Drug Abuse Among Street Children in Bangalore

A project in collaboration between the National Institute of Mental Health and Neurosciences, Bangalore and the Bangalore Forum for Street and Working Children

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Magnitude of the Problem

Street children constitute a marginalized population in most urban centres of the world. There are major difficulties in trying to estimate the number of street children and the magnitude of difficulties they experience. In their marginalised state they constitute a truly "hidden" population who are not covered by nor find place in the national census, educational or health data, largely because they have no fixed address. This problem is further compounded by the fact that they are also a highly mobile population.

"Hidden populations" euphemistically refers to those who are disadvantaged and disenfranchised: the homeless, chronically mentally ill, criminal offenders, prostitutes, juvenile delinquents, gang members, runaways and other "street people" – those we are all aware of to one degree or another, yet know so little about. Ironically those who belong to hidden populations are often at greater risk of drug abuse and drug related morbidities than the general population. In fact, the very individuals who might benefit the most from drug abuse treatment and prevention efforts are the least studied, the least understood and the most elusive to clinicians, researchers and others concerned with understanding and improving the public health of these populations.

A very rough estimate would place the number of street children in the city of Bangalore at around 80,000. About 60 children land up at the Bus Station alone, every day, having run away from home. Some children live with their parents in urban slums. Anecdotal and experiental data had suggested that there was a significantly high rate of abuse of drugs among this population. However, planning of drug abuse prevention services, was hampered by the absence of reliable information.

Keeping this in mind a Drug Abuse Prevention Programme was launched in October, 1996 by the Bangalore Forum for Street and Working Children in collaboration with the National Institute of Mental Health and Neurosciences, Bangalore. It was deliberately planned as an Action Research Programme so that in addition to providing epidemiological data on drug abuse among the Street Children of Bangalore, it could also test the impact of a brief intervention.

This paper reports on some of the data gathered from the study of 321 children.

Because the use of illicit substances for recreational use is a largely covert activity, it is not possible to enumerate all individuals who engage in such behaviours. Representative sampling, irrespective of scientific merit, is simply not possible in relation to the numerous varieties of phenomena at issue. Consequently there is a need, while studying hidden populations, to utilise a judicious mix of qualitative and quantitative methodology.

The Action Programme initiated by the Forum for Street and Working Children in conjunction with the De-addiction Unit and the Child and Adolescent Psychiatry Unit of the National Institute of Mental Health, was implemented in 4 phases.

1. Initial qualitative assessment of the problem of Drug Abuse in the Street Children of Bangalore through key informant interviews.
2. Detailed assessment using semi – structured questionnaires constructed for the study, using the data generated from the qualitative assessments. The questionnaires were administered by the Street

Educators from the participant organisations, after a one day training session. 283 children were assessed in this phase.

(However, some of the assessments were returned incomplete, due to various procedural reasons. This is reflected in the analysis of some items)

3. An experimental brief intervention, divided over two or three sessions, aimed at sensitizing groups of selected children and teaching them Life skills.
4. Follow up assessments were done in 141 of these children, as a large number of the children were not available for followup. During the followup stage, 30 more children were assessed with the followup instrument, to collect data on sexual activity, delinquency, nutrition, daily stresses and coping from a total of 171 children.

(Although, it had been initially planned to study the effect of intervention against a control sample of children wait – listed for the same, this was later abandoned because of procedural problems)

Homeless youth and the phenomenon of street children is not the exclusive preserve of the developing world nor is it particularly recent. Historically, the streets of large urban areas have been the 'theatre and the battleground' for the children of the poor. They have invariably been exploited and marginalized; used as cheap and expendable labour, for sex and for criminal acts. Most are male, their peer relationships, group life and survival strategies are much the same all over the world, although they are usually younger in developing than in developed countries. More recent economic situations (recession), political changes, civil unrest, increasing family disintegration and natural disasters have led to larger numbers of children heading from rural areas and smaller towns to larger cities and their streets. Some come from families which can no longer support them due to poverty and overcrowding, some come to the streets after being orphaned due to parental death or family disintegration and some are members of whole families who live on the streets while some are born on the streets to older street children.

A number of distinct groups of young people have been subsumed under the definition of "Street Children".

1] Children living on the streets, whose immediate concerns are survival and shelter

2] Children who are detached from their families and live in temporary shelters such as abandoned houses and other buildings, hostels, shelters etc. or moving about between friends.

3] Children who remain in contact with their families but because of poverty, overcrowding or sexual and physical abuse within the family, spend some nights and most of their days on the streets.

4] Children who live with their families on the street

5] Children in institutional care, who have come from a situation of homelessness and are at risk of returning to a homeless existence.

