CHAPTER II - REVIEW OF PAST STUDIES

2.1 Introduction

2.2 Drug use among College Students

2.3 Study on Prevalence and Psycho-social Factors related to Drug Abuse in Rural Punjab

2.4 Study of Drug use amongst Industrial Workers

2.5 Seven Studies sponsored by the Central Ministry of Social Welfare

2.6 Social Perception of Cannabis use

2.7 Social Correlated of Drug use amongst College Students

2.8 Drug Abuse among College Students in Bombay

2.9 Drug Abuse among College and University Students in Varanasi

2.10 Sociological Study of nature and incidence of Drug Abuse among College and University Students in Jaipur

2.11 Need for the present Study
Introduction:

There is a great need to review literature so that one can avoid duplication in doing unwanted research which has no application in the field. Although much work had been done abroad, in India research, in the drug abuse is comparatively a new field. The studies available in India are few. They are mostly cross-sectional and not representative of the population studies. They have several methodological flaws and the investigators have used definitions and parameters, which are not strictly comparable. The conclusions to be drawn from them can, at best, be only tentative. This is also true of the data collected about drug abuse among students.

There are some studies on drug abuse which primarily deal with the epidemiology of mental illness, including drug dependence or addiction which is a mental illness. In Pondychery, Surya and others found that 3.6/1000 of the population surveyed was addicted to alcohol. In West Bengal, Binagar and co-workers surveyed the rural population and found that 13/1000 were alcohol and drug addicts. In Vellore, Verghese and co-workers found that 2/1000 were addicted to alcohol. In a rural community in West Bengal, Nandi and associates found the proportion of alcohol addicts to be 19/1000; and in Lucknow city, Thakore found it to be 18.6/1000. In a community survey around Agra area, Dube found 22.7/1000 individuals addicted to some drug or the other. Of these,
59.4 per cent used alcohol, 17.5 per cent used bhang (cannabis) and the rest used multiple drugs. The second category of studies deal specially with drug abuse. Gurmeet Singh and Brij Lal studied nine largest villages of Sangrur District of the Punjab and found that 299.8/1000 persons of age 10 and over had ever used a drug (i.e. tobacco, alcohol, opium, cannabis and barbiturates). The expression 'ever used' means the non-medical use of drugs even once before the date of survey. The proportion of current users was 287.7/1000. A further analysis showed that 40 per cent of them used tobacco, 25.6 per cent used alcohol, 18.9 per cent used opium, 6.2 per cent used barbiturates and 2.2 per cent used cannabis. Deb and Jindal studied the pattern of alcohol used in selected progressive villages around Ludhiana and found a prevalence rate of 741/1000 among the adult males (age 15 and over). Deb studied a sample of general population in Punjab and found that 54.3 per cent of the urban sample and 40.4 per cent of the rural sample abused synthetic drugs such as methaqualone and L.S.D. Mohan and co-workers studied drug abuse in the rural areas of Punjab. This is the only study which gives information on drugs abused as well as on non-users, post-users, experimental users, regular users and addicts.

In the study the data highlights the following significant facts:

1. In keeping with the Indian tradition, the proportion of those who never used a drug is very large.
2. Alcohol, opium and cannabis are the main drugs abused.
3. The proportion of regular users is very small and that of addicts, smaller still (except for tobacco).
4. The prevalence of drug abuse is substantially more among males than among females.

Table: 1-a

Distribution of persons according to drug usage in rural areas of Punjab (Males N-2064)

<table>
<thead>
<tr>
<th></th>
<th>Non users</th>
<th>Fast users</th>
<th>Experimental users</th>
<th>Regular users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>692</td>
<td>168</td>
<td>1089</td>
<td>115</td>
</tr>
<tr>
<td></td>
<td>(33.5)</td>
<td>(8.1)</td>
<td>(52.7)</td>
<td>(5.6)</td>
</tr>
<tr>
<td>Tobacco</td>
<td>1633</td>
<td>33</td>
<td>18</td>
<td>380</td>
</tr>
<tr>
<td></td>
<td>(79.1)</td>
<td>(1.6)</td>
<td>(0.9)</td>
<td>(18.4)</td>
</tr>
<tr>
<td>Opium</td>
<td>1865</td>
<td>71</td>
<td>54</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>(90.3)</td>
<td>(3.4)</td>
<td>(2.6)</td>
<td>(3.7)</td>
</tr>
<tr>
<td>Cannabis</td>
<td>1999</td>
<td>40</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>(98.8)</td>
<td>(2.0)</td>
<td>(1.0)</td>
<td>(0.2)</td>
</tr>
<tr>
<td>Painkillers</td>
<td>2049</td>
<td>2</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(99.3)</td>
<td>(0.1)</td>
<td>(0.5)</td>
<td>(0.1)</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>2064</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barbiturates</td>
<td>2058</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(99.7)</td>
<td>(0.15)</td>
<td>(0.10)</td>
<td>(0.06)</td>
</tr>
<tr>
<td>L.S.D.</td>
<td>2062</td>
<td>--</td>
<td>0.2</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(99.9)</td>
<td></td>
<td>(0.10)</td>
<td></td>
</tr>
<tr>
<td>Tranquilisers</td>
<td>2060</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(99.8)</td>
<td>(0.06)</td>
<td>(0.06)</td>
<td>(0.01)</td>
</tr>
</tbody>
</table>

EXPERIMENTAL USE: for less than a month to about once a week.
Regular Use: Several times a week and daily.

Figures in parentheses indicate the percentage.
### Table 1-b

Distribution of Persons according to drug usage in Rural areas of Punjab (Females N=1536)

<table>
<thead>
<tr>
<th></th>
<th>Non users</th>
<th>Past users</th>
<th>Experimental users</th>
<th>Regular users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>1510</td>
<td>3</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(98.3)</td>
<td>(0.2)</td>
<td>(1.3)</td>
<td>(0.2)</td>
</tr>
<tr>
<td>Tobacco</td>
<td>1471</td>
<td>4</td>
<td>15</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>(95.7)</td>
<td>(0.3)</td>
<td>(1.0)</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Opium</td>
<td>1528</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(95.4)</td>
<td>(0.1)</td>
<td>(0.3)</td>
<td>(0.2)</td>
</tr>
<tr>
<td>Cannabis</td>
<td>1533</td>
<td>3</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(99.3)</td>
<td>(0.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Painkillers</td>
<td>1523</td>
<td>--</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>(99.1)</td>
<td></td>
<td>(0.5)</td>
<td>(0.4)</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>1536</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barbiturates</td>
<td>1536</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L.S.D.</td>
<td>1536</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tranquilisers</td>
<td>1529</td>
<td>--</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(99.5)</td>
<td></td>
<td>(0.3)</td>
<td>(0.2)</td>
</tr>
</tbody>
</table>

Experimental User: for less than a month to about once a week.
Regular user: Several times a week and daily.
Figures in parenthesis indicate percentage.
Table: 2

Number and Percentages of Addicts* according to Different Drugs used

<table>
<thead>
<tr>
<th>Drug</th>
<th>Male (2064)</th>
<th></th>
<th>Female (1536)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percentage</td>
<td>Number</td>
<td>Percentage</td>
</tr>
<tr>
<td>Alcohol</td>
<td>81</td>
<td>4.0</td>
<td>1</td>
<td>0.06</td>
</tr>
<tr>
<td>Tobacco</td>
<td>261</td>
<td>12.6</td>
<td>30</td>
<td>2.0</td>
</tr>
<tr>
<td>Opium</td>
<td>74</td>
<td>3.5</td>
<td>3</td>
<td>0.3</td>
</tr>
<tr>
<td>Cannabis</td>
<td>4</td>
<td>0.19</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Painkillers</td>
<td>2</td>
<td>0.1</td>
<td>4</td>
<td>0.26</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>L.S.D.</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Tranquilisers</td>
<td>--</td>
<td>--</td>
<td>2</td>
<td>1.13</td>
</tr>
</tbody>
</table>

* Based on expressed craving for the drug.
Number in parenthesis shows the total number of persons.

On account of affluence, the prevalence of drug abuse may be assumed to be higher in Punjab than in other rural areas of the country.

