

INCIDENCE OF SOLVENT ABUSE AMONG STREET CHILDREN IN BANGALORE CITY

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ABSTARCT

The present study explores the use of solvents among a group of street children in Bangalore city. The creep of substance abuse are predominately has been practiced by street children. In India prevalence rate of substance abuse will be alarming and probe with abandoned critical illness, flawed of incredibility of growth and development of children. Many researchers have failed to attempt these address for implementation of new programme to prevent this hilarious manifold problems. A survey based study conducted during 2012-13 in Bangalore city. Total 50 respondents were considered for the study. Restructured questionnaires' was used to obtain the data matrix. Collected data was analyzed by using Minitab -6.50 version. Descriptive statistics and univariate analysis was used to test the hypothesis. Solvent use is functional- dulling the senses against the hardship of the street- yet it also provides a link to the support structure of the 'street family' as a potent symbol of shared experience. Organizations working to rehabilitate street children are criticized for failing to appreciate the social context of solvent dependence amongst street children. Dependence on glue is preceded by dependence on 'street families', therefore organizations working to rehabilitate street children need to ensure they work through, rather than in conflict with, the 'street family'

KEYWORDS: Abuse of Inhalants is Particularly Predominant Among Young People

INTRODUCTION

Inhalants are a class of drugs that are familiar to all of us. Chemicals whose vapors or gases can be intentionally inhaled to give the user a high are called inhalants. Inhalants are useful chemicals in household products, and readily accessible in our homes and schools. Unlike some other abused drugs, such as cocaine, marijuana and LSD, inhalants may be legally obtained. Their easy accessibility, low cost, and ease of concealment make inhalants, for many, one of the first substances abused." – Michele Spiess, Office of National Drug Control Policy (2001). Inhalants are usually solvent fluids, a category that includes thousands of diverse chemicals. A few such chemicals and products that are abused are lighter fluid, markers, spray paint, glue, shoe polish, gasoline, cleaning fluids and amyl nitrite.

Abuse of inhalants is particularly predominant among young people. The Substance Abuse and Mental Health Services Administration's (SAMHSA's) National Household Survey on Drug Abuse (2001) revealed that in 2000 over 2 million Americans aged 12 to 17 had used inhalants at least once in their lifetime. Commonly termed "sniffing," "huffing," or "bagging," use of inhalants has a surprising high popularity among adolescents. Inhalants were the third most popular drug among preteens, after alcohol and cigarettes. Among high-school students, inhalants dropped to the fourth most popular drug of abuse. This survey found that an astounding 77,000 people aged 12 to 17 were in need of treatment for inhalant abuse. Inhalant abuse was described as "a stepchild in the war on drugs" in the 1994 Research Report Series by the National Institute on Drug Abuse (NIDA). Although it is a recognized world problem, they are the least characterized and least studied of all drugs of abuse.

Inhalant abuse can have very serious consequences. They can produce psychoactive or mind-altering effects on the user. It can cause serious damage to the brain and nervous system. It can cause death by starving the body of oxygen and causing the heart to fail. It is unknown how many adolescents die each year from inhalant abuse because these deaths are often classified as deaths from suffocation, accidents, or suicide. The early signs of inhalant abuse often go unnoticed by parents, friends, and teachers. Inhalants are so cheap and seemingly harmless that abuse can go unrecognized. Initial abuse of inhalants starts at an average age that is younger than that of abuse of either alcohol or tobacco. Research has suggested that inhalant abuse in young adults may be an indicator of continued and serious involvement with drugs later in life. This makes inhalants a “gateway” drug, with use of inhalants predicting the use of other drugs later in life in some individuals.¹ India has the largest number of street children in the world. The exact definition of a street child is debatable due to lack of precise categories. The term has largely been used in reference to children who live entirely in public spaces without adult supervision or care. Many practitioners and policymakers use UNICEF’s concept of boys and girls, aged under eighteen years for whom “the street” (including unoccupied dwellings and waterland) has become home and/or their source of livelihood, and who are inadequately protected or supervised (Black, 1993). Estimates range from 10-21 million in India.² These are generally runaways or abandoned children and generally boys compared to girls. It is difficult to count the number of street children living in India because of their floating (moving often) nature. According to UNICEF there are more than 5, 00,000 street children in India who live and work in inhuman conditions and are at high risk of substance abuse. Drug abuse among this population is a rampant phenomenon not only in India but also in other parts of the world. WHO estimates that about 25-90% of street children abuse some kind of drug.³ Although there have been many studies conducted on various drug abuse and their effect on children, solvent abuse is least studied among these drug abuse group. Hence we intended to conduct a study on solvent abuse in street children in Bangalore city.

MATERIAL AND METHODS

The present study was conducted in the department of Forensic Medicine, Bangalore Medical College and Research Institute, Total 200 abuse suspected children’s were recruited with written consent between 2010 to 2012 for a period of two years. The street children who stay in the areas of railway station, kalasipalyam and shivajinagar of Bangalore city were interviewed based on a predesigned proforma .The data relating to solvent abuse and associated factors were collected from the respondents. Collected data were analysed by using SPSS -16.50 version. Descriptive statistics were used to draw the significant inference. Exclusion ; Children below 10 years and above 18 years & All children not abusing substances

RESULTS

The present study 93.5 percent comprises male and 6.5 percent were female .From the result, it was observed that the highest number of children were aged 14 years (31.5%) and the lowest were aged 11 years (1.5%) In the study conducted by Vivek B et al., showed that ,the mean age of the inhalant users was 14.78 years (SD 1.90). Out of the 36 inhalant users 6 were girls.

