

**EFFECTS OF DRUG ABUSE ON EDUCATIONAL PERFORMANCE AND ITS PREVENTION
THROUGH COLLEGE AND COMMUNITY INVOLVEMENT IN
KHASI AND JAINTIA HILLS**

**THESIS SUBMITTED IN
FULFILMENT OF THE REQUIREMENT OF THE
DEGREE OF DOCTOR OF PHILOSOPHY**



Prof. K. S. LYGDOH
(Supervisor)

VANESSA KHARMAWPHLANG
(Investigator)

To



**DEPARTMENT OF EDUCATION
NORTH - EASTERN HILL UNIVERSITY
UMSHING, MAWKYNROH
1996**

Dr. (Mrs.) K. S. Lyngdoh
Professor and Dean
School of Humanities
and Education
N.E.H.U., Shillong.

CERTIFICATE

*I certify that the Thesis entitled **Effects of Drug Abuse on Educational Performance and its Prevention through College and Community Involvement in Khasi and Jaintia Hills**, submitted by Ms. Vanessa Kharmawphlang for the degree of Doctor of Philosophy embodied the record of original investigation carried out by her. She has been duly registered and the thesis presented is worthy of being considered for the award of Ph.D. Degree.*

This work has not been submitted for any degree of any other University.

Dated : *31. Aug. 1996*
Place : Shillong.

K. S. Lyngdoh
31/8/96
Dr. (Mrs.) K. S. Lyngdoh

ACKNOWLEDGEMENT

I would like to express my heartfelt gratitude to my guide, Dr. (Mrs.) K.S. Lyngdoh, Professor of Education, North Eastern Hill University, Shillong for her constant guidance, encouragement and help without which the present work would not have been completed.

I am equally grateful to Dr. P. P. Gokulnathan, Professor of Education who has helped me in every possible way to complete my Research work. I also owe a sense of gratitude to Dr. Mathew George, for the valuable help given by him.

I have received much encouragement and help from all my teachers in the Department. I owe a depth of gratitude to each one of them for their co-operation extended to me in various ways.

I want to express my thanks to Dr. N. P. Goel, Department of Geography, North Eastern Hill University for helping in data processing. I also thank Mrs. K. Goel, Rynjah, Shillong in bringing this thesis to the present form on her computer.

Undertaking Research of this type involves the efforts of many other people. I especially appreciate the contribution made by all, either directly or indirectly. There is no way I can mention everyone who assisted me, but I humbly acknowledge their help and would like to thank them all from the bottom of my heart.

Kharmawphlang
Vanessa Kharmawphlang
Research Scholar
Dept. of Education
N.E.H.U., Shillong

CONTENTS

	Page Nos.
Chapter I : Introduction	1 - 69
1.0 The Present Study	
1.1 The Study and its setting	
1.2 History of Drugs	
1.3 The Most Widely Abused Drugs	
1.4 Drugs with reference to India	
1.5 Classification of drugs	
1.6 Causes of drug use	
1.7 Patterns of drug use	
1.8 Drugs and Aids	
1.9 Drug Abuse Prevention	
1.10 Conclusion	
Chapter II : Review of Related Literature	70 - 105
2.0 Introduction	
2.1 Studies Pertaining to drug abuse done abroad	
2.2 Studies on drug abuse done in India	
2.2.1 Estimated Number of Drug Abusers in India	
2.2.2 Drug abuse among college and university students	
2.2.3 Factors relating to drug Abuse	
2.2.4 Types and Pattern of Drug use	
2.2.5 Studies pertaining to the effects of Drug Abuse	

- 2.3 Drug Abuse in the North Eastern Region of India
- 2.4 Studies conducted in relation to Prevention of Drug Abuse
- 2.5 Conclusion

Chapter III : Methods and Procedure

106 - 127

- 3.0 Introduction
- 3.1 Rationale of the study
- 3.2 Statement of the Problem
- 3.3 Operational definitions of the term used
- 3.4 Scope of the study
- 3.5 Objective of the study
- 3.6 Delimitation
- 3.7 Sample
- 3.8 Tools used
- 3.9 Data Analysis
- 3.10 Conclusion

Chapter IV : 'Drug Abuse among the College Students in Khasi and Jaintia Hills' - Analysis of Data

128 - 268

- 4.0 Introduction
- 4.1.0 Background Information of the Respondent (Current and Past drug user)
- 4.2.0 Drug use among the Current user and its effect on their educational Performance
- 4.3.0 Drug use among the Past user

- 4.4.0 Prevention of Drug Abuse through College and Community Involvement
- 4.4.1 College Involvement in the field of Prevention work in Khasi and Jaintia Hills
- 4.4.2.0 Community Involvement in the field of Prevention work to the Problem of Drug Abuse
- 4.4.2.1 Role of Governmental agencies in the field of Preventive work in Khasi and Jaintia Hills
- 4.4.2.2 Role of Non-governmental agencies in the field of Preventive work in Khasi and Jaintia Hills

Chapter V : Findings of the Study 269 - 316

Chapter VI : The Case Studies 317 - 375

- 6.0 Introduction
- 6.1 Case studies of the Current User
(those who are currently taking drugs)
- 6.2 Case studies of the Past User
(those respondents who have given up taking drugs)
- 6.3 Conclusion

Chapter VII : Summary of Findings, implications and suggestions for Prevention of Drug Abuse 376 - 439

- 7.0 Introduction
- 7.1 Summary of the Findings
- 7.2 Educational Implications
- 7.3 Suggestions for Prevention of Drug Abuse
- 7.4 Suggestions for Further Research

LIST OF FIGURES

Figure No.	Title
1.	Sex-wise Distribution of the Drug users
2.	Age Composition of the Drug users
3.	Religion of the Drug users
4.	Residential Information of the Drug users
5.	Family Monthly Income of the Drug users
6.	Birth Order of the respondent
7.	Source of initiation among the Current user
8.	Main Source of Drugs
9.	Duration of Drug use among the Current user
10.	Percentage of Examination marks of the Current user (Occasional)
11.	Percentage of Examination marks of the Current user (Regular)
12.	Percentage of Examination marks of the Current user (Addict)
13.	Class Attendance of the Current User (Occasional)
14.	Class Attendance of the Current User (Regular)
15.	Class Attendance of the Current User (Addict)
16.	Current user's attendance in class test (Occasional)
17.	Current user's attendance in class test (Regular)
18.	Current user's attendance in class test (Addict)
19.	Revision of Lessons among the Current user (Occasional)
20.	Revision of Lessons among the Current user (Regular)

Figure Title
No.

21. Revision of Lessons among the Current user (Addict)
22. The Current user's completion of Home Assignment (Occasional)
23. The Current user's completion of Home Assignment (Regular)
24. The Current user's completion of Home Assignment (Addict)
25. Regularity and Irregularity of Study among the Current user (Occasional)
26. Regularity and Irregularity of Study among the Current user (Regular)
27. Regularity and Irregularity of Study among the Current user (Addict)
28. Newspaper Reading among the Current user (Occasional)
29. Newspaper Reading among the Current user (Regular)
30. Newspaper Reading among the Current user (Addict)
31. Current user's participation in co-curricular activities (Occasional)
32. Current user's participation in co-curricular activities (Regular)
33. Current user's participation in co-curricular activities (Addict)
34. Duration of Drug use among the Past user
35. Period of time when the Past user stopped taking drugs.

LIST OF TABLES

Table No.	Title	Page No.
1.1	Area and Population	4
1.2	Number of Educational Institutions in Meghalaya	10
1.3	Percentage of Literacy in Meghalaya	11
1.4	Number of Government Hospitals, Dispensaries T.B. Clinics and Beds in Meghalaya	12
1.5	Drugs in decreasing order of Importance	37
3.1	Showing the sample of drug users	120
3.2	Description of the sample of College covered in the study	122
3.3	Description of the Sample of Government and Non-governmental agencies involved in prevention work	123
4.1.1	Sex-wise distribution of the Drug users	130
4.1.2	Age composition of the Drug users	131
4.1.3	Religion of the Drug user	133
4.1.4	Residential Information of the Drug users	134
4.1.5	Educational qualification of the parents of the drug user	135
4.1.6	Family's monthly income of the drug users	137
4.1.7	Family types of the drug users	138
4.1.8	Family size of the drug users	138
4.1.9	Birth order of the drug users	139
4.2.1	Current user's age at first drug intake	141
4.2.2	Source of the initiation among the Current Drug users	142

Table No.	Title	Page No.
4.2.3	The first type of Drug used by the Current user	144
4.2.4	The frequency of drug use among the Current user	146
4.2.5	The different categories of Current users	147
4.2.6.0	Causes of drug intake by the Current user	149
4.2.6.1	Psychological causes leading to drug use	151
4.2.6.2	Social causes leading to drug use	153
4.2.6.3	Physiological causes leading to drug use	155
4.2.6.4	Educational causes leading to drug use	157
4.2.6.5	Miscellaneous causes leading to drug use	158
4.2.7	The main source of drugs	160
4.2.8	Types of drugs taken by the Current user	162
4.2.9	Duration of Drug use among the Current user	165
4.2.10	Showing attempts made by the Current user to discontinue the drug	166
4.2.11	Percentage of Examination marks obtained by the Current user	167
4.2.12	Class attendance of the Current user before and after drug use	172
4.2.13	The Current User's attendance in class test before and after drug use	175
4.2.14	Revision of Lesson before and after drug use by the Current user	178
4.2.15	The Current user's completion of Home-Assignment before and after drug use	181
4.2.16	Regularity and Irregularity of study among the Current user before and after drug user	184
4.2.17	Newspaper reading among the Current user before and after drug use	187

Table No.	Title	Page No.
4.2.18	The Current users Participation in co-curricular activities before and after drug use	190
4.2.19	The Current user's participation in the various types of co-curricular activities before and after drug use	193-194
4.3.1	Duration of Drug use among the Past user	199
4.3.2	Frequency of Drug use among the Past user	200
4.3.3	Different categories of Past user	201
4.3.4	Type of Drugs taken by the Past user	202
4.3.5.0	Reasons for discontinuing drug intake	205
4.3.5.1	Social reasons leading to discontinuing drug intake	206
4.3.5.2	Personal reasons leading to discontinuing drug intake	207
4.3.5.3	Physiological reasons leading to discontinuing drug intake	208
4.3.5.4	Religious reasons leading to discontinuing drug intake	209
4.3.5.5	Ethical reasons leading to discontinuing drug intake	210
4.3.5.6	Economic reasons leading to discontinuing drug intake	210
4.3.6	Period of time when the Past user stopped taking drugs	211
4.3.7	Changes in life style after stopping drugs	212
4.4.1.1	College Authorities awareness of the problem of drug abuse	216
4.4.1.2	Existence of a Counselling centre at the college	217
4.4.1.3	Types of Prevention work undertaken by the colleges	218