Some clinical studies also give information on drug abuse. Dube and Handa (1971) studied drug habits in normal and mentally ill patients. They observed that drug indulgence was decidedly more in manic-depressive psychosis and schizophrenia than in any other diagnostic category.
They also observed that the mentally ill tended to abuse drugs indiscriminately while the healthy people abused specific drugs. Sethi and Gupta (1975) analysed 2,000 private and hospital psychiatric patients and found that only 1.0 per cent of the private cases and 0.6 per cent of the hospital cases had been diagnosed as drug-dependent and that all of them were dependent on alcohol. Verma (1977) observed cannabis psychosis in 3.2 per cent of a total of 39,001 patients were admitted to the mental hospital over a ten-year period. In another study by Dube and co-workers cannabis abuse was seen in 23.7 per cent of 566 consecutive hospital admissions. Agrawal (1973) in a study of psychiatric morbidity amongst medical students, found only a single cannabis addict. Several other studies have also referred to the abuse of drugs in different contexts, sometimes in self-medication for various kinds of disorders as also in suicidal attempts. Chopra and Smith (1974) found that, amongst the patients who were admitted with psychotic symptoms, 11 per cent were cannabis users. Goyal and D'Netto (1977) found that 14.4 per cent of the patients admitted to the Forward Military Psychiatric Centre in the Northern Sector had ever taken cannabis and of these, only three took it frequently and three regularly.

The secondary data on drug abuse throws limited light on some aspects of the problem. By using the indirect data by Chopra (1965), he estimated that the number of habitual users of cannabis in the country is around 3,00,000. The
also felt that the number of such users declined sharply between 1900 and 1935 but not so sharply between 1935 and 1965.

From the above data and from the other secondary data it is evident that the drugs most frequently misused are alcohol, tobacco, opium and cannabis; the psychotropic drugs are just making their entry. Though the proportion of non-users is quite large, it must be admitted that there is only a small hard core of addicts of these drugs, many of whom become mentally ill and some of them are treated in our psychiatric units and mental hospitals or by private practitioners. Within this hard core, the alcohol addicts from obviously the most numerous, and psychotropic addicts the smallest group. Addiction is more common among men than among women.

Bannerjee (1976) studied drug abuse among Calcutta University students. The sample studied consisted of 1,132 students and the prevalence rate of drug abuse was 37.4 per cent (26 per cent for tobacco and 11.4 per cent for amphetamines). In a journalistic survey for a Delhi newspaper, Dayal reported that 5,000 (or about 5 per cent) of Delhi University students were current occasional drug abusers and that about 200 of them were drug dependent. These figures exclude alcohol and tobacco which, it was felt, were much
more common. The same estimates were cited in other studies. A sample survey of Delhi University male students showed an overall prevalence rate of 50.1 per cent for drug abuse 19.8 per cent for tobacco alone, 18.6 per cent for alcohol alone, 6.6 per cent for tranquilisers, 4.3 per cent for amphetamines, 1.9 per cent for opium and 1.2 per cent for barbiturates). Chitnis (1976), in a survey of drug abuse among the students of the Bombay University, found a prevalence rate of 19.7 per cent of ever used (cannabis 17 per cent, amphetamines 7.1 per cent, barbiturates 5.4 per cent, L.S.D. 3.8 per cent, opium 2.5 per cent, heroin and cocaine 1.4 per cent and morphine 0.6 per cent). Alcohol and tobacco were not included in this survey. In a sample of Punjab University students at Chandigarh the prevalence rate of ever used was 18.9 per cent. The prevalence rate of current drug users was 3.9 per cent and a further analysis of the data showed that prevalence rates of single drug abuse amongst all students were: amphetamines 4.7 per cent; cannabis 2.0 per cent; barbiturates 2.0 per cent; and methaqualone 5.9 per cent. The drug dependent individuals, according to their criteria (using 30 times or more), were 1.5 per cent. Alcohol and tobacco were excluded from the study also. In a school population survey involving three senior classes of an English medium boys' school in Delhi, the sample size being 225, the prevalence rate for current drug abuse was 34.2 per cent (tobacco 31.2 per cent; alcohol 26.2 per cent;
and cannabis 12 per cent). A replicates survey a year later in the same school and sample and by the same technique, showed a prevalence rate of 35 per cent. There was a similar prevalence of drug sub-categories. In a pilot survey of Delhi University students the overall prevalence rate of drug abuse was 32.7 per cent. It was twice as high in males as compared to females. Excluding alcohol and tobacco which were the common drugs, the prevalence rate was 18.6 per cent (26.6 per cent in males and 10.6 per cent in females).

In a study by Sethi and Manchanda (1976) on medical students in Lucknow, the prevalence rate of drug abuse was found to be 25.1 per cent (ever used). The commonest drugs were tranquilisers (53.7 per cent), followed by alcohol. The drug user was defined as a person using drugs once a month or more. The other drugs abused were amphetamines (23.4 per cent), bhang (14.9 per cent) and non-barbiturate sedatives (8.5 per cent). A study on 564 non-medical post-graduate and final year medical students in Agra showed an overall ever used prevalence rate of 56.2 per cent, including alcohol and tobacco. It was three times as large in males as in females. The prevalence was high in male, in male medical students as compared to non-medical students. All male students frequently abused alcohol, bhang and painkillers, while male medical students abused, in addition, barbiturates, hypnotics, sedatives, charas and ganja. The infrequently abused substances were L.S.D., heroin and cocaine. A survey on the students of the Punjab Agricultural University by
Deb (1976) found that 29.6 per cent of the sample of 1961 had ever taken a drug. Among drug users, 20.6 per cent had taken methaqualone/amphetamine, 2.2 per cent opium, 4.3 per cent cannabis, 1.6 per cent L.S.D. and 1.3 per cent bhang. Of the drug users, 83 used multiple drugs.

Verma et al. ( ) in Chandigarh obtained similar results as that of Chitnis — overall prevalence was 198, Mandrax (barbiturate) 41.5 per cent) L.S.D. 3.89 per cent. Although the prevalence is somewhat similar in the 3 places, the pattern of drug use is different. In the first place alcohol and tobacco were widely used, 17 per cent but hard drugs like heroin — cocaine and L.S.D. were not used, whereas in Chandigarh mandrax (Barbaturates) seems to be the most popular drug (41.55 per cent). L.S.D. is also prevalent, but the percentage is not alarming. The Bombay study also revealed the use of hard drugs like heroin-cocaine and L.S.D.; but here also the prevalence is not high.

In a recent study (1977) done at the instance of the Narcotic Commissioner of India, 933 students of the University of Agricultural Sciences, Bangalore were tested to determine the incidence of drugs and alcohol usage. The results indicated that 35 per cent used alcohol and 177 used drugs. Of the 177 drug users 50% tried Ganja and 45% tried Grass. About 27% used dexametidine and Mandrax and 23% opium.
It is clear from the above studies that the use of hard drugs like cocaine and heroin or L.S.D. among students is not much in India and there is no need for undue alarm or anxiety for parents and administrators. But the high percentage of alcohol and tobacco users and to some extent of cannabis is somewhat disturbing. The use of amphetamines and sedatives also seems to be on the increase.

The ICMR report (1978) concluded that the abuse is more likely to increase than decrease and that "the extent and nature of the problem among students is serious, especially because there seems to be a shift from abstinence, and that there are disturbing signs which show that the situation is likely to worsen and get out of hand, if adequate measures are not adopted to curb the evil." This warning is appropriate because alcohol and tobacco are considered to be dangerous not only because of their harmful effects but more so because they form the base line for future drug-use, but are considered to be dangerous. Also the use of cannabis, amphetamines and barbiturates leads to the use of harder drugs. According to Johnson (1976) "There is a well established association between the use of alcohol and tobacco and the illicit drugs by students." In another study "Adolescent involvement in legal and illegal drug use, a multiple classification analysis, with regard to the use of tobacco and alcohol" concludes that "detailed analysis we have conducted on patterns and sequence of drug use clearly indicate that
there is a progressive involvement with drugs that begins with tobacco and alcohol rather than marijuana.

