CHAPTER II

REVIEW OF LITERATURES
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Review of literatures, for the sake of convenience, may be considered under the following aspects:

1. Literatures on the development of drug abusing behaviours.

2. Literatures on the effects of drug addiction.
1. **Literatures on the Development of Drug Abusing Behaviours:**

Researches have shown that drug abusing behaviours are known to vary with age, marital status, environment, heredity and class differences.

Drug abuse, other than alcohol is reported to have occurred commonly in young adult groups or adolescents. Thousands and thousands of pupils passing through the adolescent phase in schools, streets and homes have fallen pray to drug abuse perhaps due to lack of harmony in their nuclear family, value crisis, ego-hustle, socio-economic problems, influence of peer group, generation gap and many other factors. Consequently, the drug monster is stalking schools in the majority of the developing countries in the world.

The Presidential Commission of Law Enforcement and Administration of Justice, U.S.A. (1968) had reported that in American condition, the drug abusers had been between fifteen to sixteen years.
Schumann (1968) conducted a survey on the American youths of fifteen years in their nature of life and the world about them, and found that a large number of college students were not interested in the political workings of the land, rather they were found more attracted towards the use of unauthorised drugs, alcohol and tobacco.

In a study of 222 drug addicts in Chester, Clatt (1970) found that the average age of the males to be below forty years and the females to be forty years.

Ritson and Massal (1970) made a study in Cambridge-shire on alcoholism and drug addiction, and reported that many persons below the age of thirty were found to be alcoholics and many other young people were also found to be abusing other drugs in addiction to alcohol.

Frosh et al. (1971) studied on untowards reactions to drug use among a selected group of young adolescents, and found that long use of alcohol or any other drug induced alcoholic or drug dependency. The physical dependence produced by the repeated use of alcohol or any other dependency producing drug, became evident on sudden withdrawal of the drug.
The study made by Elnager (1971) on addiction to alcohol in the rural population in West Bengal had shown that 13/1000 were alcohol and drug addicts.

Dayal (1972) studied a population of 5000 students of Delhi University, and reported that almost 4 per cent students had drug dependence of one kind or the other.

People who were dependent on other drugs also misused barbiturates. This was confirmed by the studies of Mitcheson et al. (1972). They documented the increase in the abuse of barbiturates amongst heroin addicts. It was reported that 95 per cent of the addicts had misused barbiturates and 75 per cent of them had used them daily at some time; 80 per cent of them had injected barbiturates. Data for their studies were collected from selected European Countries.

Dubé (1972) reported that drug abuse had already assumed alarming proportion in Northern India, particularly in Manipur. He also studied drug addiction in the city of Agra and reported that people in general were addicted to one drug or the other in 22.7/1000 cases.
Bellinger (1973) while examining the case of 378 patients in London clinics had found that 104 (27.5 per cent) were drug dependents. Of these receiving barbiturates for the four weeks prior to admission, 91 per cent were considered to be dependent on the group of drugs; methaqualone - produced dependency occurred on 80 per cent and nitroveram (mogadon) dependency in 71 per cent. In the subjects of research, dependence on prescribed drugs increased with the age of the patients upto 60 - 69 years old group in which 46 per cent were dependent on some drug, 5 per cent of those subjects below the age of 30 were drug dependent. Further, they reported that chronic use of LSD and sudden withdrawal of it produced congenital abnormalities. Bellinger identified abnormal chromosomes in women who had taken LSD and given birth to abnormal children.

Powell (1973) investigated the behaviour of the occasional heroin users and reported that the users were highly anxious, highly strong individuals but having intelligence above the average. But they were not scoring well on maturity, social responsibility, and social interaction scale.
Fedrick et al. (1973) carried out an extensive research on the relationship between the drug addiction and self-destructive behaviour. In their comparison between 268 normal persons and 98 hard core addicts, they found that there was significant evidence of depression among the addicts and a deference in their attitude towards violence and death, especially when they withdrew the drug.

Deb and Jindal (1974) studied addiction to alcohol among the adult male population in the villages around Ludhiana and found a prevalence rate of alcohol to be 741/1000 among the adult males.

Deb also studied drug abuse in the general population of Punjab and found 54.3 per cent of urban sample and 40 per cent of rural sample to have abused drugs like LSD, Heroin, etc.

Chitnis (1974) reported amphetamines prevalence rate of 19.7 per cent among the students of Bombay University.

In 1974, Brill and Richard studied the affection of psycho-social adaptation over a period of time of marijuana abuse by students. They reported that regular use of the drug had a delirious effect on mental health of the persons.
In a study made by Mintz et al. (1974) on sexual behaviour of the heroin abusers, it was revealed that premature ejaculation was a frequent complaint. Greater difficulty in sexual performance among the heroin abusers became conspicuous.

Mitzner (1974) investigated the problems and patterns of drug abuse among college students, and reported that the frequency of amphetamines, barbiturates, heroin, LSD and marijuana abuse greatly declined after his initial experimentation, but the percentage of individuals continuing to use marijuana remained quite high.

Dube (1975) studied a population of 564 medical students of Agra and reported cannabis prevalence rate of 56.21 per cent among medical students.

Stinson and Ogborne (1975) studied drug addiction in relation to social conditions, and found that heroin addicts in particular, were found employed and only 26 per cent were wholly supporting themselves financially. The backgrounds of the heroin addicts in this study were found to show an excess of parents in the professional and managerial groups.
They also found that marijuana use initially was centered on the middle class and young people in college and university, and later, it was spread to young people of working class status.

Yet, in another survey conducted by Stinson and Ogborne on a representative sample of LSD addict in London Clinics, it was found that LSD use did not appear to be cor-related with the illicit use of other drugs; 74 per cent of heroin abusers had tried LSD, although 9 per cent used it lately.

Gossett et al. (1975) reported that one-third of the American School Children, in his study, had taken drinks by the age of twelve.

Smart (1976) reported that between one and three per cent of school children aged between twelve to nineteen in Canada had tried LSD on at least one occasion.

Mohan and Aroa (1976) made a survey in Delhi Schools to find out the pattern of drug abuse, and found that out of 2,032 pupils (1,192 boys and 840 girls), 49 per cent used
pain killers, 12.8 per cent were addicted to alcohol, 6.48 per cent to tobacco, 3.5 per cent to cannabis, 0.4 per cent to amphetamines, LSD and other drugs.

Muttagi (1976) investigated the pattern of drug abuse among college students in Bombay, and reported the following:

Table No. 1

Pattern of Drug Abuse Among College Students in Bombay

(Muttagi, PK, 1976)

<table>
<thead>
<tr>
<th>Type of usage</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never tried</td>
<td>1203</td>
<td>1200</td>
<td>2403</td>
<td>(57.89)</td>
</tr>
<tr>
<td>Discontinued</td>
<td>191</td>
<td>90</td>
<td>281</td>
<td>(6.77 )</td>
</tr>
<tr>
<td>Alcohol/Tobacco or both</td>
<td>503</td>
<td>115</td>
<td>618</td>
<td>(14.89)</td>
</tr>
<tr>
<td>Alcohol/Tobacco or both + one drug</td>
<td>207</td>
<td>78</td>
<td>285</td>
<td>(6.87 )</td>
</tr>
<tr>
<td>Only one drug</td>
<td>163</td>
<td>282</td>
<td>445</td>
<td>(10.72)</td>
</tr>
<tr>
<td>More than one drug</td>
<td>14</td>
<td>13</td>
<td>27</td>
<td>(0.65 )</td>
</tr>
<tr>
<td>TOTAL =</td>
<td>2334</td>
<td>1817</td>
<td>4151</td>
<td></td>
</tr>
</tbody>
</table>
Mohain et al. (1977) studied the prevalence rate and pattern of drug abuse among students of Delhi University. 576 students were covered in the study. The study indicated the prevalence of drug abuse as 32.2 per cent. The drugs of abuse included tobacco, alcohol, cannabis, amphetamines, barbiturates, tranquillizers and anti-depressants.

The studies made by Verma et al. (1977) and the Ministry of Welfare, Government of India (1977) on the drug abuse among university students, have shown that the prevalence rate for tobacco was highest in Tamil Nadu (15.2%) and lowest in Hyderabad (6.3%). The prevalence rate for alcohol was highest among students in Bombay University (15.1%) and lowest among university students in Hyderabad (6.3%). For pain killers, the prevalence rate was highest in Delhi (20.9%) and lowest in Bombay and Tamil Nadu (1.2%). The prevalence rate for tranquillizers was highest in Delhi (2.9%) and lowest in Bombay and Tamil Nadu (10.9%). The highest rate of cannabis was found in Varanasi (10.9%). Cocaine abuse was found to be negligible in all the above centres.

Pierce James (1977) estimated that about 30 per 100,000 of the total population in Britain were regular users of alcohol and that 10 per cent of the student population were abusers of cannabis.
Young (1977) reported that the most popular drug, amongst all the hippie groups in the world had been marijuaana.

Young compared also the nature of drug dependency in various cultures and had shown the variation of the features from one country to another. He described three kinds of drug abusing groups of individuals differing from each other in their behaviours. The first group consisted of individuals in the sort of drug taking that was normal for the society such as taking of tobacco and alcohol. The second category of persons were called "Tame" deviant group who did not do much harm to the society. The third group of individuals was extreme to both the above two groups in that they were described as dirty, un-employable, sexually acting cut group that started with "Soft Drugs" and proceeded inevitably to "Hard Drug" with high prospects of an early death. Along with these features, the addict would be seen as a weak person who had become not only a sexual menace under the influence of drugs but also a source of 'contagion' that affected other young people when contacted with him.