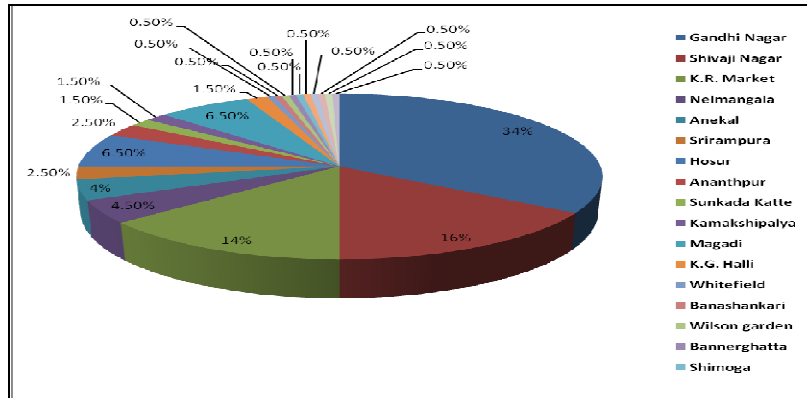


Figure 1: Substances Use in Karnataka State –Based on Different Geographical Area

Figure1: Showed That, The Prevalence Was Determined Bases on the Present Settlement of Their Family. As Per the Result Nearly 80 Percent of the Street Children Lived in the Premises of Gandhi Agar (34%), Followed By Shivaji Nagar (16%), K R Market (14%), Magadi (6.5%) Etc.

Occupational structure was documented, majority of the children were child labour (39%) by followed by begging (28.5%), rag picking (24%), hotel cleaner (6%) and parking toll collector (2.5%)

Table 1: Side Effects of Solvent Abuse in Children’s

Sl.No	Side Effects of Solvent Abuse	No	%
01	Weakness	137	68.5
02	Chest pain	38	19
03	Drowsiness	24	12
04	Abdominal pain	10	5
05	Headache	15	7.5
06	Cough and cold	10	5
07	Fever	06	3
08	Slurred speech	04	2
09	Nil	12	6

Table 2 study showed that weakness (68.5%) is the most common side effect, followed by chest pain (19%), drowsiness (12%), headache (7.5%), cough and cold (5%), abdominal pain (5%), fever (3%) and slurred speech (2%).

Table 2: Exact Pleasure after Solvent Abuse

Sl	Exact Pleasure After Solvent Abuse	Number	Percentage
01	Relieves hunger	57	23.5
02	Relieves depression	32	16
03	Relieves pain	53	26.5
04	Drowsiness	29	14.5
05	Boldness	15	7.5
06	High kick	14	7

Majority of the children reported that solvent abuse relieved pain (26.5 followed by hunger relieving (23.5%), relieve of depression (16%), drowsiness (14.5%), boldness (7.5%) and for high ki9ck (7%).Similar study reported by Vivek B et al., benefits of the solvent abuse reported by children are driving away hunger (36%), driving away pain (28%), emotional numbing (19%), reduction of pain (11%) and boldness (6%)³

Table 3: Associated Factors Related to Substances Abuse among Children

SI	Indicators	Yes	%	No	%
01	do you stay with your family	48	24	152	76
02	Father-alive	95	47.5	105	52.5
03	Mother-alive	76	38	124	62
04	History of addiction in family	137	68.5	63	31.5
05	Are you in contact with the family	66	33	134	77
06	Does your family show concern about you	70	35	130	65
07	Do you go home regularly	48	24	152	76
08	Did you go to school	105	52.5	95	47.5
09	Do you have any health problem	121	60.5	79	39.5
10	Did you ever contact a doctor	113	56.5	87	43.5
11	Did you ever try using cocaine, cannabis etc.	11	5.5	189	94.5
12	Do your friends use cocaine, cannabis etc.	47	23.5	153	76.5
13	do you have quarrels with your friend for sharing the substance	38	19	162	81
14	Do you feel like going home or stopping the abuse	28	14	172	86
15	Did any of your friends die while using the solvent	36	18	164	82
16	Did you ever get arrested for anything	28	14	172	86