The NIMHANS – Forum Study similarly found a wide variety of street living styles. Only around 35 % of all the children interviewed stayed exclusively on the streets.

Living status [n=281]	Frequency	%
At home	131	46.6
Street (alone)	025	08.9
Street (in a gang)	080	25.8
Others	041	14.6
Street with parent/s	003	01.1
Not known	001	00.4

Most of the children surveyed had left their homes because of economic hardship and had migrated to the city in search of jobs. A smaller but significant number had been rendered homeless because of the breakdown of their families due to death or desertion of parents, or because of significant abuse related to drug use in one or both parents.

Reasons for living on the street		%
Economic Problems	65	24.4
Family Problems	51	19.2
Drug Related Family Problems	19	07.1
By Choice	23	08.6
Drug use by Self	09	03.4
Multiple	30	11.3
Force to Study	01	00.4
No Choice	09	03.4
No Information	59	22.2

Most of the children were employed in the unorganized sector as Ragpickers, Vendors, Coolies, some had odd jobs in Vehicle repair shops and eating houses. The girl children were often employed in 'beedi' factories but a large proportion had been pressed into commercial sex work as soon as they landed up on to the streets.

Sociedemographic Profile		
Age 14.5 (3.4) Years [7-20]	Sex 81.9% Males	Education 2.4 (2.9) Years
Working days 5.3 (2.4) days/week		Daily Income Rs.35.00(28) [Range 0 – 150]

Of the 281 children assessed for Drug Use 197 were Drug users and 84 were Non users

Street children who use drugs are even more marginalized and are neglected in relation to provision of services. In general, adolescence is a time of experimentation, exploration, and a search for identity. And such a process by its very nature involves risk taking. In some countries, by the time they reach adolescence, many young people have been out of home for some time; working, begging, abandoned or sick. By adolescence they have also been exposed to many drugs, especially those easily available or associated with work - industrial glues, petrol, cannabis, tobacco and alcohol. In a milieu where social and peer influence are critical and drugs are easily available, drug use becomes one aspect of the child's developmental process and even a part of life. In this context, much of the drug use is not mindless nor

necessarily pathological. Relief of boredom or hunger or depression and frustration, wanting to feel good, to keep awake or get to sleep or to dream may be some of the functions served by drug use.

A way of conceptualizing the risk of drug use in this population is the Modified Social Stress Model (Programme on Substance Abuse, WHO, 1993). The model proposes that increased risk for drug use is a function of the level of perceived personal (dis)stress, the image that drugs have in that particular community and subculture and the perceived effects on the individual of particular drugs. The risk is decreased by positive attachments that the child may have, the possession of adequate coping strategies and skills, and access to necessary resources.

$$\text{Risk for Drug Use} = \frac{\text{(Dis)stress + Normalization of Drug Use+ Drug Effect}}{\text{Attachments+ Coping Strategies+ Resources}}$$

***Stress**:* There were many levels of stress that the children faced :

1] Major Life Events had occured in the children's lives without them having any control over the situation. Such shock requires variable periods of adjustment. Drug use is often an attempt to cope with the pain and to assist in the period of adjustment.

In the Bangalore children, Family disruption due to Parental death, Abandonment and conflicts with stepparents were commonly seen.

Intactness of Family	Number (Valid %)
Family Intact	105 (44.9%)
Broken Family	126 (55.1%)
Not Known	047

Migration from rural areas to cities, Physical and sexual assault and exploitation were also particularly common.

2] Everyday problems and Enduring life strains

Young people, like adults face daily "hassles". For most disagreements with parents, school and household chores are as serious as it gets. For children on the streets the everyday problems encountered are far more grave , persist over time and cannot be easily resolved as they relate in most part to their deprived socioeconomic environment.

Finding accommodation / somewhere to sleep/ enough to eat / clothes to wear, families demanding money, unhealthy living environments, avoiding violence and sexual abuse or coping with exploitation by police and peers and lack of access to employment and recreation.

69% of the children surveyed, slept in an unprotected environment, like the footpath, bus-station, shop verandah, burial ground , etc. while 31 % slept at home, or in hostels / shelters.

About 30 % of the children said that they had insufficient to eat. However, even among the majority of the children who earned well enough to eat their fill, the quality of the food they ate from carts, hotels and rarely from scrap heaps, was not sufficiently nutritious.

In this atmosphere, survival becomes the all-consuming daily task. Drug use was often reported by the children as a way to attempt to escape from this chronic conflict.

3] Life transitions

Street children need to be continually adapting to new situations - moving between communities/ cities with disruption in peer relationships and the need to adjust with a new group of peers. Drugs are used to facilitate acceptance among the new peers and deal with the discomfort associated with the transition.

