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1.1 Introduction:

In the last few years, world like drugs, narcotics and addiction, which had long been considered as somewhat alien or as related to the activities only of very specific groups, have been appearing in the daily press in a number of countries, even in our country. There has been talk of scourge and epidemics. The authorities and public at large have been disturbed and sometimes a panic apprehension has developed. During these days drug abuse by many people has been recognised as a problem in a number of countries.

Societies and nations around the world have defined the use of certain substances by certain people for certain reasons as a problem. The substances, the people, the circumstances vary from place to place, from culture to culture. In many instances, the perceived characteristics of particular groups of people using drugs and their supposed reasons for using them determine the nature and extent of the response to use rather more than the particular substance used. In some instances, the emergence of the problem represents a new view of a familiar practice, such as use of marijuana by Jamaican farm labourers as part of their working day or the long-standing occasional use of amphetamines by students in order to stay awake to study for an examination or to finish a term paper. In other cases, the problem status of a particular kind of drug use is a function of the emergence of use in new segments of
the population, notably among youth in contrast to adults and in groups other than lower class and minority groups. In still other cases, as a result of instant communications among the nations of the world, the problem is merely the fear that use of certain substances by certain groups will occur at home as it has elsewhere. Whatever the case, a problem is perceived and a solution is sought. Many initial responses are hasty, often emotional or irrational, and seldom either wise or discriminative. Effective problem solving requires careful definition of the problem in descriptive rather than emotional terms, evaluation and selection of methods, tools and strategies relevant to the problem as stated, and constant evaluation of progress, identification of errors and willingness to try new approaches when old ones fail. Drug problems have been so ill-defined in such global and valu-laden terms that it is little wonder that disagreement and controversy prevail. The problem must be defined in objective, descriptive terms— who is using what substance with what frequency for what reasons.

There are three basic elements in the use of any drug, legal or illegal, medical or non-medical: (a) the substance; (b) the individual who uses it; and (c) the social and cultural context in which drug use occurs. Any approach must take account of all three factors. Action based exclusively on any one is doomed to failure. Each element is complex; the relative degree of complexity with which each is perceived usually depends on the experience, background, training and personal or professional investment of the viewer.
To the pharmacologist, each drug - its mode of action, and its effects - is complex. Complexities regarding the individual or the context, if recognised, are factors to be controlled rather than emphasized to explain variations. On the other hand, most of the general public, including those who make judgements, legislative or otherwise, about drugs, drug effects and those who use drugs, tend to have a simplistic view of drugs. The majority believes that all drugs can be divided into two mutually exclusive categories, good and safe or bad and dangerous. There is a tendency to consider drugs so categorized as similar if not equivalent, and users of such drugs, as all alike. Drugs labelled as dangerous and whose use has been declared illegal are grouped together under a label such as 'narcotic', and distinctions among them tend to be minimized, despite the fact that they almost always include substances that are diametrically opposite in their action.

To the psychologist or behavioral scientist, the individual is extremely complex and variable. No explanation or action hope to be effective unless such complexity and variability are recognised. Drug use is viewed as simply an instance of human behaviour and as sharing the characteristics of all human behaviour. The complexities of drugs are but one term in the human equation.

To the social scientist, variations in the social and cultural context of drug use are the complex factor. Cultures and subcultures define and respond to drug use in different
ways. They approve or disapprove the use of certain substance and under what conditions. Reasons for drug use are sought in such factors as institutional failure, social and economic conditions and societal responses to problems associated with drug use.

To the extent that the complexities of any one of the three elements are ignored or oversimplified, measures designed to modify drug-using behaviour will be less than effective. There is a greater degree of complexity than most humans will tolerate by preference. The human tendency is always to define a problem in such a way that it is amenable to a simple solution, especially one that a given group is prepared to provide.

There are four major points of view with regard to drug use and its three interacting components (substance, user, context): the traditional moral-legal, the medical or public health, the psycho-social and the socio-cultural. Each varies in its assumptions about drugs, about people, about social and cultural context, in terms of gross over-simplification, and recognising that there are many variations in each, these views can be described as examples of the diversity of assumptions made about drugs, about people and about societies. Each of these assumptions has implications for social action, education, prevention, treatment and legislation and policy formulation.
There has been widespread belief that drugs, especially those producing intoxication, hypnotic state, elation and the like, often lead to habituation and drug dependence. At the first instance or at the initial stage a man may become aware of a drug through medical prescription of such agents who themselves have been addicts of one or the other varieties of drug. It is only a casual observation that not all persons are susceptible to habituation or to addiction, nor they have a tendency to take drugs not by a way of medical intervention but for something else. This leads to an assumption that there are some predisposing factors present in the environment or in the personality of the person which lead to drug abuse.

1.2 The Moral-legal Model:

The traditional moral-legal approach has placed major importance on the drug. Drugs are classified as safe or dangerous, where safe means not designated as dangerous or not social or legally prescribed. The primary goal comes to consist of keeping specific drugs away from people. Drugs are assumed to be the active agent, people to be the uninformed, unwilling or deviant victims who must be protected via legal controls on cultivation, processing, manufacture, distribution, sale, sharing or possession of the substance, even in some instance, on possession of the paraphernalia or instruments for using. The principal deterrents are considered to be control of availability of drugs, increase in cost of drugs, punishment or threat of punishment, and warnings of great
physical, psychological and social harm. Great emphasis is placed on the dangerous effects of drugs in an effort to deter use, and educational programmes based on these assumptions often consist primarily of dissemination of information about the dangers of specific drugs causing concern and about their legal status and the penalties attached to sale, use and possession. Just as drugs are dichotomised as legal or illegal, individuals tend to be dichotomized as users and non-users without regarding to the kind of drug used or pattern of use. Although distinctions are sometimes made between 'soft' drugs and 'hard' drugs, both drugs and individuals tend to be dichotomized on the basis of legal or illegal, medical or non-medical.

1.3 The disease or public-health model:

In the public-health model or approach, which has been increasingly considered as an alternative to the moral-legal model, drug, individual and context are translated into agent, host and context following the infectious disease model. Although differences between these two models may seem subtle, they have an important influence on the nature of recommended action. An agent is by definition, active, and in this model the drug as agent assumes, as in the previous model, the major role in the triad.

The drugs causing concern are defined as dependence-producing rather than simply dangerous as in the moral-legal model, but the two models share a major emphasis on drug or
substance as the active agent. A major difference between the two approaches is that the public health view does not distinguish between legal and illegal and, therefore, often includes alcohol, nicotine, and caffeine as dependence-producing, but distinguishes them from other dependence-producing drugs on the basis of the contextual (social) variables of social acceptability and widespread availability and use. Decrease in social acceptability and increase in cost of dependence-producing substances thus become a means for possible reduction in use as well as control of availability.

The individual or host is viewed as vulnerable or not vulnerable, as infected and infectious. Since the identification of vulnerable individuals is far from perfect, there are various attempts to 'vaccinate' by measures including prevention-oriented educational programmes that tend to rely on information about the risks involved in initiating use of designated substances and the personal and social harm caused by becoming dependent on these substances.

Although those adherents to the public-health model who are most experienced in dealing with drug use and drug users recognize inadequacies and seem to be moving in the direction of a psycho-social model, this model still represents their basic concept of the nature and relative importance of drug, of individual, and of context, and it determines to a major extent the manner in which they respond to problems.
associated with drug use. Drug users are to be treated and cured as a medical problem. Drug use is to be prevented as a public-health problem just as any infectious disease.