DISCUSSIONS

The study conducted showed that 24% of the children stayed with their family, In 47.5% cases father was alive and in 38% of cases mother was alive, There was history of addiction in family in 68.5% of cases, In 35% of cases the family showed concern on the children, 24% of children used to go home regularly, 52.5% of children had gone to school then discontinued it because they were not interested, Sniffing was the main method of solvent abuse in majority (78.5%) and the other method reported is huffing (21.5%) 60.5% children reported some health problem and 56.5% of children had contacted a doctor for the same, 5.5% of children tried using cocaine, cannabis etc, The friends of children used cocaine, cannabis etc in 23.5% of cases, 19% of the children used to quarrel with friends for sharing the solvents, All the children were using whitener (correction fluid) as a solvent, along with whitener 5% of children were using petrol (gasoline) and 4.5% were using fevibond (puncture fluid), Majority of the children used the solvent as a single substance (94.5%) and others (5.5%) used solvent along with other substances, 89.5% of the children used to get the solvent by working and the other 10.5% by borrowing from others, 77% of the children use the solvents along with their friends and 23% use them when they are alone, None of the children gave history any sexual exploitation from others, 18% of the children reported that some of their friends had died of solvent abuse, 14% of the children had a history of arrest from the police, 14% of the children wanted to stop the abuse or go home. In a study by Vivek B et al., majority of the street children were unemployed (41.7%), managing their drug use expenses through stealing (47.2%), were dropped out of the school after 5th Standard (47.2%), staying with family (50%), daily meeting their family members (41.7%), had average relationship with family

(38.9%), had drug using friends (91.7%).³ The present observational study was conducted on the street children who stay in the areas of railway station, kalasipalyam and shivajinagar of Bangalore city were interviewed based on a predesigned proforma relating to solvent abuse and the data analysed. Totally 200 street children with solvent abuse were enrolled into the study. In the present study male children were more and the highest numbers of children were aged 14 year and the lowest were aged 11 years. Majority of the children were coolie by occupation followed by begging, rag picking, hotel cleaning and parking toll collector and other work done by children include rag picking by majority and the least was bird catching.

Most of the parents of children were coolie by occupation, followed by carpenter, farmer and some children did not reveal their parent's occupation. The educational status of parents was less. Majority of the children took shelter on foot path followed by shelter home, railway station, market and home. Street children started working by 10 years of age in majority of cases, followed by 8 years, 11 years. Tobacco was the most common other substance of abuse followed by gutka, alcohol (19%), ganja and the other major part did not abuse any other substance. Most of street children had an initial frequency of use of solvents as 1 – 2 per day, followed by 4 to 5 per day, 2-3 per day. The present frequency of use of solvents in majority of the children was 2 to 3 per day followed by 4 to 5 per day, 3 to 4 per day and the highest use being reported is one box per day. Age of 10 was the starting age of solvent abuse in majority of children followed by 11 and 12 years. Influence of friends was the most common reason for solvent abuse reported by most of the children followed by curiosity, for kick and for sleeping. Weakness was the most common side effect reported by the children in majority of the cases, followed by chest pain, drowsiness, headache, cough and cold, abdominal pain, fever and slurred speech, Majority of the children reported that solvent abuse relived pain in them, followed by hunger relieving, relieve of depression, drowsiness, boldness and for high kick. 24% of the children stayed with their family and in 47.5% cases father was alive and in 38% of cases mother was alive. There was history of addiction in family in 68.5% of cases and in 35% of cases the family showed concern on the children, 24% of children used to go home regularly. 52.5% of children had gone to school and 60.5% children reported some health problem and 56.5% of children had contacted a doctor for the same. 5.5% of children tried using cocaine, cannabis etc., The friends of children used cocaine, cannabis etc in 23.5% of cases 19% of the children used to quarrel with friends for sharing the solvents. Majority of the children used the solvent as a single substance (94.5%) and others (5.5%) used solvent along with other substances. 89.5% of the children used to get the solvent by working and the other 10.5% by borrowing from others. 77% of the children use the solvents along with their friends and 23% use them when they were alone, 18% of the children reported that some of their friends had died of solvent abuse, 14% of the children had a history of arrest from the police, and 14% of the children wanted to stop the abuse or go home.

Laminations of the Study

- The study was conducted based on the information provided by staff and workers of NGO and mainly the street children but the information provided may have underreported or overreported because of social stigma attached to the abuse and may not be reliable. The results give only an estimate of the solvent abuse problem.
- Many of the street children were not willing to give their consent and so informed consent was obtained from them.
- Categorization of abusers- one time/short time/long time/life time was not done as the most of the children are of floating nature (move often from one place to another) and as follow up was not possible.

- Most of the street children could not tell their exact age and hence the age mentioned in this study is only approximate as told by the children.

Recommendations

- Compulsory labelling of constituent chemicals in solvents and their effects.
- Enacting a strict legislation controlling the sale and to limit the access of these solvents to the minors in the society by educating the retailers.
- Identifying the street children and provide them identity cards like “sadak chap” in Mumbai.
- Widespread screening and early referral of these children to the treatment/ rehabilitation centres.
- Night shelters, providing food to the children at subsidized rates, peer education and adult mentoring.
- Parents, caregivers and health care facilities should be made aware of the dangers and warning of solvent abuse.
- A free phone ‘National Drugs Helpline’ funded by Government has been established in UK. A similar set up can be planned in our country. Thus this study is a necessary however not sufficient start towards comprehensive addressing the solvent abuse and its related problems.

CONCLUSIONS

Policy maker could provide impeccable amenities and institutional care for eradication of substances abuse. This intervened study is helps to know the present spectrum of substance abuse among children and more research need to be address the factors associated for abuse.

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