4] Developmental changes of adolescence

For many street children there is little time to gradually complete the developmental tasks of adolescence. The factors, which have propelled them on to the streets, have forced them to adapt to adult roles while still in the process of growth and development. Use of drugs as an attempt to cope with their stressful lives can further impede their development and this is most dramatically seen in their inability to engage in formal operational thinking or progress beyond the concrete thinking of younger children.

Normalization of drug use

The term normalization refers to the extent to which a particular drug using behaviour may be considered "normal" in a society or subculture and how that society reinforces that belief. They include

1] Price: Where incomes are low, the cheapest drugs tend to be consumed. Amongst street children therefore inhalants , such as typewriter correction fluid ("solution"), petrol, glues which are cheap and easily available are widely used. In Bangalore, against a background of widespread adult use of alcohol, street children too tend to use alcohol. Because alcohol is relatively higher priced and perhaps more difficult for children to access, its use is limited among the very young. Cannabis again is used by older adolescents and opioid drugs like heroin ("brown sugar") or Buprenorphine are rarely encountered. This is a peculiar pattern as these drugs are relatively popular in the other Indian cities and is probably due to the fact that opioid drug abuse even among adults in the region is low. A reason for this could be that Bangalore is not on the usual shipment route.

2] Availability

Availability is to a large extent culturally determined . Of the licit drugs (alcohol, tobacco) the community decides which should be controlled and how. But when it comes to illicit drugs, availability is determined by the supply of that drug and the level of vigilance of drug enforcement agencies. The attractive profits associated with the supply of illicit substances ensure their continuing supply. The trade is so vast that any increase in vigilance of law enforcement agencies to increase the probability for detection and punishment for illicit production, importation, trafficking, dealing or using is likely to result in only a small impact. The level of vigilance adopted by the authorities varies over time and is very sensitive to both local and international politics. Such vigilance and the very fact of the illicit nature of certain drugs contributes to the problems experienced by the drug user. The illicit nature of these drugs makes the user a criminal, marginalises him within the society and requires the user to use more drastic means to acquire the drug.

This is often the major source of the criminality and violence associated with drug use. The illicit nature of the drug also increases the possibility of corruption on the part of those responsible for vigilance.

Then again there are those drugs for which there are no formal controls on their availability in different communities such as caffeine and traditional drugs such as betel nut. To these can now be added the unusual substances (at least in the Indian context) which are used for intoxicant purposes like the freely available solvents and glues.

3] Societal attitudes and reference group norms

Drug use has been an integral part of most societies. Each society has its own attitudes, beliefs and rules or prescriptions for drug use. Many sub-cultures appear to condone drug use, which in the wider community would be considered deviant. Use of certain drugs seems to be a normative pattern among groups of street children.

Drug using children were significantly more likely to perceive drug taking as beneficial, less likely to consider drug use as dangerous and had a significantly larger drug using peer group. Surprisingly , although drug use (especially alcohol) was high in families of the children this factor did not significantly predict drug use in the children, which was determined more by peer influences.

Attitudes	**Drug users**	**Non Users**
Perceived positive benefit of drug use	68.8%	35.5%
Drug use perceived as dangerous	61.5%	98.3%
Personal disapproval of drug taking	26.4%	63%
Friends disapproved drug taking	20.5%	60%
No. of friends using drugs	9.1 [5.2]	4[5.3]
Drugs used by friends		
Inhalants, alcohol, cannabis etc.	78.7%	28.6%
Tobacco only	16.2%	17.9%
Nil	--	33.3%
Not known	5.1%	20.2%
Drug use in family		
Father		
Nil	10.2%	14%
Alcohol etc.	71.1%	64.3%
Tobacco only	3.6%	13.0%
Not known	15.2%	8.3%
Mother		
Nil	38.0%	37.1%
Tobacco only	31.8%	35.5%
Alcohol etc.	22.8%	27.4%
Siblings		
Nil	64.9%	72.6%
Tobacco only	12.3%	5.5%
Inhalants, Alcohol, Cannabis etc.	27.4%	21.9%

Drug experience

Drugs vary in their physiological actions. A particular drug is more likely to be used if the subjective experience of using that drug (a complex interplay of the drug's pharmacology on the individual in a certain environment with certain expectations) is an experience, which was desired.

Positive expectancies for “Solution “ use	Percentage
Feel happy, decreased pain	28.2
Forget sorrows	.6
Decreases Hunger	.6
Alerting	.5
Increases Confidence	.6
Sexier	1.2
Numb	1.2
Combination	48.6

Drug use follows a rather predictable developmental progression, beginning with experimentation and recreational use of alcohol and cigarettes. Subsequently the individual may then progress to use of marijuana and other illicit substances like opiates.