In 1978 Mohan et al. studied drug abuse among school students in Delhi. The sample of their studies consisted of 225 students, and they used stratified sample technique.
Their reports indicated that 34.2 per cent of the student population had taken drugs like tobacco, alcohol, cannabis, tranquillizers, amphetamines, sedatives and opium. The highest prevalence rate occurred among class IXth and Xth students.

Yet, in another study conducted by Mohon (1978) in a rural population in Punjab, it was shown that out of 2032 (1192 boys and 840 girls) students, 49% students used painkillers, 12.1% alcohol, 6.4% tobacco and tranquillizers, 3.5% cannabis, 0.4% amphetamines, barbiturates and 1% pethidine, opium, cocaine. Drug use was more among boys than girls.

Sethi et al. (1978) investigated the prevalence and nature of drug abuse among students of Lucknow city. The sample included 1713 students of the age group 21 - 25 years, migrated from rural areas with their parental income ranging from 501-1000 p.m. and studying in Degree and Law Colleges. The results of their studies showed that 11.5 per cent of the students were drug abusers and they were abusing commonly the drugs like alcohol, bhang and minor tranquillizers.
Gurmeet Singh (1978) observed that in a rural population of Sangrur district of Punjab, 299.6/1000 persons above the age of 10 years had used tobacco, alcohol, cannabis, opium, etc.

Ahuja (1978) took up a study on drug abuse by School, College and University students in Jaisalmer and reported that the highest use of drugs (including alcohol and tobacco) was found amongst Law student (26.14%), followed by Commerce (23.62%), Arts (17.49%), Medical (14.02%), Science (13.61%) and Engineering (4.56%) students. Ahuja explained the background characteristics of the drug abusers as follows:

1. Use of drugs does not vary with the class of study, i.e. undergraduate use drugs as much as the postgraduate;

2. Education in public schools increases the use of drugs among girls;

3. Educational institutions with hostels attached to them produce more drug users than those without hostels;

4. Academic frustration is not an important cause of drug use, i.e., high or low division in examination does not affect the incidence of drug usage;
5. There is no relationship between drug use and lack of interest in co-curricular and extra-curricular activities;

6. Drug use is higher in the upper income group, or drug use increases with increase in per capita income, or affluent youth getting a high amount of pocket money from their parents tend to experiment with drugs more than the youths from the lower income groups;

7. Drug users are much dependent on their families as non-users;

8. Though drug consumption is chiefly an urban phenomenon and incidence of drug abuse is found more among students with an urban background than those with a rural one, it cannot be hypothesised that urban upbringing is the only or an important cause of drug abuse; and

9. Drug abuse is not linked with religion, caste or language, i.e., drug using deviant behaviour attracts students irrespective of their social backgrounds.

Sewa Singh et al. (1978) studied the role of family environment in drug use behaviour. Their findings indicated that drug abusers were mostly coming from families where the parents were smokers and drug addicts. Edward and Burke (1978) investigated the "drug usage reported effects in a
selected adolescent population", and found that the major population of adolescents abused drugs for the sake of pleasure and out of curiosity.

According to Edwards et al. (1979), alcoholic men out numbered alcoholic women by 4 or 5 to 1 per cent in the world. It was reported that men usually drank more frequently than women and a greater proportion of the total male population drank more than that of the females. Further investigation by Edwards and Hensman had shown that more and more upper-middle class population in the world had been coming out with the diagnosis of alcoholism, and the people whose work brought frequent contact with alcohol also tended to develop alcoholism more commonly than people whose work was totally divorced from alcohol.

With regard to the other drug abuse, as per their reports, the male addicts out numbered female addicts except for the misuse of barbiturates and amphetamines by the middle-aged persons. The root cause of such addiction lay in psychological as well as physiological factors.
Hughes et al. (1979) reported that drug abuse, and particularly narcotic abuse was concentrated in the lower socio-economic group of families. Three important factors were chosen for their investigation viz., (i) presence or absence of father in the family; (ii) influence of socio-economic status; and (iii) problems faced by the children in the schools.

The findings of Hughes et al. were confirmed by Schumann and Jaff (1979) who worked on the social structure of a heroin coping community in America. They added to say that children from broken homes were not likely to complete their education but were likely to start drinking or abusing other drugs.

Gurmeet Singh (1979) investigated drug abuse among medical students and found that a number of social and developmental factors were closely linked to drug abuse. He asserted that the academic performance of students was retarded.

Sethi and Trivedi (1979) reported that drug addiction or alcoholism in rural areas of India had already assumed alarming proportions due to the influence of low economic conditions and unhealthy home environment. The table given below will illustrate the fact;
<table>
<thead>
<tr>
<th>Age/Years</th>
<th>%</th>
<th>Caste/Religion</th>
<th>%</th>
<th>Edn.</th>
<th>%</th>
<th>Marital</th>
<th>%</th>
<th>Rerr.</th>
<th>Sta.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-15</td>
<td>1.4</td>
<td>Hindu</td>
<td>30</td>
<td>Illit</td>
<td>88.7</td>
<td>Married</td>
<td>93.8</td>
<td>150</td>
<td>47.0</td>
</tr>
<tr>
<td>16-24</td>
<td>6.8</td>
<td>Backward</td>
<td>18.9</td>
<td>Middle</td>
<td>7.3</td>
<td>Single</td>
<td>1.4</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>150</td>
<td>250</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21.4</td>
</tr>
<tr>
<td>15-34</td>
<td>15.8</td>
<td>S/Caste</td>
<td>High</td>
<td></td>
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<td>251</td>
<td>350</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>99.0</td>
<td></td>
</tr>
<tr>
<td>35-44</td>
<td>35.5</td>
<td>S/Tribe</td>
<td>15.4</td>
<td>School</td>
<td>2.4</td>
<td>Widow</td>
<td>4.8</td>
<td></td>
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<td></td>
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<td></td>
<td>351</td>
<td>450</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.3</td>
<td></td>
</tr>
<tr>
<td>45-54</td>
<td>12.4</td>
<td>Muslim</td>
<td>0.6</td>
<td>Inter</td>
<td>1.1</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td>451</td>
<td>550</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.9</td>
<td></td>
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<tr>
<td>56-64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>551</td>
<td>6.5</td>
</tr>
<tr>
<td>+ 65</td>
<td>16.8</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Chakraborty et al. (1980) investigated drug abuse among medical students of Calcutta University, and found that in general, 3.2 per cent were regular drug users; mostly first year and final year students were using drugs for experimentation and curiosity. The commonly used drugs included alcohol, cannabis and barbiturates.

Singh and Singh (1980) studied the extent of drug abuse, its frequency, age of onset and other causative factors of drug abuse among 520 students of Punjab University. It was found that most of the older students who were living away from home were abusing alcohol and tobacco commonly.

Deveny and Wilson (1980) reported that in Toronto, 129 (15 per cent) of the alcoholics were abusing other drugs too, and the commonest being barbiturates which were abused by 70 per cent of those persons. The barbiturates abusers tended to be younger than the non-barbiturate users, and in the drug abusing group, the number of women addicts surpassed the male number of addicts.

Mohon (1981) worked on the prevalence rate of different drugs at various cities in India, and reported the following figures:
Table No. 3

Percentage of prevalence rate of different drugs at various Indian cities. (Mohon D., 1981)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Bombay (Mumbai)</th>
<th>Madras (Chennai)</th>
<th>Delhi</th>
<th>Jaipur</th>
<th>Hydabd.</th>
<th>Varanasi</th>
<th>Sagar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>15.1</td>
<td>9.5</td>
<td>12.2</td>
<td>9.8</td>
<td>11.8</td>
<td>10.4</td>
<td>9.3</td>
</tr>
<tr>
<td>Tobacco</td>
<td>8.1</td>
<td>15.2</td>
<td>10.0</td>
<td>9.2</td>
<td>8.1</td>
<td>15.1</td>
<td>10.9</td>
</tr>
<tr>
<td>Painkillers</td>
<td>12.6</td>
<td>1.2</td>
<td>20.9</td>
<td>2.3</td>
<td>5.2</td>
<td>13.8</td>
<td>15.2</td>
</tr>
<tr>
<td>Cannabis</td>
<td>0.4</td>
<td>1.5</td>
<td>1.3</td>
<td>0.9</td>
<td>1.0</td>
<td>0.9</td>
<td>8.4</td>
</tr>
<tr>
<td>Opium</td>
<td>0.4</td>
<td>0.03</td>
<td>0.5</td>
<td>0.2</td>
<td>0.1</td>
<td>0.9</td>
<td>0.3</td>
</tr>
<tr>
<td>Tranquilizers</td>
<td>1.0</td>
<td>1.0</td>
<td>2.9</td>
<td>1.2</td>
<td>1.6</td>
<td>0.9</td>
<td>1.2</td>
</tr>
<tr>
<td>Barbiturate</td>
<td>0.6</td>
<td>1.4</td>
<td>0.6</td>
<td>0.4</td>
<td>0.5</td>
<td>2.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>0.2</td>
<td>0.4</td>
<td>0.3</td>
<td>0.5</td>
<td>0.7</td>
<td>1.8</td>
<td>0.1</td>
</tr>
<tr>
<td>LSD</td>
<td>0.07</td>
<td>0.4</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
<td>1.3</td>
<td>0.2</td>
</tr>
<tr>
<td>Cocaine</td>
<td>0.05</td>
<td>-</td>
<td>0.03</td>
<td>0.09</td>
<td>0.1</td>
<td>0.9</td>
<td>0.1</td>
</tr>
<tr>
<td>Pethidine</td>
<td>0.05</td>
<td>0.08</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
<td>0.06</td>
<td>0.1</td>
</tr>
</tbody>
</table>

The alcohol abuse ranged from 15% in Bombay (highest) to 9.3% in Sagar (lowest). Rate of tobacco abusers was highest in Madras (15.2%) and lowest (8.1%) in Bombay. Cocaine abuse was negligible in all centres, and so was the case with LSD.
Carney et al. (1981) studied 50 drug-dependent people between the ages of fifteen and twenty-four in Dublin, and of whom 42 were male: 38 per cent of them were using cannabis and 28 per cent, LSD. Further investigation revealed that the spread of LSD in Dublin recently was similar to the spread of amphetamines and preludin abuse in Sweden.

