



Silhouette of substance abuse amongst an adolescent sample group from urban slums of Guwahati metro, North East India

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ABSTRACT

Globally 320 million young people between ages 15-29 years are dying from alcohol related causes. Child line foundation survey report showed that 13.1% of the people involved in drug and substance abuse in India, are adolescents. India's 1.2 billion populations contain the largest number of street children of the world who are at risk of substance abuse. But there is a gap in reliable data of adolescent substance abuse patterns in Assam as well as in India. Substance abuse pattern in the slums need more research. It was a community based cross sectional study. Study period was three months, from 15th July to 15th October 2012. Six slums of Guwahati city were selected purposively. Both male and female adolescents between the ages of 10-19 years with past or present history of any substance abuse, permanent residents of these slums, with guardian and self-consents given to take part in this study were included in the study. Each study subject was interviewed by personal interview method using a predesigned pretested Performa. Total 60 respondents, 20 from each of the selected slums were interviewed in detail. Male: Female ratio was 4:1, 93.3% were current abusers, maximum (46.7%) in the age group of 14-16 years. 58% were students and living with families (93%) though 30% of the respondents had single parenting. 25% of the respondents were illiterate and 93.3% were from lower socioeconomic status. 78.3% had history of drug abuse in their families and more than 2/3rd got information about the different substances from their peers and friends. Influence of friends/ peers (80%) and enjoyment or curiosity(73.4%) were prime reasons of starting the abuse. Majority (95%) adolescents obtained abusive substance from their peers /friends. Biddi (85%), gutkha(88.3%), khaini (51.7%) and cheap branded alcohol(50%) were predominantly used. Chewing (90%) and smoking and inhalation (85%) were found to be the dominant routes of abuse. Substance abuse was rampant amongst school going males in the age group of 14-16 years initiated mostly in the age group of 8-13 years, majority with some members of the family involved with substance abuse and were from lower socio-economic strata. Tobacco and alcohol were mostly abused. Peers were found to be the major influencing factors of substance abuse initiation and supply source of the abused substances. Involvement in fights, vandalism and criminal activities were observed to be closely associated with the substance abuse behavior.

Key words: Substance abuse, adolescents, urban slums, Guwahati,

INTRODUCTION

According to the World Health Organization (WHO), substance abuse is "persistent or sporadic drug use inconsistent with or unrelated to acceptable medical practice" [1]. Drug use has been increasing amongst the young people worldwide. Most drug abusers are under the age of 30 years. There are 320 million young people between ages of 15-29 years dying from alcohol related causes, resulting in 9% of all the deaths in that age group.[2]

In India child line foundation survey in 2008 revealed that 63% of the patients coming for treatment due to abuse related diseases were introduced to drugs when they were adolescents. According to another report by the same NGO, 13.1% of the people involved in drug and substance abuse in India, are adolescents. Heroin, Opium, Alcohol, Cannabis and Propoxyphene are the five most common drugs being abused by adolescents in India. 20 million adolescents and children a year and nearly 55,000 adolescents and children a day are drawn into tobacco addiction in the country. An emerging trend amongst the child drug abusers is the use of cocktail of drugs through injections. Health ailments amongst adolescents due to drug abuse are rising. Overall 0.4% and 4.6% of total treatment seekers in various states were children.[3]

North East India prominently is riddled with serious substance abuse problems of adolescents. Every third person in the region is or has been a drug addict at some point of their lives. The drug abuse prevalence in the states of Manipur, Nagaland, Meghalaya and some parts of Assam are alarming. The main cause is easy availability of drugs by illegal drug trafficking and the close proximity of these states to the Golden Triangle which is the second largest site of opium production. The most used substances are khaini, biddi, cigarette, alcohol and opium. The situation has reached terrifying dimensions because of strong links between drug addiction and HIV (Human immunodeficiency virus) transmission. The other major cause of HIV infection apart from unsafe sex is the high incidence of IDU (Intravenous Drug Use) especially rampant in North East states of India. In Assam, according to the United Nations Office on Drug and Crime (UNODC) report of 2010, 28 percent of population is engaged in substance abuse second to Manipur in North East. Cases of drug abuse is fast rising with 12 per cent of drug addicts in the age group upto 15 years, 32 per cent in the age group 16-25 years and 56% percent in the age group 25-35 years [4].