During experimentation and recreational use, substances are associated with euphoria and pleasure and are not perceived to cause bad things to happen. With more regular use, tolerance and need for the substance develops, and the individual becomes preoccupied with substances and may begin using them every day. Often at this stage multiple substances are used. Functioning begins to decline and the reason for using the substance shifts; instead of using the substance for pleasure, the individual now uses the substance to prevent negative feelings. Thus, a major element in substance use is the prevention of the negative experiences of the withdrawal symptoms, either physiological or conditioned, as the individual associates relief of improvement with use. Both psychological and physical dependence may follow the stage of regular use. Attempts to discontinue use at this point results in symptoms of an abstinence syndrome.

The fact that there is this sequence does not necessarily mean that there is a causal relationship, however, and use of substances at one stage does not mean an individual will necessarily progress beyond that state. In fact, most people use alcohol and other substances without ever developing compulsive habits and loss of control. Experimentation with substances has become so prevalent and normative that one recent study suggests that adolescents who experiment with substances may actually be psychologically healthier compared with either individuals who have never experimented or individuals who abuse substances! They may be more curious and more prone to exploration and adventure.

World wide, the risk for substance use (legal and illicit) peaks between 18 and 22 years of age, with the exception of cocaine use, and risk for use of substances, excluding cocaine and prescription psychoactive substances, appears to decline after age 25 years. The reasons for this decline in young adulthood may be that conventional adult roles in marriage, family, and career are being assumed during this stage, and these roles are incompatible with deviant behaviour. The greatest risk that an individual will develop long-lasting or lifelong patterns of abuse occurs for those individuals who begin using substances before the age of 15 years.

Our data also revealed an interesting gateway phenomenon of progression of drug use. Most of the smaller children (around 10 – 11 years) start off with tobacco use and when they are a little older they graduate to use of inhalants. By the time they are 13 years old the use of inhalants tapers off and alcohol supercedes inhalants as the drug of choice. This is around the same time that the children experimented with the illicit drugs like cannabis and brown sugar etc.

Drug Use	Frequency (%)
Smoking tobacco	76%
Chewing tobacco	45.9%
Inhalants ["Solution"]	48%
Alcohol	42.1%
Cannabis	15.7%
Opioids	2%

Type of inhalant used	Frequency (%)
Erazex ("Solution")	11.2%
Adhesives	2.0%
Paints and thinners	1.5%
Petrol	9.1%

Age at onset of use	Mean age [SD]
Age at onset of tobacco use (smoking)	10.76[2.4]years
Age at onset of tobacco use(chewing)	10.79[2.5]years
Age at onset of Inhalant use	11.53[2.5]years
Age at onset of Cannabis use	12.79[2.5]years
Age at onset of Alcohol use	13.16[2.8]years
Age at onset of Opioid use	13.16[2.8]years

Money spent on drugs per day	
Average drug user	Rs.18.30 [16.9]
Solution user	Rs. 23.27 [15.1]

A large proportion of the money that the children earn is spent on purchase of drugs (cigarettes, beedies, gutkha, solution or alcohol). In fact, the drug using children [Rs. 41.8 (27.6)] and children who use solution [Rs. 48.46 (23.9)] earned significantly more than the non users.

Solution users spent a significantly larger amount on buying drugs than did the non-users [Rs. 23.27 (15.1) vs. Rs. 6.86 (14.1); t= 8.4, df=247, p = 0.000]

Savings	Frequenc y	Percentage
Unemployed	17	14.3
Spend all of it	49	41.2
Save some of it	36	30.2
Send most of it home	17	14.3

The majority of children had little concept of saving the money they earned.

Attachments (to family, work and peer group)

Determined by a] exposure to opportunities and influences within the group

b] skillfulness of performance in the group

c] rewards received from the group

Strong attachments to a group are likely to occur if a young person has high exposure to that group, is seen to perform well in that group through learning the necessary skills (e.g. pick-pocketing)

Young people who develop strong attachments to family and/ or school/work are less likely to develop attachments to a drug using peer group who expect and reward socially unaccepted behaviors.

Young people detached from their families are at greatest risk, since their exposure is often limited to peers in similar positions as theirs . Even those of the children who remain in contact with their families often find that the rewards that they receive from their families are less attractive and consistent than those from their peers. In these circumstances, when their peers are using drugs or hold pro-drug attitudes, they themselves are more than likely to take up similar drug using behaviours. Drug users spent less time at home, and had significantly less adult attachments than non-using children.

Children with greater contact with family and/ or any responsible adult [educator] were more likely, not to use, solution (χ2 [Pearson's] = 18.8, df=1, p = 0.00001) or any other drug (χ2 [Pearson's] = 8.6, df=1, p = 0.003) than children without such contact. Such contact , however had no such differentiating relationship with sexual activity or delinquency !