Adolescent use of marijuana and of other illicit drugs is part of progressive process of drug consumption which does not start with the illegal drugs, but with the legal and socially accepted substances such as tobacco and hard liquor." This study further adds that the understanding of the process leading to involvement of illicit drugs requires understanding of the factors related to the use of socially accepted substances. The Indian studies thus show that the use of socially accepted drugs among the students is very high but as has been mentioned earlier the use of hard drugs is not much, and the state of affairs has been aptly formulated in the ICMR report that "there is no room of complacency and at the same for panic."

An extensive study (Gosset, et al. 1971) which was carried out at Dallas to determine the extent of drug use among junior and senior school students covered a sample of 56,745 students. Results revealed that 38% of the sample experimented with an illicit drug, 8% reported using the drug more than 10 times and 4% reported frequent current use. The pattern of drug use revealed the use of tobacco, alcohol, glue, marijuana and non-prescribed stimulants. Considering the size of the sample the percentage of those who experimented with drugs (28) and the frequent current users (4) is quite high.
In a survey which covered 2,702 school children in Helsinki (1973) falling in the age group 14-17 years it was found that 25% have used drugs, hashish being the most frequent.

Studies done elsewhere have supported the view that the vice is spreading among the school going students and the awareness of psycho-active and psychotropic drugs, among them has increased. Data from a survey among high schoolers in Modellin in 1972 showed the global rate of use of psychoactive substances, alcohol and cigarettes to be 43.3%.

Drug use among college students:

The most disturbing feature of the drug use is its high prevalence among the college students. The misuse of drugs among university students is much more higher than among the school going children, non-student adolescents and the general populations. Data provided by the numerous studies done among the college students, especially in the European countries, suggest that the prevalence and pattern of drug use is quite alarming in the student community.

A study by Gergon, and others (1972) revealed that out of a sample of 5,000 college students 36% used marijuana.

Another study carried out in U.S.A. in 1974 by Strimber Jerry and others covered a large sample of 24,609 University students. Results indicate that 46.3% used alcohol,
26.3% used tobacco and 15.5% used marijuana. A study entitled "drug usage trends among college students" was conducted in 1973 among 1,385 students at University of Maryland. Results showed that 87% of the subjects used alcohol, 62% marijuana, 39% hashish, 20% methaqualone, 20% amphetamines and 13% tranquilisers." The results of these studies clearly indicate that the evil of drug addiction has gained its hold over the young generation to a considerable extent.

In a London survey conducted between May 1971 and April 1972, undergraduates from 6 colleges were served with a questionnaire. Of the 1,113 respondents 1/3 reported having used controlled drugs, 50% reported using cannabis, 8% reported having tried hallucinogens, mainly L.S.D.
STUDY ON PREVALENCE AND PSYCHO-SOCIAL FACTORS RELATED TO DRUG ABUSE IN RURAL PUNJAB

Introduction:

The study was conducted in order to determine the prevalence of drug abuse in the selected areas of Punjab including the nature of substance used, frequency—made and amount of such usage; to assess the various demographic and psychological factors associated with drug—abuse; and to study the community attitudes and perception of drug—abuse.

Methodology:

Three districts of Amritsar, Gurdaspur and Ferozpur were taken up for study. Two community development blocks were chosen from each of these districts on the basis of their accessibility distance. Four villages were selected randomly from each selected block. The total number of households covered in the study was 1,276.

Findings for Males:

(a) The most commonly abused drug among male was alcohol and its prevalence rate was 58.3 per cent. Tobacco was the second commonly used abused drug with prevalence rate 19.3 per cent. Opium abuse was seen in 6.3 per cent cases. Cannabis abuse was reported in 1.2 per cent cases. The rest of the drugs like pain—killers, amphetamines, barbiturates, L.S.D. and
tranquilisers were abused by a very small fraction of the population.

(b) Tobacco use was reported in 4.0 per cent cases, followed by alcohol in 1.4 per cent cases, painkillers 0.8 per cent, tranquilisers 0.5 per cent and opium 0.4 per cent, among females excluding those below 15 years of age and unmarried girls. Abuse of other drugs was not seen in women.

Other Findings:

(i) Looking at the associate factors, it was found that the religion showed obvious preference, since being non-smokers, tobacco abuse was much less in Sikhs but they had maximum alcohol and opium abuse.

(ii) Drug abuse was more common in nuclear families and most common in those who constitute separate families.

(iii) Richer groups preferred the use of alcohol while amongst the poor, the drugs like opium and cannabis were also abused. The alcohol abuse was more common in those who are better educated with higher per capita income, opium in those who are illiterate and low per capita income while tobacco abuse was prevalent among persons with different levels of income and education.
(iv) The association with age is significant, especially when taken in conjunction with age at which drug abuse starts. Alcohol abuse starts in many abusers around the age of ten years, and at the age level 15-19 years, 35 per cent are abusing alcohol. It immediately increases in the next age group 20-29 years and then remains fairly high for rest of the age groups; Opium and cannabis abuse on the other hand starts later in life and is more common with older age groups, reflecting the decreased involvement of younger generation and probably the effects of curbing the supplies, to those who are on the legal supply system and who are possibly abusing it for medicinal purposes.

(v) The drug abuse was significantly high in married individuals, followed by those who were either widowed, divorced, separated or were single individuals.

(vi) In relation to occupation, only two observations need to be made; the drug abuse in common in those who are in the agricultural class, less common in students, an area of concern in the urban population. On careful scrutiny it is actually most prevalent in the category of service personnel, i.e., individuals engaged in serving the basic agricultural activity.

(vii) Initiation to drug abuse was more due to influence of friends and social setting.
In problems related to drug abuse, first ranking is again given to actual alcoholic intoxication, reflected as fighting with spouse as an imbalance and loss of interest in work, both presumably to hang over and the gradual preoccupation with drinking. It is interesting to note that both these two rankings go down considerably in assessment of long term abuse. There is a fairly close concordance between men and women in perception of immediate problems and differences after one year of abuse. In long term consequences, women feel that sexual demands increase, as does sexual misbehaviour, the person works mechanically, is indifferent to his family, fight with his spouse, steals money, loses ability to concentrate, loses interest in job, borrows money, loses status, men on the other hand put higher emphasis on sexual misbehaviour, loss of work efficiency, loss of interest in family, inability concentrate, loss of status, stealing, becoming quarrelsome.

In both sexes as a long term effect in general impairment of family relations, reduced work status and reduced social status are perceived as common effects. Some effects are consequent to abuse, such as borrowing money, stealing, fighting with spouse and loss of sexual behaviour control.
High emphasis is placed on governmental intervention in the opinions expressed by the village leaders. Most of the respondents favoured constitution of legal controls on drugs like opium, charas, ganja, bhang and pethidine, etc., while implicit is disfavour for a similar approach to other drugs.
Introduction:

This study was conducted in 1977-78 in two phases in Delhi. Phase one was aimed to study socio-economic characteristics, prevalence pattern, causes of drug abuse, etc. At the second phase case studies of drug abuses have been presented. The study covered sixteen factories with the sample of 4,000 workers. The detailed study was conducted on 417 sampled drug abusers.

Findings:

The main findings of the study were as follows:

(i) Alcohol, charas, bhang, ganja and opium were the drugs used by the industrial workers;

(ii) Out of total drug users (417), a majority (95.44%) used alcohol followed by charas (18.47%), bhang (8.39%), ganja (6.95%) and opium (2.16%). On the basis of total sample of 4,000, only 10 per cent used alcohol followed by charas (0.19%), bhang (0.09%), ganja (0.07%) and opium (0.02%).

(iii) An overwhelming majority of the users (80.33%) used one drug (mainly alcohol), 11.51 per cent used two drugs, 8.23 per cent used three drugs.
(iv) Most users of alcohol take alcohol singularly, whereas charas, bhang, ganja and opium were taken in various combinations.

(v) The highest percentage (55.40) of the users were between 21.35 years when they first abused drug; about one-third (33.57%) users used the drug for the first time when they were between 16-20 years of age.

(vi) A large majority of the users (72.90%) became regular users of drugs between 21-35 years of age; a little over one-fifth (20.86%) of the users became regular users between 16-20 years of age.

