ORIGINAL ARTICLE

A study of Substance Abuse and Quality of Life among Street Children in District Etawah

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Abstract	Introduction	Methodology	Results	Conclusion	References	Citation	Tables / Figures

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Abstract

Background: The research series on street children are carried out in major cities by neglecting the rapidly developing small cities experiencing widespread urbanization. Unfortunately, there is lack of research-based evidences in field of mental health status and quality of life of street children. **Aim & Objective:** The study aimed to study the pattern of substance abuse & their correlates among street children and to assess the 'quality of life' among street children. **Material & Methods:** A sample of 145 street children of 13-18 years were enrolled by purposive sampling from January 2017 - June 2018 in Market places, Railway station, Bus depot etc. Subjects were searched at known hotspots in Etawah, and further sample was covered using snowball sampling. Information was gathered using predesigned and pre-structured questionnaire, along with WHOQOLBREF and Adolescent Alcohol and Drug Involvement Scale questionnaire. **Results:** Average Quality of life was tested using t test and ANOVA. Most of the street children 55% were aged between 13-15 years, 65 % had attended school for at least one year. Quality of life showed higher Physical health. Street living children had less psychological health score (30.3±7.1). Prevalence of drug abuse was 54%, while tobacco, alcohol, marijuana, inhalants, were the drugs consumed. **Conclusion:** Psychological health was more affected. Tobacco & alcohol were the common drugs consumed.

Introduction

"Street children" is a term used to describe those kids who live and work in streets. Street children is an emerging problem in few and a prevalent problem in other countries.(1) The definite figure of is impractical to quantify, but the count approximates to tens of millions worldwide.(2,3) The phenomenon of street children are often associated with various factors such as poverty, familial disharmony, exploitation, natural and manmade

disasters, physical and sexual abuse etc. which in fact force them towards streets and make them spend their life on street.(4,5,6) Recent studies support existing evidence that factors driving children towards streets are complicated. In addition, domestic violence, mental health, alcohol and substance abuse among parents, unable to establish strong relationships, seem to be the additive factor for leaving home.(7)

Quality of life (QOL) is likely to be lower among street living than the general population.(8) Various researches focusing on few of the major cities of India,(9,10) but on the other hand there are many cities and towns rapidly developing in India leading to widespread urbanization leading to increase in the magnitude of street children. Unfortunately, there is lack of research based evidences in field of mental health status and quality of life of street children.

Aims & Objectives

To study the pattern of substance abuse & their correlates among street children and to assess the 'quality of life' among street children.

Material & Methods

Study Design: A community based cross sectional study was conducted in Etawah city.

Study Population: The study population included street children aged 13-18 years, who live and/or work on streets of Etawah. The age group specificity was because of limitations of questionnaires used for data collection.(11)

Duration of Study: January 2017 to June 2018.

Study Hotspot: Street children were looked for at identified hotspots of street children in Etawah city like market places (Nauragabad square, Numaish square, Ramganj square, Takkia square, Nagar Palika square), railway station, religious places (Sai Mandir), bus depot, construction places, stalls/ dhabas/ hotels, seasonal fairs, under bridges etc. and they were selected for the study.

Sampling Technique: As street children are mobile, the exact population of the street children of the study area was unknown due to the uncharted study universe or the unknown number of street children in the study area. The study subjects were searched at known hotspots in Etawah city, and further sample were covered using snowball sampling technique i.e. asking the respondents for similar children who would fit the inclusion criteria of the study.

Tools for the Study: Information was gathered using predesigned and pretested questionnaire, along with World Health Organisation Quality of Life (WHO QOL BREF)(12,13) and Adolescent Alcohol and Drug Involvement Scale (AADIS)(14) questionnaire.

Inclusion Criteria

- Children living and / or working on streets/ roadside stalls/ hotels/ dhabas/ shops etc. or spending a large percentage of their lives, including sleeping on the street and frequent presence at aggregation points even at odd hours.
- Age between 13-18 years.