	Drug Users [n=197]	**Non-users [n=84]**
Attachment to family		
None	*20.2%*	24.3%
Some	79.8%	75.7%
Time spent at home [days/month]	*19.22[14.2]*days	21.12[13.8]days
Type of sig. influence		
Adult	30.8%	65.3%
Peer group only	**69.2%**	**34.7%**
Jobs		
Supervised	19.3%	**51.2%**
Unsupervised	**72.1%**	31.0%
No information	08.6%	17.8%

Another factor, which significantly predicted drug use, was the nature of the child's job. Children who worked

in unsupervised jobs (e.g ragpicking) were more likely to be using drugs than children working under the direct supervision of an adult.

Children in unsupervised jobs were significantly much more likely to be using "solution" ($\chi 2$ [Pearson's] = 18.6, df=1, p = 0.00002) and being sexually active ($\chi 2$ [Pearson's] = 9.9, df=1, p = 0.0016) with a weaker relationship with delinquency ($\chi 2$ [Pearson's] = 3.8, df=1, p = 0.05)

Coping strategies and skills

To deal with a wide range of stressors likely to be encountered in everyday life, the individual requires to acquire a wide range of coping and social skills. They may be cognitive or behavioural

Cognitive skills - self assurance, cognitive restructuring, cognitive distraction, self control etc.

Behavioral skills - problem solving, action through negotiation / compromise, withdrawal through leaving/ avoiding the situation, communication skills, assertiveness, social networking, engaging in alternate activities, relaxation

Practical performance skills and Survival skills (which may be considered "aberrant" in the wider community) –e.g. fighting, running fast, reacting quickly, weathering physical harm etc. may be very important for the street child.

However , a child who has not had the opportunity to learn adequate coping and survival skills may use drugs as a coping strategy. The majority of the drug using children studied had very poor adaptive coping skills.

Coping strategies and skills	**Maladaptive/ Antisocial (%)**	**Adaptive/ Pro-social (%)**
General Coping strategies employed	68.7	31.3
Dealing with sadness	64.1	35.9
Dealing with anger	65.5	34.5
Dealing with frustration	59.8	40.2

Children who had predominantly maladaptive coping strategies were significantly more likely to use drugs of any sort, abuse "solution", be involved in delinquent activity and be sexually active

Maladaptive / Antisocial Coping Strategies	Relative Frequencies	$\chi 2$ [Pearson's] df=1	Sig.
Response to Boredom in	52/81 Drug users vs. 6/40 non users	25.97	0.00000
	24/30 Solution users vs. 29/ 72 non users	18.5	0.00002
	14/17 Sexually active vs. 15/ 44 not active	11.5	0.007
	27/38 Delinquent vs. 12/ 36 non delinquent	10.6	0.001
Problem Solving	63/73 Drug users vs. 15/41 non users	30	0.00000
	26/29 Solution users vs. 42/69 non users	8	0.004
Response to Frustration	58/ 78 Drug users vs. 16/38 non users	11.51	0.007
Response to Sadness	64/ 81 Drug users vs. 20/43 non users	13.6	0.0002

High Risk Behaviour

One of the major realizations from the study was that drug use / abuse could not be viewed in isolation. Drug use in children formed just one of the many elements which contributed to their High Risk Lifestyle.

Delinquency and Criminal behaviour

78% of the children interviewed had self reported Delinquent behaviour. This included stealing, fighting, rape and self directed aggression. The delinquent behaviour predominantly occurred in the context of the peer gang (70.3%) but a significant proportion of the deviant behaviour was solitary.

Age inappropriate sexual behavior

About half (51%) of the children who were specifically assessed reported being sexually active. Almost all of these predominantly male children reported one or more incident where they had either been forced into, or paid for, or offered drugs in exchange for sex. Although a small number reported indulging in sex for comfort with peers, a significantly large number of children regularly visited commercial sex workers.

There was a nexus between street children and local commercial sex workers, many of whom abused alcohol and drugs. Children frequently acted as pimps or go – betweens in exchange for money, drugs, shelter or sexual favours.

Attitudes and practices inimical to safe sex

The sexually active children, by and large, reported having sex in intoxicated states and not using barrier contraception, despite knowledge of condom use and the potential for HIV and other infection. Intoxication made them careless or daring. The other attributions for not taking precautions were that they couldn't care less, or that they did not think it could happen to them.