Table No.	Title	Page No.
4.4.1.4	Number of Drug awareness programme conducted in a year	220
4.4.1.5	Suggestions given by the college with regard to Prevention work	222
4.4.2.1.3.1	NDPS Act cases in East Khasi Hills for the year 1989	230
4.4.2.1.3.2	NDPS Act cases in East Khasi Hills for the year 1990	231
4.4.2.1.3.3	NDPS Act cases in East Khasi Hills for the year 1991	232
4.4.2.1.3.4	NDPS Act cases in East Khasi Hills for the year 1992	233
4.4.2.1.3.5	NDPS Act cases in East Khasi Hills for the year 1993	234
4.4.2.1.3.6	NDPS Act cases in Jaintia Hills for the last five years (1989-1993)	235-237
4.4.2.1.3.7	Drugs seized in Meghalaya	238
4.4.2.1.3.8	Drugs seized in the North Eastern States	238
4.4.2.2.1	Target group aimed at for Drug Preventive programmes	241
4.4.2.2.2	Type of Preventive work done by Non-governmental organisation	244
4.4.2.2.3	Types of Media used in Awareness building by Non-governmental organisation	247
4.4.2.2.4	Forms of involvement obtained from the Community	250
4.4.2.2.5	The Language in which the programmes are being conducted	254
4.4.2.2.6	Forms of Financing obtained by Non-governmental organisation	257
4.4.2.2.7	Major obstacles faced the Non-governmental organisation in Preventive work	259

Table No.	Title	Page No.
4.4.2.2.8	Number of times in a year the preventive programmes are conducted	263
4.4.2.2.9	Suggestions given by the Non-governmental organisation with regard to Preventive activities	265

Appendix B : Questionnaire

At 1971

Appendix C : Answer

At 1971

Appendix D :

Bibliography

	Page Nos.
Appendix A : Interview Schedule for the Current and Past Drug User	440-446
Appendix B : Questionnaire On Drug Abuse Prevention At The College Level	447
Appendix C : Questionnaire On Drug Abuse Prevention Done By Non-Governmental Organisation	448 - 449
Appendix D : Interview Schedule Used in Case Studies	450 - 452
Bibliography	

1.0 The Present Study

Introduction

Use of drugs for various purposes is not new to any country. The main purposes of drug use are : ritualistic, recreational and medicinal, to induce a feeling of euphoria, or to find the supposed freedom from the feelings of despair, dejection and anxiety. Never before in the history of mankind the abuse of drugs has been such a threat to the quality of life as it is today. In the past, society had not taken any serious note of this problem as addiction was limited only to certain sections of the society and was not of a very high magnitude. Secondly, the substances in use were not as dangerous as they are today. The advent of far more hazardous drugs like heroin, Lysergic Acid Diethylamide, amphetamine and methaqualone on the scene and also the growing incidence of drug abuse even amongst school going children and adolescents has brought the problem into focus throughout the world. The sweep of drug abuse is truly international and thrives on violation of national boundaries and every ethics known to man. The menace, as developing now, has genocidal proportions, sapping the vitality of the younger generation and has to be fought by the collective will of mankind. It has to be combated and prevented for the sake of humanity. Though drug dependence is perhaps the most formidable threat of this century to the progress of the nation, to the potential, creativity of our generation, there is a hope if we act now.

Chapter one deals with the introduction of the study. Chapter two concerns with the review of related literature done abroad and in India. Chapter three describes the method and Procedure used in the study. Chapter four gives an analysis of the data. Chapter five deals with the findings of the study. Chapter six deals with the case studies and chapter seven draws the summary of the findings, implications and suggestions of the study.

The purpose of Chapter I is reflected in ten sections. Section 1.1, deals with the study and its setting, Section 1.2, History of drugs, Section 1.3, The most widely abused drugs, Section 1.4, portrays drugs with reference to India, Section 1.5, deals with the classification of drugs. Section 1.6, depicts the causes of drug abuse Section 1.7, describes the pattern of drug use, Section 1.8, deals with drugs and aids, Section 1.9, discusses the different aspects of drug prevention and the last section 1.10, gives a conclusion of the chapter.

1.1 The Study and its Setting

The place in which the study was undertaken is in the state of Meghalaya which means 'abode of clouds'. True to this name, for half the year, from late April to September, rain bearing clouds envelop the land. The hilltops are usually covered by dense but beautiful clouds making them almost inseparable and indistinguishable. Clouds form a veritable part of Meghalaya befitting the poetic name of the state. It was only on April 2,

1970 that an autonomous state of Meghalaya was formed. The full fledged state of Meghalaya came into existence in January 21, 1972.

The state is a land locked territory of lovely hills with abounding sylvan beauty. It is bounded on the North by Goalpara, Kamrup and Karbi-Anglong districts of Assam state and on the East by the district of Cachar and North Cachar Hills also of the state of Assam. On the South lies Bangladesh and on the West lies Assam.

Carved out of two hill districts of Assam, viz. United Khasi and Jaintia Hills district and Garo Hills District in 1970, Meghalaya is essentially a hill state with a people in varying stages of development. Meghalaya lies between $25^{\circ}47'$ N to $26^{\circ}10'$ N latitude and $89^{\circ}45'$ E to $92^{\circ}47'$ E longitude. The capital of the state is Shillong, one of the loveliest all time hill resorts in the East often known as the 'Scotland of the East'.

Area

The total area of the state is 22,429 sq. Km. with a population of 17,74,778 (according to 1991 census). The state is now divided into seven administrative districts. They are (i) Jaintia Hills district created on February 22, 1972, (ii) East Garo Hills district created on October 22, 1976 and (iii) West Garo Hills District. (iv) East Khasi Hills district and West Khasi Hills district created on October 28th 1976. (vi) Ri Bhoi

district on June 18, 1992. (vii) South Garo Hills on June 18, 1992. These districts are predominantly inhabited by the Khasi, Jaintias and Garos. These tribal communities are descendent of the very ancient people having distinctive cultural traits and ethnic origins.

Population

According to the 1991 census, the total population of Meghalaya is 17,74,778. If we take district wise count we find the following table :

Table 1.1
Area and Population

District	Headquarters	Area	Population
Jaintia Hills District	Jowai	3819	220473
East Khasi Hills*	Shillong	2748	537906
Ri Bhoi*	Nongpoh	2448	127312
West Khasi Hills	Nongstoin	5247	220157
East Garo Hills	Williamnagar	2603	188830
West Garo Hills*	Tura	3714	403027
South Garo Hills*	Baghmara	1850	77073
Total	Area+ Population	22429	17,74,778

* - Provisional figures.

Sources - (1) Census of India 1991 and
(2) Community Development Department.

Cultural Heritage

Meghalaya is the homeland of three of India's ancient hill tribes the Jaintias, the Khasis and the Garos. Dance, Music and sports reflect their way of life. Festive sounds of merry-making echo from hill to hill revealing the pulsating life of the tribal people. Mindful of their cultural heritage, these simple folks are jovial and hospitable.

The Khasi and Jaintias are held to be remnant of the first Mongolian overflow into India. They established themselves in the present homeland in the remote past and owing primarily to their geographical isolation they succeeded in maintaining their independence until the consolidation of the British administration in this part of India. The Khasi language, spoken by Khasis and Jaintias is believed to be one of the very few surviving dialects of the Mon-Khmer family of languages in India today.

A distinctive feature of the Khasi Jaintia society is its customary law of inheritance by which inheritance to property and succession to tribal office both run through the female line passing from mother to the youngest daughter. Office and management of property is of course in the hands of the women themselves.

The Garo hills is the homeland of Garo's. The Garos originally inhabited a province of Tibet in the distant past.

Under their chiefs Jappa-Jalimpa and Sukpa Bongepa, the Garo's wandered in the Brahmaputra valley for centuries in search of a permanent home and survived the ordeals of wars and persecution in the hands of the kings ruling the valley. The Garos branched out into a number of sub-tribes and the main body, under the legendary leader, Abong-Noga occupied Nokrek, the highest peak in Garo Hills. The Garos are part of the great Bodo race, a branch of the Tibeto-Burman family. They mainly practice jhum cultivation. Like the Khasis and Jaintias they are a matrilineal society. These sturdy people are fond of dances, songs, sports and festivals.

Meghalayans are industrious people, generally good tempered, but they are occasionally prone to outburst of anger accompanied by violence. This is due to the spirit of freedom which seems to be innate in them.

Political Organization

The Khasi, Jaintia people have never been ruled by outsiders prior to the British conquest in the early part of the nineteenth century. The region was divided into a number of wholly autonomous political units. There was no centralized political structure. The twenty-nine Khasi states functioned independently as sub-ethnic units. Each of the state was governed by a Durbar presided over by the chief and consisting of representatives of the ruling families and villages within the state. There was no comprehensive political structure linking the

whole Khasi, Jaintia people. The political units were entirely independent of each other and were ruled by chiefs variously known as Syiem, Lyngdoh, Wahadar, Dolloi and Patoi. Each state had a similar form of government which was basically democratic.

(2) The Durbar
several v Durbars differ in their composition from place to place and Durbars inside one Syiemship are numerous. They are :

village headman
(1) Durbar Hima (State Durbar) was the supreme authority of the state. The state Durbar included the chief, Ki Bakhraw, in addition to these it also included representatives of the Raid and village councils. The chief summoned the Durbar and acts as its president. All the clan councils, village Durbars etc. were joined together in the state Durbar.

rearing etc. 11
purpose The cultural integrity of the state centered around the Durbar Hima. It maintained law and order, it was the keeper of the traditional customary laws and exercised power in maintaining the moral behaviour of the people. It was the highest legislative, judicial and an executive body.

Durbar Shrong
presided It also acted as a supreme court. The chief and ki Bakhraw served as chief Justice and Judges. In Khasi-Jaintia political system there were a number of judicial bodies, beginning from the family level and moving up through the level of the clan, village and raid upto the state level. All cases that could not be solved at the lower levels were referred to the

state court. The Durbar Hima was not only responsible for settling disputes but it was also responsible for executing its decisions.

(2) The Durbar Raid : The Raid Durbar covered an area comprising several villages. The Rangbah Raid (Headman of the Raid), elected by the Durbar Raid was the executive head. Normally, all the village headman were the members of the Durbar Raid, but in some cases additional representatives were elected. The elected members acted in an advisory capacity. The officers of the Durbar Raid were not hereditary but once chosen the members at least served for life. The function of the Durbar Raid was to maintain the Raid Lands. It looked after the landless among the people and allocated land for residential purpose, cultivation, cattle rearing etc. It allocated some part of the Raid land for public purposes such as cremation and sports ground. It looked after the forests and ensured that trees were not felled indiscriminately.

(3) The Village Durbar : Each Khasi-Jaintia village was an organized political unit. As such it had its own council (Ka Durbar Shnong). The village headman (i.e., Rangbah Shnong) presided. His office was elected not hereditary, but once elected served for an unspecified number of years. Its memberships consisted of the male representatives of each family. They acted as advisors to the headman. The village Durbar was responsible for the welfare of the village. It maintained law and order, implemented development schemes such as road and bridge making,

provision of water supply, construction of stone monuments and imparted training in the art of self-government. It saw to detection of crime and apprehension of culprits. It arranged election or deputation of representatives to state councils. It prescribed rules of conduct and because of the total village participation, it became itself a training ground in citizenship, welfare, oration and even in the resumption of economic activities. It channelised different means of village education acquainting young men in welfare, dance, music, social service and specialization in other other subjects including the use and veterans in martial arts. The Village Durbar also had a judicial function. It tried cases including such crimes as murder, assault, theft, robbery, sorcery, adultery and a rare case of rape. Conflicts among members of the clan were brought to the Village Durbar when they could not be settled within the clan.

