Prevalence of substance use among adolescents in urban slums of Belagavi

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Introduction

Substance use has become a problem both among developed and developing countries. Today, there is no part in the world that is free from drug use or drug trafficking. India too is being caught in this vicious circle of drug use and there is an increase in number day by day. According to the World Health Organization, substance abuse is persistent or sporadic drug use inconsistent with or unrelated to acceptable medical practice. Urban settings seem to be more attractive settings for drug dealers; illegal substances having higher costs as result of their illegality, demand larger, and more economically capable markets. Hence, substance abuse has been increasing among adolescents as sizeable proportions of adolescents in many states of India experiment with drugs quite early in life. Families play a key role in a number of problem behaviors: Substance use/abuse, aggression and violence, delinquency, family composition, family intactness, family income, and family violence are some of the issues that have been related. Rapid industrialization, urbanization, and changing lifestyles have left children struggling for their survival, forcing many to take refuge in the dark world of substance abuse. Different forms of tobacco habits and products include beedi, cigarette, hookah, chillum, ganja, charas, and gutkha. Other substances include alcohol, cannabis, heroin, and lysergic acid diethylamide (LSD). The presence of substance use may promote...

Abstract

Introduction: The recent years have witnessed a substance abuse epidemic with serious health, social, economic, and political repercussions. Initially, a problem of the developed countries, but now has assumed alarming dimensions even in developing countries. India too has been caught in this vicious circle of substance abuse.

Materials and Methods: Six hundred adolescents of age group between 10 and 19 years in the area of UHC Ram Nagar and Rukmini Nagar were interviewed with the help of predesigned and pretested questionnaire. Data were analyzed using SPSS version 20.

Results: Out of 600 participants, 505 were males and 95 were females. The prevalence of substance use was found to be 71 (11.8%), with females having the highest prevalence (17.9%) than males (10.7%). Smokeless form of tobacco (78.87%) being the most common substance use followed by smoke form of tobacco (15.49%) and least (2.82%) with alcohol and ganja.

Conclusion: Smokeless form of tobacco and smoke form being the most common form of substance abuse among adolescents in urban slum. Females had a higher prevalence of substance use than males.

Key Words: Adolescents, slums, tobacco

Access this article online

Quick Response Code:  
Website: www.ijournalhs.org  
DOI: 10.4103/2349-5006.198578

criminal offences, in particular robberies as drug dealers often carry cash. Substance use is also associated with increased incidence of infections such as HIV, hepatitis, and STD.

**Objectives**

The objective of this study was to know the prevalence of substance use among adolescents residing in the urban slums of Belagavi city.

**Materials and Methods**

**Sample size**

Calculated using formula:

\[
 n = \frac{z^2 \alpha pq}{d^2}
\]

- \( n \) – Sample size
- \( q \) – 57% (p-100)
- \( p \) – 43% (prevalence of previous study) [Indian J Community Med. Oct 2008; 33 (4): 265–267.]
- \( d \) – Relative error 10% of \( p \) i.e. 4

\[
 n = \frac{z^2 \alpha pq}{d^2} = \frac{1.96^2 \times 43 \times 57}{4^2}
\]

\( n = 588 \) (600)

**Source of data**

Six hundred adolescents residing in the slums of Urban Health Centre, Ram Nagar and Rukmini Nagar, which is field practice area of the Department of Community Medicine, Jawaharlal Nehru Medical College, KLE University, Belagavi, Karnataka. The population under UHC Ram Nagar is 32,815 and includes 5 slums, and according to the community needs assessment approach (CNAA) survey, adolescents aged between 10 and 19 years were 1725. Similarly, population under UHC Rukmini Nagar is 43,600 and includes 4 slums, and according to CNAA survey, adolescents aged between 10 and 19 years were 8237.

**Study design**

This study is a community-based cross-sectional study.

**Study period**

The study was conducted between January 1, 2015 and December 31, 2015.

**Inclusion criteria**

All adolescents aged between 10 and 19 years who were residing in that area for the past 1 year and who gave informed consent were included in the study.

**Exclusion criteria**

Adolescents residing <1 year were not included in the study.

**Sampling method**

Simple random sampling method was used in the study.