Our experience from Tobacco cessation Centre, Guwahati, Assam while dealing with the slum dwellers during outreach sessions for tobacco cessation, it became obvious that slum dwellers are not well educated and are predominantly from lower socioeconomic strata. They are the most exposed group to different drug trafficking and other illegal activities. These dwellers form a risk group to fall into the trap of substance abuse where demand and supply of substance both are high and awareness on harms of these abusive behaviors is often very low.

WHO defines a slum as “a rundown area of a city characterized by substandard housing, squalor and lack of tenure security”. There are 94 slums in Guwahati city. But there is currently a lack of reliable data on drug abuse amongst slum children not only in Assam but throughout India though India’s 1.2 billion populations contain the largest number of street children at risk in the world.[5]

Hence, researchers decided to conduct the study in the urban slums of Guwahati city to find the prototype of substance abuse among the most vulnerable group of adolescents residing in urban slums. This research also means to find a glimpse of the various factors influencing and associated with substance abuse among adolescents of urban slums, so that steps can be recommended to minimize the substance abuse amongst them.

MATERIALS AND METHODS

It was a community based cross sectional study. Out of 94 slums of Guwahati city, 6 slums were selected purposely to collect the study sample surpassing the constraints of time, manpower and fund.

60 adolescents, both male and female, between 10-19 years, permanent residents of study areas, having some history of current or past substance abuse and consent given by subject and their guardians were included in the study.

Exclusion criteria being subjects of below 10 years and above 19 years age group, not permanent residents of these slums, not given consent, no current or past substance abuse history, adolescents living alone with some known psychiatric morbidity or critical illness. Medicinal drugs and performance enhancing drugs were not taken into consideration while interviewing adolescents for type of substance abuse.

The data collection was done by Interview method using a predesigned pretested proforma containing both open and closed ended questions.

The study period was three months from 15th July to 15th October 2012.

To deal with the substance abuse topic and interviewing people regarding their substance abuse habit and digging out the real facts was a very sensitive and tricky issue which needed great effort and perseverance on the part of the surveyors and the researchers.

Prior to the interview, the respondents and their families were briefed about the purpose of the study for rapport building and to get their full co-operation and support. *Subjects included in the study were interviewed in a very detail manner giving full respect to the privacy of the respondents. One subject was interviewed at a time by one interviewer and re interviewed by a second and a third interviewer at a gap of one week each time to see the consistency of the facts revealed by the subjects.*

For statistical analysis, frequency tables were used to compare basic demographic, clinical and other desired characteristics. Comparison of characteristics between two proportions was done using Z test for proportion. CI of 95% and p value of less than 0.05 was considered as statistically significant.

RESULTS

Total sixty respondents fulfilling inclusion criteria were interviewed. Male female ratio of the respondents was 4:1. Religion wise the study subjects were either Muslims (56.7%) or Hindus (43.3%). Maximum numbers were in the age group of 14-16 years with 12(20%) in between 10-13years, 28(46.7%) in the age group of 14-16 years and 20(33.3%) between 17-19 years of age.

Table I shows that 90% of the study subjects were unmarried. Statistically significant difference in proportion was observed in marital status at 95% confidence interval with Z test value 9.13 and $p < 0.05$.

Table I: Distribution of respondents according to marital status

Marital status	No. of respondents	percentage
Unmarried	54	90
Married	6	10
Total	60	100

$Z = 9.13, p < 0.05^{**}$

Table II :Distribution of respondents according to occupation

occupation	No. of respondents	percentage
Student	35	58.3
working	18	30
unemployed	7	11.7
Total	60	100

Table III: Distribution of respondents according to their socioeconomic status:

Socio-economic status	No. of respondents	Percentage
Lower middle	4	6.7
Upper lower &Lower	56	73.3
Total	60	100

$Z=9.49, P=.00(<.05)$

Table IV: Distribution of respondents according to age of initiation of substance abuse

Age in years	No. of respondents	Percentage
8-13	44	73.3
14-17	16	26.7
Total	60	100

$Z=5.1121, p=0.00(p<.05)$

Table V: Distribution of respondents according to source of information about the abusive substances

Source	No. of respondents	Percentage
Friends / Peers	47	78.3
Ralatives	8	13.4
Digital Media	26	43.3

Figure I: Distribution of the respondents according to type of substance abuse in the family