(4) **The Clan Durbar** The clan constituted the nucleus of Khasi-Jaintia society. About every clan had its own clan Durbar (Ka Durbar Kur) consisting of the male members representative of each family or sometimes of sub-clan (Ka Kpoh). The eldest member of the clan was always appointed clan Headman (U Rangbah Kur), commonly referred to as U Kni Rangbah (the Head Uncle). He had to be able to preside over the Durbar as its executive head. Decision were made by consensus rather than vote. Its meetings were always held at the original house of the clan (Ka Ingseng). Its duties were to look after the clan property (Ri Kur) and to settle dispute among clan members including trying cases of

theft, adultery, trespass, damage to property etc. It is also responsible for looking after the clan's general welfare including the provision for assistance to landless members. The Rangbah Kur serves as clan priests, performing all clan rituals assisted by his brothers and nephews.

Thus the traditional political structure was based upon inter-linking hierarchy of Durbars - clan, village, Raid and State which combined a modified form of democracy with hereditary elements.

Education

In Meghalaya the number of educational institutions are

as below :

Table 1.2
Number of Educational Institutions in Meghalaya

Sl. No.	Institutions	1990-91
1.	Pre-Primary + Pre-Basic	1272
2.	Primary + Junior Basic	4273
3.	Middle + Senior Basic	805
4.	High & Higher Secondary	447
5.	Basic & Non-Basic Training School	10
6.	Teachers Training College	1
7.	Polytechnic	1
8.	Colleges for Arts, Science and Commerce	23
9.	University	1
	All Institutions	6833

Source : Directorate of Public Instruction, Meghalaya.

The colleges in Meghalaya are divided into (i) Government Colleges, (ii) Deficit Colleges, (iii) Adhoc Colleges and (iv) Private Colleges.

The percentage of literacy in Meghalaya is:

Table 1.3
Percentage of Literacy in Meghalaya 1991

Sl. No.	District	Literacy rate (in %)		
		Persons	Male	Female
1.	Jaintia Hills	35.32	34.37	36.31
2.	East Khasi Hills	60.04	62.86	57.04
3.	West Khasi Hills	50.52	52.98	47.94
4.	East Garo Hills	48.38	54.70	41.70
5.	West Garo Hills	39.32	46.93	31.32
6.	Meghalaya	49.10	53.12	44.85

Source : Census of India, 1991.

Health

Meghalaya has several general hospitals and dispensaries. Important among them are the Civil Hospital at Shillong, Jowai, Nongstoin, Tura, Williamnagar, the Khasi-Jaintia Presbyterian Synod Hospital, Nazareth Hospital, Ganesh Das Hospital, Military Hospital, T.B. Clinic Hospital based at Shillong. Altogether there are 1811 beds available in these hospitals and dispensaries which are served both by government and voluntary organization. Besides, there are a good number of private nursing homes having specialized physicians practicing in the towns of Meghalaya. There is also Sanker's Rehabilitation Centre established for alcoholics and the drug addicts.

1.2 History The position of government health services which are available in the state are presented in Table 1.4.

Table 1.4
Number of Government Hospitals, Dispensaries, T.B. Clinics, and Bed in Meghalaya

Year	Hospitals	Dispensaries	T.B. Clinic	Bed
1991	8 +	23	3	1811

In conclusion Meghalaya can be summarized as follows.

A. The Land (1991 Census)

1. The Area : 22,429 sq. km.
2. Districts : East Khasi Hills, West Khasi Hills, Jaintia Hills, East Garo Hills, West Garo Hills, Ri-Bhoi and South Garo Hills.

B. The People (1991 Census)

1. Total population : 17,74,778
2. Literacy : 44.85 per cent.
3. Racial Origin of the people : Austric, Tibeto, Burman and Aryan
4. Political Organisations : Durbar Hima, Durbar Raid, Village Durbar and Clan Durbar.
5. Education (Colleges for Arts, Science and Commerce) : 23
6. Health :

Hospitals	-	8
Dispensaries	-	23
T.B. Clinic	-	3
Beds	-	1811
Rehabilitation for Alcoholics & Drug Addicts.	-	1

1.2 History of Drugs

In order to understand and appreciate the present day dilemma, a look at the problem from its historical perspective may prove to be quite rewarding.

The history of non-medical drug use goes back to thousands of years ago, their existence can be traced to pre-historic era. Man consumed the juice of the opium poppies long before there was narcotics such as morphine and heroin. Man chewed coca leaves long before cocaine was extracted from the South American coca plant. Man dried peyote cactus long before hallucinogen was synthesized. Throughout recorded history, drug have been used both for medical, social and religious purposes. Its use to enhance physical well being and to heighten religious and metaphysical experiences are closely related to drug use for its own sake.

Opium was known almost 6000 years ago to the Sumerians who used to describe opium poppy as *hullgil*, meaning a 'plant of joy' (Einstien; 1975). There is a mention of Greek usage of opium around 900 B.C. in Homers writings. Homer's epics the *Illiad* and *Odyssey* contains several references to wine and occasional suggestion that sena heroes perhaps Achillis the hero of the Trojan war suffered from over indulgence. In the '*Illiad*' Helen is said to have brought a drug like substances *Repentha* (which some people believe to be marijuana and others opium) with her to Troy, and in the *Odyssey* the "lotus eaters" encountered by

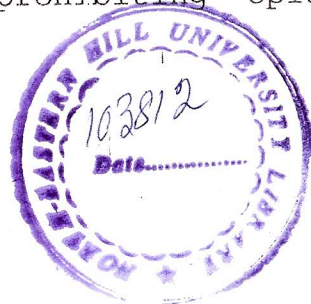
Ulysses suffered from a self-induced lethargy and forgetfulness clearly associated with drugs. There is also a reference of the use of poppy juice in 300 B.C. in the writings of Theophrastus (371-287 B.C.) a Greek naturalist and philosopher. Hippocrates is stated to have made extensive use of opium as a medical herb. The earliest use of opium in Arab countries is in the writings of Al-Biruni (973-1051 A.D.) Arab troops and traders brought the knowledge of opium to Europe and East Asia in the 10th century. It is believed that opium found its way to China also at the same time.

Cannabis finds its first historical mention in the compendiums of the Chinese emperor Shen Nung, written around 2737 B.C. (Coleman; 1976). Cannabis Sativa could be brewed into a tea and was prescribed for use in various ailments in India by about 2000 B.C. and the Indians have been first people to dry the plant and smoke it. About 1000 B.C., cannabis began to be used as a religious hallucinogen, and became a part of the Hindu culture (Einstien; 1975) The Susruta, a treatise produced in India in about 400 A.D., documents local use of cannabis at that time and this and other sources provide unusually detailed information of the specific grades used by Indians. There are three grades of cannabis, varying in pharmacological intensity : Charas the most potent, Ganja the second grade and Bhang the least potent, was brewed into tea by the lowest classes. Ganja a stronger grade was unusually smoked by the middle classes and Charas the most potent preparation (equivalent to hashish) was made into fancy

classes in the Indian society. The word hashish dates from the 11th century. This drug preparation take its name from the Persian cult leader Al-Hassan-Ibn-Alsabbah. 'The old man of the mountains' Hassan led a group of the Isma ili sect of Shi'ite muslims called hashish (hemp eaters) who allegedly incorporated the use of hashish into their violent reprisals against political rivals. In Africa and Asia, it has been in use for the last 3000 years as an intoxicant as well as for the treatment of arthritis, malaria, headaches and constipation. It was also in abundant use throughout Northern Africa at the time of Prophet Mohammed. Apart from the above drugs, ergot fungus found on a seeds of a plant known as 'morning glory' has also been used for hundreds of years by south American Indians to achieve religious hallucination.

Coca appears to have been in use for the last 5000 years or so much before the establishment of the Inca Empire. Coca was considered to be a plant of divine origin by Incas, and its leaves were chewed by the ruling or affluent classes of society at that time.

Sixteenth Century A.D. marks the beginning of the realization that the intoxicants were harmful to human beings. Opium and Cannabis addiction started under adverse notice of rulers in a few countries. The Sultan of Turkey prohibited the use of Opium and Cannabis in the 16th century. Emperors of China issued edicts in the 18th and 19th century prohibiting opium



smoking, and the Egyptian ruler banned consumption of cannabis in 1884.

Towards the end of the eighteenth century, England started selling opium through the East India Company, to China in exchange for tea (Teff; 1975). In 1831, the East India Company supplied Indian Opium worth \$11 million to China and purchased \$8 million worth of tea. After the East India Company had left China in 1834, the trade of opium by British merchants continued unabated. The British government encouraged opium trade between India and China as it was a major source of revenue to the British government ruling India. As the estimated number of opium addicts in the country had reached about 150,00,000 by the mid-nineteenth century. China resisted to the compulsory trade of opium insisted upon by Britain. This resistances led to the First opium war during 1839-42 as a result of which Britain was able to force opium trade on China. In the second opium war with China in 1856, the British with the help of the French forces, were victorious again and China was forced to sign treaties giving opium trading concessions to Britishers. The migration of the Chinese to South East Asia, spread opium addiction to these areas also.

By the eighteenth century, opium addiction had become quite rampant in Europe. In the middle of the nineteenth century, cannabis use became fashionable among Bohemian artistic and literary circles. A club named 'Le Club des Hachichins' was

established in Paris where eminent writers like Baudelaire and Gautier consumed large quantities of cannabis - based sweets under the belief that it promoted creativity. Morphine addiction later came to be known as "The Army disease".

Cocaine was discovered in 1859, and was initially considered to be a harmless stimulant. It was advocated by Sigmund Freud for the treatment of morphine addiction, depression and chronic fatigue (Dusek & Girdano; 1989). It was said that Freud himself was an enthusiastic user of cocaine and considered to be a 'magical drug'. However, it was realised that cocaine had inherent dangers, and that it was a failure in the cure of morphine addiction.

Heroin, an alkaloid of opium, was discovered in 1898 and was sold freely as the sedative for cough in U.S.A. Other opium derivatives were also sold in that country through public advertisement at that time as 'expectorants' and 'soothing syrups'. On the other hand, new drugs of addiction were also being discovered at the same time. Veronal was discovered in 1903, Procaine in 1905 and Phenobarbital. Luminal in 1912. Amphetamine was synthesised in 1927 and its use began in the 1930's when they were widely prescribed for depression and obesity. It was used by both the allied and German soldiers during the Second World War to ward off sleep and fatigue, and also "to give dutch courage before an assault" (Barrymore; 1975). The stimulating effect on amphetamines along with increased

self-confidence and euphoria was soon sought by housewives, truck drivers on long trips and students studying for examination, to keep them alternative to their monotonous task.

sniffing of Volat
continues L.S.D. was discovered in 1938, and Meperidine in 1939. Methadone another synthetic narcotic was developed by the Germans during the Second World War as natural narcotics were not available with them. In 1950 meprobamate was synthesised, introducing the era of minor tranquillizers as among the most widely prescribed drugs particularly Valium and Librium. 1950's and 1960's saw a rash of fad drugs whose popularity was quickly waned. In 1959 there was a craze for glue sniffing among young people. L.S.D was used as an adjunct to psychotherapy in 1950's particularly as a result of proselytizing by Dr. Timothy Leary. In 1970 the drug commonly known as PCP or 'Angel Dust' became so popular among adolescent as a substitute for heroine that in 1978 President J. Carter was forced to enact specific legislation against it. Poly drug use the taking of two or more drugs at once, has also developed in the last decade or so. It is common among some users to take a stimulant in the morning and a depressant at night. Drug abuse has been gradually increasing since the beginning of the 20th century. Therefore efforts has to be made to control this menace.