1.4 The Psycho-Social Model:

The psycho-social model tends to put major emphasis on the individual as the active agent in the drug-individual context formulation. Drug use and drug user rather than pharmacological substances are the complex, dynamic factor and the major point for intervention. This model tends to be concerned with the meaning and function of drug use to the individual, with drug use as behaviour that, like other behaviour, would not persist unless it served some function for the individual. It tends to make distinctions among different amounts, frequencies, and patterns of drug use, the different functions that drug use may serve, the differential effects of different patterns of drug use in different individuals. It is concerned with context to terms of the influence of the perceived attitudes and behaviour of other persons individually or in social groups such as families, peer groups and communities. Context is seen as a contributor to both use and the problems associated with use via interpersonal definition of, and response to, drug use and drug users. Because of its emphasis on individuals and their behaviour, and on the role of social factors, this model often recommends non-drug-specific responses to drug use which turn out to be equally applicable to other destructive or deviant behaviours.
Those who view drug use and the problems associated with drug use from the socio-cultural point of view tend to emphasize and recognize complexity and variation in the context factor of drug-individual context. Specific drugs gain their meaning and significance, not so much from their pharmacological properties, but from the way in which a given society defines and responds to their use and their users. Socially prescribed drug use is seen primarily as deviant behaviour to be viewed and treated along with other deviant or, if excessive, destructive behaviours. As in all deviant behaviours, harm may come to the individual either from the behaviour itself or from his society's response to that behaviour. This point of view recognizes that such behaviour will of necessity vary from culture to culture, from subculture to subculture. It goes behind the social and psychological factors emphasized in the psycho-social model to stress what is present in socio-economic and environmental conditions as the reasons for psychological stress and therefore, as the basic, if not essential, locus of intervention. Poverty, poor housing, discrimination, lack of opportunity, industrialization, urbanization are seen as the breeding ground of the more personal factors that the psycho-social model emphasizes - factors such as broken homes, lack of parental guidance, large, impersonal and work institutions and breakdown in social controls. This view also recognizes that, despite the tendency
to see undesirable behaviour always as the result of undesirable aspects of the social system, much that is disapproved of is initially linked with things that are approved of and valued. Conformity, competition, achievement, productivity may be two-edged swords.

Each of these models represents a vantage point from which to view drug use and the phenomena associated with it and leads to different recommendations and actions designed to modify use. Each represents a lens through which to view drug, man, society and the interactions among them, the number and kinds of discriminations made within each factor, the nature of the response and the relative ability of various institutions and professions to intervene most effectively.

If the challenge is to keep drugs away from man, laws and law enforcement will be given a major role; if it is to keep man away from drugs, the responsibility will be that of those skilled in the behavioural science; if it is to create an environment in which the needs that drug use serves are better served by behaviour involving less risk, less potential for harm to the individual and the society, every institution and the individuals who have roles in each institution have a role to play.

Four important new trends are developing in the definition of, and response to, socially disapproved and destructive
drug use. These have occurred primarily in those countries and parts of countries that have struggled longest and hardest to modify unacceptable drug use and only after other approaches have been tried. The first of these new trends is to define the problem in psycho-social terms rather than pharmacological, legal or medical terms, to place increasing emphasis on drug use as behaviour. The second is, often reluctantly, to adopt as a primary goal not the prevention of use but the reduction of the problems associated with destructive drug use. The third is an increasing though not dramatic willingness to put socially disapproved drug use by youth in the context of use of all drugs, legal and illegal, by persons of all ages. The fourth, closely associated with the third, is a willingness to include alcohol as a drug and to consider the implications of its use both by adults and by youth.

Indications of these trends are abundant in the conclusions and recommendations of a number of recent international meetings. That these meetings have included among their participants and as consultants an increasing number of social and behavioural scientists, of individuals working directly with young drug users and of youth themselves is perhaps both a recognition of these trends on the part of the conveners and the major factor influencing the recommendations that resulted. At the very least they suggest a willingness to entertain the possibility that traditional responses by traditional institutions have been less than effectiveness.
Each of these trends has important implications for both parents and teachers in their roles as educators, for both families and schools in their roles as the institutions traditionally charged with the socialisation of the young. They define the goals of any attempt to influence drug use and in turn, the choice of methods and strategies for reaching those goals.

It is proposed here, to examine in detail, the psycho-social model, its strengths and weaknesses, its implications for education and prevention, especially for parents and teachers, and its important ties with the socio-cultural model. However, it will be necessary first to analyse drug-related problems in general, and to state them in the more objective possible terms. The first step in problem-solving is to analyse the problem in terms that will facilitate and not interfere with its solution. The second step is to select methods and strategies judged most likely to lead to a solution of the problem as stated. The third is to monitor on a regular basis the effectiveness of those methods and strategies in moving towards the goals specified. Perhaps most important, the fourth is a willingness to face the well-demonstrated fact that problem-solving is inevitably a trial-and-error process. Failure is only failure to recognize errors and to correct them, that is, to change. People and institutions do not change easily. Ways of stating problems and ways of responding to them tend, once accepted, to be pursued doggedly.
1.6 Drugs and drug effects:

Discussions of drugs and drug effects abound in ill-defined terms, imprecise concepts and overgeneralizations. Even when the same words are used and the illusion of communication exists, non-communications and controversy are often the reality. Necessary discriminations are not made, assumptions are not examined, stereotypes are consciously or unconsciously invoked, fact is not distinguished from opinion and feeling. One and the same substance may be referred to as psychoactive, psychotomimetic, psychodysleptic, psychedelic, dangerous, dependence-producing, hallucinogenic, even narcotic, all with little regard for its basic pharmacological actions. Each term carries with it a halo of feeling, belief, expectation and judgement that goes beyond the realities of pharmacological action. Each tends to attribute to the substance itself characteristics that more properly belong to the interaction among substance, organism and context.

Because of the confusion resulting from such lack of precision and in an effort to communicate more effectively, traditional labels will be avoided and more descriptive phrases will be used. This is done for two major reasons: (a) to separate scientific fact, which is the same across cultures and national boundaries, from value judgement, which is highly culture-relevant and often culture-specific; (b) to try to establish a common ground for discussion across culture and across languages. Such definitions will themselves be controversial for, in areas where belief and values and feeling are
strong, neutral terms seem almost a denial of those beliefs. Values, beliefs and feelings are important. Without them, life would be empty and meaningless, but they must be considered separately from drugs as pharmacological agents and the actions of drugs.

Drugs:

The basic pharmacological or scientific definition of a drug is 'a substance that by its chemical nature, affects the structure or function of the living organism.' The mode of action and the nature of the effects of drugs is the subject matter of pharmacology.

It will take only a moment's thought to realize that this definition covers virtually everything that people ingest, inhale, inject, absorb. It includes medicines, over-the-counter drugs, illegal drugs, drugs that are commonly referred to as beverages or cigarettes, food additives and preservatives, many industrial chemicals, pollutants, even food itself. An immediate reaction is certain to be that this is not a very useful definition. It is certainly not the way most people think of and respond to the term 'drug.' From many points of view, it is so general as to be of little use, but it highlights the important fact that something more than pharmacology is necessarily involved in most current definitions of drugs. These definitions have more to do with the purposes for which substances are used than with any characteristic of the substance
itself or the way in which it interacts with the living organism. These purposes vary from time to time and from place to place. Alcohol as a substance is a drug. Under the name ethyl alcohol, it appears in most pharmacological and medical texts. To label it a beverage in no way changes the way in which it interacts with the organism. It is still a central nervous system depressant.