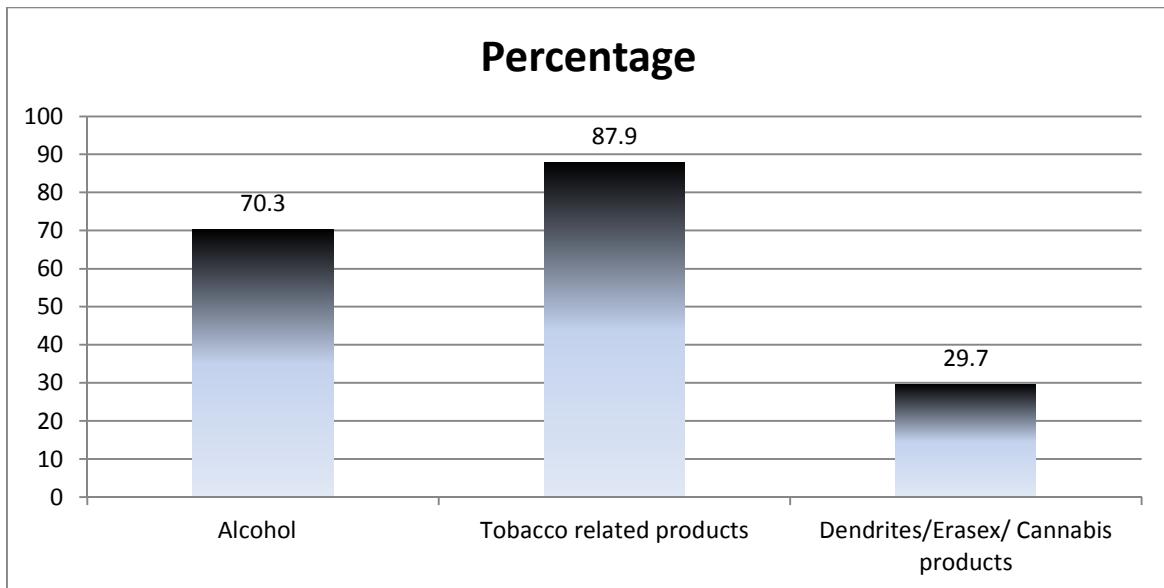
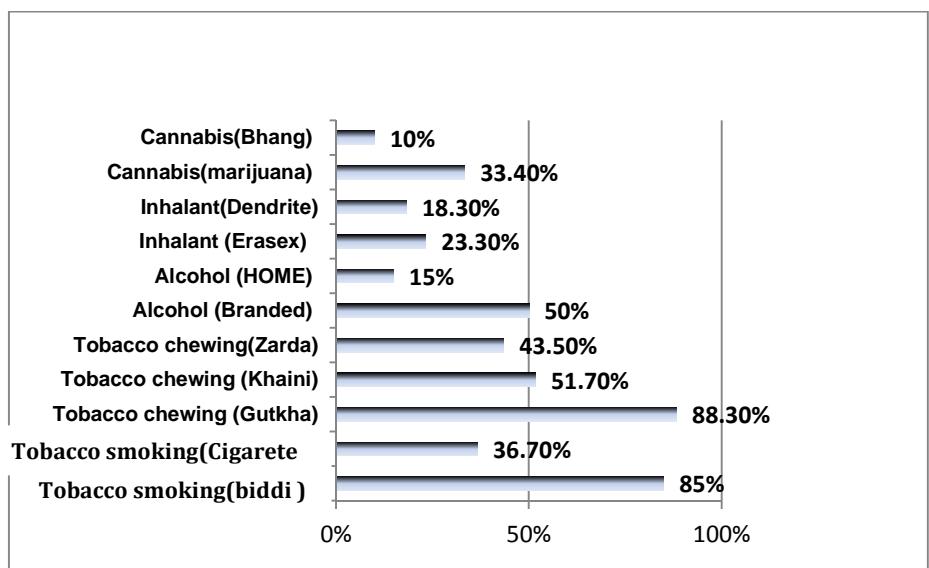


Figure II: Distribution of respondents according to the type of substance abuse



30% of the respondents had single parenting as either parent were separated, or mother or father was deceased.

35(58.3%) were students, 18(30%) of them had already left study and were working for earning where as 7(11.7%) were unemployed (Table II)

Literacy status showed that high numbers i.e 15(25%) of the respondents were illiterate without any formal education. Amongst those who were with formal education, maximum numbers studied or studying in the primary and middle school level which is 30(50%), 12(20%) had high school, and 3 (5%) intermediate level of education

None of the study subjects were from upper middle or upper class, only 4(6.7%) were from lower middle and majority were in the upper lower to lower category (93.3%) Statistical analysis showed statistical significance in this socioeconomic disparity amongst the respondents (Table: III)

78.3% (47 out of 60) of the subjects had a family history of drug abuse in their family. Main type of abuse in the family was tobacco related products (41) followed by alcohol (33) and Dendrite/erasex/cannabis (14) abuse (Figure:I).