1.3 The Most Widely Abused Drugs

pot. saw The most common abused drugs world wide at present-are, cannabis; cocaine too is being used to epidemic proportions in

some major drug region. The abuse of amphetamines, barbiturates, sedatives and tranquillizers separately or in combination with other drugs or alcohol is on the rise in more countries. The sniffing of Volatile solvents such as glue or paint thinner continues to be a problem among young people world wide. Poppy straw which is not included on the current international list of controlled substances, is emerging as a new drug of abuse being smoked usually in tobacco mixture.

Cannabis

The hemp plant Cannabis has been used as an intoxicant over the last four or five thousand years. It is the Indian hemp (*Cannabis sativa*), now cultivated and growing wild in many countries of the temperate and tropical zones. It originated in Central Asia. The resin, flowering tops, leaves and stems contain the psychoactive substances, Tetrahydro Cannibinor (THC). The highest concentration of THC is in the resin. Male and female plants occur separately. The female plant is taller, broader and longer lived, it can reach 30 feet average height; 4 to 8 and 2 inches in diameter. Cannabis is classified as Hallucinogen though in very high dosages it can produce psychedelic effects; but it also exhibits some characteristics of depressant (Sedation), narcotics, (analgesic) and even stimulants enhanced perception. For three millennia, people in Africa and Asia have been smoking it often mixed with tobacco. It has a number of names including pot, ganja, bhang, grass, blow, dope, charas, weed, hash, hashish, honey, marijuana, shit, bush. (Menon; 1989).

Morphine The coca bush (*Erythroxylon coca*) an evergreen shrub is cultivated in the mountaneous western region of south America. Cocaine is a stimulant and can be sniffed, smoked or injected. A new more addictive form of cocaine called 'crack' is smoked in crystalline form giving quick intense high which last for few minutes and leaves the user desperate for more. It is mainly 'snorted' through the nose but may also be injected, cocaine may be taken by 'free-basing'. Thus like 'chasing the dragon' involves heating the drug and inhaling the fumes. In North America much of the present concern relates to a form of cocaine called 'crack' (Health Education Board for Scotland, Scottish Drug Forum; 1992). Crack abuse is harmful to the brain, heart, lungs and nervous system and also produces serious psychological effects.

Opiates

The opiates are derivatives from the resin of the pod of the opium poppy (*papaver somniferum*). The commonly encountered alkaloids include morphine and codeine. Heroin is produced from morphine by treating it with acetic acid. It grows in the temperate and sub-tropical climates and appears to have originated in the Eastern Mediterranean region about 5000 years ago. Its use spread rapidly to Persia, Egypt, China and Europe. Opium is now used as an important raw material for licit manufacture of morphine, codeine and their derivatives. Unfortunately, it is also the raw material for the illegal production of heroin.

Morphine and its derivatives

Morphine is the main active principle of Opium. It may be extracted either from Opium or directly from poppy straw. Physical dependence to morphine develops quickly and increases in intensity with increased dosage leading to addiction. Withdrawal symptoms begin within a few hours after the last dose reaching maximum intensity within 24 to 28 hours, and then subsides.

Heroin: (Diacetylmorphine)

This is obtained from morphine by a simple chemical process. Heroin is a central nervous depressant which relieves pain. It was developed in 1898 by Bayer Company in Germany. It is addictive as morphine. Depending on the method of administration it induces different degrees of Euphoria. After a 'Fix' a sense of well being replaces feelings of depression or low esteem and this is followed by sleep 'going on a nod'. Tolerance to heroine builds rapidly and stronger doses are needed. Both psychological and physical dependence develop rapidly. It produces a very strong dependence and is a choice drug by many users. World Health Organisation (W.H.O.) and the United Nations Commission on Narcotics Drugs recommended a ban on both the manufacture and use of heroin and most of the member countries have complied with this recommendation.

Other Morphine Derivatives

A number of chemical derivatives of morphine which closely resemble the parent substance in both therapeutic

properties and addictive side effects are also subject to international control. Codeine (methyilmorphine) is used extensively as an effective cough suppressant and mild analgesic with a comparatively low addictive potential.

Synthetic Opiates

A number of strong analgesics with morphine - like effects were developed in the late 1930's with a view to obtaining a powerful but non-addictive pain reliever. The number of synthetic analgesics developed to date and under international control far exceeds that of "natural" drugs, but only a few of these synthetics have entered the illegal world market because they are usually difficult to manufacture. Scientific Research continues to seek an effective analgesic that produce the beneficial effects of morphine and its derivatives without causing dependency.

Stimulants

The naturally occurring stimulants are coffee, tea, betel, kava, khat, coca (either plants ingested directly or products derived from plants and processed for consumption without elaborate chemical preparation). Synthetic stimulants of which the amphetamines are the most important in terms of non-medical use, are a twentieth century product. They elevate mood, relieve fatigue and feeling of hunger. They are used for euphoric effects and curbing obesity (Blum & Associate; 1969).

Betel

The areca nut, or betel and the betel leaf, which is chewed as a quid, are given earliest notice according to Lewin, by Theophrastus in 340 B.C. used was widespread in Persia by 600 A.D. for, by that time, over 30,000 betel selling shops were described by the historian Ferishta (cited by Lewin) in one town. Indians by the tenth century used it as a "national custom" and it is assumed that Arabian travelers, so important for drug diffusion during medieval times, brought it to their countries and to Africa from India. It is a commercial product used by men and women but it may be turned to particular interest, for example Lewin says that Burmese monks used it to inspire self reflection. A mild substance ordinarily producing a pleasant sensation in the mouth (for those used to it) as well as stimulation, it is nevertheless said to be the focus of compulsive use; Lewin is of the opinion that its use is helpful digestively in Far Eastern diet. In the case of betel, in Thailand it is chewed with *Mitragyna speciosa* which according to Schultes has narcotic properties. Ford says betel is important in establishing friendships, in courtship, and in marriage. Betel use is a social as well as an individual activity (Blum & Associate; 1970).

Amphetamines

Amphetamines are stimulants. They are synthetic amines which are in many ways similar to the body's own adrenalin (epinephrine). These drugs generally evoke an arousal or

activating response not unlike one's normal reaction to emergency or stress' (Interim report of the Canadian Commission of Inquiry; 1970). Amphetamines were first synthesized in the early part of the century and entered medical use by the 1930's. They induce a feeling of euphoria and confidence and suppress appetite. Effects are greatest if injected and this practise is extremely dangerous due to the presence of non-soluble ingredients or impurities in illicit drugs and the risk associated with the sharing of the equipment. High doses of amphetamines may produce unpleasant delusions, intense suspicious and disturbed behaviour. Psychological dependence upon these drugs may develop. Although there are no physical withdrawal symptoms, withdrawal may cause even severe suicidal depression. The most common amphetamines stimulants are Benzedrine, (bennies), Dexedrine and Preludin (Jamieson; 1984). Other drugs with some what similar pharmacological properties are phenmentrazine (preludin) methylphenidate (Ritalin) and pipradol (Meratran) Common slang terms for amphetamines include `speed', `crystal', `meth', bennies', `dexies', `A', `uppers', `pep-pills', `diet pills', `jolly beans', `truck drivers', `co-pilots', `eye openers', `wake-Ups', `hearts' and `footballs' (Interim Report of the Canadian government Commission of Inquiry, 1970).

Depressant

Drugs which acts on and slow down the action of the Central Nervous System (CNS) diminishing functions. Opiates barbiturates, Alcohol and sedative (tranquillizers) are the most

used and abused depressant. They work primarily on the brain depressing the psychomotor activity and relieving tension and anxiety. Barbiturates generally refers to drugs which are derivatives of barbituric acid. Barbital, the first drug of this class to be synthesized, was introduced into medicine in Germany in 1903. Thousand of barbiturate acid derivatives have been synthesised, manufactured in the form of tablets, capsules, suppositories, liquid for injection etc.

The brand names are Seconal, Tuinal, Nembutal, Amytal, Seneryl, noctate, amytyl and Heminevrin. These drugs are frequently referred to as 'Barbs' 'nemmies', 'goofballs', 'yellow jackets', 'red devils', 'downers' or 'sleeping pills'. (Interim Report of the Canadian Government Commission of Enquiry'; 1970). Alcohol which includes beer spirit and wine is a depressant. Although the inhalation of Volatile solvents which includes aerosols, gasoline, glues, solvents, butyl nitrates (room adorizers) lighten fuel thinner and paint far non - medical purposes has been known for well over a century, it was only within the last decade that such practices have come to the regular attention of public health officials. While the recent practice of adolescents 'glue sniffing' has received the most publicity, a wide variety of other substances and practices have been involved. The psychological and physiological effects of the Volatile solvents are in many respects similar to the sedative. Alcohol and barbiturates in low doses can produce considerable behavioural and psychological arousal while higher amounts

usually result in sedation and a general reduction in activity. Higher doses may produce laughing and silliness, feelings of floating and being 'out of contact', dizziness, perceptual distortions of time and space, illusions, confusion, drunkenness slurred speech, blurred vision, a feeling of numbness, nasal secretion, watering and irritation of the eyes, the nose and lining of the respiratory system, headache, incoordination. Persistent use of glue can damage the bone marrow and liver. Anemia is the most common manifestation of chronic toxicity. As the dose is further increased, the general sedating - anesthetic effects dominate and drowsiness, stupor, respiratory depression and, finally unconsciousness result. Additional quantities may inhibit breathing and produce death (Watson; 1986). Tranquillizers are depressant mainly used for medical purposes. Tranquillizers are generally classified as major and minor. Major tranquillizers such as phenothiazines are usually, only used for psychoses. Minor tranquillizers, the type most sought by drug abusers are used in the treatment of anxiety and tension. They include meprobamate (Equanil and Miltown) and chloridiazepoxide (Librium & Valium). They are classified as sedatives. They are used to relieve tension and anxiety and also to treat mentally disturbed patients such as schizophrenics and also to treat alcoholics.

Hallucinogens

They constitute a chemically diverse group of drugs such as L.S.D., Mescaline, peyote, psilocybin, Datura and Fly

Agaric (a mushroom) which produces profound mental changes such as euphoria, anxiety, sensory, distortion, vivid and visual and auditory hallucinations. These drugs cause concern not because they produce physical dependence, but because their effects are unpredictable. By far the most commonly used of these is L.S.D. (Lysergic acid Diethylamide) colloquially known as 'acid'. Fungi such as Liberty cap and Fly Agaric may produce toxic effects, hallucination, sleep disturbances and nervous tension. P.C.P. or 'Angel Dust' is a cause of wide spread problems in North America. Hallucinogens alter the way in things. They may cause hallucinations and confusion (rather like delirium experienced by young children with high temperature). Some users experience changes in their personality after using these drugs and these may be long lasting. It can be particularly dangerous to body and mind to use hallucinogens while alone, since a panic reaction can be extremely frightening under such circumstances or extremely dangerous exploits attempted e.g. 'flying' from a high building (Scottish Health Education Group; 1988).