Exclusion Criteria

- Those street children who are institutionalized in rehabilitation centre.
- Those who are not willing to take part in the study.
- Children who were unable to provide information.

Methodology: The data was collected from street children aged 13-18 years, who live and/or work on the streets of Etawah. Street children for the study was selected from probable known hotspots. Children who met the inclusion criteria for selection of study subjects were identified. The purpose of the study was explained to the street children and they were invited to participate. Those who, for various reasons, left the interview halfway were excluded from the study. The interviews were held in a comfortable place where confidentiality could be maintained. Data were collected on general demographic profile, education, quality of life, substance use and behaviour. Informed written assent from child and written consent from parents or guardian was taken before the start of the interview.

Data Analysis: The data thus collected were encoded into MS Excel worksheet and analysed using SPSS version 24. Results are expressed in terms of tables & graphs. Quality of Life was scored on an ordinal scale, later the scores were transformed into scores comparable to WHO- 100 scale. Mean scores were compared between groups of street children using 't' test and ANOVA. Association was seen among types of street children and quality of life and drug use, p value of <0.05 was considered significant.

Ethical Consideration: The permission to conduct the study was obtained from the University's Ethical

Clearance Committee. The child was explained in detail about the study and written assent was taken from the child while consent was taken from parents, if parents were available at the site of the study. The participants were given an option to withdraw at any point of time during the study. Anonymity/ confidentiality were also ensured so names of the participants were kept optional.

Results

Among 145 respondents, 80 (55%) of them were aged between 13-15 years. Average age of the study subjects was observed to be 15.48 ± 1.57 years of age. The proportion of children on street decreased with age, i.e. 80 children belonged to 13-15 years of age compared to 65 children in 16-18 years of age. The gender distribution of street children revealed that a vast majority i.e. 139 (96%) were boys. The educational status of street children revealed that 95 (65 %) street children had attended school for at least one year. (Table 1)

(Table 2) presents the living arrangements of the study subjects. Most (74%) of the street children resided in home with family or relatives. Even though 36% children live away outside the family, eighteen study subjects (12%) resided at place of work/ establishment, followed by other places of stay like on street with family or without family 6% & 5% respectively. Street working children comprised of 78.6% of the street children (Figure 1).

(Table 3) shows the transformed score of quality of life among various domains. Quality of life in physical domain was found to be higher among all domains followed by social domain. Least score of quality of life was found to be in psychological domain depicting psychological health affects more than any other domain in deciding quality of life in the study subjects.

Quality of life among different types of street children is represented in (Table 4). Physical QOL was observed to be less in street living children compared to street working children & children of street families. Social QOL & environmental QOL was also observed to have reduced among street living children compared to other counterparts, but the difference in physical, social & environment quality of life was not statistically significant (p value - 0.16, 0.77, 0.06 respectively). Street living children were found to have poor psychological quality of life compared to street working children and children of street families. Psychological quality of life was also found to be more affected compared to all other domains of quality of life in street children. The difference in the mean scores of psychological domain among the various types of street children was statistically significant (p<0.001). Overall quality of life was also found to be decreased among street living children compared to other types of street children.

Mean score of quality of life was observed to be more in street children who had attended schooling at least for one year in comparison with children who did not have at least one year schooling and this was found to be statistically significant (p<0.001) (Table 5).

(Figure 2) shows overall prevalence of drug abuse among street children was found to be 66% (including tobacco). Adolescent Alcohol Drug Involvement Scale depicts a picture showing the extent of drug involvement excluding tobacco. That reduces that drug abusers to 60 children. Drug abuse was found to be more prevalent (5 out of 7, i.e.71 %) among street living children whereas, 46 (40%) street working children and 9 (37.5%) children of street families reported to be drug abusers in the study (Table 6).

Most of the street children consumed multiple drugs, 54 out 60 (90%) drug using street children consumed tobacco in one or the other form, 51.6% respondents consumed alcohol, 13% respondents reported consumption of marijuana, 3.3% of them reported consumption of inhalant like paint thinner, 5% street children consumed heroine or opiate products (Table 7).