(vii) A majority of users (59.71%) started using drugs after they started their career as industrial workers;

(viii) About 68.35 per cent were introduced to drug by their friends or co-workers and 21.58 per cent by self;

(ix) Drug user on an average spent Rs. 39/- per month on drugs.

(x) Open market, friends, relatives, acquaintances, etc. were the sources of drug supply.

(xi) According to the study, a group of factors given below in descending order of importance were collectively responsible for the problem as a whole among industrial workers:

1. Strain of working in the industrial setting.
2. Lack of adequate facilities for recreation.
3. Environmental factor including prevalence of smoking and drug use in family, friends and co-workers' circle.

4. Cultural background as revealed by rural/urban background, caste, and religion.

5. Economic factor including income and indebtedness.

6. Attitude to job.

7. Personality.

8. Family life.


10. Social life.

11. Childhood.

12. Educational background, and

13. Age (though only in the context of certain experiences and exposures, rather than independently).

An Individual cases any one or more of the above mentioned factors may lead to drug use.
Drug abuse among college/university students under the studies scheme of Grant-in-aid.

Annexures

From the above studies the following conclusions were drawn:

1. Drug abuse among boys was more common than girls.
2. The drugs most commonly misused were alcohol and tobacco.
3. Drug abuse was more prevalent among the students having urban background, higher income group families, with background of education in Military/Public/Convent Schools, residing in college hostels, studying in Medical/Engineering courses.
4. Friends played an important role in initiating young persons to drug abuse.
5. Four causes were found important in using drugs:
   (1) Psychological causes like relieving tension, easing depression, satisfying curiosity, "getting kicks," "feeling high," intensifying perception, removing boredom etc.
   (2) Physical causes like staying awake etc.
   (3) Social causes i.e., as an aid to socialising, challenging social values etc.
(4) Miscellaneous causes like improving studying; sharpening religious insight, deepening self-understanding, solving personal problems, etc.

6. Drugs were obtained mostly from friends.

7. An overwhelming percentage of students did not take any drugs at all, including socially acceptable drugs like tobacco, alcohol and pain-killers.

8. The prevalence rate of drugs like cannabis, L.S.D., pain-killers, opium etc., was very small.

**MULTICENTERED STUDIES**

The Multicentered Studies, carried out as a collaborative study with a standard method and questionnaire, was the first of its kind in the broad field of psychosocial health. The collaborators Dr. M.Z. Khan, Dr. P.K. Muttagi, Dr. T.E. Shanmugam, Dr. Ram Ahuja, Dr. T.E. Parmeswaran and Dr. O.N. Srivastava worked together to consider:

(a) to determine the nature, pattern and prevalence of drug abuse among university students, including their socio-cultural and demographic background.

(b) to study in depth co-relations of family, parental and peer interactions facilitating or inhibiting drug abuse.
Methodology:

The universe of this study were all the college students at under-graduate and post-graduate levels (excluding evening college and correspondence course students). According to the latest list available at the time of sampling, the total number of colleges in a city and university varied.

Based on the available figures on the prevalence rate of drug abuse among university students the minimum sample size to be covered in the study at each centre was estimated to be about 4,200. Sampling design adopted for the study was stratified cluster sampling. Primary sampling unit of the study was the college for cluster sampling and the section of students in case the selected college had more than the required number of students. The colleges were stratified first according to their size (large, medium and small) and then according to their type of institution (with hostel and without hostel). These categories were further subdivided according to sex. The colleges in the respective categories were numbered serially. This was done separately for men's and women's colleges. Co-educational institutions were included in both the lists. In each of this sub-category, after computing the required sample size proportional to the corresponding total strength, colleges were randomly selected. The number of colleges selected were dependent on the size of the sample to the total. If the college selected
had more than the required number in the category, the students were further stratified according to the year of such and the required number was selected from the different courses from each year randomly so that the size of sample to be selected was in proportion to the total number of students in each year. The above mentioned procedure was used separately for under-graduates and post graduates to ensure sufficient representation to the latter; on proportional basis.

The rational for choosing these centres were that three were metropolitan towns and three not so. Varanasi was chosen as an example of a Residential University, as reports suggested that drug use might be high in such institution.

Tools for the Study:

The present study was carried out with the help of preceded self administered questionnaire, which was so constructed that each participant had to answer all questions.

The questionnaire used in the study was based on previous research work conducted in the same area and had been tested for its validity and reliability.

Detailed information pertaining to the demographic and socio-economic characteristics of the respondents, awareness and knowledge of the drugs abused, the actual pattern of usage, drug first used, mode of taking drugs, source of
obtaining them, etc., were collected. It also collected information regarding the respondent's reason for taking or not taking drugs and attitude towards drug use. A copy of the questionnaire is available.

Operational Definitions:

Drugs: for the purpose of this study the following drugs were included:

1. Alcohol : Beer, wine, hard liquor.
2. Amphetamines: Purple hearts, speed, Methylenediamines, Dexedrine, Ritalin, Methamphetamine.
6. Opium : Goli, morphine, harcin.
7. Cocaine
8. Pethidine
9. Painkillers: Aspirit, Anacin, Codeline, APC.
11. Tobacco : In the form of cigarettes, cigar, pipe, bidi, etc., and in the form of eatables.

Drug abuse: Non medical use of the above mentioned drugs wherever applicable.
Drug dependence: It is classically defined as "a state of periodic or chronic intoxication, detrimental to the individual and to society, produced by repeated consumption of a drug" (WHO). In the study the drug dependents were identified on the subjectively experienced and expressed compulsion to use the drug.

Prevalence: The term indicates the ratio of the number of individuals using one or more substances of a specific category of drug and the total number of persons covered in the study.

Frequency of use: This term denotes the number of times an individual uses one or more substances of a specific category of a drug.

Past user: A person who had used one or more substances of a specific category of a drug at least once but not using the same during the last one year (from the time of asking the question).

Current user: A person who was using one or more substances of a specific category of drug during the last one year (from the time of asking the question). The "current users" were further divided into experimental users, regular users and drug dependents.

"Experimental" users: Indicates those users who were using one or more substances of a specific category of drug about once a month or less often.
Regular users were those taking one or more substances of a specific category, about once a week or more often.

Drug Dependent: were those users who indicated their inability to stay without using one or more substances of a specific category of a drug and expressed a craving for it.

SOCIAL PERCEPTION OF CANNABIS USE


Under the study 30 long term cannabis users on their psychological and cognitive functions against non users were drawn from the general population to which the users belonged. The study did not reveal any significant difference between the two groups. To confirm these observations it was decided to interview the close relations of the users to look for any perceptible decline, in social functioning among the users, to them. The last ten persons among the cannabis users were chosen for the present study. One of the close family members of each one of these users were interviewed to elicit further information. It can be seen that the cannabis users were exposed to close observation for an extended period by their family members. Majority of the members did not report observable change in the personality characteristics of the users. The users were gainfully employed, did not show any preponderance of deviant behaviour and were living in tolerant social milieu. It appears then that the
behavioural effects attributed to long term cannabis use should be viewed against the broad socio-cultural milieu, rather than attributing them to the drug alone.