1.4. Drugs with Reference to India :

Not only among Chinese Assyrians and Greeks but also among Indians much earlier than any other part of the world; the use of drugs was prevailing. The use of liquor and other drugs prevailed in all the ages of our Indian History both Vedic and post Vedic Ages. Though Puranas condemned drinking, some reference to wine is found in Sutras and Ramayana etc. 'Cannabis was introduced in India by about 2000 B.C. and the Indians have

been the first people to dry the plant and smoke it'. Some rasa used by the Gods mentioned in Hindu mythology, was a portion probably made of fly agaric, a mushroom.

The use of mushroom exists and persists in certain parts of Southern India. Prevalence of *Cannabis sativa* *paper* *somniferum*, Nicotine and homebrewed liquor has been documented in different cultural contexts in the country. Cannabis was known in India for its "stimulating and euphoric properties", was mentioned as a "sacred grass" in the Atharva Veda (2000 - 1400 B.C.), the earliest recorded reference in Hindu writings (Chopra; 1969) and was used in ancient Hindu medicine as a rostrum for a wide range of complications. It was closely associated with ritual and provided the basis for a restorative and refreshing drink called bhang, still commonly taken in India. Bhang, a Hindu term derived from Sanskrit bhanga, is probably the earliest form of cannabis use, although the smoking and eating of the plant are from all accounts also centuries old practices in India.

Cannabis has been a household remedy in India since ancient times. Dispersed by native doctors, it has been one of the most important drugs in the Indian materia medica. It has been used as a poultice for wounds, as a prophylactic against malaria, as a cure for leprosy, as a vermifuge and to "correct derangements of the humours". Indian medical work dating back to 1300 A.D. also list among the effects of cannabis that it

`sharpens the memory', `sharpens the wits', `creates energy' and `stimulates mental powers elixir vitae'.

The British government in 1893 appointed the Indian Hemp Drug Commission "to enquire into, and report on the cultivation of, and trade in, all preparation of hemp drugs in Bengal, the effect of their consumption upon the social and moral condition of the people and the desirability of prohibiting its growth and sale". The Commission witnesses testified that cannabis is refreshing and stimulating, alleviates fatigue, creates the capacity for hard work and ability to concentrate and gives rise to pleasurable sensation so that one is at peace with everybody (Great Britain 1969).

According to Hindu mythology, cannabis is a holy plant, given to man, for the "welfare of mankind," the Moslems as well as Hindus share the belief that ganja is a "holy plant" (Chopra; 1969). Witnesses from the Commission reiterated the ancient belief that ganja has divine properties brought from the Himalayas by Shiva the Hindu deity in special prayers before ganja is offered to Shiva during temple worship of the Gods. Ascetics and religious medicants often take to cannabis drugs to overcome hunger and thirst. Under its influence they can go without food for days. There is also a belief with them that these drugs help in the concentration of mind towards meditation. Cannabis is used in worship and in offerings made on the fulfillment of vows and bhang is customarily served at weddings and at

religious festivals (Great Britain; 1969), Bhang is also taken as a beverage called thandaii and serve as a sweetmeat and is sometimes used in urban areas in making ice-cream.

The high castes among Hindus who are forbidden the use of alcohol, are allowed to drink bhang sharbat after a fast. Among certain sects in Bengal, a beverage prepared from the leaves of the plant is offered to various family members and to guest present on the last day of Durga puja. Ganja is used as an offering on Tarakeshwar temple on Shivaratri day and on festivals such as Trinath puja. In Jagannath Puri (Orrisa), Ganja and Bhang are largely used by the attendants and worshipers of the Lord. Worshipers of Shiva in Bombay generally use Ganja. Bhang is drunk by certain classes during the Holi and Diwali festivals, marriages ceremonies and other family festivities. Among the Sikhs, the use of Bhang was quite common twenty to thirty years ago and these beverages were freely distributed to devotees visiting some of their religious places and Shrines. Drinking of Bhang is also in vogue in Rajputana during the festival of Kama (Indian Cupid) by the Rajputs of Bondil. Marwaris and merchant classes use bhang on festive occasions. Chaubas, brahmin priests of Mathura, Brindaban and other places of pilgrimage are notoriously addicted to bhang, even now. Mohammedan fakirs revere bhang as the giver of long life and believe that it frees them from worldly bonds and induces communion with the divine spirit'. Ubiquitous overt use of ganja of secular purposes particularly smoking was confined to the lower class and was extensively used

"among the poorer sections of the population" (Chopra 1969). They were treated by the educated "higher class" people with disrespect and referred to as ganjari a term of contempt like "drunkard". It is interesting to note that the use of opium by the "higher classes" was not considered inappropriate (Great Britain; 1969).

The Commission found only a small percentage of cases in which "hemp drugs might be reasonably regarded as a factor causing insanity" (Great Britain; 1969).

The history of Opium in India is well described by Chopra & Chopra (1965) (Blum & Associates; 1969). The earliest mention of Opium as a product of India was made by the traveler Barbasa in his description of the Malabar coast in 1511, and the Portugal in 1516 spoke of opium of Egypt and Bengal. The first recorded instance of the cultivation of poppy in India in the fifteenth century mentions Cambay and Maliva as the places where it is grown. It appears to have been cultivated first along sea-coast areas and to have penetrated later into the interior of the peninsula. So extensively was the poppy grown at the time of the Mughals that opium became an important article of trade with China and other Eastern countries (Chopra & Chopra; 1965).

During the Mughal (Timured) period, Opium trade with China was of great importance and was a state monopoly; in 1757, the monopoly passed into the hands of the East India

Company and from there, first, to the British and then to the Indian governments. During the time of the Mughals, beginning with Babur and continuing with Akbar, opium taking was so popular among all classes. The nobility drunk "charburgha", which was a mixture of hemp, opium wine, and kuknar opium was also taken with water or pill form. In 1893, the Royal Commission issued its voluminous report on opium and on cannabis, which concluded that opium smoking was rare but adult drinking and pill use were common and that it was used to treat ailing infants or given to them and their mothers left them to work. Chronic opium eating was limited to older persons. Its folk medical use was paralleled by and probably derived from its employment in traditional Ayurvedic and Unani (Tibbi) medicine, probably being adopted in these systems in the fourteenth and fifteenth centuries. It continues to be used in Indian traditional medicine (only occasionally including dosing infants) and is now eaten and smoked by what is reportedly a very small sector of the lower classes, where Chopra & Chopra state it as a group rather than an individual activity. In India, medical use was paramount after opiums introduction by the Moslems, and opium remains an important feature of Ayurvedic medicine (Dwarkanath; 1965). There are Indian references to its use to keep political enemies out of circulation (doping them up) or indeed to keep profligate sons from gambling and wenching (Chopra; 1955) by sedating them. But most applications seemed to have been for insomnia, nervousness, upset stomach, diarrhoea, rheumatic pains, and the like. Infants left by their mothers were given opium to lull them to sleep. It

was advertised as a proloner of sexual intercourse and for refreshing the weary.

The use of opium in India could best be discussed in three phases : first phase, until 1893, when there was no restriction on the production and sale of Opium to public & prices were low; second phase, 1893 - 1948 leading to the regime of restriction and increase of prices and third phase, present situation.

First Phase (up to 1893):

The use of opium was prevalent at the time of Akbar is shown by references made to it by Abul - Fazl in his Ain-i-Akbari. He states that even the Emperor occasionally indulged in taking opium and 'Kuknar' a beverage prepared from the poppy capsule. Most of the nobility of the courts of Akbar and Jahangir used a beverage, composed of a mixture of hemp, opium, wine and kuknar, called 'Charburgha'. Kasumba was also taken in the form of a drink.

Second Phase (1893-1948):

The first comprehensive study of the problem began with the appointment of the Royal Commission in 1893 for enquiring into the sale and production of Indian Opium. It arrived at the conclusion that opium smoking and the use of the decoction were rare and the main use was for oral consumption by adults and doping of infants. Rev. Paton (1924) of the National Christian

Council concluded "Taking the country as a whole, its (habitual use of opium) is comparatively rare". Chopra and co-workers (1928) took up a detailed study of indulgence in opium all over India and effects produced by it. They were forcibly struck by the fact that the habitual use of Opium was not so common in India as might have been imagined from some of the publications dealing with this question. Although there were certain areas and certain classes of the population which were badly affected, these formed a very small minority. The Government, however were taking keen interest in these areas and had appointed local committees to enquire into the causes of the high incidence of addiction there and to make recommendation with a view to their eradication. These committees submitted their reports and suggested such measures as compulsory registration of addicts, further raising of price, stricter regulations regarding retail sale, sale on medical certificate only, etc. These were gradually introduced.

Third Phase (1948 upto the present situation) :

With the introduction of complete prohibition since Independence, of the sale of opium in open market in all the states and with the gradual ten percent cut in the annual supply of excisable opium, the evil has been completely arrested. This is also borne out by the fact that the quantity of excise opium issued for consumption in the Union of India was reduced in 1960 - 61 to nearly one - nineteenth since 1947 - 48 (Chopra & Chopra; 1965).

The first use of cocaine for euphoric purposes has been recorded in 1880 in Bhagalpur in a town in Bihar, state of India. It spread along the main routes of commerce from one urban centre to the next (Chopra; 1935). Its use spread from Calcutta to other towns in Bihar, Uttar Pradesh and Punjab chiefly through betel leaf sellers and peddlers. Production of cocaine is in Andean Region which is far away from India (Pauizi; 1988).

Reference to the use of alcohol in India can be traced back to 2000 B.C. Books of the old Hindu medicine about chronic alcoholism and delirium tremens. Consumption of alcohol was forbidden by scripture but still men indulged themselves in the use of liquor. With the advent of Buddhism, sobriety among the masses increased. Monarchs like Allauddin Khilji and Aurangzeb not only practised abstinence but also imposed total prohibition. With the British rule in India, consumption of alcohol increased as the production was increased to earn regular revenue.

Use of tobacco in India has been prevalent since time immemorial. Tobacco smoking in the form of biri and cigarettes has been widespread while hookah is also used in rural areas. However used as 'snuff' is not as widespread as tobacco smoking. In production of tobacco, India comes next to United States and China (Chopra & Chopra; 1965).

Geographical location of India between two major belts of narcotic producing countries i.e. the Golden Triangle (Burma,

Lagos and Thailand) and Golden Crescent (Pakistan, Afganisthan, Turkey and Iran) and smuggling of these products through India to Western countries where their demand is abundant, have created a favourable condition in India for the malady of drug addiction to proliferate (Ghosh; 1987). Finally it may be summarised that narcotics, tobacco, alcohol, cannabis and cocaine are commonly used in India. However, use of barbiturates, amphetamines and hallucinogens is relatively recent as these are manufactured substances.