From a pharmacological point of view, a drug is a drug regardless of how or why it is used or what it is called. And all drugs interact with the living organism according to the same well-established principles. These are not the kinds of principles that most people assume. These principles involve effects that are probable and variable rather than certain and invariable.

**Drug Effects:**

There is no such thing as the effect of any drug. All drugs have multiple effects and these vary from dose level to dose level, from individual to individual, from time to time and from setting to setting in the same individual. Drug effects are a function of the interaction between the drug and the individual physiologically, psychologically and soci­ally defined. Individuals are complex and varied. Drug effects must therefore be complex and varied.

For every drug there is (a) an effective dose, (b) a toxic dose and (c) a lethal dose. Each of these dose levels is a statistical abstraction, an average. Each is the dose by
which 50 per cent of a given group show (a) whatever effect is sought, (b) whatever effect is defined as toxic (either physically or behaviourally), or (c) die. At low- and moderate-dose levels it is a scientifically demonstrated fact that non-drug factors such as the physiological and psychological characteristics of the individual, his current physiological characteristics of the individual, his current physiological and psychological state, the reasons why he takes the drug what he expects the effects will be, the physical and social setting in which he takes it are often more important in determining the effects of a given drug than any characteristic of the drug itself. One has only to think about the effects of alcohol which may make the drinker sociable, talkative, withdrawn, depressed, gay, lachrymose, sleepy, abusive, destructive, uninhibited, drunk or comatose. It all depends on who, why, where and how much.

Individuals vary in many ways, in weight, age, sex, sickness and health. They vary in the way in which they react to their perception of physiological and psychological changes in their physical and social environment. The meaning and significance of these perceptions for personal and social adjustment varies. All are influential in determining the response to any drug.

All drugs, even food and water, are dangerous for some individuals at some dosage level under some circumstances.
Some are more dangerous at lower dosage levels for more individuals than are others. Use of any drug involves risks. But most of what people do, if they do anything, involves some degree of risk and is done because of some perceived benefit. People still drive powerful cars despite the terrible toll of life and property, including their own. The ability of all to move quickly and would seem to be valued more than conserving the life and property of some. Who may take what risks for what benefits is a basic problem both for individuals and for societies.

Feelings, modes and perceptions:

Most current concern is with substances whose primary effects are on the central nervous system. An important pharmacological characteristic of these substances is that they facilitate changes in feeling, mood or perception. People have always sought to change feeling, mood, perception and orientation to self and environment. The use of psychoactive substances is only one of the many ways in which they seek to accomplish this, but it is one that has persisted throughout the ages and throughout the world.

From the perspective of behaviour, there are five major pharmacological effects bought from psychoactive substances. They will involve changes in feeling, mood or perception. Most frequently these changes include: Relief of pain.
Opiates are still the preferred substance. Reduction of uncomfortable or unwanted levels of activity or feeling such as anxiety, nervousness, jitteriness, sleeplessness, too much stimulation, unwanted or unmanageable levels of basic drives such as sex or aggression. Any central nervous system depressant can serve this function for most people. Alcohol, barbiturates and opiates are major depressants.

Increase in level of activity and feelings of energy and power, reduction in feelings of fatigue, depression, sleepiness. Any central nervous system stimulant, such as caffeine, cocaine, or a variety of synthetic substances are widely used for these purposes. It is of interest to note that the majority of prescriptions written by physicians are for these three purposes. Changes in habitual ways of perceiving and orienting one's self toward one's physical and social environment - exploring, getting outside of one's self, gaining new insights, increasing creativity, and increasing the intensity and enjoyment of sensory and aesthetic experiences. Whether any of these effects can be objectively documented or not, or an effect of the substance as claimed, they motivate or reinforce drug use just as an effect of the substance.

Various levels of intoxication, the lightheadedness, exhilaration, feeling of floating or dizziness that may come from such diverse activities as twirling until balance is almost lost, fasting, breathing deeply and rapidly or taking any of a variety of substances. Alcohol, barbiturates, cannabis, inhalants and solvents are the most widely used substances.
There are also effects that depend both on special characteristics or some drugs as pharmacological substances and on patterns of use of those substances. In general, these effects are not substance-specific. They combine pharmacological characteristics with patterns of use over time. The phenomena are tolerance and physiological or physical dependence. A third phenomenon, psychological dependence, will be considered under drug use and drug users because, while not unrelated to physiological dependence, it is much more complicated pharmacologically, psychologically and socially.

Because of the nature of some substances and the way in which they interact with the organism at a biochemical level, after repeated and frequent use a progressively higher dose is required in order to produce effects originally produced by a smaller dose. This phenomenon is known as tolerance. The importance of tolerance is that it results, up to a point that varies from drug to drug, in progressive increases in dose level necessary to obtain the desired effect and in corresponding increases in the risks that often accompany high size levels.

A second phenomenon that depends on special characteristics of some drugs as pharmacological substances in conjunction with patterns of use of these substances is physiological dependence. Whether used for medical or non-medical reasons, legally or illegally, certain substances, notably opiates and their derivatives, barbiturates, alcohol, amphetamines, caffeine and nicotine, when used in sufficient amounts
and frequencies over a long-enough period of time, produce changes in the organism such that, it is notable to function 'normally' in the absence of the drug. The amount, frequency and period of time required vary from substance to substance. There is now some evidence that suggests that physiological dependence on some substances at sufficiently high dosage levels over a long enough period of time may result in such more or less lasting or even permanent changes in the organism that it will require the presence of the substance or some suitable substance at sufficiently high dosage levels over a long enough period of time may result in such more or less lasting or even permanent changes in the organism that it will require the presence of the substance or such suitable substitute on an indefinite basis. From a strictly pharmacological point of view, drugs broadly defined, are substances which the organism must metabolize (change) so that they may be used (as in the case of food), climate, or, if it can do neither, either adjust to their continued presence and thus require them, or be damaged or destroyed by them.

In contrast to a disease, with which it is often compared and which one either has or does not have, physiological dependence occurs at a point or a segment on an urge of increasing use of specific substances, a point that has been proceeded by a long series of actions on the part of the individual. He must have decided to try it, must value its effects enough to continue to use it over a period of time, usually in increasing
amounts and with increasing frequency. This represents the important psychological component of physiological or physical dependency.

**Legal versus Illegal:**

The effects of drugs used legally and for medical reasons are a function of dose. For each there is an effective dose, a toxic dose and, for most, a lethal dose. The effects of drugs used illegally or for non-medical reasons are a function of dose. For each there is an effective dose, a toxic dose and, for most, a lethal dose.

All drugs have multiple effects or side effects beyond those for which they were taken or prescribed. The side effects of drugs used legally are often critically important and may include such common effects as drowsiness, distractibility, irritability, temporary lapse of memory and, more rarely, hallucinations, intoxication, hyperexcitability and similar phenomena. The side effects of drugs used illegally are often critically important and may include such common effects as drowsiness, distractibility, irritability, temporary lapse of memory and more rarely, hallucinations, intoxication, hyperexcitability and similar phenomena.