Knowledge about AIDS and taking precautions	Frequency	Percentage
Yes "No! It can't happen to me ! " "No! I couldn't be bothered ! No, because I don't know what to do	28 11 27 01	41.8 16.4 40.3 01.5
	67	100
Reasons for not using condom	Frequency	Percentage
Usually too intoxicated to remember Couldn't be bothered Diminished pleasure Don't know about them	02 18 04 32	03.6 32.1 07.1 57.2
	56	

What is striking is the *significant positive relationship between the use of "solution" and the state of being sexually active [$\chi 2$ (Pearson's) 11.003, df=1, p= 0.00091] and delinquency $\chi 2$ (Pearson's 33.46, df=1, p= 0.00000]*

Children with high risk behaviour in comparison with those without:

1. Had more drug use (71% vs 34%; $\chi 2=22.98$, df=2; p=0.00001)
2. Were older (19[14] vs 20[14] ; t=0.46; p=0.003)
3. Had more drug using peers (10[6] vs 7[6]; t=2.8; p=0.006)
4. Had lower education (1[3] vs 3[3]; t=3.81; p=0.
5. Started alcohol earlier (13[3] vs 15[3]; t=2.1; p=0.042)
6. Earned more (Rs. 42[20] vs Rs. 33[31]; t=2.2; p=0.029)
7. Worked in unsupervised jobs (78% vs 39%; $\chi 2=13.3$,df=2; p=0.0013)

General Health

The children also reported a wide variety of general health problems. Some of the common complaints (incidence in the last month) were 1. cough, breathing problems and chest pain (56%); 2. Headache (41%); 3. Stomach problems (29%); 4. Fever and bodyache (28%); 5. Toothache (27%); 6. Skin problems (26%); 7. Burning sensation while passing urine / sores on genitalia (15%); 8. Tingling and numbness of hands & feet (10%) and 9. Accidental injuries to body and limbs (10%).

The use of solution was significantly related to occurrence of 1] Tingling and numbness (possible peripheral neuritis) [Fisher's Exact Test- p= 0.003] , 2] possible S.T.D.s (Burning sensation while passing urine / sores on genitalia) [$\chi 2$ (Pearson's) 8.4, df=1, p= 0.0002], 3] stomach problems [$\chi 2$ (Pearson's) – 14.6, df=1, p= 0.0001] and 4] headache [$\chi 2$ (Pearson's) – 4.5, df=1, p= 0.03].

Emotional problems

Emotional problems were frequently reported with as many as 33% complaining of chronic lack of interest in their day to day existence and sadness with crying spells in 16.3%.

Deliberate self-harm and self-mutilation

Self mutilation , specifically scarification and slashing themselves with sharp objects, especially when intoxicated with "solution" was a peculiar phenomenon found universally amongst boys and girls.
Some of the children attributed this to self directed anger and states of sadness enhanced by the drug. Others said they slashed themselves in groups as part of a bonding ritual and that the drug had an anaesthetic effect.
Some children reported incidents when other children killed themselves by flinging themselves under a passing vehicle or deliberately standing in front of an oncoming train while intoxicated.
Almost all the children recounted having known at least one child who had died suddenly while inhaling solvents, although these claims could never be substantiated

Gender and Drug Abuse

The data regarding girl children is much more sketchy. This is partly because most of the participating organisations in the study had a greater street presence among the boys. Also boys outnumber girls on the street. This is not to detract from the fact that a significantly large number of girl children land up on the streets. From key informants we learnt that the girls stay in their own gangs (which often include one or two small boys), some of the girls enter into informal "marriages" with some of the older boys, while others are given shelter by various adults. Almost invariably these girl children are subject to physical and sexual abuse. A large proportion is engaged in commercial sex work, whether willingly or unwillingly. The use of alcohol and inhalant drugs is very high among the girls. Use of chewing tobacco and betel nut is almost universal.

Compared to the boys, the girls have a far worse outcome. The boys at least have a chance of opting out of street existence, taking up stable jobs or establishing marriages and families, and some of the older boys do. The girls reportedly have no such choice. Sickness, ill health (physical & emotional) are high. Some girls die as a consequence of illegal abortions, most others due to a combination of poor nutrition and excessive drug use.

Existing Resources

Access to resources affects a child's ability to learn skills, change attitudes and perceptions, decrease some of the stresses.

The children studied had very little access to health care, education , age appropriate leisure activity. Additionally they were naturally suspicious of the very structures that the State has erected to take care of these children. Most of the children preferred to stay on the streets or even get admitted to a “mental hospital” rather than having to go to the Juvenile Home.

Almost all the children (more than 90%) had been abused, violated and exploited by policemen at some time in their short lives and understandably wanted to have nothing to do with the Police.

With respect to Health Services it was quite clear that the children:

1. Underutilized the existing state instituted health services, could not afford private medical care and only went to the hospital or to the local doctor under extreme circumstances. And even then most children ran away from hospital or discontinued treatment prematurely.