5 Classification of Drugs

For the classification of drugs there are no specific classification systems. If an attempt is made to classify the drugs based on its specific properties it must be realized that not all drugs are similar in their properties and reaction. The same drug could have different affects on different people because the effects vary depending on the individual, the quantity consumed, the method by which the drug is administered and even on the circumstances prevailing at the time of consumption. The same drug can create unpleasant mood at one time and elate mood at another.

Drugs are medically classified under the following headings.

- (i) Narcotics
- (ii) Depressants

(iii) Stimulants

(iv) Hallucinogens

(v) Cannabis

(iii) Alcohol

The drugs can also be classified according to the degree of severity and implication of particular addiction. Chopra and Chopra (1965) having provided this information about this as shown in the following Table (1.5).

Again Chopra and

Table 1.5
Drugs in Decreasing order of importance

Expenditure	Narcotics	Tobacco	Alcohol	
Time of Addiction	Narcotics (Weeks)	Barbiturates (Months)	Alcohol (Years)	
Suffering when Unobtainable	Narcotics	Barbiturates	Alcohol	
Burden on Society	Alcohol	Narcotics	Barbiturates	Tobacco
Burden on Public Health	Tobacco	Alcohol	Barbiturates	Narcotics
Revenue	Tobacco	Alcohol		

Again Chopra and Chopra (1965) report that the following have been listed as the addiction drugs of importance in U.S.A. under the term addiction :

(i) Opiates and Synthetic Analgesics (Opium)

Laudanum, peregoric, morphine and its derivatives methadone and merperidine.

(ii) Hypnotics and Sedative Drugs

Barbiturates, choral hydrate paraldehyde and branides.

(iii) Alcohol

(iv) Cocaine

(v) Certain symphaminatics, amphetamines and methanphitamine.

(vi) Marijuana (Cannabis)

Again Chopra and Chopra (1965) report that there are classification according to physical behaviour and source. On the former basis drugs can be put under two categories.

(1) Stimulants

Cocaine, Amphetamine, Nicotine, Caffeine and Khat.

(2) Depressant

Narcotics, Cannabis, Barbiturates (and again there is no mention of Hallucinogen which may be under the depressant drug category).

The Interim Report of the Canadian Government Commission of Inquiry (1970) Classification of Drugs is as follows : Drug classifications based on a variety of different considerations have been developed and there appears to be little general agreement as to the optimal scheme for ordering the universe of biologically active substances. For example drugs might be organised according to chemical structure, clinical

therapeutic use, potential health hazards, liability to non-medical use, public availability and legality, effects on specific neural or other psychological and behavioural processes. The classification systems developed from these different approaches may show considerable overlap, although there are often striking incongruities for example, some drugs which appear very similar in chemical structure may be quite different in pharmacological activity and vice-versa. The most useful organisation depends on the intended use of the classifications.

Since our major concern here is with the effects of psychologically active substances, our interim drug classification is based primarily on general psychological and pharmacological considerations. They are classified into eight major classes and are presented along with some examples of drugs from each group.

Classification of Major Psychoactive Drugs

1. Sedative and Hypnotics

Barbiturates : for example

Veronal* (barbital)

Seconal* (Secobarbital)

Nembutal* (Pentobarbital)

Minor Tranquillizers : for example,

Librium* (Chlordiazepoxide)

Valium* (Diazepam)

Doriden* (Glutetimide)

Miltown* (Meprobanate)

Other - for example,

bromides, alcohol (ethanol), paraldehyde, chloral hydrate, antihistamines (e.g., Gravel*), anticholinergics (e.g., datura stramarium, atropine, scopolamine (Somnex* and Compoz*)).

2. Stimulants^a

Amphetamines : for example,

Benzedrine* (amphetamine)

Dexedrine* (dextroamphetamine)

Methedrine* (methamphetamine)

Others - for example,

Ritalin* (methylphenidate), Meratran* (pipradol), Preludin* (phenmetrazine), Cocaine, ephedrine, Caffeine (coffee, tea and cola drinks), nicotine (tobacco), Khat.

3. Psychedelics and Hallucinogens^b

LSD (Lysergic acid Diethylamide - 25, lysergide)

Cannabis (marijuana, hashish)

THC (Tetrahydrocannabinol)

Mescaline (Peyote)

trichloro Psilocybin

oxide, f DMT etc (diethyltryptamine)

DET (diethyltryptamine)

6. Non Narcotic DOM (STP, dimethoxymethamphetamine)

MDA (Methylenedioxyamphetamine)

MMDA (methoxymethylenedioxyamphetamine)

LBJ (methylpiperidylbenzilate)

7. Clinically PCP (Sernyl*, phencyclidine)

4. Opiate Narcotics^a

Opium (e.g., Paregoric*, Pantopon*)

Heroin (diacetylmorphine)

Morphine

8. Major Codeine (methoxymorphine)

Synthetics - for example,

Deremol* (pethidine)

Alvodine (piminodine)

Dolophine (methadone)

5. Volatile Solvents^b

Sources : Glue, gasoline, paint thinner, nail polish, nail polish remover, lighter and cleaning fluid, spray cans etc.

Active Agents : Toluene, acetone, benzene, naphtha,
trichloroethylene, ether, chloroform, amyl nitrate, nitrous
oxide, freon etc.

6. Non Narcotic Analgesics^a

Aspirin* (acetylsalicylic acid)

Phenacetin* (acetophenetidin)

7. Clinical Anti Depressants^c

Manoamine Oxidase (MAO) inhibitors e.g.,

Nardil* (Phenelzine)

Tricyclics - e.g.,

Tofranil* (Imipramine)

8. Major Tranquillizers^c

Phenothiazines - e.g.

Largactil* (chlorpromazine)

Rauwolfia alkaloids (snake root) - e.g.,

Serpasil* (reserpine)

Butyrophenones - e.g.,

Haldol* (haloperidole)

Thioxanthenes - e.g.,

Taractan (chlorprothixene)

* - Registered Trade name.

- a - used medically and non-medically
- b - Little or no medical use
- c - Wide medical use, and little or no medical use.

The sedatives and hypnotics (e.g., alcohol, barbiturates, sleeping pills, and minor tranquillizers) generally decrease the central nervous system (CNS). They are used medically to reduce anxiety and tension, to produce general sedation and at higher doses, sleep. The anticholinergic substances (e.g., belladonna alkaloids) are after used as sedatives at low doses although larger amounts may produce excitation and delirium.

The stimulants (e.g., amphetamines or 'speed', 'diet', and 'pep pills', caffeine, and cocaine) generally suppress appetite, increase activity, alertness, tension and general CNS arousal, and at higher doses blocks sleep. Tobacco (nicotine and coal tars) is usually considered a physiological stimulant although a variety of other effects are not uncommon.

The third group includes drugs described as psychedelic (mind manifesting), hallucinogenic (hallucination producing), psychotomimetic (psychosis-imitating), illusinogenic (illusion producing) and psychodysleptic (mind-disrupting). These drugs may produce profound alteration in sensation, mood, and consciousness at doses which result in comparatively light physiological activity. LSD and marijuana are example from this group. The

medical value of these drugs is the subject of considerable current controversy.

The drugs in the fourth category have traditionally been referred to as narcotics or opiates and are derivatives of, or pharmacologically related to, products of the opium plant. The best known examples are heroin, morphine and codeine. The word 'narcotic' has been used inconsistently in scientific as well as lay language considerable disagreement in legal matters (for example, marijuana, cocaine, other non-opiates are frequently controlled under laws regulating narcotics, in spite of the fact that they are pharmacologically different from this group). The use of the term 'opiates' is generally more specific, although its application has not always been limited to these drugs. Consequently, the specific term opiate narcotics is suggested to reduce ambiguity. These drugs are used medically for their pain-relieving effects.

The fifth group is an aggregate of chemically diverse substances perhaps best described on a physical basis as volatile solvents. They are usually inhaled and include the vapour of some common material as glue, gasoline and lacquer thinner. Some of these drugs have been called delirants although delirium is only one of many potential effects and is clearly not restricted to these substances. Many are quite similar to the sedative group and might be considered in a sub-class of that category. Most of

these substances have no known medical use although several have been employed as clinical anaesthetics.

The non-narcotic analgesics (e.g., Aspirin* and Phenacetin*) are primarily used to reduce pain and to lower fever. In some instances they may serve as mild sedatives.

The clinical anti-depressants (e.g., Tofranil* and Nardil*) are used medically to improve mood in severely depressed patients. These drugs are rarely used for non-medical purposes since they have little effect on normal mood states.

The final group, the major tranquillizers are primarily used to reduce the symptoms of severe psychosis (e.g., schizophrenia). Largactil* and Reserpine are examples while these have initiated a wide spread revolution in chemotherapy in psychiatry, they are rarely involved in non-medical use.

The World Health Organisation (1973) recognizes the following as dependence producing drugs :

1. Alcohol Barbiturate Type

Ethanol, barbiturates and certain other drugs with sedative effects.

2. Amphetamine Type

Amphetamine, dexamphetamine, methamphetamine etc.

3. Cannabis Type

Marijuana (Bhang, kif, maconha, ganja, hashish, and charas).

4. Cocaine Type

Cocaine and coca leaves.

5 Hallucinogen Type

LSD, etc.

6 Khat Type

Preparation of cacha.

7 Opiate Type

Opiates such as morphine, heroine, codeine, and synthetics with morphine like effects as methadone and pethidine.

8 Volatile Solvent Type

Acetone and carbon tetrachloride.

Another way of classifying drugs is on the basis of the effects they have on the user. Accordingly, drugs can be classified into the following types :

1. Sedatives (mainly barbiturates)

Pentobarbital, secobarbital, barbital, selobarbital and anobarbital.

2. Stimulants (mainly amphetamines)

Benzedrine, dexidrine, methedrine, cocaine (cocoa) methaqualone, pep pills.

3. Narcotics

Opium, morphine, codeine, heroin, methadone and pethidine.

4. Psychodelics and Hallucinogens

Cannabis, ganja, charas, bhang, hashish, mesaline, Psilocybin and LSD.

5. Tranquillizers

Chlordiazepoxide, meprobanate, diazepam, seopolamine.

6. Alcohol and Tobacco

7. Miscellaneous

(a) Sex Stimulants - People suffering from mild impotency tend to use sex stimulants without medical prescription. This drug gives stimulation to a person before doing sex.

(b) Mandrax - Mandrax is the drug which is used for medical purposes to get relief from mild depression, control of appetite, and narcolepsy. It is available in the form of a tablet. It gives

relief in depression and helps in changing mood.

It is extensively used by the youngsters.

Another classification given by World Health Organisation (1975) and which is adopted for describing dependence producing drug is as follows :

Dependence Producing Drugs

A drug having the activity to interact with living organism to produce a state of psychic or physical dependence of both. Such a drug may be used medically or non-medically without necessarily producing a state of dependence. The characteristic of a state of drug dependence once developed, will vary with the type of drug involved. There are however several types of drug that can produce substantial central nervous system, stimulation or depression or disturbance in perception mood, thinking behaving or motor function are generally recognised as having the capacity when used under certain circumstances. The term dependence producing drug means a drug belonging to one of the following categories.