The effects of both at moderate-dose levels are highly dependent on non-drug factors. At high-dose levels, and for some individuals at much lower levels, all may be dangerous.
Some legal as well as illegal drugs have been demonstrated to produce a statistically significant (i.e. greater than change) increase in the occurrence of chromosome breakage in white blood cells. Similarly some legal and illegal drugs, when taken during certain critical periods of pregnancy, produce a statistically significant increase in the occurrence of fetal deformities. Certain drugs used legally may produce physiological dependence. The same drugs used illegally may produce physiological in dependence.

The unknown substance:

It has become a practice when writing on drug use to categorize the increasing number of substances used illegally or for non-medical purposes, listing in detail the official name of the drug, the usual single dose, the duration of action, the method of taking, its effects, often the effects of toxic dose implied to be the usual effects, its potential for tolerance, for physiological dependence and for psychological dependence.

There is a certain irony in these charts, even if accurate and objective, because of the fact that most of the substances available outside of normal legal channels are often not the substance they are purported to be or are contaminated with other substances, and there is seldom accurate information as to the dosage involved. Reports from laboratories set up for the analysis of street drugs, in Canada, the United State and various European countries attest to this fact.
The imagination and ingenuity, even malevolence, of the purveyors of these illegal products are apparently endless. At one time when mescaline was widely reported to be the drug of choice for certain groups, analysis of samples sold as mescaline indicated virtually all contained no mescaline at all, instead were predominantly lysergic acid diethylamide (otherwise known as L.S.D.), often with strychnine added.

Those in crisis clinics and emergency hospital wards who are thoroughly familiar with the drug scene and who take their mission seriously feel compelled on an almost weekly basis or on reports of regular information to analyze the drugs on the street at any given time so that they can better respond to emergencies. Lacking such information, they feel constrained to limit themselves to treating observed symptoms.

Taking an unknown substance in an unknown amount alone or in combination with another substance increases the normal risks involved in drug use immeasurably, especially when the individual has little knowledge or understanding of drug action. These risks arise more from factors in the context such as the fact that the drugs are available only on the black market and are of unknown composition, purity and dose, than they do from characteristics of the particular substance involved. Some individuals and groups who place the highest legalization in order to control the purity and dose, thus eliminating those risks wholly due to illegality and the black market. These and other individuals whose primary interest is
in reducing harm, often advocate the 'wise use of drugs' as the most important objective in drug education. In this connection it is interesting to consider the recent movement to teach people to use alcohol wisely which has followed the failure of legal efforts to prohibit all use of beverage alcohol in the United States. The risks that are a function of social science should go into the balance as one weighs the pros and cons of any effort to reduce the problems associated with non-medical drug use.

1.7 **Drug Use and Drug Users:**

**Drug use:**

Drug use often appears to be a fairly simple phenomenon which can be defined in simple terms - either one uses or one does not use. Unfortunately, use is not simple but is nevertheless often described in simple terms. To categorize all people as users or non-users of certain substances for certain reasons may serve some purpose, but it is not at all useful in understanding drug use or as a basis for modifying drug use behaviour. A majority of people in many cultures do use one or more of a wide variety of psychoactive substances. Different people use different substances in different amounts for different reasons under different circumstances. The majority of people do not use substances prescribed by their culture or for reasons unacceptable in their culture. If the majority did, it is probable that the culture would be modified to include such use of such substances. Customs, mores,
and laws in general represent consensus in a given culture. Both increasing use of a new drug and its users represent a threat to that consensus.

To put drug use in perspective it is necessary to make at least some gross distinctions. These are usually made on the basis of either type of substance used or of different levels of frequency of use. Such levels often include:
(a) experimental use, often defined as one to three times;
(b) casual or occasional use, which may not be more than once or twice a month;
(c) regular use, which may be weekly or several times a week, depending on the particular substance used, and
(d) heavy or compulsive use which usually implies daily use, although it may occur on a spree basis with extremely heavy use for several days on a periodic basis as with the occasional or repeated alcoholic binge.

Experimental use:

The initial decision to try a drug has less to do with the drug and its pharmacological properties than with the meaning and the value on individual places on both. Before he has ever experienced the effects of the drug, he knows it only by reputation and hearsay. Virtually all studies of the reasons for initial use agree that curiosity and peer pressure are major motivating factors. Availability of the drug, a setting for use that is perceived as relatively safe, and friends who
use drugs are necessary, but not sufficient, factors for initial use. Virtually all studies agree that the majority of experimenters with illicit drugs do not become users. Curiosity is satisfied. Status with peers is gained. The effects are not valued, are not worth the risks involved. Other activities are more valued.

**Casual or occasional use:**

The majority of experimenters do not continue to use and the majority of those who do continue to do so on a casual or occasional basis. The drug is used only when readily available and only in a social context where it is being used. Use is usually spontaneous rather than planned. The major reasons for continued occasional use are primarily social, not too different from those for adults' casual use of alcohol. It facilitates social interaction; it feels good; it is fun. Most casual or occasional users do not become regular users. As an experience and an activity it is not very important when compared to other experiences and activities.

**Regular use:**

What is defined as regular use rather than heavy use depends on a combination of such factors as the frequency of use, the particular drug used and the point of view of the observer or the judge. Regular use is distinguished from heavy or compulsive use both in terms of the reasons for use and the strength of the need to use. When use becomes either
regular or heavy the concept of psychological dependence is invoked. Such dependence merely means that the individual is unhappy when the drug or the opportunity to use it is not available and will go out of his way to seek the drug and the opportunity to use it. The reasons for regular or heavy use are more diverse, more central to the personality of the user than in experimental or casual use and more related to the pharmacological action or a particular drug, whether it is a stimulant, a depressant, an analgesic, or a substance that changes perceptions of self and environment.

Heavy or compulsive use:

Only a small minority of users become compulsive users, just as only a small minority of users of alcohol become alcoholics. Although compulsive use usually implies extremely high frequency of use, it actually covers a range of frequencies. The central factor in compulsive use is the degree to which use dominates the life of the individual. When major time and thought and energy are devoted to getting the drug, taking the drug, discussing the effects of the drug, associating almost exclusively with others who use the drug, use is considered compulsive. The individual is considered psychologically dependent on the drug or, as is increasingly the case, on several drugs rather than a specific drug. Psychological dependence is currently considered more important than true physiological dependence as the critical factor in most compulsive drug use. Physiological dependence can be managed as it
is regularly in the use of dependence-producing substances such as opiates for the relief of pain in medical practice. Psychological dependence is much more complex and highly individual.

Drug Users:

Whenever there is concern with deviant or destructive behaviour there is often an attempt to identify physical psychological or social background factors characteristic of those who engage in these behaviours on the assumption that others who share the same characteristics and background are more likely to become involved in the same deviant or destructive behaviours. Efforts to prevent, intervene, or isolate may then be concentrated on those so identified.

No such factors have as yet been clearly identified as either necessary or sufficient to serve as a basis for reasonably accurate prediction. Availability of drugs, a situation in which drug use is perceived as safe and association with friends who use drugs seem to be the only factors that can be identified as necessary for drug use. None is a sufficient factor.