Most of the caring services, having been developed by adults for adults, rarely recognized issues of children nor did they accommodate the valid needs of the children. Health and welfare agencies (esp. Governmental) have fixed rules and admission criteria which exclude unaccompanied minors from their services. Children involved in "aberrant" activities are poorly understood by mainstream services, and receive low priority, are often 'criminalized' or stigmatized.

Children mistrust Establishment maintained services. Adolescent children tend to reject adult values and align themselves more with their peers, so that it is difficult for them to submit themselves to a health care system controlled by adults.

2. The children on their part rarely identified health as a major concern. They often regarded themselves as invulnerable, focused on the here and now and not on long term consequences. Their marginalization from the rest of society reinforces the belief that no one cares - the present is all they have to look forward to!
The reluctance to seek help may also stem from the fear that admitting to illness might make them different from peers or cause employers to look for healthier employees.
72.2% of the children assessed wanted to stop their drug use but 51.9% wanted nothing to do with establishment structures.

3. Children also lack information about existing resources and often pick up misleading or erroneous information. This is a function of what information they trust and who they trust as information providers. For example 95% of the children assessed in the Bangalore study had picked up their knowledge about illicit drugs solely from their peers. This is reflected in their help seeking choices. **Around 70 % of the children who wanted to stop their drug use, said they had never tried to do so as they were not aware of any place or person who could help them**.

Intervention

The experimental brief intervention consisted of a single viewing of an animated video film [“Gold- tooth “ made by the Street Kids International] and two or three ‘workbook sessions. Using projective techniques, groups of children were encouraged to interpret an open - ended series of images, in the light of their own experiences. This allowed the children to review their maladaptive responses to day to day stressors and their drug use. Further sessions were utilised to generate, from the peer group, alternative adaptive strategies that the children could use for the same situations. The focus was on attempting to teach children general problem solving techniques, which would not only aid them in handling situations promoting drug use but also help them devise healthier strategies to deal with ongoing life problems. While the dangerousness of drug use was a subject for discussion, no attempt was made to project abstinence from or cessation of drug use as the central theme of the training package.
The film show and the workbook sessions were conducted by the street educators, who by virtue of their street presence were already familiar to the children. The educators themselves had been trained in the use of the relevant techniques through a series of two workshops.
This is a low cost technique which is also not effort intensive. The group handling and teaching techniques are relatively simple and can be easily imparted to the trainers with minimal training.
The intervention yielded gratifying results in the short term. A follow up assessment was conducted within three months after the intervention.
Despite the fact that the drug abuse cessation message was not the central theme of the package, a surprisingly large number of the children (78%) had stopped or reduced use of solvent drugs.

Change in "Solution" use	Frequency	**Percentage**
Stopped use	28	34.6
Decreased use	28	34.6
Stopped for some time and restarted	07	08.6
Thought of stopping but did'nt	02	02.5
No change	14	17.2
Increased use	02	02.5
Pre and post data available in	81	100

This effect had to a lesser, but still significant extent, generalized itself to tobacco use. Nearly 60% of the children had stopped or decreased their tobacco intake.

Change in Tobacco use	Frequency	Percentage
Stopped use	14	17.1
Decreased use	28	34.1
Stopped for some time and restarted	07	08.5
Thought of stopping but did'nt	06	07.3
No change	21	25.6
Increased use	06	07.3
Pre and post data available in	82	100

These figures are considerably higher than expected. A proportion of this figure may be contributed to by rater bias (the street educator interviewer's optimism and desire for the children to get better). However, even with the most conservative interpretation, these numbers speak of the short term efficacy of the intervention to effect change in the children's drug use behaviours.

Even more heartening was the evidence that this brief low cost intervention could be used to impart adaptive life skills, which the children could then incorporate into their repertoire and strengthen their resilience.

A significantly large proportion of the children had learnt and subsequently successfully implemented adaptive coping strategies. Many of the children reported that instead of their earlier maladaptive responses (beating others up, slashing themselves, using drugs, gambling, etc.) in response to specific stressors (frustration, anger, boredom, sadness), they had begun using more pro-social solutions (discussing problems with a friend or street educator, using humour and time-out strategies, play with friends, etc.)

Adaptive Coping Strategies Learnt and Used			
General Problem Solving	Yes	59	*43.1*%
	No	78	56.9%
In response to Boredom	Yes	52	*38*%
	No	85	62%
In response to Frustration	Yes	55	41.7%
	No	77	58.3%
In response to Sadness	Yes	56	*41.2*%
	No	80	58.8%

95% of the children had talked to their friends about the programme and 88% had told their friends about what they had learned about handling stress. 70% of the children had brought along one or more of their friends to meet their respective street educator and 52% had actively helped one or more friends to stop drug use.