1. Alcohol Type - Alcohol beverages of all kinds.
2. Amphetamine Type - (e.g. amphetamine, dexamphetamine, methamphetamine, methylephenidate and phenmetrazine)

3. **Barbiturate Type** - Barbiturate especially those with a short or intermediate duration of action and certain other drugs with sedative effects such as chloralhydrate, chloridiazepoxide, diazepam, moarobamate and methaqualone.
4. **Cannabis Type** - Preparation of cannabis sativa including marijuana, bhang, dagga, kif, maconha, ganja and hashish.
5. **Cocaine Type** - Cocaine and cocoa leaves.
6. **Hallucinogen** - LSD, dimethyltryptamine (DMT), Lysergide (LSD) mescaline, peyote and psilocybin.
7. **Khat Type** - Preparation of catha, edulis forsk.
8. **Opiate** - (morphine type e.g., opium, morphine, heroin, codeine and synthetic drugs with morphine like effects such as methadine and pethidine).
9. **Volatile Solvent (inhalent) Type** - e.g., tolvane acetone, gasoline and carbon tetrachloride and also certain anaesthetic agents such as chloroform and nitrous oxide.

The Hongkong Council of Social Service 1988 have classified drugs of abuse into Narcotic drugs and non-narcotic drugs (Prashant, 1993).

A. Narcotic Drugs, and

B. Non-Narcotic Drugs.

A. Narcotic Drugs

1. Opium

2. Morphine

3. Heroin

4. Codeine

5. Methadone

6. Wellconal

7. Filidine

B. Non-Narcotic Drugs

1. Stimulants : (a) Cocaine, (b) Amphetamines

2. Depressants and Tranquillizers : (a) Barbiturates, (b) Mandrax, (c) Librium, (d) Nitrazepan.

3. Hallucinogens: (a) Lysergic Acid Diethylamide (LSD), (b) Herbal cannabis (Marijuana), (c) Phencyclidine (Angel Dust or Angel mist).

4. Organic Solvents.

Drugs like tobacco, caffeine, alcohol etc. have not been considered for the simple reason that they are socially acceptable, addiction and are within acceptable limits. Only those narcotic drugs and psychotropic substances have been included, which has high potential of addiction and dependence and have the capacity to cause severe damage to the individual and society.

On the basis of their effect on the central nervous system, the drugs may be broadly classified into Depressants, Stimulants, and Hallucinogens.

Depressants

Depressants are the drugs which dulls consciousness, induce sleep or stupor and relieve anxiety and pain. The movements of a person who consumes any of these drugs becomes slower, speech gets slurred and the pupils appear dilated. These drugs further be categorized into Opium and its derivatives, barbiturates and non-barbiturate sedative and tranquillizers.

Opium is a dark brown coagulated milk of an unripe opium poppy which grows in temperate and sub-tropical climates. It is eaten as it is or smoked through a long stemmed pipe. The opium derivatives, i.e., morphine, heroin and codeine are abused in abundance. Heroin in powder or tablet form and crystalline appearance is first dissolved in water and then injected intravenously by the addict into the body. It is also used by sniffing. Brown sugar or smack are forms of heroin in raw stage before purification and are also obtained by mixing pure heroin with glucose, talcum powder and other adulterants. Heroin is the most seductive drug due to its ability to cause tremendous physical and psychological dependence and thereby enslaving the use codeine, another opium derivative, is used in most cough syrups and headache tablets which are available in the market.

From among the non-opiate depressants, the barbiturates are most frequently abused drugs. These synthetic drugs are derived from barbituric acid and have the sedative and sleep producing effect. They are used for the relief from anxiety and tension. It is derived from barbituric acid, and have the sedative and sleep producing effect. Most common ones used by addicts are phenobarbital, anobarbital (Amytal) butabital (Seneryl) and secobarbital (Seconal). They are available in the form of elixirs, capsules, tablets, powder, syrups and can be taken by mouth or intravenously. These drugs produce physical and psychological dependence.

The third category of depressants, i.e., non-barbiturate sedative and tranquillizers. These drugs reduce anxiety and tension and mandrax (Methaqualone) tablets. Tranquillizers like Valium, Diazepam and Equanil commonly known as sleeping pills.

Stimulants

Stimulants are the drug which stimulates the central nervous system and thus allay the feelings of fatigue, hunger and sleep. Coca leaf and a coca derivative called cocaine are the two natural stimulants. The other category of stimulants consists of amphetamines which are synthetic in nature. Cocaine which is an alkaloid extracted from coca leaf, is used generally by the affluent class only, as it is quite expensive. It is odourless white crystalline fluffy powder and often sniffed or injected

intravenously by addicts. It creates a feeling of muscular strength, excitement, elation and euphoria. The euphoria sensation is short lived and gets replaced by feelings of depression delusion and hallucinations. Crack which is a mere potent form of cocaine, is becoming highly popular in many/some countries at present as it is cheaper than cocaine in the illicit market.

The other category of stimulants consists of amphetamines which are synthetic in nature and was first developed in 1925. Common Amphetamines are Berzedrine, Dexidrine and Preludin. These drug are available in the form of tablet, capsule and injection. These drug have also been used as slimming pills. Due to their effect of causing increased wakefulness and severance of fatigue, these drug are commonly abused by students for studying up to late hours at night. The effects are excitement, agitated restlessness and insomnia, and the user tends to be very talkative and euphoric. The pulse rate goes up, pupils gets dilated and the body trembles.

Hallucinogens

Hallucinogens are drugs which produce radical mental changes such as vivid visual and auditory hallucinations, euphoria, delusions, paranoid reactions and distortions of the user's awareness of reality and his own identity. The effects of the drug are that the person pupils gets dilated and he indulges in loud talking and burst of laughter without reason. He will

also have hallucinations and distortion of perception. Cannabis does not develop only physical dependence, and is considered to be less dangerous than other drugs. However, regular and prolonged use can seriously impair psychomotor cognitive and endocrine functions and immune system of the body.

Lysergic Acid Diethylamide a synthetic hallucinogen, is available in the form of white powder or colourless liquid. It is generally taken orally. It has been used for the treatment of neurotic illness. It produces hallucinations and striking changes in the users perceptions. LSD has dangerous side-effects which persist for long, and may make the user almost appear to be schizophrenic. The drug does not cause physical dependence. However, the psychological dependence may leave a profound impact on the users personality.

Mescaline is an alkaloid found in the peyote cactus and causes visual hallucination. Psilocybin was discovered in 1958 as an hallucinogenic agent present in a variety of small mushroom belonging to species 'Psilocybe maxicana'. Its effect is similar to that of mescaline. But they have not been able to gain much popularity among the drug users.

Inhalents

Other substances such as chloroform, gasoline, glue, ether, kerosene, lighter fluid, paint, thinner are abused by sniffing the vapours for getting hallucinogenic experience. The

inhalation of the vapours of these substances disturbs vision, impairs judgement, and reduces muscles and reflex control. Some die due to suffocation as they cover their heads and faces with plastic bags to concentrate the fumes for inhalation.

1.6 Causes of Drug Use

The causes for drug use are difficult to pinpoint as there are several factors which lead to the abuse of drugs. Some of the contributing factors leading to drug abuse are peer pressure, desire to seek peer approval, curiosity, ignorance about the dangers of illegal drug use and of the consequences of health as a result of drug abuse, feeling of alienation, changing social structures including the breakdown of family unity and a sense of community urbanization and unemployment. People take to drugs as they feel that it may mitigate their adjustment difficulties and loneliness. Sometimes individual may attempt to solve his problem of day to day living by using drugs, the individual is freeing himself from the real struggle that are required to solve the problem, various psycho-social and economic factors prevailing in the given social setting may lead to the occurrence of drug abuse among people. For example, the disintegration of traditional family ties, increased mobility, rapid urbanization and industrialization which particularly affect the developing countries are among the factors recognised as being conducive to the occurrence of drug abuse among people.

Persons who take drugs apparently do so for a wide variety of stated and perhaps incognitos reasons and a given individual may take the same or different drugs for differing reasons at various times. However, one or more of the following motives often appear to be associated with the initiation and continuation of drug taking : (1) to satisfy curiosity and drug effects; (ii) to achieve a sense of belonging to be "accepted" by others; (iii) to express independence and sometimes hostility; (iv) to have pleasurable, new, thrilling, or dangerous experiences; (v) to gain or improved "understanding" or "creativity"; (vi) to foster a sense of ease and relaxation; (vii) to escape from something (World Health Organisation Report; 1973).

Some take simply because of the influence of their friends. Research has shown that first experiments with drugs by young people are almost invariably made with a substance obtained from a friend. Some who are unhappy or worried sometimes take drugs. It gives them pleasure for a while and they forget about what's making them unhappy.

Some who are bored take drugs to relieve their boredom. Some take drugs just for the kick ... to experiment ! And some take them simply because they are available. Any age group is susceptible to drugs. However, the majority start in their teens. Teenagers are at risk. They often have the money, the need for

excitement, the attraction to risk, all combining to make them a ready market (Ghonglah; 1987).

Among the possible reinforcing pharmacodynamic properties of various types of dependence-producing drug are : relief from pain, anxiety, fear, inhibitions, and excessive passivity, a sense of ease, relaxation, and blurring of consciousness, a sense of increased understanding, insight, or creativity, and the production of dreamy and/or euphoric states.

A knowledge of the pharmacological interaction between the drug and drug taker and the environment is essential to an understanding of drug dependence. Given that pharmacological, human and environmental factors are present, some of the many hypothesis put forward to explain the causation of drug-dependence include the following : (i) that such drug dependence may be a manifestation of an underlying character disorder in which immediate gratification is sought in spite of the possibility of long-term adverse consequences and at the price of immediate surrender of adult responsibilities; (ii) that it may be a manifestation of delinquent deviant behaviour in which there is pursuit of personal pleasure in disregard to social convention, so that to some this is primarily a moral problem; (iii) that it may be an attempt at self-treatment by person suffering from (a) psychic distress either of the normal variety seen, for instance, in adolescence or as a reaction to social and/or economic stress, frustration or blocked opportunity; or

the more persistent problem of depressive illness, chronic anxiety, or other psychiatric disorders; (b) physical distress - hunger, chronic fatigue, or disease; (c) a belief that the drug has special powers to prevent disease or to increase sexual capacity; (iv) that it may provide a means of achieving social acceptance in a social subculture, particularly for the socially inadequate; (v) that it may be a manifestation of a permanent or reversible metabolic tension brought about by the repeated use of high doses of drugs; (vi) that it may be part of a rebellion against conventional social values relating to pleasure, tradition, success and status; (vii) that even in the absence of pre-existing psycho-pathology, it may result from the acquisition of a complex set of instrumental and classically conditioned responses and may therefore be a form of learned behaviour; (viii) that even in the absence of underlying psycho-pathology, it may result from socio-cultural pressures leading to heavy use of a drug, for example, alcohol; (ix) that any or all of these factors may play a role in the causation of drug dependence in a given individual (World Health organisation Report; 1973).