Biological and medical scientists have searched for physiological, genetic or biochemical factors; behavioural scientists have searched for specific character disorders or psychopathology, for arrested stages of growth and development, for influences on development of such factors as broken homes, permissive or laesseez-faire parents, patterns of child rearing,
social, religious and political attitudes of parents; social scientists have sought explanations in terms of deprivation, poverty, poor housing, inadequate educational and occupational opportunities, prejudice and discrimination, as well as such factors as cultural pressures supporting drug use, advertising and content of mass media. What is found is often a function of what was sought.

On the whole, differences between users and non-users of this or that drug or of psychoactive drugs in general are small though in some cases statistically significant. They are often specific to the sample studied both in terms of socio-economic and cultural characteristics, type of drug used, and pattern of use.

Just as it was necessary to distinguish among types of drug use, it is even more necessary to distinguish among types of drug user and drug used. This adds another dimension of complexity to a picture that is already very complex. This complexity presents the greatest difficulties for those who insist on simple, universal answers. Acceptance of such complexity enables one to begin to define a particular problem in a particular community and to begin to solve it.

It is much easier to address the problems posed by a group of socially and economically privileged high-school students using marijuana occasionally because they are bored, are experimenting with independence and rebellion as well as drugs, than it is to solve 'the drug problem' at a national
level. It is easier to address the problems created by economically, educationally and socially deprived 9-, 10- and 11-year-olds sniffing glue as perhaps the only momentary escape from an almost unbearable existence available to them than it is to develop nationally a social or educational policy and addresses the problems associated with non-medical drug use.

Drug users are experimenters or casual or occasional users or regular users, or they may be periodic or regular heavy users or compulsive users of an increasing array of substances.

Experimenters:

To invoke factors other than social in distinguishing between experimenters and non-users is probably not justified and may even be non-productive. On most psychological and life-history variables, experimenters do not differ significantly from their abstinent counterparts. Some studies would suggest that in one nation, at this point in time, experimenters with cannabis or marijuana tend to be more intelligent, to come from a higher socio-economic background, to be more adventurous, creative and rebellious than non-users! This would not have been true, in the same place ten years ago. Nor it is true for example, for experimenters inhaling solvents.
Casual or occasional users:

As is the case with experimenters, social and chance factors are still predominant with casual or occasional users. Availability, a place perceived as relatively safe and friends who use or approve of use are key factors, as are the drugs used.

Regular users:

The lines between occasional and social and between social and regular users are hard to draw with any degree of precision especially without reference to specific drugs. Moreover, there is a large group of social users who fluctuate between occasional and regular use. But at the stage of regular use differences begin to appear between users and non-users. They are still tenuous and still complex, still highly variable.

The results of one of the few studies that have followed a large, randomly selected national sample over a period of four to six years spanning grades X-XII (ages 13-17) and at least two years of post-high-school experience illustrate this complexity and this variability. In one sample 2,200 boys in eighty-seven high schools in the United States were followed through their last two years in high-school and as young men though at least two years of post-high-school experience, whether in college, at work or in the military.
Those from higher socio-economic levels used more marijuana and substances usually referred to as hallucinogens; the highest socio-economic group used the most barbiturates. They used less alcohol during high school but after high school their use of alcohol did not differ from that of those from lower socio-economic status. Those with the higher intelligence and used more marijuana and fewer of cigarettes. Use of marijuana and hallucinogens was greater for those with higher intelligence than with lower. The more intelligent were less likely to use alcohol in high school. They showed the lowest level of barbiturate and heroin use, and amphetamine use was greatest at both the highest and lowest levels of intelligence. At intermediate levels of intelligence there were no clear differences in amphetamine use.

Higher rates of use of most illegal drugs were found for those from broken homes, and of both legal and illegal drugs for those whose families had moved at least once during the high-school years. The more delinquent were substantially more likely to be users of both legal and illegal drugs, but users did not increase their level of delinquency from pre-drug-use levels. There was a strong relationship between use of marijuana, hallucinogens, and amphetamines and political dissent. Both college and non-college students who rated high on measures of dissent used more of these drugs. Involvement with illegal drugs did not have any significant association with level of delinquency or academic performance. Although users tended to have higher rates of delinquency and lower
academic performance, these clearly predated drug use. One of the strongest relationships was that between drug use of all kinds and size of school; the larger the school regardless of whether it was in a large city or not, the more drug use.

Attitudes toward drug use were basically conservative except in the case of marijuana where they were generally more liberal but tended to be polarized. Attitudes did not differ among the college, civilian employed or military segments of the population.

If this is confusing, it should be. Drug use is complex and confusing. It is only when one pretends that it is not that one makes mistakes. One must consider who uses what drugs and when, if one wishes to help real individuals and not merely respond to an ill-defined problem.

Compulsive users:

In characterising heavy compulsive users it is not difficult to distinguish them from non-users but it is difficult to distinguish them from those who exhibit other forms of destructive behaviour. Many feel that the greatest mistake that can be made is to consider heavy, destructive drug use by young people as something uniquely different from such destructive behaviours as violence or from adolescent suicide, both of which they point out are increasing rapidly. Some
would go so far as to suggest that preoccupation with drug use at all levels is primarily a mechanism to avoid facing basic social problems and that adolescent suicide and violence, like destructive drug use, are only manifestations of such basic problems.

Compulsive drug users are often described as immature, as suffering from various kinds and degrees of psychopathology, as unwilling to face and seek solutions to problems that other people solve, as alienated, as suffering from character disorders. They are people with problems that they seek to respond to through the use of drugs. It is tempting to see them as perverse; it is more constructive to see them as people with problems with which they cannot cope in socially acceptable ways.

Any of the factors that seem to be related to drug use or potential drug use are in all probability equally relevant to any of a number of different deviant or destructive behaviours. At the level of prevention of experimentation, if experimentation can be prevented, social and cultural factors are probably more relevant than any personal or psychodynamic characteristics. Informed social attitudes towards the use of any substances, the way in which a society or a group within a society defines the use of the drug as dangerous, daring, forbidden, deviant, destructive to self or society, will influence who uses what drug for what purpose. The sociological concept of 'dictated deviance,' that process by which
a society or group defines a certain behaviour as a major form of deviance and in the process channels deviance and dissidence into that behaviour, should be seriously considered by those groups or societies in which non-medical or illegal use of specified substances is not yet widespread. To define drug use as a 'number one problem' may contribute to making it one.

1.8 Drug Abuse in Old/New Times:

The knowledge of drug is one of the oldest and it probably began when our ancestors found that among the foods they sampled in the forests, some produced interesting changes in their moods, feelings and perception. 'Substances that alter consciousness are found in use among probably all the peoples of the world (Taylor, 1963). The discovery of and art of manufacturing some kind of intoxicating liquor, was a corollary of selected habits. According to J. Crawford, F.R.S. 1968 'The manufacture of liquor may be said to be coeval with the first dawn of social development.

The use of fermented liquor and other intoxicating drugs in India dates back to the ancient times. The use of liquor was widespread because, it formed a part of the ceremonial and sacrificial rites in the Vedic age, whereas the narcotic products of hemp plant were mostly used for medicinal purpose. (Badrul Hassan 1922) Discussing the familiarity of our ancients with alcohol, Simmonds (in his book 'Alcohol, its production, properties and application) says, there is little doubt that distilled alcoholic beverages have been known in India since at
least 800 B.C. and in Ceylon from time immemorial.