REVIEW OF LITERATURE

Elnagar, Maitra and Rao (1971) surveyed rural population of West Bengal and found addiction to alcohol and drugs in 1.3 per cent of the population. Dube (1972) conducted a survey of psychiatric morbidity and found drug dependence among 2.27 per cent of the community. Verghese and Beig (1972) in a similar survey found a prevalence rate of alcohol addiction to be 18.55 per thousand population. Benerjee (1963) conducted a survey among students of Calcutta University on non-medical use of drugs and found prevalence of cigarette smoking in 26 per cent and abuse of amphetamines in 11.4 per cent. In a survey conducted by Mohan and Arora (1976), on selected colleges of Delhi University, a drug abuse prevalence rate of 24.8 per cent was found. Tobacco abuse was highest followed by alcohol, tranquilisers, amphetamines, opium and barbiturates. Chitnis (1974) conducted a survey among students in Bombay University and reported a prevalence rate of 19.7 per cent. The most commonly abused substances were cannabis followed by amphetamines, bartiburates, L.S.D. opium, heroin, cocaine and morphine. Verma et al. (1977) found a prevalence rate of 18.37 per cent. A further analysis of the data showed that the most commonly abused substance was amphetamine followed by methaqualone (mandrax), cannabis and
barbiturates. However, both the above mentioned surveys excluded alcohol and tobacco from their scope. In a study conducted by Mohan et al. (1975) in an English medium boy's school in Delhi, the prevalence rate of drug abuse was found to be 32.2 per cent. Tobacco abuse was highest followed by alcohol and cannabis. A survey conducted by Mohan et al. (1977) among college students estimated the prevalence rate of drug abuse in students as 32.7 per cent. It was significantly more in men (45.7 per cent) compared to women (18.3%) and in institutions with attached hostels (77.0%) than in institutions where there were no hostels attached (21.0 per cent). The prevalence of drug abuse, when alcohol and tobacco, the most commonly abused drugs, were excluded, fell to 23.8 per cent in males and 10.5 per cent in females. Among males, the other drugs of abuse reported were cannabis, followed by tranquilizers, amphetamines, barbiturates, opiates, L.S.D. and cocaine. Among females, alcohol and tobacco were followed by analgesics and tranquilizers. In females, abuse of other drugs was reported to be negligible. The study team on prohibition (1964) made an attempt to study drinking patterns in India. It analysed the budget of 21,197 working class families spread all over the country. Taking the wet and dry areas of the country together 12 per cent of the families reported drinking. The percentage of families drinking was lowest among factory workers (9.6 per cent) higher among plantation workers (14 per cent) and highest among mine workers (23.0 per cent).
Rural Surveys:

Deb and Jindal (1974) in a study of selected villages in Punjab found a prevalence of alcohol abuse in 74 per cent of all adults above the age of 15 years.

Gurmeet Singh and Brij Lai (1978) studied prevalence of drug abuse in selected villages of Punjab. They found an overall current prevalence rate of 28.77 per cent in the population (age 10 years and above). Tobacco abuse was highest (40 per cent), followed by alcohol (25.6 per cent), opium (18.9 per cent), barbiturates (6.2 per cent) and cannabis (2.2 per cent). The majority of alcohol abusers reported that its use was mainly for recreational purposes. The majority of opium abusers were found to be dependent on the drug. In those who were dependent, there was a preponderance of males. Further, it was detected that the prevalence of opium abuse among the cultivators and the farm labourers was extremely high when compared to other sedentary professions.

Sethi and Trivedi (1979) surveyed rural population covering eight villages attached to their experimental rural health centre. The total population was 2415 individuals, by excluding children upto the age of 10 years (405), the total surveyed sample was 2010, with 1106 males (55.1%) and 904 females (44.9 per cent). They found a current prevalence
rate (i.e., upto a month) as 24.8 per cent and life time use 5.9 per cent. Alcohol was consumed by 82.5 per cent of the users, cannabis by 16.1 per cent, and opium with dhatura by 0.7 per cent. Of total alcohol users, daily users were only 9.8 per cent, while cannabis users were 15.9 per cent. No psychotropic use was detected. The age of starting drug use was 71.1 per cent between 21-40 years, 27.3 per cent before 29 years and only 8 persons started after 41 years.
The present work is an interdisciplinary study which concerns itself with a range of drugs commonly used in India, and focuses on the general student population comprising the users and non-users, in Jabalpur town. Its objectives mainly are (i) to determine the nature and extent of drug-use amongst the students, (ii) to identify socio-cultural correlates of drug-use, and (iii) to enquire into the psychological characteristics of drug-users. At this stage certain conceptual clarifications would be in order. The present study follows the 1970 - Canadian Government Commission of Enquiry's definition of 'drug' as "those substances which are taken for their psychotropic or psychoactive properties as defined by their capacity to alter sensation, mood, consciousness and other psychological or behavioural functions". Drugs studied are (a) Depressants - Alcohol, Analgesic, Opiate narcotics, Barbiturates, Tranquillisers; (b) stimulants - Amphetamines, cocaine and Tobacco; and (c) hallucinogens - charas and L.S.D. The term drug-use in the present study refers to "all drug-use which is not indicated on generally accepted medical grounds" (UNSDRI, 1976).

Keeping in view the interdisciplinary nature of the study, the following hypotheses have been examined; (i) The
town of Jabalpur provides opportunity structures which facilitates drug use by the college youth. (2) Certain socio-cultural aspects pertaining to students determine the form and extent of drug-use amongst the students. (3) Certain socio-economic conditions obtaining in the family of the students are related to drug-use. (4) Involvement of the students in curricular, co-curricular and extra-curricular activities is inversely related to the use of psychotropic drugs. (5) Drug-use arises on account of imitation of the persons who are important to the students and who themselves use drugs. (6) Certain psychological characteristics/conditions are directly related to the dependence of the students on psychotropic drugs.

A commercial, industrial and educational centre, Jabalpur has twenty-seven colleges offering a variety of courses at the undergraduate and postgraduate levels. Towards covering disparate population-characteristics (total student population 15,444) and maintaining necessary confidence-level, a relatively large sample of about 30% has been drawn. On the other hand, multi-stage cluster sampling design with probability proportionate to size has been decided upon. On the basis of courses of study (professional and postgraduate students who perhaps have influence beyond their actual proportion on the general student population have been given more weightage) and sex, the colleges have been divided into
five strata: (1) Agriculture (2) Medicine (3) Engineering (4) Arts/Commerce/Science (5) Girls. Using random numbers, from each stratum, depending on its size, one to three colleges have been selected. Two separate lists of classes/sections (clusters, one for undergraduates and the other for postgraduates) have been prepared. From these lists clusters have been randomly selected. Thus the sample included 6404 students in 147 classes/sections in 9 colleges.

Keeping in view the sample size, economy in procedure and the need for confidentiality in researching a sensitive problem like the present one, the questionnaire method of data collection has been the obvious choice. A questionnaire incorporating personal, family, scholastic, companionship, psychological, environmental and drug-use data has been drafted, discussed, edited, translated into Hindi and pretested. Subsequently, the final version of the questionnaire has been printed in English and Hindi. These have been administered (from October 1976 to January 1977) on the students in group-settings interrupting normal instructions/practical work (sample completed: 4415).

Findings:

The data show that an overwhelming majority of the students are staying 'at homes', which implies that they are subject to parental supervision and control. It is not
surprising that they are not very familiar with drug-users as well as drug names. On the other hand the town of Jabalpur has a high literacy rate, ample communication channels as well as cultural activities and wide-ranging educational facilities. While a few circumstances discouraging drug-use do exist, Jabalpur provides opportunity structures which on the whole, facilitate drug-use. Given this background, it would be fitting to look for the proportion of the students on drugs. The data show that, inclusive of the use of pain-killers and tobacco, 29.5% of the students, including females have been using drugs. 14.1% tried but discontinued the use of intoxicants. The majority of the students i.e. 56.4% has this remained untouched. Among those who are currently using drugs, only 4.5 per cent are regular/habitual users. Males have themselves are greater drug-users than females except with regard to pain-killers. Among the drug users only one-third of them have been multiple drug-users. The duration of stay of the students in the town has shown a significant correlation with their drug habit. The longer the duration of the stay in the town, the greater is the likelihood of their using intoxicants. Those students who are staying away from home, i.e. in hostels, lodges, etc. are over-represented in the drug-user categories. Those who speak Punjabi and other Indian languages appear to be relatively more drug-prone. Alcohol appears to be more popular among
Southerners, Bhang among Northeners and tobacco amongst Easterners. Christians have been marginally ahead of others in drug use. Married students are more on drugs than unmarried ones. The higher the family educational status of a student, the greater is the likelihood of his using drugs. Similarly, the per capita family income also shows a direct relation with drug use. In view of this, the socio-economic status of the student has shown a positive correlation with drug use. It is also understandable that students with larger pocket money take to drugs in greater numbers. The data reveal that parents of drug-users disagree and quarrel among themselves more than those of non-users. It is also found that the students who have been having disagreements with their parents have been proportionately more regular users of drugs. Those who have early school background have shown greater tendency to turn to drugs. Professional students, i.e., those doing agriculture, engineering and Medicine have been associated with drug-use more than others. Manners to outdo those in the National Social Service and sports is so far as drug use is concerned. Likewise, the students with a high level of participation in co-curricular activities, out-door extra-curricular activities, indoor extra-curricular activities, leisure-time activities and dating, all use drugs proportionately more than those with low involvement in these activities. The knowledge of drug use by the fellow students,
and drug-use by companions and friends have had a positive bearing on the drug use of the students. Similarly, the reported drug-use by the favourite teacher, by a favourite sports-hero, and by a matinee-idol have shown influence the drug buyers, regular and habitual users do not think that psycho drugs should be freely available. They also feel that college authorities should take special action against drug users. It is found that their attitude tends to be favourable with the increased use of drugs.
Study Design:

The study was conducted in four inter-related phases over a period of time, between 1976-78. In the first phase, data were collected from college students in Bombay with the help of a questionnaire, to determine the incidence of drug abuse among them. 4151 students were administered the questionnaire in small groups of 40-50, in the college premises. The questionnaires were distributed among them with the assurance that the information would be kept confidential. The sample was drawn from among 1,12,000 college students in the city. It included all full time and internal students of the undergraduate and post-graduate levels in colleges, university departments and other institutes affiliated to the University of Bombay. Students from the Indian Institute of Technology, the Tata Institute of Social Sciences and the S.N.D.T. University all of which, are located within Greater Bombay area, were also included in the sample. In phase two, an in-depth study was carried out among 157 selected abusers and 50 non-users, to understand the psychological and sociological factors motivating drug abuse. The respondents were interviewed in most cases, in a separate
room in their own house, or at a friend's house so that anonymity could be maintained. In a few instances, they were interviewed at a restaurant, cafe or the college hostel. This was followed by a group discussion held at the Institute in the third phase with a view to understanding the dynamics of drug abuse behaviour better. Eight abusers participated. In the fourth and final phase, some experts in the field were contacted at their place of work individually, for their opinions and views on the problems of drug abuse and its control.

To the present study, any person who used the so-called hard drugs Opium, cocaine, L.S.D., tranquilizers or barbiturates etc. for any reason whatsoever, without a medical prescription was considered a drug abuser. A person who smoked tobacco or imbibed alcohol or took pain-killer was also regarded an abuser, even though these last mentioned are known as the socially acceptable drugs. Since in the second phase of the study the emphasis was on understanding the dynamics motivating hard drug abuse, smoking drinking or taking painkillers to the exclusion of hard drugs, were not included in the in-depth study.

Findings:

Over 58 per cent in the sample had never tried any drug. A higher proportion was females (66 per cent) while some 54 per cent were males. Of the 42 per cent abusers.
15 per cent took tobacco/alcohol or both and 7 per cent took at least one other drug along with alcohol/tobacco. Of the 42 per cent of abusers, nearly 34 per cent of them were found abusing socially acceptable drugs — alcohol, tobacco and painkillers. Thus, only 8 per cent respondents appeared to have tried hard drugs.

Alcohol was the most highly favoured (23 per cent) painkillers came second (15.32 per cent) and tobacco third (13.35 per cent). Cannabis (2.46 per cent) ranked fourth and was the hard drug of preference. The other hard drugs taken together accounted for some 6 per cent as follows: tranquillisers (1.76 per cent), barbiturates (1.54 per cent), amphetamines (1.23 per cent), Opium (0.87 per cent), L.S.D. (0.34 per cent), pethedine (0.22 per cent) and cocaine (0.12 per cent).

While abuse of tobacco and alcohol was rather high among males, painkillers was the most popular drug with females possibly because of its use during periods. While cannabis was the most popular hard drug, almost 83 per cent had discontinued it. Abuse of hard drugs was generally rare, and past abusers outnumbered current abusers of pethedine and cocaine.

An overwhelming majority (92 per cent) in Bombay had never tried any hard drug. Only 8.34 per cent appeared to
have tried hard drugs. As this included those taking more than one drug (0.65 per cent) it meant that only around 8 per cent abused hard drugs. The implication being that while drugs had no doubt found a place among college students in Bombay, their abuse was but a passing phase an experiment because past abusers generally outnumbered current abusers of which regular abusers were only a minority. However, the socially acceptable drugs seemed to be growing in popularity.

In case of most drugs, the percentage of male abusers increased as the age increased. But the percentage of Female abusers decreased as age increased, for all drugs other than cannabis, barbiturates and tranquilisers. Painkillers did not seem to find favour with males, although it was very popular with females as almost 23.21 per cent in the youngest age group, about 15 per cent in the 19-12 age, group and 19.23 per cent in the oldest age group abused it.

Barring alcohol, abuse of other drugs generally showed a higher incidence among those living in joint families. This runs counter to the popular belief that young people in nuclear families were more vulnerable to drug abuse because of exposure to a more liberal and individualistic atmosphere at home.
Incidence of abuse was the highest, in the highest per capita income group i.e. Rs. 300/- and above, irrespective of sex. There seemed to be no clear-cut pattern of abuse in relation to birth-order although females in the 'only child' category were frequently encountered, abusing painkillers, tobacco and alcohol respectively.

While it was seen that drug abusers were to be found living with parents/guardians or in lodgings or a hostel, incidence of abuse was much higher among hostellers and to a smaller degree among boarders/lodgers when compared to the incidence among those living with their parents. Abuse of painkillers was an exception - while it seemed to be independent of the mode of residence, its incidence was the highest among those living with their parents.

Barring amphetamines, abuse of other drugs also proved to be higher among those who were educated in convent/military/public type schools compared to those educated in other types of schools irrespective of sex.

Students in the professional courses appeared to be more prone to drug-taking compared to their counterparts from the non-professional courses. This again ran counter to the general belief that the latter were more likely to experiment with drugs as their curriculae allowed them more time and leisure. Likewise, students faring well in the
examination seemed more prone to drug abuse than those faring badly, the exception being harbiturates use among the latter. This challenged the notion that drug abusers were dropped off and were indifferent to their academic achievements. While drug abuse was found both among those who went dating and those who did not, its incidence was considerably higher among those who dated.

While several abusers said they started taking drugs on their own or at the suggestion of friends, painkillers were generally taken by females at the suggestion of a doctor or the parents. Though smoking, drinking or drug-taking by others in the family and friends outside appeared to influence and motivate drug abuse, two patterns were observed. The abuse of socially acceptable drugs began usually as an act of imitation of friends in the group or of others outside including the abuser's own family. But abuse of hard drugs was invariably an act of imitation of the peer group in college and even the hard drug chosen for abuse depended on what drug the peer group was taking.

The overall picture showed that a typical abuser was a well-to-do student and came from an affluent family where the atmosphere was quite congenial. He was often an intelligent young man having had his school education usually, in a typical elite English medium school. His age was probably between 19 and 24 and he was generally
receptive to Westernisation and its accompanying lifestyles such as dating. In all probability he stayed in a hostel or at a lodging/boarding house. He was more likely to be pursuing his studies for a professional degree in engineering, medicine, law and the like, and times he was a student of social sciences or the humanities. His academic achievements were usually of a high calibre though an average performance level was by no means unknown.

Contrary to the popular belief, his home environment was generally non-problematic and pleasant. His parents tended to be moderate rather than strict in their views and attitudes. Usually they evinced interest in his academic achievements. His childhood experiences were seldom unhappy or adverse and seemed to have little bearing on his drug-taking.

The factors motivating drug abuse were generally of two kinds - (1) Personal factors such as his own 'curiosity', a 'thirst for adventure', or 'the other reality' and (2) Peer group influence - 'a desire to belong to his group', 'to be considered modern', 'to be accepted by the people who matter to him at that age', the peer group even deciding his choice of the particular drug of abuse.
He probably started off with one of the cannabis derivatives perhaps 'charas' and may be enjoyed music, colours, sounds etc. feeling them with greater intensity. Generally he had pleasant 'trips' although a mixed trip was not unknown when he switched over to L.S.D. or Mandrax.

He probably spent between Rs. 36-60 a month on his drugs though at times this amount was much higher as drugs were in the light of a status symbol and a luxury.

The quantity of intake was likely to be fairly constant though he was more likely to take an increased dosage if he was a habitual user but this was rare.