Hindmarch (1982) reported that 10 per cent of drug abusing English students aged sixteen to eighteen took LSD and one in three of the drug abusing University students had also abused LSD. He also studied cannabis abusers in a group of students in Britain and found that 34 per cent of these students had also used cannabis. His conclusion was that a regular user of LSD or cannabis or any other drug would build up a tolerance for drug requiring an increased dosage to produce the desired effect.

Bewley (1982) studied a large sample of population of drug abusers in United Kingdom, and reported that between one and five people per 100,000 used LSD.
Le Dain Commission (1983) investigated illegal use of cannabis by school children aged 12 to 19, College and University students and a sample of house-holders. The results of the investigation showed a marked increase in cannabis abuse from 1966 onwards. The figures increased to 750,000 by 1970 in a population of approximately 22 lakhs.

Whitehead et al. (1983) studied on the multiple drug abuse among marijuana smokers in Eastern Canada, and found that amongst marijuana abusing school-children, almost one in five had also sniffed glue. It was also reported that the use of marijuana was closely correlated with the use of a large range of other drugs. Over 80 per cent of users had also taken alcohol and tobacco compared with approximately 40 per cent of non-users. Barbiturates, tranquilizers, LSD, stimulants, hallucinogens and opiates were used by 20 - 25 per cent of marijuana users and 0.6 - 0.8 of non-users. Sharp differences occurred with regard to LSD, other hallucinogens and the opiates in which the likelihood of a marijuana user taking another drug was increased by 25 to 60 times.

Correra et al. (1983) studied 14000 heads of families who were selected randomly to establish the family structure and the stressful events, which are likely to
lead to the members taking to drugs. It was concluded that the likelihood of taking to drugs was more in nuclear families than the extended ones.

In a series of studies made by Davis and Stacey (1984) on young alcoholics in Glasgow, it was found that these boys had taken drinks by the age of fourteen (with as many girls). Interview with such boys and girls revealed that their parents were the first to introduce them to alcohol in the home environment.

Lipp and Benson (1985) investigated the use of marijuana, alcohol and tobacco in a group of 1,315 physicians in America, and reported that 37 per cent misused marijuana, 25 per cent misused other drugs.

Cohen (1985) studied cocaine abuse in America, and reported that its consumption in the United States had soared from 31 metric tons (34.1 short tons) in 1983 to 72.3 metric tons in 1985.
Varma et al. (1985), Ajwani et al. (1985) reported use of alcohol by better educated use of crude opium by persons hailing from rural backgrounds and use of heroin by a comparatively younger age group.

Mc Aree et al. (1985) studied on the personality factors and patterns of drug abuse in college students in America, and found that out of 100 drug abusers, 33 abused only marijuana, 19 abused multiple drugs and 48 gross multiple drug and the multiple drug takers, even if infrequent in their habit, showed marked divergence from normal groups.

According to the 1985 National Survey of "Drug Abuse", 22.2 million people said that they had tried cocaine (or crack) at least once, while 5.8 million people said that they had used it in the past 30 days as a sort of pleasure seeking device.

Adlaf et al. (1985) studied the impact of religion, or religious factors on the drug use, including use of alcohol, cannabis and other illicit drugs. After interviewing more than a thousand male and female students of the age group of 11 to 20 years, found an insignificant relationship
between religious affiliation and drug use. However, non-affiliated students used drug less frequently than did Protestant or Roman Catholic students. The effect of religiosity was less on males but more on females.

Lindgren and Williams (1986) carried out a survey of drinking and drug abusing behaviours on a nationally representative sample of 3,201 adults using a random location technique and found that the number of frequent drinkers and drug abusers was higher in young, single men, and decreased with social class.

Jiloha and Munjal (1986) investigated the problems of addict child labourers in Delhi, and found that out of 733 heroin addicts between 1980 to 1984, 157 (21.41%) were males in the age group of 10 - 18 years, smoking heroin in cigarrates. They also reported that out of 157 adolescent heroin smokers 49 (31.51%) were studying in schools, 65 (41.40%) were unemployed and school drop-outs, and 43 (27.38%) were working as helpers in hotels, travel agencies, etc.

According to Bransky (1986), the frequently used drugs in the early stages had been amphetamines and cannabis in America. In early days, opiates and amphetamines were largely prescribed for patients and they became depended on
the drug prescribed. We reported that at the age of fifteen, 28 per cent of the male in his series had used cannabis, 35 per cent had taken amphetamines, whilst at the age of 25 almost all had abused cannabis, stimulants, heroin and other drugs.

Smart et al. (1986) carried out an intensive research on the use of marijuana by school-children in U.K., and reported that in 1966, 6.7 per cent of school-children aged 12 to 19 used the drug and this increased to 18.3 per cent in 1970 and to 20.9 per cent in 1972. Over the same period, there was an increase in the use of alcohol in the group studied from 46.3 per cent in 1968 to 70.6 per cent in 1972. The reason assigned to this increase in the number of drug addicts was that alcohol, heroin or a substitute had been available to any addict, merely by his going to a designated centre or a pedlar.

A study by the Journal of the American Medical Association (1986) showed that 6.6 per cent of American high school students, had at least once taken steroids in tablet or injection form with the notion of gaining their physique in lifting weights, etc.
A team of Indian Scientists conducted a survey in 1986 at the instance of the Ministry of Welfare and the University Grants Commission, and found that between 1976 and 1986 addiction to alcohol and tobacco had declined but the number of heroin, opium and pethidine, morphine abusers had increased. The Centres surveyed were Bangalore, Bombay, Calcutta, Hyderabad, Jabalpur, Madras, Jaipur and Varanasi.

The team, further, reported that the greatest incidence of addiction was to painkillers. In Delhi, Bombay and Jaipur, those using painkillers formed the single largest chunk of drug addicts. This was also true of the other cities surveyed.

Strauss and Bacon (1986) reported that the onset of college drinking and drug abusing behaviours depended on parental examples. This finding was confirmed by that of Bacon and Jones (1986) who found that adolescent drinking patterns reflected those of their parents. They pointed out that restrictive environment led to the less use of alcohol and other drugs, whereas permissive environment induced free use of alcohol and other drugs, however, in a more controlled manner.
At the age of fourteen, consumption of alcohol and other drugs occurred at weddings and other social functions at home or outside the home. And those who had more money to spend on alcohol also had money to spend on cigarettes and stimulants.

There are reports on social factors which cause or influence drug dependence. Many researches have been carried out on this aspect in different countries, reporting that the taking of enough of the drug to produce physical dependence does, however, depend in turn, on the person taking the drug. Different cultures have widely varying rates of alcoholism and drug addiction. The rates vary from country to country and between ethnic and religious groups within countries.

According to Devendra Mohon (1986), the major contributing factors in drug abuse in the school system, especially at the +2 stage in India, had been the inter-personal and socio-demographic variables. He also opined that the three factors viz., society, school and home worked at the root of drug addiction.
1) **Conflict Values in the Society:** Modern Youths in third world countries like India, Sri Lanka, Bangladesh and Vietnam had been in the midst of an overwhelming "Values Crisis". They had been put to confusion and conflict under the influence of Western ideals. This resulted into frustration, boredom in life and a feeling of helplessness. As a resort to these, the youths started abusing drugs.

2) **School Environment:** Lack of conducive environment for interaction in Schools on account of maladjusted teachers and heavy curriculum-load could induce the students to develop a liking for drug abuse rather than an interest for learning.

3) **Home (Generation gap):** With the changes taking place in the structure of the modern society, there appeared a difference in values between the younger and the older generations. The younger generation would be quick to adapt to the changing patterns of life styles, while the elders would fail to adapt so many a times. Changes in life-styles, new avenue, weird ideas would thrill the adolescent mind. On the other hand, the adults would cling rigidly to their
old accustomed ways and traditional values. The so-called "Generation Gap" between parents and adolescents appeared. Too much interference or continuous indifference by parents would provoke a spirit of defiance in young adults. In their frustration from home or school, they would find drugs as conduct to cope with.

On one hand, researches have also begun to describe a segment of the adult population misusing or abusing drugs. The extent of drug use and misuse has major economic as well as health importance for both the older adult and for society.