With the advent of Buddhism in 400 B.C. the use of intoxicants was delinked from the ceremonial and religious rites. Consequently, we see that during Ashoka's rule drinking was diminished to such a proportion that it was almost uprooted.

The use of intoxicants again spread under the Moghal rule, mainly because, it was used by the kings and the example set by the Kings was followed by the court. Fortunately the prevalence was restricted to the richer classes and amongst the masses of people it was not common enough to elicit comment. During the British rule, the Government looked upon alcohol, opium and narcotics as an important source of revenue, the use of these substances spread rapidly and was extended to the working class. Industrial workers on account of long hours of hard work and bad living conditions resorted to the use of intoxicants to drown their miseries. The policy of obtaining high excise revenue influenced the subsequent legislation which was enacted to control the use of alcohol and other drugs. Although in 1899 in order to check the widespread use, the Government imposed heavy taxation on the manufacture and sale of these substances and also restricted the number of shops, yet it resulted in increased revenue and there was no subsequent decrease in the consumption. This is evident from the report of the Indian Excise Committee of 1905-06 which concluded that consumption has increased largely everywhere. The following Statement shows the
percentage of increase in the consumption of alcohol in the decade 1902-1912.¹

<table>
<thead>
<tr>
<th>Province</th>
<th>Increase (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bombay</td>
<td>51%</td>
</tr>
<tr>
<td>Sindh</td>
<td>35%</td>
</tr>
<tr>
<td>Madras</td>
<td>86%</td>
</tr>
<tr>
<td>Punjab</td>
<td>81%</td>
</tr>
<tr>
<td>United Provinces</td>
<td>20%</td>
</tr>
<tr>
<td>Central Provinces</td>
<td>300%</td>
</tr>
</tbody>
</table>

In case of opium the consumption increased from 4,11,000 seers in 1901 to 5,00,000 seers in 1912 (Badrul Hassan 1922).

It may be seen that in the ancient and the medieval ages the use of alcohol was confined either to ceremonial or sacrificial rites or to the kings and the upper strata of the society, Opium and other narcotic drugs were chiefly used as medicine and only in a restricted was as an intoxicant. We, therefore, see that no attempt was made at any time to evaluate the extent of misuse of these substances. Whereas during the British rule when its use was extended to the working class it became a problem of concern for social reformers. Attempts were made to determine the extent of use alcohol, opium and other narcotic drugs. Early researchers related the problem of prevalence with the availability of drugs rather than considering it from a psycho-social point of view. The prevalent view was to regard

¹. Hassan B. The drink and drug Evil in India -- The statement is partly produced.
availability as the causative factor or the root cause of alcohol and drug abuse whereas the psychological, social, motivational and the attitudinal aspects were not taken into consideration, i.e., the important question of why some people use drug and become addicted while others under similar circumstance do not? Was completely neglected. In the earliest studies we find estimates based on consumption statistics or the amount of excise revenue collected. The basic notion was that if the manufacture and sale is strictly controlled the problem of addiction could be eradicated. Likewise, conclusions were based on a critical assessment of the excise policy of the Government. In short the emphasis was on the policy of the Government resulting in the availability of the drugs and not on attitude of users towards it. C.F. Andrews (1926) in his study 'Opium Evil in India' which was conducted as late as 1926 adopted the same methodology. He compared the actual consumption of opium in lbs per 10,000 of the population with the normal or medicinal use of 12 lbs per 10,000, as prescribed by the League of Nations. His findings are summarised in the following table which gives an idea of opium abuse in our country in 1926. The table shows the actual consumption in some of the major cities:

<table>
<thead>
<tr>
<th>Name of city</th>
<th>Consumption per 10,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcutta</td>
<td>288 lbs</td>
</tr>
<tr>
<td>Rangoon</td>
<td>216 lbs</td>
</tr>
<tr>
<td>Ahmedabad &amp; Bombay</td>
<td>88 lbs</td>
</tr>
<tr>
<td>Karachi</td>
<td>94 lbs</td>
</tr>
<tr>
<td>Madras</td>
<td>52 lbs</td>
</tr>
<tr>
<td>Assam</td>
<td>105 lbs</td>
</tr>
</tbody>
</table>
Among the early researches R.N. Chopra's study (1928) seems to be an exception which studied the attitude of users towards opium i.e., whether they regard it as beneficial or harmful? He also made an attempt to understand the relationship of the size of daily dosage with the attitude of the individual towards the drug. Grouping the cases according to the size of the daily dosage his investigation yielded the following principal findings:

<table>
<thead>
<tr>
<th>No. of addicts</th>
<th>Dosage in gms</th>
<th>Beneficial</th>
<th>Harmful</th>
</tr>
</thead>
<tbody>
<tr>
<td>255</td>
<td>1 to 5</td>
<td>165</td>
<td>64%</td>
</tr>
<tr>
<td>247</td>
<td>6 to 10</td>
<td>137</td>
<td>55.6%</td>
</tr>
<tr>
<td>287</td>
<td>11 to 20</td>
<td>142</td>
<td>49.6%</td>
</tr>
<tr>
<td>281</td>
<td>21 &amp; over</td>
<td>100</td>
<td>35.6%</td>
</tr>
<tr>
<td>1070</td>
<td>544</td>
<td>526</td>
<td></td>
</tr>
</tbody>
</table>

The incidence of opium use in the later half of the 19th century and the first 3 decades of the present century as evident from the studies is mainly the result of people using opium as a medicine and later became habituated. Early writers, therefore, laid emphasis on cutting down the manufacture or to produce it according to the medicinal requirements only. The drugs of use or abuse in those days were opium and alcohol and the preparation of the hemp plant viz., Cannabis (bhang) and ganja was negligible. Even the use of the former was not alarming enough to give it the dimension of a socio-pathological problem of grave concern. In contrast we see that in the modern times especially
after the world war II quite a large number of new and dangerous
drugs have come into use. Besides Alcohol synthetic equivalents
of opium, psychodelices, hallucinogens and psychotropics are in
use in not only the western countries but also in India and othe
developing countries. The number of mood altering substances
now available through legal or illicit means has accelerated and
this vice has also spread among college and school students. The
problem of drug Abuse has now become a world wide phenomenon.
Before discussing the nature and dimensions of the problem in
the present times in India and elsewhere, it will not be out of
place to trace the origin of the problem in the western countrie
As in India and other Asian countries we find the use of Alcohol
and other drugs in U.S.A. and other developed western countries
since the ancient times. According to Richard H. Blum & asso-
ciates (1969) "There is a long history to the use of various moo
altering substances, alcohol, marijuana, opium, heroin and other
substances, which induce the alteration of the mind, have
appeared in many cultures throughout recorded history. Although
alcohol is probably the oldest most widespread and the most
frequently used substance, others are by no means recent in
their use. "Opium preparations were used medicinally in the
U.S.A. from the colonial days, but there was a large increase
in its consumption in the later half of the 19th century.
Patent medicine contained opium and later other opium derivaties
and its chemical equivalents like morphine, cocaine and heroin
were added to the medicine. People who used there, got cured
of their original disease but often found themselves addicted
to opiates. These people were termed as medical addicts.

Among the early attempt to study the problem of these 'medical addicts is the Michigan study (1877) probably the earliest one. In this study the author concludes that there are 93,654 opium addicts in the United States.