As likely as not, he was quite aware that drugs could lead to habituation but was generally reluctant to give them up. He could get his drugs regularly and with ease though he had probably got some of the legally prohibited drugs under the counter but preferred cannabis finally. While he was horrified at the idea of growing addicted to drugs, he was equally convinced that a puff or two for pleasure was fine. May be he would feel less guilty if 'charas' were to be legalised. He would probably sum up his drug abuse by saying it made him feel a different person altogether and did him a world of good.
Some pertinent observations can be made as they emerge from the findings of the study. These follow:

It appears that the hard drugs have found a footing among college students in Bombay. However, they are abused by a microscopic minority.

In view of the fear attached to the hard drugs, there does not seem to be any great likelihood of their abuse become widespread.

In general, the abusers appear quite favourably disposed towards the socially acceptable drugs - tobacco and alcohol. Painkillers which has been used mainly, if not exclusively by females, is not considered a dangerous drug. In general, users see no reason why socially acceptable drugs should not be resorted to occasionally.

If the present trend were to continue, and there is some reason to belief that it may indeed continue, we may find the prevalence of the socially acceptable drugs increasing among the youth.

Past abusers have a negative attitude to drug abuse, experimental users see no harm in drug begin tried, while regular abusers appear to be divided in their opinions. They are against of regular use and addiction, but do not consider
it harmful to try drugs occasionally.

Some abusers begin with smoking or drinking and then go on to the hard drugs. In view of such a pattern, it is necessary to concentrate on those who abuse the socially accepted drugs since they may be potential hard drug abusers. Cannabis abuse may be a problem we have to live with at least for some time to come.

Within the city of Bombay itself, there are interinstitutional differences in the prevalence and pattern of drug abuse.

There is some evidence to believe that the pattern and prevalence of abuse vary from one city to the other and perhaps from one region to another too.

By and large, neither the home environment, nor the personality needs of the individual appear to motivate drug abuse. It seems rather, that the peer group influence and the imitation of observed behaviour more often motivate drug abuse.

It is at times difficult to distinguish the abuser from the non-user, or even to separate one type of abuser from the other.
Today in India, all kinds of synthetic as well as traditional drugs are available. There are drugs for treatment of vascular diseases, there are drugs for treatment of infections, there are drugs for relief from pain, there are drugs for almost anything. As a matter of fact, we have drugs that can stimulate, drugs that tranquilize, that can elevate mood or can slow down the head. We have drugs to put us to sleep and drugs to keep us awake. But any drug may be used or misused by any person young or old, man or woman.

The reasons for greater abuse of the socially acceptable drugs are their availability, relative low cost and social acceptability. This is one of the questions under debate in discussions on legalisation of a variety of drugs by some, and reintroduction of prohibition of liquor by others. Prohibition one knows, was an attempt made to control the drug by means of law. The battle was long drawn and bitterly fought and lost. The government is planning to reintroduce prohibition. Before any such step is taken, it is important to re-examine all aspects of the problem.

If total eradication is the aim, no advertising of any sort of drug should be permitted for drugs which have been demonstrated to be harmful. This should apply not only
to currently illegal drugs which prove to be harmful,
but also to such substances as alcohol, tobacco, and
perhaps the analgesics.

The present survey shows that although the dynamics
leading to drug misuse among the young are varied and
frequently complex, influence of peer group, curiosity,
a desire for kicks, or escape from feelings of inferiority,
relief from routine and easing of pain are the major ones.
By and large, these are due to social factors. Treatment
and prevention techniques can be effective in reducing the
prevalence.

It appears that no matter with legal or social
constraints may operate, youth is usually able to find some
way of getting intoxicated. Hence total eradication of
drug abuse is perhaps a Utopian ideal.
Explanation of Key Concepts:

1. **Drug**: In the present study, all the drugs listed by the WHO (1973) have been included except the "Khat" type and "Volatile solvents". In addition, tobacco and painkillers have also been included.

2. **Drug abuse**: Use of drugs, usually by self-administration, for other than legitimate medical purposes; such a use is inconsistent with or unrelated to the accepted medical practice.

   **Operational Definition**: In taking of drugs without medical prescription, wherever applicable (Obviously, this is not applicable in case of Alcohol, tobacco, cannabis and hallucinogens which are not prescribed by medical men).

3. **Non-user ('Never Tried' or 'Never used')**: One who says that he has never used the drug.

4. **Past user**: One who says that he had tried or used the drug earlier but has now discontinued: 'Tried but discontinued'.

5. **User (Current user)**: One who is currently using the drug.
6. **Occasional user:** Denotes one who is using the drug about once a week or less often. (Refers only to frequency of use; the purpose of use may be experimental, social, recreational etc.).

**Regular user:** One who is using the drug several times a week and daily. (only frequency is implied, not quantity of drugs used).

**Addict:** Denotes one who "cannot do without the drug". i.e. one who shows craving response.

7. **Ever used:** This group includes past users and current users.

**RESEARCH DESIGN**

The study was carried out in two stages. Though all the objectives were covered in the first stage, the second stage was intended for in-depth exploration and for establishing the reliability of information obtained in the first stage.

The universe of the present study was constituted by the undergraduate and postgraduate students of all the colleges and universities in the city of Varanasi. Such students numbered 22,082. The size of the samples for the first and second stages were 4166 and 225 respectively.
The 4166 subjects for the first stage of the study were selected by a two-stage sampling. At the first stage, six institutions were selected by purposive sampling and in the second stage of sampling, students from these colleges were selected by stratified random sampling, considering each class as a stratum and each student, a sampling unit. No sampling technique was used in selecting the 225 students, 50 were non-users (who never used any drug), 50 were past users, 75 current users (25 each of cannabis, Psychotropic drugs and opiates) and 50 addicts.

A self-administered questionnaire, which was pre-designed and pre-tested, was used for collection of information during the first stage of the study. This technique was considered appropriate for large sample surveys carried out at several centres because it eliminates personal bias and provides high reliability, it also provides operational ease. A semistructured interview schedule which was also pre-designed and pre-tested was used for the second stage of the study.

CHARACTERISTICS OF THE POPULATION STUDIED

Though the size of the sample studied was 4,166, we had to delete 159 proformas due to non-response or ill-response and only 4007 were analysed. The main characteristics of the 4007 students whose questionnaires were analysed are
as follows:

(1) **Sex**: Out of 4007 students, 3499 (87.32%) were males and 508 (12.68%) were females.

(2) **Age**: Maximum number of students were in the age group of 19-21 years (47.32%) followed by 16-18 years (28.5%). By and large, it may be said that the students belonged to the age-range of 16.24 years, as 90.43% of males and 85.24% of females came within this age range.

(3) **Course of Study**: The sample studies includes students studying in various general and professional courses. Maximum number of students are from the faculties of Arts and Social Sciences, followed by the faculty of Science. There were a good number of male students from 'commerce' also whereas a sizeable proportion of girls were from 'Education'. The number of girls was very low from the faculties of Medicine, Engineering, Agriculture, Commerce and Law.

(4) **Class of Study**: The sample studies includes 3027 (75.54%) undergraduate and 955 (23.83%) postgraduate students. The undergraduates were mostly from the I, II and III year classes. The proportion of undergraduates was 79.34% in males whereas in females the undergraduates were almost equally distributed.
SUMMARY OF FINDINGS

1. Prevalence and pattern of drug abuse:

The overall prevalence of drug abuse, i.e. the percentage of students using any one or more of the drugs studies is 34.77% in males and 15.35% in females. It is important to note that this prevalence rate includes the use of Tobacco and Painkillers, in addition to alcohol, cannabis and other drugs. 51.93% of males and 76.8% of females never tried any of these drugs.

Tobacco, painkillers, alcohol and cannabis, in that order are four groups of drugs commonly abused by male students, whereas in females, 'painkillers' is the only group of drugs whose abuse is common. The prevalence of abuse of other groups drugs is very low, i.e. 0.06%, among which the tranquilisers and barbiturates predominate.