93.3% of the subjects were currently engaged in some form of substance abuse and 6.7% had left their habits of consuming abusive substances.

Both current and past substance abusers were tobacco users and most of them used tobacco in the form of Biddi (85%), gutkha (88.3%), khaini (51.7%) and 50% used cheap branded alcohol.

73.3% of the respondents initiated the substance abuse in the age group of 8-13 years and 26.7% started the habit in the age group of 14-18 years. This distribution difference was statistically analyzed with the Z value of 5.12 and $p < .05$ which was highly significant.

28 (46.7%) abused 2-3 times a day, 22 (36.6%) gave history of abuse 4-6 times a day. 5% abused < 2 time a day in one hand and 5 (8.4%) abused > 6 times a day. 3.3% used substances occasionally.

The study adolescents became familiar with abusive substances either from their family, friends and peers (78.3%) or Digital media like movies and television (43.3%).

80% started the habit under peer pressure, 73.4% started due to curiosity, 38.7% started it to cope with stressful circumstances like anxiety, depression, trauma, loss etc.

95% adolescents obtained abusive substance from their peers and friends whereas 73.4% brought it from local shops, 20% availed it from home.

In this study, 58.3% of the adolescents were involved in quarrels with friends, family or relatives as well as accidents or health problems (43.5%). 20% lost their job or dropped out of school due to poor performance. 3.3% adolescents were even found to be associated with criminal activities like petty thefts, burglary, vandalism of public and private property etc

DISCUSSION

The findings of the research tallies with studies that show that males are abusing substances more than females and the proportion of substance abuse was found to increase significantly with age in both sexes, the highest being in the 16-19 year old group (55.2%)⁶

Most of the subjects (90%) were unmarried. The study subjects were adolescents hence though Z test shows significant difference in married to unmarried distribution, it may be natural that age factor was the determinant of their marital status in this particular study. Correlation of marital status with the substance abuse pattern may not be very unswerving in this particular study.

A high percentage (30%) of the respondents had single parenting as either parent was separated, or mother or father was deceased. So family disharmony and single parenthood issues might show some implications of substance abuse in this study. Finding of this study tallies with a study by Lisa Sarangi et al, substance abuse was found to be highest in broken families (51.2%) and the association was statistically significant (< 0.02)⁶.

When occupation of the respondents was analyzed majority of them (58.3%) were students, (30%) of them had already left study and were working for earning whereas 7 (11.7%) were unemployed (Table II)

Literacy has certain role in the substance abuse behavior of subjects. In a study by Din Prakash Ranjan It was observed that, 24.7% drug abusers were illiterate as compared to 16.9 % in non-drug abusers group. 72.1% of drug abusers were either illiterate or primary or middle school educated. As the literacy increases, drug abusers decreases. In middle and high school educated, drug abusers were less in comparison with non-drug abusers⁷

In the present study it was observed that maximum number of the subjects was either illiterate or has not crossed the primary and middle school level 45 out of 60 (75%) whereas only 12(20%) had high school, and 3(5%) intermediate level of education.

Studies correlated early age, illiteracy, low working status and poverty as the main socio-demographic factors for drug abuse[7], which was evident in this study where majority (93.3%) the subjects were from lower socioeconomic background.

In adolescents, substance use in family had a triggering effect on them to uptake and continues the same. 46.7% of the adolescents who used substances have parents who both abuse substances and is closely followed by 43.5% of adolescents who have mothers who exclusively abuse substances [6] In this study, more than two third were with a strong family history of substance abuse.

A strikingly high number (93.3%) of the subjects were currently engaged in some form of substance abuse whereas only a few had left their habits of consuming abusive substances mainly due to growing awareness of the associated health hazards and family support. Amongst the respondents, regarding the type of abuse both current and past substance abusers, most were tobacco users and most of them used tobacco and cheap branded alcohol. Although it was difficult to elicit informations about other different forms of abuse, it was still found that few adolescents abusing inhalants like dendrite, Marijuana and Bhang. Chewing (90%) and smoking/inhalation (85%) were found to be the dominant routes of abuse.