In another study carried out in 1924 by Dr. Laurence Kolli and A.G. Dumoz to determine the extent of drug addicts in the United States, it was found that there were 1,50,000 addicts in U.S.A. alone. Shortly after the second world war, the use of narcotic drugs appeared to have spread with epidemic force. For an understanding of the status or dimension of the problem in the modern times it will be appropriate to define the problem as it is presently perceived and to discuss the various approaches that are adopted to control and explain the dynamics of drug addiction. Before assessing the postwar and the present situation with regard to the problem of drug abuse, it seems appropriate to define what is meant by drug addiction and the various approaches that are adopted to understand and explain the problems.

1.9 Present trends in using drugs in western countries as well as in India:

New world trends have, lately, been noticed. Recently cannabis smokers organized themselves into an "Alliance for Reform" in a conference held in Amsterdam which was attended by 250 delegates from 20 countries. This was a strange conglomerate of marijuana users, addicts and the so-called spiritualists and mystics.
We have, at least in the cities and among the young, been witnessing strong tendency to follow the west. First, we copy the west—thanks to the media—Deluge; the movie and a veritable flood of books and pornographic and perverse magazines which pander to the lower senses. These follow; a gradual degradation of the physical and moral health of the community. Then, there is a lot of beating of the breasts and lamentation, at least among intellectuals. Finally, we again look to the west for remedial action! In the case of drugs, at any rate. There is still time to ward off the tidal wave of western type of problem. However we owe it to the U.N. for the initiatives.

There is the 1981 UN Convention on Narcotic Drugs. This binds all governments to prohibit the public production, distribution and sale of marijuana. This has produced some positive gain: Nepal followed by Burma launched a programme for the eradication of poppy-opium.

The Indian experience with poppy plant is, of course, ancient. During the British Raj cannabis was a fact of life. The massive eight volumes "Reports of the Hemp Drugs Commission" of 1894 concluded significantly:

"The prohibition of ganja is an interference with liberty—which the Government of India has not justified in taking."

From 1894 to 1950, the year we adopted the constitution, we have come a long way. Article 47 of the Constitution of India directs the the State to bring about prohibition of alcoholic drinks and drugs which are injurious and harmful to health of the community.
The directive principle needs to be backed and buttressed by a series of measures: legislative, financial and educational. This is an uphill task requiring co-ordinated and sustained efforts of all agencies, Governmental, professional, medical, educationalist, voluntary, indeed the community as a whole. Above all, it calls for Will and Determination.

In the U.S.A. despite a massive mobilisation of resources, a clandestine cannabis market estimated to be worth $44 billion has been operating with untold cost to the people in terms of health of the individual and happiness of the family. In the U.K., a B.B.C. survey a few years ago, found that 39 percent of a sample of British people between the ages of 17 and 34 claimed to have used cannabis. Whatever the size of the market, no one is in any doubt that the demand for cannabis in the West is growing rapidly.

The essence of an antidrug policy is, therefore, to recognize that social development must be accelerated, must harmonise with economic development. There are no simple ways of converting all "would be" addicts. But there are lost of ways of reducing the case with which drugs can be procured, increasing awareness about the evils of addiction, limiting the opportunities to slowly slide into addiction and increasing the deterrence in law and its implementation.

MEDIA: The power of the press and other mass media has been a subject of perennial fascination. For purposes of social
change, mass media has been a powerful ally. You should see that this relationship is encouraged and strengthened by opening more windows on the addiction problems. Advertising is another dimension: while, in case of alcohol, there is a legal bar to advertising, tobacco enjoys a total holiday. The glamorous presentation often with star support has pushed the "statutory warning," concerning use of tobacco to inconspicuous corners. There is every effort on the part of the advertisers, to so composed the text as to pour scorn and disdain on the "statutory warning."

While on the subject of tobacco, it is necessary to mention that while W.H.O. has pursued the problem with vigour, Departments of Health have done precious little to discourage smoking. One can only mention, but not elaborate, the serious cancer hazard from tobacco chewing.

Next about alcohol: the less said the better. Look only to the economics. We have the estimates arrived at by the Seventh Finance Commission: that the states derive an average of 500 crores of Rupees, as excise revenue, on alcoholic beverages. Simple arithmetic will show that the coat to consumers, in terms of money (and not in terms of health) alone would be in the neighbourhood of Rs. 1500 crores. Half that amount would ensure nutrition and health of all children under five -- some 10 crores of them.
The story of the Green Revolution makes all Indians, especially farmers, feel proud. It acquires a special significance in the context of the current F.A.O. conference that India is hosting. But studies conducted by the Punjab Agricultural University (the University that has been the Nursery of Green Revolution) have revealed that prosperity in agriculture has contributed more to the liquor trade than to family health, the Punjabi's took 30% more liquor in 1978-79 than in the previous year. Government earnings have grown despite reduction in the volume of bottled liquor issued from Bonded Warehouses. It is strange that the excise departments would be anxious to undo what the Health Departments promote. One has to hope they would sit up and take notice to stem the trend -- if not to reverse it.

One would like to see a national drug agency being set up to guide law enforcement as well as social action. While there is no cause for hysterics in the matter of drug addiction we have a long way to go and a national drug agency alone can chart out the course of action.

In conclusion, this must address itself to two or three crucial questions: Firstly, what are the critical issues in drug addiction: social, psychological, medical, economic and others, recently, how can the human institutional resources be mobilized, and thirdly: to develop a programme of action as a part of a synchronised but multi-sectoral strategy.
1.10 Drug use among Adolescents:

The most disturbing feature of drug-abuse in this period was, the spread of the vice among the adolescents. According to the Biogga Committee: "in 1948 an upsurge in addiction and an outbreak of teenager use of Narcotic drugs occurred."

This is true for almost all the countries, Recent studies revealed that drug use among adolescents is on the increase.

A Norway study which was undertaken in 1975 disclosed that about 18% of adolescents in Oslo have tried cannabis once or several times a week.

"US News and World report" stated in 1975, that out of 137 youth selected at random only 29 did not use any drug; of the rest, 4 used only one; 31 used less than 10 drugs and 36 more than 10 drugs."

In an investigation conducted by the Directorate of Health, Otawa to determine the trends of drug use in Canada from 1956 to 1973, Roofman, Iruinget al (1975) found that the number of users increased by 289% during the period, the greatest increase taking place after 1969, and the greatest concentration of users being found in British Columbia, with regard to age and pattern the study revealed that heroin consumption was frequent; whereas, cocaine, showed the largest
increase in all age groups. However, it was evident that there was a dramatic increase in the use of narcotics in the age group of 20-24.

These studies clearly indicate the alarming increase of drug use in the rank and file of the adolescent population. The most disturbing feature was the excessive preoccupation of the school and college students with these substances.

1.11 Drug use among School Going Students:

An extensive study (Gosset, et al. 1971) which was carried out at Dallas to determine the extent of drug use among junior and senior school students covered a sample of 56,745 students. Results revealed that 28% of the sample experimented with an illicit drug, 8% reported using the drug more than 10 times and 4% reported frequent current use. The pattern of drug use revealed the use of tobacco, alcohol, glue, marijuana and non-prescribed stimulants. Considering the size of the sample the percentage of those who experimented with drugs (28) and the frequent current users (4) is quite high.