(Table 8) represents quality of life among drug using street children and non-drug using street children. Psychological domain was found to be lowest among all four domains of quality of life. The respondents using drugs had less quality of life compared with their counterparts but this difference was found to be statistically not significant.

Discussion

It is a well proven fact that gender distribution of street children is skewed towards males. This finding is supported by the findings of the present study as well as studies by Embelton L et al, Naik PR et al.(15,16) Psychological and environmental domains were seen to be poor among study subjects indicating the street children are more deprived of mental health and healthy environment. The results from our study was in contradict with Johnson JE et

al, who revealed higher quality of life in environmental and psychological domain. This difference may be attributed to study settings and age groups included in the studies. Poor psychological domain was also in line with the findings of Feder K et al.(17) Reddy AP et al reported 71% of drug users in street children, tobacco and alcohol were leading drugs consumed 49% and 40.6% respectively. In Bangalore, Benegal et al(18) reported 70% of prevalence of drug abuse in street children, among whom 76% of the children used tobacco and 46% of them used alcohol. In Mumbai, Giadhane AM et al(19) reported 81 percent of drug use in street children; tobacco, inhalants and alcohol were leading drugs used among street children with 76%, 46% and 42% respectively. Naik PR et al reported 44.2% prevalence of drug abuse among street children.(16)

Conclusion

Gender distribution among street children were male predominant, being on street had no age restriction, younger children are more visible as the older ones find their shelter and females are restricted to house hold activities making them less visible. The prevalence of drug abuse in street children was found to be 66%. Street living children had higher risk of drug abuse. tobacco, alcohol, cannabis and inhalants were the common drug consumed.

Street children face severe deprivation of psychological health and environmental health demanding the society for peace of mind and a healthy environment. Street living children show poor quality of life than street working and children of street families. Education was significantly associated with quality of life of street children. The quality of life of drug users are poor as compared to that of non-users.

Recommendation

Psychological health of street children is an important public health issue need to be focused.

Limitation of the study

Study is based on single geographic location and snow ball sampling, which may affect generalizability of the study.

Relevance of the study

Street children and their Quality of life are also public health problem in emerging cities like Etawah.

Authors Contribution

KK, NPS, PKJ, SK, SKS: Contributed in Planning and writing manuscript. KK: Data collection. NPS: Literature search. SKS: Analysis of data NPS, PKJ, SK: Supervised and reviewed study.

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Tables

TABLE 1 DISTRIBUTION OF STREET CHILDREN BASED ON SOCIO-DEMOGRAPHIC CHARACTERISTICS. (N=145)

Gender	Number (%)
Male	139 (95.8)
Female	006 (4.2)
Age Groups (years)	
13-15	80 (55)
16-18	65 (45)
Educational Status	
Attended school	95 (65)
Not attended school	50 (35)

TABLE 2 DISTRIBUTION OF STREET CHILDREN BY THEIR PLACE OF STAY.

Living Arrangements	Number (%)
Home (with family)	92 (64)
Home (Relative/ friends)	15 (10)
Street/footpath/ railway station with family	09 (06)
Street/footpath/ railway station without family	07 (05)
Shop/ establishment at work	18 (12)
Others (Dharamshalas)	04 (03)
Total	**145 (100)**

TABLE 3 DOMAIN WISE TRANSFORMED SCORE OF QUALITY OF LIFE AMONG STREET CHILDREN.