U.S.A. scientists conducted a national survey in 1986, and reported that 65 per cent of the adults abused the drugs to have a good time with friends (35%) and the rest used the drugs to see what they were like.

Hager et al. (1986) reported that the average persons over 60 consumed five drugs a day and this became a hazardous practice to the elderly.
Cooper (1987) reported that 90 per cent of the elderly in his sample of studies in America, had adverse reactions to the drugs they took, with 20 per cent of those cases requiring hospitalization.

Caranases (1987) studied on drug induced illness leading to hospitalization in Washington, and reported that adverse drug reactions were responsible for from 3 per cent to 5 per cent of all hospital admissions with a higher proportion seen among the aged.

According to Caranases a 75 years old person had a seven times greater chance of an adverse reaction than someone 25 years of age and the incidence of side effects among the 70 - 79 years old population would be triple that of the 40 - 49 years old group.

Barry (1987) had examined the role of socio-cultural factors in alcoholism and drug addiction in two nations. He opined that the motivation of the individual to get drunk or addicted was not sufficient by itself for the development of alcoholism or drug addiction. It was also reported that America and Britain had severe problems with alcohol and
heroin in recent years. Similar problems were faced by the Italian, Jewish and Swedes people with the abuse of alcohol and drug. It was deduced that socio-cultural factors had influenced young minds to resort to drugs.

Sheppard et al. (1987) studied on the addiction personality of a large group of addicts, and postulated that the development of the trait in human species was one of the causatively important factors in addictive disorders. The other factor could as well be accidental exposure, peer pressure and sensation seeking.

Sheppard investigated 336 male narcotic users in an American Clinic, and found that 33 per cent showed sociopathic personality structure, 30 per cent showed psychotic features, 16 per cent narcotic traits, 2 per cent organic brain disorder responses; the rest (6 per cent) revealed absence of psychopathology.

Dollard and Miller (1987) interpreted alcoholic drinking and drug abuse in terms of anxiety reduction leading to the excessive use of alcohol or any other drug.
Hikler and Rasor (1968) considered that the majority of narcotic addicts developed two forms of behaviour viz., neurotic and psychopathic. Neurotic persons sought alcohol or any other drug to cure anxiety. The psychopathists used drugs for the relief of mental depression.

Fejer and Smart (1968) conducted a research on school children in three areas of Southern Ontario using a measure of anxiety based on the "Tylor Manifest Anxiety Scale" to examine the difference between admitted drug takers and non-takers. Analysis of the data indicated that anxiety scores scored the list. The highest overall anxiety ratings came from the glue and solvent abusers, followed by the stimulants users, barbiturates and tranquilizers. Users of tobacco, alcohol and marijuana were also very high but they were found less anxious than the previous category. Moderately high anxiety was also shown by the users of opiate, while LSD users showed lowest level of anxiety. It was further reported that marijuana, tranquilizer and barbiturate users had on average four times the prevalence of past psychological treatment as non-users. There had been an increase of 500 per cent in the case of LSD, speed and opiate users. Most long-lasting psychological problems were created by the 'speed' users.
The conclusion arrived at, after their study was that people who were tense, depressed, emotionally dependent, psychopathic or uncertain of the sexual role, were particularly liable to become drug addicts.

Guta et al. (1988) reported that medical students were having an easy access to drugs misuse. The sample of their study consisted of 860 medical students in Delhi. Number of students abusing different types of drugs was found as follows:

<table>
<thead>
<tr>
<th>No. of Students examined</th>
<th>Drug</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>Ganja</td>
</tr>
<tr>
<td>16</td>
<td>Charas</td>
</tr>
<tr>
<td>14</td>
<td>Shang</td>
</tr>
<tr>
<td>11</td>
<td>Amphetamines</td>
</tr>
<tr>
<td>8</td>
<td>Diazepam</td>
</tr>
<tr>
<td>11</td>
<td>Mandrax</td>
</tr>
<tr>
<td>7</td>
<td>Barbiturates</td>
</tr>
<tr>
<td>3</td>
<td>LSD</td>
</tr>
<tr>
<td>2</td>
<td>Opium</td>
</tr>
<tr>
<td>6</td>
<td>Heroin</td>
</tr>
<tr>
<td>3</td>
<td>Morphine</td>
</tr>
<tr>
<td>1</td>
<td>Pethidine</td>
</tr>
</tbody>
</table>

TOTAL = 120
The Indian Medical Association (Manipur) conducted a survey in 1988 and highlighted that intravenous drug abusers were limited to 10,000 addicts, in Manipur; 1,30,000 persons were addicted to alcohol, 13,000 to Canja, 4,500 to phencydyle, 1,650 to tablets such as calmose, Mandrex, and other mood allivators, 600 to opium and 150 to morphine.

Recently, Mittal (1990) reported that drug abuse had caused serious problem in almost every field of life and at all levels—personal, domestic, social, national and international. According to him, the worst affected part of the world by drug abuse is the U.S.A. He reported further, that in a survey made in 1987, 5.5 per cent high school students admitted of trying smack, 14 per cent used cocaine in other forms. Among young adults 6.7 per cent have tried crack and 40 per cent cocaine; yet in another survey made in 1990, it was reported that there were 14.5 million users of cocaine and crack in the U.S.A., besides millions of casual users.

Jellinek (1989) investigated the stages of drug addict and of alcohol addiction occurring in human species. In describing the phases of drug addict, he used the first five letters of the Greek alphabet to level the sub-types of alcoholism and drug addiction; alpha, beta, gamma, delta and
epsilon. Alpha addiction consisted of psychological dependence on the effects of alcohol or drug to control anxiety, tension, depression or other physical or emotional depression. No symptoms of loss of control or failure to abstain from alcohol or drug occurred in this case.

In beta alcoholism or drug addiction, the person starts depending physically and psychologically on the drug without which the person finds difficulty to spend the day. He or she loses control of self many a times and develops aggressive behaviour and quarrelsome nature.

In gamma alcoholism or drug addiction, the addict increased tolerance to alcohol or drug, leading to serious consequences. This further led to the excessive use of drug every day so that the person became delta addict.

In epsilon alcoholism or drug addiction, the person failed to control himself or herself in the use of the drug again and again.
According to Jellinek, the average development of the disease of alcoholism or drug addiction included the following:

**Pre-addict Stage:**

In this phase an increase in tolerance for drug produced a decrease in the effectiveness of drug as a tranquilizer.

**Prodromal Stage:**

Here a habitual alcoholic or drug user used alcohol or drug as a means of providing relief and after some years of continuous use of alcohol or drug, the consumer experiences more time abusing the drug, more time thinking about abusing the drug in larger dose to achieve the same effect. He experiences great
deal of pressure in the use of the drug and then adopts abnormal behaviour. His tolerance of drug increases, more time and money are spent in the pursuit of drug, and this leads to family quarrels, the breakdown of the old friends and difficulties in thinking and at work. At this stage, guilt feelings and depressions are developed, followed by the occurrence of transient loss of memory for the events of a few hours or even a day or more.

**The Crucial Stage:** This stage is marked by loss of control over excessive drinking or using of drugs. The person is not able to conceal the effects of his drinking or abusing drug before the people around him. He may express a fear that he is about to go mad. He can no longer stop abusing drug or drinking. He continues the habit until he is so sick or he runs out of money and people from whom to borrow. At this stage he may express an outburst behaviour. If he is already married, then the ideas of his wife’s infidelity occur in him. He skips his breakfast and develops a feeling of shakiness inside himself.
The Chronic Stage: In this stage, physical disorders become conspicuous in the alcoholic or drug addict. Here, all the normal social controls against drunkenness or addicteeness are ineffective. Even though he realises that drug abuse as the main cause of his problems, he cannot shunt off the alcohol or the drug, and he awaits for the last pulse of his life.

According to Kessel and Walton (1990), five groups of drug addicts were there in many parts of the globe. These included the immature, the self-indulgent, the person with sexual problems, the self-punitive and the stressed-personality types. The first group was found to have difficulties in becoming independent of their parents and other adults. The 'self-indulgent' group belonged to over-protective childhood environment that is, 'the sexually troubled type', showed shyness in sex-drive and dominancy in homosexual trait. The 'self-punitive' personality arose from an upbringing of a depressed anger which often resulted into the expression of a violent act. The 'stressed personality' were also known as the anxious personality and for them alcohol and barbiturates would be the sedatives to control the anxiety when it became pronounced. Due to the development of tolerance, drug dependency developed.
Walton (1990) described two forms of alcoholics and drug abusers viz., those who had lost control of themselves, and those who had failed to abstain from using drugs. He attempted to find out the possibility of a correlation between personality type and drug using pattern. The addicts were found to be less stable emotionally, less cheerful, more inhibited and more tense. Those who had lost self-control, exhibited a great fear of their own impulses. Walton concluded by reporting that personality type and addicting pattern were inter-related.

Wikler (1990) propounded that opiate dependence was derived from the changes that the addict felt on injecting the drug on earlier occasions. When the changes occurred again, a connection was established between the perception of that state and the reduction in the unpleasantness produced by withdrawal, there was a greater likelihood that the next time the withdrawal state occurred, it would be followed by yet another injection.

Wikler reported further that human addicts, returning to an abstinent phase to old haunts and companions previously associated with drug withdrawal experience, could produce a conditioned relapse into further drug addiction.
In a series of studies made by Tamerin and Medelson (1991) on the learning habits of alcoholic and other drug abuse, it was reported that alcoholics or drug addicts if given free access to alcohol or drugs, become more depressed and anxious as they continued to use alcohol or any other drug.

