HBV markers in 496 children and adolescents aged 9 to 20 years in order to determine prevalence of hepatitis B virus infection and potential risk factors. They found 13.5% with HBc antibody and 2% with HBsAg. In the same study, among children in contact with their families, positivity of HBV markers was found to be higher among children involved in sexual activity than in those who were not. In the present study, we did not inquire about the sexual activities of the children. However, 31.6% anti-HBc and 5.3% HbsAg rates were higher than the values seen in the above-mentioned study.

In another study, Alderman et al.[19] showed that there is a significant relation between living in the streets, risky sexual practice (anal sex, sexual abuse, prostitution), sexual abuse, drug use and HBV infection. In the same study, they report that HBV infection frequency was 4% in the first group in which 7% were homeless children versus 23% in the second group in which 96% were homeless. Higher values found in this study when compared to our study can be attributed to cultural and social differences.

In order to support the health of the children in the streets, day-care centers for providing basic needs such as nutrition, education and health should be founded. The children should be immunized against infectious diseases and protected by patrolling police against dangers such as being involved in violence, encountering violence, substance use, and child abuse. In order to actualize these interventions, government and nongovernmental organizations should work in coordination and take concrete steps. The intervention for family empowerment is necessary for reducing children's involvement in street work. The contribution of the mothers to family budget should be improved. Training of the parents is essential for quality care for children. A clear understanding of the reasons for child labor is needed. Social workers must focus on identification of families at risk of sending their children in the street or of neglecting them. Establishing a close working relationship with local organizations that provide services to the families such as health and legal aid is important. Law enforcement personnel should be educated via specific programs on the importance of the problem and supported by a team of specialists including practitioner, psychologist, community worker, etc. A more nationwide, institutional approach to the problem must be created and maintained.

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