Domains of WHOQOL BREF (N=145)	Transformed Score (Mean ± SD)	95% CI
Physical	65.76 ± 11.18	43.40 - 68.12
Psychological	52.75 ± 13.55	25.65 - 79.85
Social	61.09 ± 17.43	26.23 - 95.95
Environment	46.96 ± 14.16	18.64 - 75.28
Overall quality of life	56.64 ± 10.55	35.54 - 77.74

TABLE 4 COMPARISON OF QUALITY OF LIFE SCORES AMONG DIFFERENT TYPES OF STREET CHILDREN

Domains	Street Living Children (N=7) Mean ± SD	Street working Children (N=114) Mean ± SD	Children of street families (N=24) Mean ± SD	ANOVA (p value)
Physical	58.1 ± 11.9	66.3 ± 10.7	65.1 ± 12.8	0.16
Psychological	30.3 ± 7.1	54.5 ± 12.4	50.8 ± 14.4	**<0.001**
Social	57.1 ± 17.6	61.0 ± 17.2	62.5 ± 18.7	0.77
Environment	30.3 ± 9.32	61.0 ± 13.6	47.5 ± 14.1	0.06
Overall quality of life	44.0 ± 8.2	57.4 ± 10.0	56.5 ± 11.2	**0.04**

TABLE 5 ASSOCIATION OF QUALITY OF LIFE WITH EDUCATION OF STREET CHILDREN

Education (N)	Overall Quality of Life (Mean ± SD)	t test (p value)
No schooling (50)	51.7 ± 10.9	-4.24 (<0.001)
Attended school (95)	59.1 ± 9.41	

TABLE 6 DISTRIBUTION OF DRUG USE IN TYPES OF STREET CHILDREN

Type of street children	Drug user N =60 n (%)	Non – drug user N=85 n (%)	OR (95% CI)
Street Living Children	5 (71)	2 (29)	1
Street working Children	46 (40)	68 (60)	0.27 (0.05-1.45)
Children of street families	9 (37.5)	15 (62.5)	0.24 (0.04-1.51)

TABLE 7 TYPE OF DRUGS CONSUMED AMONG STREET CHILDREN. (N=60)

| Sr. no	Types of Drug Used	N (%)*
1.	Tobacco	54 (90)
2.	Alcohol	31 (51.6)
3.	Marijuana / Cannabis	8 (13.3)
4.	Inhalants	2 (3.3)
5.	Cocaine	0 (00)
6.	Heroine & Opiates (including Cough Syrups)	3 (05)
*Multiple response noted		

TABLE 8 DOMAIN WISE AVERAGE QUALITY OF LIFE SCORE AMONG DRUG USING AND NON-DRUG USING STREET CHILDREN. (N=145)

Quality of Life domains	Drug user (Mean ± SD)	Non drug user (Mean ± SD)	t test (p value)
Physical	65.23 ± 11.42	66.13 ±11.07	-0.47 (0.63)
Psychological	51.04 ± 13.88	53.97 ± 13.20	-1.28 (0.20)
Social	61.94 ± 18.04	60.49 ± 17.06	0.49 (0.62)
Environment	45.98 ± 13.45	47.64 ± 14.68	-0.69 (0.49)
Overall quality of life	57.15 ± 10.94	56.6 ± 9.85	-0.56 (0.57)

Figures

FIGURE 1 DISTRIBUTION OF STUDY SUBJECTS BASED ON TYPES OF STREET CHILDREN.
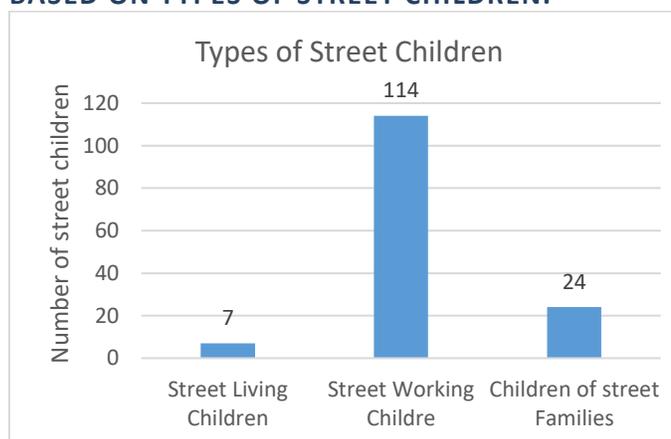
FIGURE 2 PREVALENCE OF DRUG ABUSE AMONG STREET CHILDREN. (N=145).