Other precipitating factors are (a) rejection by or separation from, a person upon whom the individual was emotionally dependent; (b) transition to a more demanding adult role, such as those involving occupational responsibilities, sexual relationships, marriage and parenthood; and (c) serious adverse circumstances or physical illness (World Health Organisation Report; 1970). The other initiating factors are (a) the

ease with which dependence-producing drug may be obtained in a given locality; (b) social acceptance of the use of drugs to relieve discomfort or to modify mood or perception and (c) the extent and rapidity of mass communication and transport now enable persons in one part of the world to learn quickly of the activities of others in distant places; (d) the family may play a role in facilitating or initiating drug use, or in deterring such use. There are many anecdotes about sons who become alcoholics like their fathers, or those who did not do so because they so adhered the alcoholism of their fathers (or other relatives).

1.7 Patterns of Drug Use

The patterns of drug use are determined by the specific drug category and its availability as well as by the users need. "A pattern of drug use is the description of non-medical use of drugs in terms of types of drugs taken, the quantity, frequency, and duration of their use, the route of administration and the circumstances of their use." The U.S. National Commission on Marijuana and Drug Abuse has divided the entire spectrum of drug using behaviour into the following five pattern of drug use -

1. Experimental Use

Many young persons and elder ones try one or more dependence-producing drugs once or a few times and stop. This experimental pattern, often motivated largely by curiosity and peer pressures, is perhaps the most widespread of any with respect to certain dependence-producing drugs. The most common

type of drug using behaviour is characterised as short term, non-patterned trial of drug with varying intensity, motivated primarily by individuals curiosity about the drug and desire to experience altered mood state. The maximum frequency of which is ten episodes, usually through close friends in social settings.

2. Social Recreational Use

Dependent: Voluntary or patterned use of drug usually in social settings among friends or acquaintances who wish to share an experience perceived by them as acceptance and pleasurable behaviour is not sustained because the user is not dependent on the drug-use unlike experimental use which is limited to a few episodes, social use tends to be repeated in weekly and bi-weekly episodes.

3. Circumstantial - Situational Use

Usage of: This pattern has been defined as a task specific self-limited use which is variably patterned differing in frequency intensity and duration, behaviour is generally motivated by the users perceived need or desire to achieve a new anticipated effect to cope with specific problem or situation. Such use may have four or five episodes a week.

4. Intensified Use

This pattern is defined as long term, patterned drug use at least once a day, such use is motivated chiefly by an individuals problems or stressful situation or a desire to

maintain certain self prescribed level or performance. The salient feature of this group is that the individual still remains integrated within a larger social and economic structure.

5. Compulsive Use

The pattern of behaviour is at high frequency and high level of interest characterised by high degree of psychological dependence and perhaps physical dependence, the compulsive pattern is usually associated with pre-occupation with drug-seeking and drug-taking behaviour to relative exclusion of other types of behaviour, the motivation to continue compulsive drug use is primarily related to a need to elicit the acute drug effects, in the face of increasing tolerance and incipient withdrawal effects. In 1980's new form of compulsive use that has emerged called 'binge' or 'runs' refers to continuous period of repeated drug taking during which the user consumes substantial dosage of drugs. This form of drug-use appears to be motivated by a desire to maximise pleasurable drug-effects and is usually associated with some degree of intoxicity. The compulsive use of drug includes the following three forms of drug abuse :

1. Drug addiction
2. Drug habit
3. Drug use. (Concrine, Constantine and Mazzoni; 1985).

1.8 Drugs and Aids

AIDS stands for Acquired Immunodeficiency Syndrome. It is a newly found disease for which a cure is yet to be discovered. The virus that first causes it was first identified in January 1983 at the Pasteur Institute, Paris. The disease causes irreparable damage to the person's immune system and makes him susceptible to a host of infections including skin disease, diarrhoea, fever and cancers. The mortality rate is extremely high.

AIDS is a viral disease which directly attacks group of white blood cells, which have an important role in combating infections. Drug addict has no direct risk of AIDS, however some of the drug addicts (INTRAVENOUS DRUG USERS) who take drugs by 'skin popping' or 'mainlining' run the risks of AIDS. 'Skin popping' refers to injecting the liquefied drug just beneath the skin and 'mainlining' refers to injecting the drug into the blood stream, the usual area chosen is the large vein inside the elbow. Of those desperate to indulge in prostitution for procuring drugs, many run the risk of having AIDS from their partner's. In words of the ICMR report, the situation is simply "alarming" whereas in other parts of the country the virus is found mainly among prostitutes and truck drivers etc., here in Manipur it is cent percent among intravenous drug users. Quoting the ICMR report again, Manipur with an estimated 15,000 intravenous drug users "over 50 per cent of them might have been injected with HIV. So, whereas in the rest of the country hetero-

sexual contact is the major route, in Manipur it spreads mainly by needles. Similarly, in nearby Nagaland, out of 80 persons screened, half of the 22 drug addicts were found for HIV" (Ghonglah; 1992)..

It can thus be said that the intravenous drug abuser has the risk of falling to AIDS. Such drug abusers often use hypodermics which are not sterilised or even used ones to have a quick shot. AIDS is transmitted through the sharing of hypodermic which is the likely link between drug and AIDS. According to World Health Organisation estimates, more than 10 to 15 per cent of AIDS patients are intravenous drug abusers. Some drugs are known to suppress the user's immune system, but it is premature to infer present the direct link between drug abuse and AIDS.

1.9 Drug Abuse Prevention

The abuse of drugs is an international problem which affects almost every country in the world both developed and developing. Over the past two decades, use of illegal drug has spread at an unprecedented rate and has reached every part of the globe. No nation has been immune to the devastating problem caused by drug abuse. The illegal use of drugs has crossed all social, economic, political and national boundaries. According to the World Health Organisation (WHO) all over the world there are-

- 29 million people who use cannabis

- 2 million people who use opium

- 1 million people who use heroin
- 1.6 million people chew coca leaves
- 6 to 10 million people take cocaine
- 3.4 million people use amphetamine.

Shanghai, This is the magnitude of the problem world-wide. Drug abuse affects the individual it damages his health, well being, jeopardise his chance for healthy and productive life, it affects not only himself but also his family and community.

there is endless A glance at the history of drug abuse prevention reveals that no clear strategy has emerged as yet. Drug Abuse Prevention has two important components for interventions : Supply Reduction and the Demand Reduction. Supply reduction refers to the steps taken to remove the source of illegal drugs as well as eradication of supply in the streets. Demand reduction refers to elimination of the need/urge/demand for illegal drugs by those who use the drugs as well as those who influence others to use through interventions at the individual family, group, community and national levels. Now the question is what conventional approach is to be used in our fight against drug ? Some may say eradication of crops a very simple concept if we don't have crops we won't have drugs. But its not that easy to do it. The second step is interdiction at borders. The government has spent maximum amount of money to protect the borders : land and sea. There is no way that the air, land and sea can be protected, but it does not mean that this should not be done. The

third step is the tough law enforcement for drug traffickers. Now these three things are related to the supply side of the equation what is known as the supply reduction strategy.

Ever since the first Opium convention of 1909 in Shanghai, international efforts to control opiate abuse have largely failed to achieve its goals mainly because of its one-sided emphasis on supply reduction. It is now recognised at long last that supplies of illicit drug cannot be curtailed as long as there is a demand thereof. We have to assume that supply will be endless so long there is a demand in the country. Therefore, emphasis should also be laid on the demand-reduction strategy. The demand-reduction strategy must aim at bringing awareness to every person in the society and motivate him to give whole-hearted support to every effort made by the government and non-governmental institution in combating drug menace. Such strategies must make a two pronged attack on the addicts to give up drugs and on all others not to fall prey to the temptation to experiment with drugs. Thus demand reduction strategies can work at three levels of prevention.

1. Primary prevention attempts to discourage the initiation of drug use thereby reducing the incidence of drug use. Primary prevention assumes that the individual has never tried drugs.

2. Secondary prevention also known as intervention discourages the increase in drug consumption by users and encourage them to return to non-use thus reducing the prevalence of drug use. Secondary prevention assumes that the individual is in the early stage of use.

3. Tertiary prevention provides treatment and after care to help people get off and stay off drugs, again reducing the prevalence of drugs. Tertiary prevention assumes that the individual is regularly using drugs.

Prevention is more than just raising awareness and providing information. A key element in the success of any strategy to reduce drug abuse is the encouragement of healthy, drug-free life styles. While government can provide incentives for this, it is only with active community support that such activities can be developed. The war against drug abuse cannot be undertaken solely by the government. It is a total war and there can be no slow down or let down. It is only under constant vigilance that the drug problem can have the best chance of not being a problem at all. It is an on going process which calls for total community involvement. Community involvement is a necessary component of an effective prevention strategy, a shared relationship among all parties is essential in the promotion of drug prevention efforts.

Government Demand reduction through community involvement will ultimately prove to be our best weapon against the use of drugs. The fragile elements of society must learn to say no to drugs. In this modern world with all the modern techniques available, it is not difficult to generate sufficient awareness at the community level. Today, the most important weapon to fight against this menace is through education. The teachers, religious leaders, parents, youth leaders and non-governmental organisations have a significant role to play as far as drug abuse prevention is concerned. All we need is strong determination and will power, a positive attitude towards our suffering fellow beings only then we shall win this war.

Just as the previous U.N. Secretary General, Javier Perez de Cuellar on the occasion on the International Day against Drug Abuse and Illicit Trafficking, June 1990 said -

"It is evident that the alarming increase in drug abuse and illicit trafficking calls for urgent measures to combat this mounting threat to society, Governments have agreed on programmes and strategies to intensify such action at the national, regional and international levels, but much still remains to be done. It will be essential for all elements of society, and in particular local communities, to work together and provide their full support if we are to succeed in our efforts to reduce demand for drug and prevent drug abuse". From this statement, it can be said

Governments alone cannot solve the problem of drug abuse. A key element is community support.

1.10. Conclusion

This chapter presented the background of the study. It has been seen that today the problem of drug abuse is a major concern of humanity on account of its proliferation among the youth in various socio-cultural and economic strata. Drug abuse is a slow poison for human. The ultimate end of drug abuse - simply drags human life to a miserable end. Drug abuse today, has unfortunately become a symbol of fashion in the materialistic societies all over the world. Its use has dire consequences both in developed and developing countries. The problem of drug abuse among young people, particularly the school, college and university students is posing great concern. This problem has been highlighted quite frequently by our newspaper and local magazines in recent times. It hampers not only the health but also the academic growth of the students.

The causes of drug abuse reveal that youthful curiosity (peer) group pressure escape from reality and imaginary worries about studies, future boredom of expression of revolt against established authority etc. are some of the various reasons for the youth to take to drug.

The old adage "An ounce of prevention is worth a pound of cure" is an obvious truth in the fight against drug abuse

programme. Drug abuse must be considered a total community problem and thus the responsibility of everyone. Prevention can be viewed in stages that reflect the individuals use with drugs. These stages are known as (1) Primary, (2) Secondary and (3) Tertiary. There is no simple formula of preventing drug abuse. It takes time, energy and resources to identify the problem and implement strategies to overcome them. The problem of drug abuse can be turned around if and when communities become involved. For this to happen different people and organisation need to be involved in the process. A review of related literature is given in the next chapter.