Researches have also been carried out on the psychological factors influencing alcoholism and drug dependence. Most of the evidences of psychological component of drug dependency have been derived from the addictive personality hypothesis, personality correlates of alcoholism and drug dependence, and learning theory formulations. In postulating the addictive personality hypothesis, Berger (1991) stated that it was difficult to cure addicts but it was easier for the addicts to change another drug. He reported that heroin dependents could only switch to methadone, and alcoholics to almost-nightly meetings of anonymous alcoholics. He was of opinion that drugs could be addictive only when the people abuse them.

Rado (1992) reported that certain groups of people in different countries had been excessively predisposed to respond actively to the pleasurable effects of any kind of
drug. Such persons were found to be intolerant to tension and stress and would always attempt to solve these symptoms by abusing other drugs of mood-altering types.

Barnard and Ritch (1992) took up a study on narcotic addicts and considered such subjects as having a dependent, infantile character structure and an inability to bear tension and stress.

Swinson and Derek (1992) reported that drug dependence and alcoholism among the youngsters had been developed in their attempt to cure defects in the primitive conscience, or to satisfy infantile unconscious needs. This state or affairs let to a serious breakdown in the integrity of the individuals.

Jiloha and Sain (1992) studied a sample of 162 adult heroin smokers in C.B. Pant Hospital (India), and reported that about 30 per cent of the cases belonged to the school system.

Seldin (1993) reviewed the findings of studies into the family of the addict and what he had said about addicts would also hold good for the alcoholics. According to
Seldin, the normal functions of the family are to provide for reproduction, to give status to the members, to provide biological maintenance, to allow for socialism, to impose sexual controls and to provide maintenance for the emotional life of the members of the family. He has opined that the families of addicts have been shown to be abnormal in a number of ways. Any family which fails to provide one or more of the above functions is disorganised to some degree, and also as a result of this, such a family tends to produce children who are emotionally disturbed, and they often become hostile to their parents and later they turn into drug addicts or alcoholics. Intense parent conflict, which often produced physical violence in the families, or led to the temporary separations, was found to be positively related to the development of drug abuse in the children.

According to Seldin, mother is identified as the key figure in the development of the character traits that later predispose to addiction. Here, the father is also the background figure as a model for the developing child.

The mother has been described as alternatively over possessive, rejecting, and over-protective and emasculating with seductive overtones. In families in which the attitudes of the parents are inconsistent or conflicting thereby
producing physical violence or temporary separation, there appears to be an increased chance that the children will become alcoholics or drug addicts. Seldin's concluding remark was that the attitudes of parents toward the drinking of alcohol or misuse of drugs influence the subsequent behaviour of the children.

Smart (1993) studied the drug-taking behaviours of the mothers of young drug-consumers in Canada, and reported that one-third of the children in the study were found to take the same drugs as the parents, the rest abusing a different kind of drug. He also found that when the child's mother used tranquillizers, then there was every likelihood that the child would also tend to become drug users. Similar result was obtained if the father was also a habitual drug-taker. When the parents needed tranquillizers daily, the after effect of this on the child was that the drug-taking by the child was increased to 3 to 17 times over that of other children. The conclusion arrived at was that a parent who abused of any kind on a daily basis influenced to a great extent the likelihood that the children in the family would also become drug addicts.
Parentless children are found easy prey to drug abuse. Hawks et al. (1993) reported that many young addicts in Britain were found abusing methylenephedrine. On closer examination of the matter, they found that such addicts had one or both parents die before they attained sixteen years.

The findings of Hawks et al. were confirmed by Mitscheson et al. (1993) who studied a group of heroin addicts in England, and stated that in 52 per cent of the cases, there had been separation from one or both parents for more than two years before the age of sixteen, and in 32 per cent of cases, the separation was from both father and mother.

However, exceptional cases had also been detected by L.C Grath (1993). He found contrasting cases of drug addicts who came from stable homes with stable parents. His findings were based on adolescent pill-users vis-a-vis home setting.

Rubington (1994) did considerable research on drug addiction as deviant career. He found that there was a significant relationship between sexual deviance within a
family and the later onset of addiction of the boys in the family. He defined sexual deviance as incest on illegitimate occurring in the family. He pointed out that a thing of this kind taking place in the family caused insecurity of the children, and as such the children failed to cultivate normal affectional relationship. According to him, the following factors appeared to be highly significant in relation to the drug abuse occurring in the boys when they attain adulthood.

Depending conflicts arising from:

1) the alteration, by the mother, between active affection and rejection;

2) the withdrawal of the mother at times of family crisis into such behaviour as excessive drinking or drug dependence;

3) the deviant behaviour in the mother other than crisis in the family;

4) the presence, in the family of a father who denigrated the mother;
v) the mother's resentment of her role in the family;
vi) the parents' antagonism.

The following factors were said to have been responsible for causing role confusion in the boys resulting to drug dependency.

i) Inadequate supervision of the child.

ii) Absence of high parental demands on the child.

iii) Escapist behaviours shown by the father or the mother.

iv) Less than average restrictions on the child.

v) Parental rejection.

vi) Family conflict on the cause of an outsider.

The conclusion derived from the above study was that a family which failed to provide child's security, adequate parental models, emotional growth or stability appeared to be fruitful sources of drug abuse and other forms of deviance in the children.
Kalra (1995) carried out an intensive study on drug addiction in Indian Schools and reported that several thousand students had been abusing drugs of one kind or the other due to lack of communication and confidence in them. Another important cause of drug addiction had been frustration, followed by "for pleasure and fun" and persuasion by friends who had already addicted to drugs. Kalra said - "when they are 'high' on drugs, all their pain, anguish and frustration caused by parents, society and school seem to vanish, although temporarily".

2. **Literatures on the Effects of Alcoholism and Drug Addiction**:

Addiction to drugs or alcohol, indulgence in smoking and chewing tobacco, 'jarda pan', etc., now-a-days form a subject of growing interest and of significant social importance on account of their physical, psychological and social impact. The younger generation is slowly drifting towards psychedelics and otherwise abusive intoxicants and this matter is detrimental to the very stability, sustenance and progress of mankind. The magnitude of this problem has assumed such an alarming proportion that sociologists, reformers, educationists, administrators, politicians, and so on, have their apprehension that unless curbed and nipped
at the bud, the problem is only going to cross-breed and perpetuate irreparable loss to our society, nay, nation.

Infact, drug abuse is causing very serious problem in almost every field of life and at all levels—personal, domestic, social national and international:

**Namisharn (1990) said:**

Drug abuse and drug addiction leads to emaciation of body and mind; squalor, desperation and destitution. Drug addicts cannot hold on to their jobs. They begin their day with the morning shot to hold off the anxiety and sickness of withdrawal and get them straight enough to start the day; and they are immediately on the look out for the next 'joint'. If the next shot is delayed, they are intensely paranoid, shying from everyone around them, shivering and numbing agitatedly to themselves, with their eyes wide open and jaws tense.

In case a drug addict’s habit is costing him $20 a day he must start out to steal at least $100 worth of goods, knowing that the dealer to whom he has to sell off the
stolen goods will give him not more than one-fifth of the true value of his booty. If the addict is a woman she is almost invariably driven to prostitution and pushing drugs to pay for her own supply.

Drug addicts have to pass their days between jail, hospital and dirty lanes. They can't hold on to their families, nor afford to rent a house, and even if they owned a house it is bound to be sold off in order to meet their drug requirements.

Drug addicts have no pleasure left in life, and the life span itself is shortened with each and every shot of the drug into their veins.

Heroin turns its victim into a docile animal and cocaine and crack make him violent. All addicts suffer from a sense of acute insecurity and an enormous compulsion to addicate all responsibility for their own lives. They never feel relaxed until they feel the substance in them, and even than they know that within a few hours they have got to get more money, and get more drug again. Before going to bed they have not only have to have their bed time
fix but they have to have their wake-up too. Their yearning for artificial bliss and unreal paradise, which drugs promise them, destroys their lives and when the temporary euphoria is over, they face the agonizing truth that family, home, friends and jobs are gone; clothes are dirty and body is filthy and sick, not to speak of the soul which sinks into a dismal abyss of hatred for itself. They are overwhelmed with shame, but drugs can handle shame, so they are in for another shot, and shot after shot, till death claims them even when they are young.

Winokur et al. (1970) studied several families of drug addicts with special reference to alcohol addicts and relationship between alcoholism or drug addiction and other psychiatric illness. They found that a number of different types of alcoholism or drug abuse occurred in females. 70 per cent of the drug addicts were females who were considered as primary drug addicts; the rest had pre-existing psychiatric problems, and the largest group of these (19) had affective (mood) problems. Further examination of the primary drug addict and affective group revealed that those who were ill psychiatrically suffered from drug abuse. However, the female relative of the primary drug-addict females
suffered from drug misuse and those of the affective drug addictive group suffered from affective disorders without using drugs. Further investigation into the addictive parents (259 in the sample) and first degree relatives (507 in number) helped the researchers to calculate morbidity risk for addiction, depressive disorder and sociopathy in the first degree relative of both sexes drug addictive parents. Overall results of the study indicated that 63 per cent were diagnosed as psychiatrically ill. The morbidity risk for drug addiction in the male relatives of both male and female drug addicts was found to be 33 per cent. From this calculation, it was deduced that the male relatives of drug addicts suffered from addiction and the female relatives from depression. Combination of all data revealed that drug addiction seemed to occur in three categories; primary addiction, affective addiction and sociopathy addiction.