Most of the students who use the drugs, use them only occasionally; regular users are fewer and addicts are very rare. In fact, it is tobacco alone which is regularly used by a significant proportion of students: there were 318 regular users of tobacco (9.1% of the total male sample) and 71 tobacco addicts (2.0% of the male sample studied). The percentage of regular users and addicts of other drugs are much lower than that of tobacco. There was no one addicted to opium, amphetamines, cocaine/heroin, pethidine and L.S.D. in the studied sample.
SOCIOLOGICAL STUDY OF NATURE AND INCIDENCE OF
DRUG ABUSE AMONG COLLEGE AND UNIVERSITY STUDENTS IN JAIPUR
Dr. Ram Ahuja

The study comprised of postgraduate and undergraduate students of 12 colleges and 6 faculties (Arts, Science, Commerce, Law, Medical and Engineering) of University of Rajasthan. Of the total student population of 15,844 students in all these colleges and university departments at the time of starting survey (August 1976) we interviewed, 4,291 students. Of these, 4,081 were interviewed in first-stage survey (termed as intensive sample). Both surveys were conducted through questionnaire method. When the main survey aimed at assessing the nature and extent of prevalence of drug use, the intensive survey was to establish the reliability and validity of the responses received in first-stage questionnaires and to explore some etiological hypotheses.

In the main sample, the students in each college were classified in terms of faculty and class/section and 25% of students from each faculty and/or class were selected as sample for our interviews. However, whole section/class was taken as a unit of study. In the second stage intensive survey, sample of 210 respondents was selected randomly from four categories of non-users (50), past-users (50), non-addict current users (100) and addict current users (10).
Boys and girls were given equal representation by taking one-fourth girls and three-fourth boys from each category.

The field work for first-stage survey was conducted from September 1976 to December 1976 while that of the second-stage survey was conducted in January-March 1977.

Of the 4,081 students studied in the main sample, 89.8% were undergraduates and 10.2% postgraduates; 75.8% males and 24.2% females, 63.8% from colleges/university departments attached with hostels and 36.2% from college/university departments without hostels, and 28.9% from Arts faculty, 25.6% from Commerce faculty, 17.8% from Science faculty, 16.7% from Law faculty, 6.3% from Medical faculty and 5.0% from Engineering faculty.

It was found that drugs generally taken by the students are recreational which do not produce any toxic handovers and for which no prohibition or social sanction against their use exists. Only 1.4% drug users bound by their insatiable craving make their pursuit of the drug a course of tragedy and pain. However, although drugs consumed by a large number are not addicting, the possibility of developing psychological dependency is high. Besides, taking of these drugs is bound to affect the socially acceptable values of the youth like hard work, struggle for survival and so forth. If with discarding these values and objectives, the youngsters start considering old goals and means as irrelevant, a
vast majority will have to face a dilemma of directionlessness. It is, therefore time to pay more attention to timid and emotionally immature college students who get into trouble with drugs, even if they are recreational.

Although drug use is highly related to the type of school in which educated upto higher secondary level, type of institution (with hostel or without hostel) in which getting education at present and medium of instruction in school career but it has no relationship with class of study, division obtained and interest in co-curricular and extra-curricular activities. From the family income point of view it was found that only fluent students tent to experiment drugs more than the students who come from lower-socio-economic strata of the population.

Taking all the variables pertaining to social characteristics of the drug users together, it was found that students in certain socio-economic categories run a relatively greater risk of encountering and using drugs. The survey points out a significant correlation of drug experience with five factors: (i) higher per capita income, (ii) adolescence and post-adolescence age group, (iii) English medium of instruction, (iv) education in convent and public schools and (v) education in institutions attached with hostels. On this basis, high income groups, post-adolescence age group; (16-21 years), English medium students, public
schools and hostel-attached institutions could be identified as "high risk" categories in drug usage.

It was generally found that a large number of students take drugs for pleasure, a small number use them to escape from unbearable and hopeless lives, and a still small number take them not to get away from life but to embrace it and to rebel against the structure and culture of their society, since drugs give them a sense of liberation from convention. Therefore it is necessary that (i) adequate education on drugs should be imparted to students (ii) target population for educational measures for prevention should be students of upper and middle classes who have just entered college/university and who reside in hostels away from the control of their parents, (iii) more attention should be given to students of professional courses like law, medicine, etc., (iv) method of imparting instruction should be such that there is a free exchange of valuable information and (v) information imparted should be one whereby students are able to discard a good deal of inaccurate and misleading knowledge. It is also noticed that change in physicians' attitude in prescribing too many drugs will go a long way in the control of drug abuse.
1.12 Need for the present study:

From the above discussion it is evident that the phenomenon of drug abuse is as old as the society itself. The practice of drug abuse continued throughout ages in the entire world since times immemorial and has arisen out of therapeutic and hedonistic considerations or as means of escape from the realities of life's stress and strains. The substances used for all these purposes have also varied from society to society and from time to time, depending upon the development of science and technology. But three of them seem to have survived from ancient times to this day, viz., alcohol, cannabis and opium and these still form the hard core of the drug problem. The psychotopic drugs have arrived on the scene very recently and fortunately play only a minor role at present in our country. Boumojon (1973) considers that every addict is a personality problem. Sometimes the individuals who abuse drugs are isolated, alienated from the mainstream of life and society and are basically anxious. The drugs that induce dependence are heroin, cannabis, amphetamines, barbiturates and hypnotics. Besides these, there are glue and solvent-sniffing which compose a very minor proportion in Great Britain. The drug abuse may concern one or more drugs. There are situations in which there is a multiple drug abuse. Abusers of drugs particularly young ones are now-a-days highly likely to use more than one drug. This is true for drug-users in Britain
and North America. The findings of Mitcheson and his colleagues on sedative abuse in heroin addicts as also the findings of Stinson and Ogborne in England and Carney and his colleagues in Dublin support the above said contention. The Gross point study in Michigan (Levengood, Lowinger and Schooff, (1973) identified 300 children as heroin users. Sixty of them were interviewed and it was found that heroin use was preceded by the use of marijuana, barbiturates, LSD and amphetamines before heroin was used.

With the advancement of industrialisation, broken home conditions and due to other socio-economic and psychological factors, the abuse of drug by general public as also students is likely to continue indefinitely in spite of the legal, curative and preventive measures taken by the Government as well as the therapeutic institutions and personnel. One may like to ask why then the need for the study of drug abuse. The purpose of the present study is to study various factors responsible for drug abuse with reference to students. Although several studies are conducted both in India and abroad, very limited studies are available on the psychological correlates of drug abuse. Separate studies are available on social correlates of drug abuse as well as on psychological correlates of drug abuse which are very limited in number. Extensive research work covering both social and psychological correlates of drug abuse are not available.
Even if they are available scientific research particularly using personality test like cettel 16 PF was used in rare cases. The investigator felt that there is a great need to conduct both the aspects of sociological and psychological correlates of drug abuse.

Studies conducted of late became of limited use as they do not apply to the present day student community in the year 1984 who are being exposed to variety of social, psychological and economic factors. There is hardly an information available on the type of drugs they are using and the psychological and social variables of these drug abusers. The present study would enable to examine these aspects both from the point of view of psychological aspect and that of social aspect which will be useful in making out proper diagnosis of the drug abusers. The present study is aimed at focussing the correct diagnosis and finding out psychological and social correlates which will be of great help in working out a short-time and long-term programme for the prevention and cure of the drug abuse. Several studies point out that the use of hard drugs like cocaine and heroine or L.S.D. among students is not much in India. Since these studies were conducted many years ago, it is doubtful whether there is any relevancy to the present day student population. The study, however, would reveal whether the drug abuse has increased or decreased with the
passage of time which would enable to make a comparative study of drug abusers. Student community is the cream of the nation. Even if drug abuse is reduced, then also the study would reveal potential, psychological and social factors which would determine the pattern of drug abuse among the student community. Most of the studies have not followed sampling procedures for selecting the respondents make generalisation difficult. Further there is a need for repeat study taking into account the changed factors and emerging trends in drug abuse.

It would be evident from the above discussion that no single study or approach would be in a position to provide a dependable understanding of the phenomenon of drug addicts. What is, therefore, needed is a study of phenomenon from various angles. However, such attempt should be made in relation to social and psychological context.