**Sampling procedure**

Sampling frame of all the adolescents of these areas was made and simple random sampling method was used to select 600 adolescents who were included in the study. Random number table was used. Proportionate number of samples was selected from each of the area proportionate to the population size of that area. Statistical analysis was done using Microsoft Excel worksheet 2013 and SPSS version 20.

**Results**

In the present study, the prevalence of substance use among adolescents in urban slums was found to be 11.8% [Graph 1].

In this study, use of smokeless form of tobacco was highest (78.87%), followed by smoke form of tobacco (15.49%) and least (2.82%) use was seen with alcohol and ganja [Graph 2].

**Discussion**

In the present study, 33.8% were in the age group of 10–13 years, 25% were in the age group of 14–15 years, and 41.2% participants were in the age group of 16–19 years. A study conducted among school students in urban areas of Aligarh, constituted 42.4% between age group of 10 and 13 years, 35.6% in age group of 14 and 15, and 22% between 16 and 19 years.[6]

Maximum number (84.16%) were boys and 95 (15.84%) were girls. In a study conducted in two high schools of West Bengal, 82% were males and 18% were females.[7] Another study conducted among street children in Jaipur showed that 71% were males and 29% were females.[8] These studies showed a similar proportion of males and females to that of our study. In our study, majority (76.2%) of the adolescents belonged to Hindu religion, followed by 14% Muslims, 3.6% Christians, and 6.2% who belonged to other religions. A study among street children from Mumbai constituted 66.5% Hindus, 32.7% Muslims, and 1% Christian.[9] Another study conducted in Dehradun of Uttarakhand showed...
that 90.1% were Hindus and 2% were Muslims which was similar to that of our study. In our study, while majority of the participants, that is, 40.2% and 37% were living in three-generation family and joint family, respectively, 21.5% belonged to nuclear family and 1.3% were staying with others (relative’s house or hostel). In our study, 3.7% of 600 adolescents were found to be school dropouts. A study conducted in urban slums of Sambalpur showed 51.7% were school dropouts and also in urban slums of Mumbai, 44.2% were school dropouts. This difference could be because of successful implementation of compulsory high school education in South India. Out of 600 participants in our study, 28 (4.7%) were found to be working while 572 (95.3%) were not working.

A study conducted in Sambalpur showed that 34.8% of children were working which is more than our study because Sambalpur is an industrial town when compared to ours. In our study, majority of adolescents (170, 28.7%) belonged to Class II SES, 158 (26.6%) belonged to Class III, 122 (20.6%) belonged to Class I, 88 (14.8%) belonged to Class IV, and 55 (9.3%) belonged to Class V SES. In the present study, females (17.9%) had the highest prevalence of substance use than male (10.7%) and difference was found to be statistically significant. The reason could be most females who are using substance were found to be living in the house whose parents were using substance and also lack of education and knowledge was seen among these females.

In the present study, use of smokeless form of tobacco was highest (78.87%), followed by smoke form of tobacco (15.49%) and least (2.82%) use was seen with alcohol and ganja.

A study conducted among higher secondary school students in Imphal, Manipur, showed the prevalence
of tobacco use to be highest (46%) and followed by alcohol (29%).

A study conducted in Doiwala Block, Dehradun District, Uttarkhand, in school going male adolescents showed that smokeless form of tobacco use (supari/gutkha/pan) was highest (56.2%), followed by smoke form of tobacco (beedi/cigarette) 33.1% and 8.7% were taking alcohol. Similarly, a study conducted among male adolescents in Aligarh, Uttar Pradesh, showed that 96.1% were taking various form of tobacco (71.1% smokeless and 25% smoke) and 3.8% were using alcohol which is similar to our study.

Conclusion

The present community-based study showed that the prevalence of substance use was 11.8% and it reported a higher prevalence of substance use among females compared to males. Tobacco smokeless form and smoke have been found to be the most commonly used.

Limitations

The limitations of the study were:

- Only two urban slums were included in the study
- Factors such as source of money for substance, place of availability, and desire to quit substance were not assessed.

The prevalence of substance use might be low in our study as some of adolescents might have not given h/o substance use even though they were users.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References