There are considerable reports to indicate that the wives of the drug addicts or alcoholics suffered terribly at the hands of the addicted or alcoholic husbands. Edwards, Harvey and Whitehead (1971) reported that the wives of the alcoholic or drug addict had to fulfil many of the roles of both sexes. She suffered sometimes from neurotic illness in the partnership with the addict. Once a women would start
drinking or abusing the drug, she would become later a regular consumer of heavy dose of alcohol or drug to be followed by physical and emotional disturbances in her body.

Nylander (1972) found that children of drug addicted or alcoholic parents were also considered by their teachers in schools to be problem children.

Researches have been conducted by many people in the world to examine the genetic influences on the development of alcoholism or drug addiction in the offspring.

Schuckit (1973) investigated familial nature of addiction in half-siblings of 41 drug addicts in New York, America. It was reported that half-siblings of drug addicts had genetic materials from one of the parents of the drug addict, and that materials could come from either the drug addict or non-drug addictive part. It was further deduced that genetic influences appeared to be of greater effect in the development of addiction in the offspring.
Kaij (1974) carried out an intensive research on the occurrence of addiction on twin births in Sweden. 174 pairs of male twins were selected for the study. The twin who presented with the disease being studied was called 'proband'. Concordance rates were a comparison of the proportion of twins of the 'probands' who also exhibited the disease being investigated. If all the probands and their twins had the disease, the concordance rate was 100 per cent; if all the 'probands' and half of the twins had it then the rate was 50 per cent. The reason for this was that the genetic constitution of Monozygous (MZ) twins was identical, and a genetically determined disease should produce a concordance rate which was higher than that found in Dizygous (DZ) twins or non-twin siblings. On the other hand, a condition which mainly caused by the environment would produce similar concordance rates in both DZ and MZ twins, and would also produce approximately the same rates for siblings or adopted children in the same family.

Kaij found that in 48 MZ twin pairs a concordance rate for addiction of 54.2 per cent was found and in the 126 DZ pairs the rate was 35 per cent. Slater and Cowie (1975) calculated the data and found that the concordance rate for
MZ pairs was 114 per cent in excess of the expected result. Kaij inferred that certain genetic elements had influenced addiction.

Tienari (1975) studied the genetic effect of psychiatric illness in 17 twin pairs, and found that the abuse of drug grouping produced a concordance rate of 34 per cent and "Continuing Abuse", a rate of 24 per cent.

Partenen et al. (1976) carried out a monumental work on 902 male twins aged between 28 and 37 in Finland. The work included abstinence as well as drinking, tobacco and coffee use. The true zygosity of the twin pairs was thoroughly checked. Three items viz., density, amount and lack of control were taken into consideration for the calculation of the data. The estimate of heritability of each factor was made in 172 MZ and 557 DZ pairs. A statistical technique was employed for the calculation of the heritabilities. The result for heritabilities were calculated as follows:

<table>
<thead>
<tr>
<th>Density</th>
<th>0.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>0.36</td>
</tr>
<tr>
<td>Lack of control</td>
<td>0.14</td>
</tr>
</tbody>
</table>
The conclusion arrived at was that normal drinking/drug abusing, abstinence and heavy alcohol use/drug adding showed variation that depended upon heredity.

Goodwin et al. (1977) studied on 5,483 non-family adoptions in Denmark to examine the genetic elements in the development of alcoholism or drug addiction. The following criteria were considered for the study: being male, having a parent admitted to hospital in alcoholic or drug adding diagnosis, being separated from the biological parents before six weeks of life and no contact with the biological parents after adoption. On analysis of the data, it was revealed that severe alcoholism or drug addiction had relations with genetic make-up.

Further, it was reported that women smoking crack during pregnancy gave birth to crack-exposed babies. In the U.S. at least, 3,75,000 babies were borne annually to mothers who used drugs. Pregnant women hardly even realized that cocaine would cut the flow of nutrients and oxygen to the foetus, causing deformities and growth impairment.
Ewart and Priest (1978) investigated the ill effects of drug abuse in the human body with reference to the damage caused in the society by the drug abusers. They reported that excessive abuse of drugs produced harmful and ruinous effects in the body such as development of bronchitis, lung cancer, loss of feeling and falling down of intellectual functioning as a result of brain damage and subsequent impairment of memory, inhibition of sexual desire in the case of married persons. Schizophrenia (a disease associated with hallucinatory experiences), delerium tremens, gastritis and loss of appetite, peptic ulcer, cirrhosis of the liver and fatty liver accompanied by jaundice, pancreatitis, dis-order of the heart muscle, fatigue, vomiting, etc. It was further reported that taking excess of alcohol or drug, especially by the young women, caused a feeling of killing themselves. Overdose use of barbiturate by the young adults induced development of deep coma, with lowered blood pressure and respiratory rate. Excessive abuse of amphetamines caused convulsions and collapse.

Wikler (1978) reported that sudden withdrawal of chronic consumption of nearly all drugs including alcohol could produce different kinds of harmful changes in the body. With heroin and morphine the abstinence syndrome began after
4 to 5 hours. The first manifestation exhibited was craving, accompanied by anxiety, and followed later by irritability, shivering, running of the eyes and nose, nausea, vomiting, abdominal cramps and diarrhoea, falling down of blood pressure and collapse. It was further reported that similar symptoms occurred in the body after prolonged use of barbiturates and amphetamines and after sudden withdrawal of them. Amphetamine induced toxic syndrome would include profound behaviour changes and psychotic episodes with auditory, visual and tactile hallucinations, aggression and an urge to commit dangerous anti-social acts.

Chronic consumers of cannabis, LSD and Heroin suffered from anxiety, insomnia, epileptic fits and other bodily problems in case of sudden withdrawal of them as reported by Ward and Priest. They further reported that delirium tremors took place in persons abusing chloral hydrate, paraaldehyde, glutethimide, ethchlorvynol, meprobamate, and more recently methqualon — a constituent of a proprietary methqualone — diphenhydramine combination (‘Mandrax’). On the other hand cocaine abuse and sudden withdrawal of it caused psychotic illness in the addicts. The patients suffered from loosening of the association of ideas.
Heroin and opiate abuse caused depressing attitude and the sex drive. If pregnancy did occur, there was a chance that an abstinence syndrome could occur in the newborn offspring. Similarly if barbiturates had entered the placenta, and children born to addicted mothers would be very listless and would, as well, develop initial feeding difficulties.

Campbell et al. (1978) stated that opiates and hallucinogenes caused brain damage. They found cerebral atrophy in ten cannabis smokers who had abused the drugs regularly for 3 to 11 years.

Keup (1978) stated that cannabis-induced psychoses did occur in the users but not commonly as LSD "flashbacks". He, however reported that catatonic changes, especially of mutism, negativism and abnormal posturing had taken place in both LSD and cannabis abusers.

Woody (1979) reported three cases where the recurrent visual effects caused daring hazards; LSD caused permanent damage to the retina of the eye or to the central brain pathways for vision.
Horowitz (1979) was of opinion that the symptoms of LSD phenomenon could prevail for up to six months after taking the drug, and the patients suffering from LSD abuse could develop a permanent psychotic illness. He emphasized that the syringe technique of addicts could never impeccably hygienic, so that a whole host of infective complications could arise.

Lourea and Cherubin (1979) examined heroin injected by the addicts in U.S.A., and found that the injected heroin almost always contained adulterants which caused in the long run, respiratory cripple in the addict. 30 per cent of the American addicts had, therefore, enlarged livers and three-quarters of the British addicts had impaired liver. This impairment was invariably due to serum hepatitis, a viral disease transmitted by sharing of syringe.

In a series of studies made by Coleman et al. (1979) in U.S.A. on the effects of smoking in the human body, it was reported that smoking and using of tobacco might cause ill effects in the body, as in the following: irritation in the throat, chronic bronchitis, lung cancer, coronary heart disease, tobacco angina of the chest, rise of blood pressure, blood
sugar and gastric acidity, degeneration of brain cells, less oxygen circulation in the body during flight, development of frost bite accompanied by constriction of the small blood vessels, nervousness, shiny eyes and reduction in the field of vision, loss of weight, and finally, reduction in the longevity of life span.

Coleman et al., further, reported that smoking mothers were more likely to give birth to underweight babies. The gestational period also shortened depending upon the amount of the mother smokers. Abortion cases had also been reported as a result of smoking during pregnancy. The analysis of the data had also revealed that prenatal mortality risk increased by 70 per cent to 100 per cent in socio-economic group. The conclusion arrived at was that smoking during pregnancy or before, would be deleterious not only to the expecting mothers but also to the foetus as well. Nicotine in 20 cigarettes a day would shorten the life span by eight to twelve years. Smoking women would be exposed to 3 - 4 times at risk often than non-smoking girls.

Kandel et al. (1986) studied the consequences of adolescent drug involvement on young adulthood. The sample consisted of 1004 students of 10th and 11th grade, of the ages of
15 - 16 years. It was reported that the first use of the drug was having the strongest impact, and was a prediction of its future use too. Drugs were found to have an effect on conventional behaviour.