On analyzing the age of initiation, (Table IV) a shocking fact was revealed that most of the respondents started substance abuse when they were in the age group of 8-13 years. The number (73.3%) who initiated abusing substance in this age group was alarmingly high if we compare with the latter age group of substance abuse initiation (26.6%). The initiation of abuse in this tender age was really worrisome as research shows that the earlier a person begins to use drugs, the more likely he or she is to develop serious problems and addiction.⁸

Most of the subjects abused substances 2-3 times (28,46.7%) a day to 4-6 times a day(22,36.6%) with abuse of < 2 time a day (5%) in one hand and heavy consumers of > 6times a day (5, 8.4%) on the other hand. Only few numbers (3.3%) used substances occasionally i.e every alternate days, few days a week, on festive occasions etc. Majority (78.3%)of the study adolescents became familiar with abusive substances from their friends and peers. Digital media like movies and television was also found to influence (43.3%) the subjects into taking abusive substances mainly tobacco related products and alcohol(Table V)

Amongst the prime reasons for starting substance abuse, Influence of friends/ peers (80%) topped the list followed by enjoyment and curiosity(73.4%). A few (38.7%) even started it to cope with stressful circumstances like anxiety, depression, trauma, loss etc.

This research recognized that major source and supply of these abusive substances was from peers/ friends.

The impact of peer pressure on teenagers' behavior is well documented in literature and is considered as one of the most influential factors in substance abuse.⁹⁻¹¹ Other studies found that the power of peers in enforcing the behavior of substance abuse was greater than family's protective role.¹² Literature has also shown that drug users seek the approval of their peers and consider it as a symbol of group unity.^{12,13} Findings reported in this study emphasized the role peers play in either increasing or decreasing substance use among teenagers. Perhaps more importantly, we found that peers were considered to be the access channel for obtaining drugs. These accounts are comparable to the findings from another study that examined the role of the social network of peers in drug access and drug use behaviour.¹⁴

The availability and affordability of substances, specifically tobacco product, were believed to be strong risk factors for substance use among adolescents in the UAE. Equally, affordability of substances, especially the licit ones, has been cited in many studies as a risk factor to substance use among adolescents.^{11, 15}

Childhood aggression had an adverse effect on young adult drug use and deviant behavior. Drug use and delinquency during early and late adolescence served as the mediator between childhood aggression and young adult drug use. Moreover, adolescent drug use was associated with later delinquency.¹⁶

Substance abuse itself is an antisocial behavior and is directly related adolescent aggressiveness. In this study, most of the adolescents were involved in quarrels with friends, family or relatives, as well as accidents or health problems as a consequence of substance abuse. Few even lost their job or dropped out of school due to poor performance. 3.3% adolescents were even found to be associated with criminal activities like petty thefts, burglary, vandalism of public and private property etc.

The study of this particular population in the urban slums of Guwahati city revealed that substance abuse was rampant among the adolescents from the upper lower and lowermost strata of socioeconomic status. Peers being the most important factor in initiation of substance abuse and major supply source.

Dominant substances abused were tobacco products and alcohol.

Substance abuse had detrimental effect on the adolescents from the point of social and behavioral aspects.

Recommendations:

1. Stringent laws and *legislations* towards substance abuse control
2. Creating reliable data source to understand the abuse pattern
3. There has to be active participation by the Government in coordination with the non-government organizations (NGOs) as well as international organizations to carry out information education and communication (IEC) activities regarding substance abuse and its harmful effects.
4. To raise the awareness on availability for treatment, counseling and rehabilitation for substance abuse by the concerned authorities by conducting regular camps in the slums to disperse the information about services available.
5. Most of the adolescent abusers started the habit during 10-14 years age group and majority were school going hence inclusion of information , counseling and interactive programs on the substance abuse harms and staying away from it in the school curriculum.
6. Effective awareness and counseling sessions with one to one as well as group interaction should be carried out in the slums involving the adolescents and their families as negative family environment may precipitate substance abuse in adolescents.
7. Manufacturing of substances with high risk of abuse should be curtailed and the prices of these substances should be hiked to discourage people from buying them.
8. Strict surveillance system needs to be advocated to check drug trafficking and production of illicit goods to interrupt the supply of abusive substances mainly from the golden triangle in this region.
9. *Poverty alleviation, betterment of educational status, addressing the issues of better and sure livelihood/earnings and healthy recreation of the slum dwellers by multi-sectorial involvement from both Govt and Non Government organizations become important.* It will up lift living standard of the slum dwellers to diminish the environmental triggers of substance abuse by the adolescents.

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