When asked what they had got from the programme 53% of the children felt that they had learned better strategies for decision making and 82% said that they realized that drugs were more dangerous than they had thought earlier.

This was certainly a desired outcome of the intervention. However, with just one follow-up assessment, it is difficult to comment on the durability of these behaviours that the children had acquired.

Lessons learned

Protective Factors Against Drug Abuse

Some protective factors reduce risk for adolescent drug use. Exposure to risk factors is moderated by the presence of protective factors. The risk posed by drug-using peers is moderated by a strong attachment or bond between parent and adolescent and by parent conventionality. Again, one protective factor potentiates another protective factor, strengthening its effect.

Some protective factors have been identified among children exposed to extreme stress because of highly disturbed family circumstances. These include a child's own positive temperament or disposition, a supportive family milieu, and an external support system that encourages and reinforces the child's coping efforts and strengthens them by inculcating positive values. Resilient children display a repertoire of social problem solving skills and belief in their own self-efficacy.

In designing interventions to reduce the negative effects of identified risk factors, it is important to focus attention on the potential positive effects of such protective factors. The available evidence suggests that to be viable, a prevention strategy requires attention to risk and protective factors related to individual vulnerability, poor child rearing, school achievement social influences, social skills, and broad social norms, all of which are implicated in the development of adolescent drug abuse. Risks are present in several social domains and appear to act cumulatively in predicting drug abuse. Therefore multi-component prevention strategies which focus on reducing multiple risks and enhancing multiple protective factors are required. The strategy must reach those at highest risk by virtue of exposure to multiple risk factors. Finally, the strategy may explicitly seek to increase protective factors as mediators or moderators against risks that cannot be changed by intervention.

One can argue that the children who live and work independently on the streets are resilient children who stand to gain nothing by being incarcerated in Juvenile Homes. They will perhaps be better served by enhancing their strengths, mediating against the risks that they face and providing them greater access to resources, without necessarily taking them off the streets.

Adult attachment appeared to reduce chances of drug use and any future intervention would be well advised to invole an adult mentor system, where each child is tied in with an adult educator. The adult would be

responsible for day to day monitoring of progress, as well as responsible for crisis management. He / she should also be trained to provide counselling and be able to refer the child appropriately in times of need.

Peer educators appear to be the major influence on the street child's learning. Intervention programmes would require to train and utilise older children to sensitise, protect, recruit and counsel younger children. They could also be employed to conduct community awareness initiatives.

Supervised employment appears, from this study, to be yet another protective factor. Encouraging children to work in adult supervised jobs or providing safe, regulated employment. For example organizations could organize ragpickers in their area, provide each child with thick rubber / leather gloves and interface with their buyers

Decreased cash liquidity and encouragement to save decreases the chances of drug abuse. Advice to children on savings, as well as providing resources for banking and also perhaps small loans may be helpful.

Life skills training with a focus on general problem solving appears to have some validity as a brief, cheap, easy to administer method which leads to demonstrable behavioral and attitudinal change.

Attention to sexual and general health and nutrition needs to be part of any drug prevention package in this population. It is quite clear that drug use is merely one of the elements in this interacting matrix of risk and a piecemeal approach to any one element is unlikely to succeed.

Increased access to resources , especially access to recreation and education is important. Along with this is the need, whether by advocacy or other means, the children's access to other resources like hospitals, the police and access to legal help is made easier. Sensitizing junior police personnel and training them to provide protection to children instead of exploiting and brutalizing them as a matter of course would form an important part of this strategy. [An ongoing project mediated by the UNICEF in Hyderabad, which set up schools for street children in specific police stations, with police officers as mentors and teachers, has had great success].

A system of identity cards for the children [the *sadak chaap* as it is known in Mumbai] would among other things, legitimise their street presence and provide some measure of accountability and protection.

Other general measures that could help:

Provision of well - equipped and adequately manned health clinics in specific geographical locations where the children work and stay, mobile or otherwise. These clinics could provide counseling, crisis management care in addition to acute medical care. The health care personnel in these clinics would need to be trained to diagnose, counsel, treat and refer children with drug abuse. The process of detoxification and rehabilitation is better done in camps / retreats rather than in rigid institutional settings.

Providing night shelters and subsidized food counters.

Night schools and more importantly vocational training centres would allow children to both work and learn.

Community centres could be utilised to organize *melas* (fairs) where along with recreational activities, sex education, drug education and life skills education components may be provided.

Making available via persuasive communication media like posters, comics, video, community theatre information pertaining to safe sex, drug prevention, nutrition etc. as well as providing knowledge about available resources

Community awareness raising activities which would also seek to educate among others, pharmacists selling off -the –counter- drugs(illegal without prescription) or stationery shop owners selling type-writer correction fluid indiscriminately

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