Fowler et al. (1986) studied the principal psychiatric disorders associated with young suicides. It was found that 53 per cent of 133 young suicides has a principal psychiatric diagnosis of drug abuse, 24 per cent had an addictional principal diagnosis of a typical depression, or adjustment problems.

Recent researches have indicated that alcoholism and alcohol misuses are becoming a serious problem among the elderly, creating increasingly costly medical and social problems all over the world. With the size of the elderly population increasing day by day, there had been simultaneous increase in the number of people, especially women, entering old age with established drinking habits.

Bhim Sain (1988) said: "When even a small amount of alcohol adversely affects judgement and sedates the central nervous system, how does it help to sharpen the thinking neurons? Instead, it kills creativity and kills the creator".
Phim Sain, further, reported that women who had about three drinks a week were approximately one and half times more likely to develop breast cancer than non-drinkers. Young women alcoholics were liable to have this dreadful disease than in women who were past menopause. Women who drink 4.5 cl. of alcohol daily showed an increased number of babies who were pre-mature, of low birth weight with gestational age, of small head circumference associated with other bodily defects.

Griffin et al. (1989) made a comparative study of the socio-demographic characteristics of male and female cocaine users, and also made an attempt to know the drug effects - depressive symptoms, and psychiatric diagnosis between the sexes. He found that female cocaine users were initiated into drug abuse at much younger age than the males. Men were found using drugs as part of antisocial behaviour, and they were less depressed.

Fenner, Louise (1989) reported that misuse of cocaine would check foetal growth. The addict developed a paranoid psychosis, mental distortions, and death.
A report from San Francisco General Hospital, indicated that the increased use of intravenous cocaine, especially among former heroin addicts now in methadone programmes heightened the risk of spreading the HIV, the cause of AIDS. Among 633 hereto sexual intravenous drug users studied in San Francisco, 35 per cent of daily cocaine injectors carried the AIDS Virus, compared with 19 per cent of daily heroin injectors. Withdrawal symptoms might include restlessness, depression, fatigue and laziness, inability to concentrate, quarrelsome, constipation, cramps and finally development of suicidal or morbid tendencies.

Mohan, Bhuwan (1989) stated that while coffee or caffeine might be presented in the treatment of certain cases of heart diseases, excessive amounts of them might also produce physiological problems in the body such as excessive of gastric acidity, nervousness and heightened cardiac action. Withdrawal symptoms would become noticeable at a level of about 370 mg. caffeine a day; stopping taking coffee and tea at that stage would cause drawiness and headach.

There had been reports on the ill effects of the continuous and over dose use of analgesics or pain killers. Dr. B.C. Mehta of G.S. Medical College, Bombay said: "In my
haematological practice, I encounter on an average 12 - 15 cases of agranulocytis (a disease associated with drastic reduction in the number of white blood corpuscles in the blood) in a year. Of these, 10 to 12 were caused by dipyrone (analgin) or dipyrone containing drugs (pain killing drugs)".

A. K. Grover of the All India Institute of Medical Sciences, New Delhi, reported that use of corticoids for long duration or in heavy doses for short duration could lead to hypertension, obesity, inflections, euphoria, peptic ulcer, bony lesion and diabetes.

Bhim Sain (1991) reported that withdrawal from chronic heavy use of barbiturates could be even more severe and life-threatening than withdrawal from heroin. In many barbiturate abusers, the withdrawal symptoms would include: insomnia, irritability, anxiety, hallucination, tremors, nausea and vomiting and abdominal pain.

According to Bhim Sain, reported sniffing of solvent (such as glue or hairs) would cause hangover effects of fatigue, forgetfulness and loss of concentration. Aerosols and cleaning fluids would cause heart failure and liver or kidney
damage. Regular consumption of aspirin during pregnancy caused prolonged labour, with an increase risk of anaemia, haemorrhage and other complications. Young children abusing aspirin exhibited some times, the so called "Reye Syndrome". This would be followed by flu or viral fever or chicken pox. 90 per cent of the children suffering from reye syndrome were those who had been treated with aspirin during a viral fever or chicken pox.

Sharma reported that in Gangtok, the addicts who had gulped down half a bottle of cough syrup at a time, developed hallucinations and feeling of tightness and euphoria. The formulation could cause anxiety, liver and kidney trouble and loss of libido. Withdrawal symptoms would include dry lips, shrunken eyes, restlessness and severe depression.

**Impact of Drug Abuse on Society**

Researches indicate that the progress of a society depends to a great extent on the development of employable industries. But if the majority of the people in the society become alcoholics or drug addicts, the industry cannot grow, the society will remain dwarfed. In other words, alcoholism or drug addiction has great impact on the development of the society.
Kurtis (1991) surveyed 80 New York area companies in 1970 in order to determine the extent of drug abuse in the labour force. Of these, 90 per cent reported incidences of drug abuse within the company which had resulted in thefts, higher insurance rates, poor work performance. It was also reported that there was every likelihood that the number of drug abusers would be increasing in their work forces within the next few years.

Chambers (1991) studied the extent of drug misuse in the New York state Labour Force, and found that significant rates of regular drug use were found in all occupational groups except farmers: 12.3 per cent sales workers used barbiturates, 8.6 per cent smoked marijuana regularly.

Rush and Brown (1991) studied 222 firms in America and found that 53 per cent of their employees abused drugs of one kind or the other, and these affected the regular functioning of the firms.

Van Weingard (1991) investigated the problems of alcoholism and drug addiction in American industry in general, and reported that over 5 per cent of the labour force suffered
from alcoholism and drug addiction and that the cost to industry due to the illness of those 6,500 people under investigation was between 6 and 8 billion dollars annually. The alcoholic or drug addict might lose his post when he became more and more ill and performance deteriorated. This finding clearly indicated the fact that alcoholism or drug addiction adversely affected the development of industry.

**Drug Addiction and Crime**

Drug abuse germinates crime. Most drug abusers may not be criminals, but drug taking in many of its aspects is considered to be a prescribed activity, and therefore, a close relationship exists between drug-taking and criminality. The extent of the illegal abuse of drugs is such that huge amounts of money can be made by importing and distributing them.

There are reports on the occurrence of relationship between drug addiction and crime. Some fifty years ago, Kolb carefully documented the relationship of drug addiction to crime, and his words are just as relevant today: "Addicts are so often criminal in the sense that their actions are harmful to others, and criminals behave in criminal ways because they are so disposed rather than because they take drugs".
The use of illegal drugs and crime go hand in hand. Common crimes committed most frequently by drug abusers had been those by which they could gain the most money for the least amount of efforts, usually by theft, pick-pocketing, chain-snatching, prostitution and drug peddling. Inevitably, there is contact with the law, and this in turn, brings the criminal underworld closer to the addict. Addicts in prison congregate together, induce the novice into criminal behaviours, and the stigma of imprisonment prevents rehabilitation, so pushing the addict into more deviant activities.

Bhim Sain (1991) said: "While all crimes are necessarily connected with the acquisition of drugs, many crimes are committed while under their influence. A recent study of inmates of a jail in one industrial nation found that over 50 per cent were under the influence of drugs at the time they committed crimes for which they were imprisoned."

Hensman (1991) reported that many of the American narcotic Departments had been forced to take up some kind of criminal acts when the addicts slipped down the social scale of self maintenance.
In a series of young offenders remanded in custody, Cockett (1991) reported that in 71 per cent, delinquency coincided with or preceded drug-taking, while Willis (1992) reported that 54 per cent of London addicts and 48 per cent of New York addicts had been convicted before drug use began. Cockett further reported that drug-takers began their criminal behaviours/careers later than non-drug takers, and that the soft drug takers began their criminal careers later than hard-drug takers. Those more heavily involved in drug-taking committed fewer offences than chronic addicts but the ratio of type of crime remained exactly the same (six drug offences to four crimes against property to one crime against the person) and it was considered that criminality type did not distinguish the two groups.

Willis (1991) reported that in almost all groups of drug abusers, from cannabis smokers to those taking LSD, amphetamines and heroin, there was the higher incidence of criminal behaviour than in controlled groups of non-drug takers from similar backgrounds.

Bart er and Raite (1991) opined that LSD consumption could be a casual factor also precipitate aggressive action in response to the panic, misinterpretations or hallucinations due to psychosis. He stated that one-fifth of the amphetamine psychotics he had seen, had shown aggressive behaviour.
Ellinwood (1991) reported thirteen cases of homicide under the influence of amphetamines. According to him, the drug induced paranoia, emotional liability and lowered impulse-control were more important in evoking abnormal behaviour than environmental factors and personality predisposition, and he considered amphetamines to have increased the incidence of assault, rape, kidnap and attempted murder.

Nemisharn (1991) carried out an extensive study on the drug addiction and crime in the world conditions, and reported four aspects of crime and violence associated with drug abuse:

1) Crime committed by drug addicts, first in order to obtain money for purchase of drugs, and then led by drug-induced aggressiveness;

2) Violence by drug peddlers fighting for their share of drug market;

3) Criminal violence let loose by powerful drug Mafia in order to protect their installations, airtrips, means of transport and couriers and agents, and
iv) Financial crimes committed by drug-cartels in conducting illicit manufacture and trade of drugs, and money laundering operations at international level economics of nations.

Drug Mafia is described as nothing but criminals, capable corrupting administrators, police and politicians at a large scale.

Reports indicate that the Columbian cartels have been the worst and most violent drug Mafia. Mittal (1991) reported that during the period 1982-83, they killed 108 politicians, 157 judges, 17 journalists, 1536 policemen, 3,490 narcotic officers, 408 soldiers, 118 guerrillas, 3,100 other civilians and 100s of drug-traffickers belonging to rival cartels.

According to Bernard Cohen, 70 percent of all crimes in USA were drug related, and the rising level of violence gave rise to gun-running.
R.E. Kendall, Secretary General of the I.C.P.O. Inter-
pol, reported that the worst thing that had taken place in
the international arena had been the establishment of an
unholy nexus between drug traffickers and terrorists. This
unholy alliance was not only restricted to the Indian Sub-
continent, it was prevalent in European and American conti-
nents as well. The Mafia terrorists had already reached a
high pitch in Peru and the Golden Triangle covering Burma
(Myanmar), Thailand and Laos. It had entered the northeastern
region of India, Punjab, Jammu and Kashmir, Tamil Nadu and
Pakistan. Mujahideen and Pakistan drug traffickers had been
working in close contact with drug traffickers and terrorists
in Jammu and Kashmir and Punjab. Five years ago, Krishnakant,
former M.P. expressed that "Punjab and Kashmir issues had been
part of anti-drug war India had been called upon to wage".

He referred to the Pakistani Journal News Line's
December, 1989 issue and claimed that the drug peddlers had
been part of the Pakistani ruling and military elite. Large
quantities of drugs were seized each year on the 3,110 km.
long Indo-Pak border, and most common area for drug traffic-
ing being the Amritsar and Ferozpur Sectors in Punjab, and
Bikaner and Ganganagar sectors in Rajasthan.
Bhim Sain (1991) reported: "The terrorist groups of the north eastern region of India are in contact with the Punjab terrorists (Sikh terrorist) who are deeply involved in drug trafficking and so also Sri Lankan Tamil terrorists. They co-ordinate drug trafficking in Western Countries, particularly Canada with an eye on the US market".

Mafia-terrorist nexus has now been spread in almost all parts of the world, and the challenge posed by it has become multidimensional.

The number of prosecutions and convictions for drug offences in Manipur has spectacularly increased over the last twelve years or so (Table 4 & 5) and the extent of the illegal abuse of drugs in the state is that huge amounts of money are collected by importing and distributing the drugs. The big dealers belong almost exclusively to the criminal sub-culture.
### Year-wise Crime Figure of BA-PS

**In the Illegal Abuse of Drugs in Manipur**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>No. of case Regd.</th>
<th>No. of persons arrested</th>
<th>Year</th>
<th>Heroin</th>
<th>Ganja</th>
<th>Opium</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>31</td>
<td>51</td>
<td>1987</td>
<td>1.119</td>
<td>112</td>
<td>0.00024</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>140</td>
<td>169</td>
<td>1988</td>
<td>1.485</td>
<td>134</td>
<td>0.002</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>137</td>
<td>202</td>
<td>1989</td>
<td>3.498</td>
<td>2224</td>
<td>0.302</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>174</td>
<td>260</td>
<td>1990</td>
<td>0.411</td>
<td>247</td>
<td>0.055</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>222</td>
<td>258</td>
<td>1991</td>
<td>0.326</td>
<td>1056</td>
<td>0.057</td>
<td></td>
</tr>
</tbody>
</table>

**1,644 ampules of DIGIPAM INJECTION.**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>No. of case Regd.</th>
<th>No. of persons arrested</th>
<th>Year</th>
<th>Heroin</th>
<th>Ganja</th>
<th>Opium</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>203</td>
<td>178</td>
<td>1993</td>
<td>0.456</td>
<td>6221.5</td>
<td>-</td>
<td>1) 243800 Ganja Plants 2) 25000 Poppy plants 3) 1560 Bottles of Phensedyl</td>
</tr>
<tr>
<td>8.</td>
<td>177</td>
<td>215</td>
<td>1994</td>
<td>0.707</td>
<td>660</td>
<td>0.002</td>
<td>1) 330400 Ganja plants 2) 1050 Bottles of Phensedyl</td>
</tr>
<tr>
<td>9.</td>
<td>30</td>
<td>46</td>
<td>1995</td>
<td>0.048</td>
<td>564,940</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** The office of the Superintendent of Boarder Affairs, P.S. Imphal, Manipur.
<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Year Regd.</th>
<th>No. of case</th>
<th>No. of persons arrested</th>
<th>Heroin/No. 4</th>
<th>Ganja</th>
<th>Opium</th>
<th>Others</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1985</td>
<td>214</td>
<td>275</td>
<td>1.263 kg.</td>
<td>165 kg.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>1986</td>
<td>243</td>
<td>364</td>
<td>1.970 kg.</td>
<td>123.5 kg.</td>
<td>0.5040 Kg.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>1987</td>
<td>338</td>
<td>549</td>
<td>5.376 kg.</td>
<td>488.6 kg.</td>
<td>0.028 kg.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>1988</td>
<td>370</td>
<td>424</td>
<td>4.945 kg.</td>
<td>554.0 kg.</td>
<td>2.814 kg.</td>
<td>-</td>
<td>1,73179 nos. of Ganja plants.</td>
</tr>
<tr>
<td>5</td>
<td>1989</td>
<td>389</td>
<td>507</td>
<td>10.226 kg.</td>
<td>7076.0 kg.</td>
<td>0.348.130 kg.</td>
<td>-</td>
<td>a) 11,29650 nos. of Ganja plants. b) 6,50,000 nos. of Foppy plants.</td>
</tr>
<tr>
<td>6</td>
<td>1990</td>
<td>412</td>
<td>540</td>
<td>1.072.905 kg.</td>
<td>1042.628 kg.</td>
<td>0.062.000 kg.</td>
<td>-</td>
<td>59,750 nos. of Ganja plants.</td>
</tr>
<tr>
<td>7</td>
<td>1991</td>
<td>406</td>
<td>478</td>
<td>1.635.780 kg.</td>
<td>5268.443 kg.</td>
<td>0.057 kg.</td>
<td>-</td>
<td>28,000 nos. of Ganja plants.</td>
</tr>
<tr>
<td>8</td>
<td>1992</td>
<td>629</td>
<td>710</td>
<td>9.633.165 kg.</td>
<td>7087.252 kg.</td>
<td>0.035.016 kg.</td>
<td>-</td>
<td>a) 3053 bottles of Phensedyl &amp; b) 1314 Nitrocin Tablet/N-10.</td>
</tr>
<tr>
<td>Year</td>
<td>Code</td>
<td>Quantity 1</td>
<td>Quantity 2</td>
<td>Quantity 3</td>
<td>Quantity 4</td>
<td>Quantity 5</td>
<td>Source 1</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>------------</td>
<td>------------</td>
<td>------------</td>
<td>------------</td>
<td>------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>1993 421</td>
<td>469 3.995.133 kg.</td>
<td>33676.635 kg.</td>
<td>-</td>
<td>-</td>
<td>a) 243880 Nos. of Ganja plants, 31570 btls. of Phensedyl. b) 25000 nos. of poppy plants.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>1994 418</td>
<td>542 5.903.933 kg.</td>
<td>21140.865 kg.</td>
<td>1 gm.</td>
<td>-</td>
<td>a) 1050 btls. of Phensedyl. b) 330400 nos. of Ganja plants. c) 11 nos. of Nitrocin tablets.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>1995 92</td>
<td>116 0.467.900 kg.</td>
<td>4239.770 kg.</td>
<td>&amp; 2½ chanings.</td>
<td>-</td>
<td>a) 12262 btls. of Phensedyl. b) 47523 nos. of Ganja plants.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sources:** Office of the Superintendent of Border of Affairs, P.S. Imphal, Manipur.
Death in Drug Addiction:

Drugs are said to be synonymous with 'death' and 'destruction', the boom of which has engulfed the whole of nations. Evil effects of drugs have told upon the mankind at their worst.

Drugs abuse has led to a large number of drug related diseases and premature death.

According to an estimation of Winwick (1992) the average length of addiction would be 9.6 years, while most would become inactive under 10 years, and a very few after fifteen years.

Bass (1993) studied mortality rate in drug addicts occurring in U.S.A. Four hundred and seventy cocaine deaths were reported in 1984 in U.S.A.; the number rose to 1,582 in 1988.

Bass also estimated that mortality rate in opiate addicts was 2 - 2.5 per cent per year, and the risk of dying in anyone year was thirty times higher in heroin addict than
for a normal person of similar age. He also reported that glue sniffing was another cause of quick death in drug abusers in the U.S.A.

Simon et al. (1993) reported a 60 per cent increase from 1950 to 1964 in average annual death rate from alcoholic disorders (alcoholic psychosis, cirrhosis of the liver, and alcoholism) of all persons aged 20 years and over in the United States. In the older age-groups the increase was 52 per cent for white men aged 70 and over, 114 per cent for white women aged 70 and over.

Kessel and Grossman (1993) reported the deaths from suicide from two groups of alcoholics, 8 per cent of males in one group and 7 per cent of the other committed suicide due to alcoholism.

Ellinhood (1993) reported that the use of amphetamines influenced homicide as the drug induced paranoias, emotional liability and lowered impulse control.
Researches at the National Institute on Drug Abuse, Maryland (1995), had revealed that the number of deaths involving "speed" or "crank" nearly tripled in two-and-half years, from 34 in the second half of 1985 to 1991 in the first half of 1986, in 26 metropolitan areas.