In a survey which covered 2,702 school children in Helsinki (1973) falling in the age group 14-17 years it was found that 25% have used drugs, hashish being the most frequent.

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

1.12 Drug use Among College Students:

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

A study by Gergon, and others (1972) revealed that out of a sample of 5,000 college students 36% used marijuana. Another study carried out in U.S.A. in 1974 by Strimber Jerry and others covered a large sample of 24,609 University students. Results indicate that 46.3% used alcohol, 26.3% used tobacco and 15.5% used marijuana. A study entitled "During usage trends among college students" was conducted in 1973 among 1,385 students at University of Maryland. Results showed that 87% of the subjects used alcohol, 62% marijuana, 39% hashish, 20% Methaqualone, 20% amphetamines and 13% tranquilizers."

The results of these studies clearly indicate that the evil of drug addiction has gained its hold over the young generation to a considerable extent.
In a London survey conducted between May 1971 and April 1972 undergraduates from 6 colleges were served with a questionnaire. Of the 1,113 respondents 1/3 reported having used controlled drugs 50% reported using cannabis, 8% reported having tried hallucinogens, mainly L.S.D.

1.13 Drug-use Among Indian University Students:

There are very few investigations undertaken to study the problem of drug abuse in India especially among the student population. Dube in 1972 found that 5% of all the university students in the Delhi-Agra region were regular cannabis users. Mohan and Arora (1974) in the study among Delhi college students found that alcohol and tobacco were abused by 70%, Cannabis 8%, Tranquillisers 6%, amphetamines 4% and Barbitrate 2%.

The very high percentage of 70% for tobacco and alcohol use in disturbing, for these substances form the base line for drug taking behaviour. The overall prevalance of drug use was 50% among the respondents and 38% of the entire universe.

Chitnis (1974) found the prevalance among Bombay Collegians to be 19.5% with regard to the pattern of drug use the study revealed not only the use of softer drugs, viz., cannabis (7.7%) amphetamines (7.1%) but also hard drugs like L.S.D. (3.8%) and heroin - Cocaine (1.4%).

Verma et al. in Chandigarh obtained similar results - over all prevalance was 19%, Mandrax (Barbiturate) 41.55%, L.S.D. 3.89%.
Although the prevalence is somewhat similar in the three places, the pattern of drug use is different. In the first place, alcohol and tobacco were widely used (70%) but hard drugs like heroin - cocaine and L.S.D. were not used, whereas in Chandigarh, Mandrax (Barbiturates) seems to be the most popular drug (41-55%). L.S.D. is also prevalent but the percentage is not alarming. The Bombay study also revealed the use of hard drugs like heroin - cocaine and L.S.D., but here also the prevalence is not high.

In one of the studies of ICMR, New Delhi (1978) covering 1132 students of Calcutta University, it was found that 26.6% of the subjects were using tobacco. 1.46% of them amphetamines.

In a recent study (1977) done at the instance of the Narcotic Commissioner of India, 933 students of the University of Agricultural Sciences, Bangalore were tested to determine the incidence of drugs and alcohol usage. The results indicated that 35% used alcohol and 177 used drugs. Of the 170 drug users 50% tried Ganja and 45% tried Grass. About 27% used dexedrine and Mandrax and 23% opium.

It is clear from the above studies that the use of hard drugs like cocaine and heroin or L.S.D. among students is not much in India and there is no need for undue alarm or anxiety for parents and administrators. But the high percentage of alcohol and tobacco users and to some extent of cannabis is somewhat disturbing. The use of amphetamines and sedatives also seems to be on the increase.
The ICMR report (1978) concluded that the abuse is more likely to increase than decrease and that "the extent and nature of the problem among students is serious, especially because there seems to be a shift from abstinence, and that there are disturbing signs which show that the situation is likely to worsen and get out of hand, if adequate measures are not adopted to curb the evil." This warning is appropriate because alcohol and tobacco are considered to be dangerous not only because of their harmful effects but more so because they form the base line for future drug-use. Also the use of Cannabis, amphetamines and Barbiturates leads to the use of harder drugs. According to Johnson (1976) "There is a well established association between the use of alcohol and tobacco and the illicit drugs by students." In another study "Adolescent involvement in legal and illegal drug use, a multiple classification analysis, with regard to the use of tobacco and alcohol" concludes that "detailed analysis we have conducted on patterns and sequence of drug use clearly indicate that there is a progressive involvement with drugs that begins with tobacco and alcohol rather than marijuana.

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

Apart from the few studies cited above, the other sources of information on the problems are newspaper and magazine articles, movies and radio talks etc. These sources though not very accurate still reflect the public opinion. In these articles the problem is generally perceived as widespread and alarming and accordingly great concern is exhibited regarding the students involvement with drugs. In the absence of reliable data it is not possible to understand the nature and dimension of the problem. Only after a thorough and systematic study at various levels of the population it would be possible to evolve a national policy on the problem of drug abuse in India.

1.14 **Drug addiction:**

W.H.O. defines that Drug addiction is a stage of periodic and chronic intoxication detrimental to the individual and to society, produced by the repeated consumption of a drug (natural or synthetic). Its characteristics include:

1. An overpowering desire, a need (compulsion) to continue taking drugs and to obtain it by any means,

2. A tendency to increase the dose.
3. A psychic (psychological) and sometimes a physical dependence on the effects of the drugs.

From the above definition it is evident that physiological and psychological need of the drug is inherent in drug addiction. The need is so overwhelming that the craving for the addiction, forcing the individual to acquire it by any means.

Thus there are two basic strategies in dealing with the problem of addiction. One is legal and the other is therapeutic. The legal view is chiefly concerned with the effects of the drugs that are regarded detrimental to the individual and the society. Drugs are therefore, labelled as illicit items and the user becomes an offender in the eyes of the law and is subjected to prosecution and penalisation. Both the illicitness and the punitive patterns maintain public condemnation of the users. Further, the advocates of the legal or punitive approach argue that crime committed by addicts are a direct result of the drug habit.

The contenders of this view maintain that drug use leads to a criminal way of life. A Chicago study concludes that 'Almost without exception addicts resort to theft to obtain money for the purchase of drugs. The compulsion of addiction itself coupled with the (astronomically) high cost of drugs lead the addict inescapably to crime. For the addict there is very simply no alternative.
In another study carried out by Pescor in 1943, it was found that of the 1,036 patients at Lexcington studied by him, 75.3% had no history of delinquency prior to addiction.

The underlying notion is that most addicts become delinquents or criminals after the onset of their addiction.

The therapeutic approach on the other hand defines the user as pathological. Addiction is regarded as a disease for which the solution lies in treatment and not in punishment. According to De Villiam G. Somerville ‘Drug addiction is a disease a pathological condition just as much as the psycho-neurosis of any of the various toxic states. This approach softens the condemnation of the user since the behaviour is a form of illness and the users cannot be held responsible for it.

These two strategies viz: legal and therapeutic involve people from different disciplines or fields for gathering information, understanding and explaining the dynamics of drug addiction and preventing the occurrence or recurrence of drug use. The legal approach fixes attention on legislators, police judges and lawyers. The therapeutic approach places responsibility on physicians, pharmacologist, psychologist, sociologist and educators.

Pharmacological approach:

There are drugs which have certain chemical properties which make them liable to abuse. These are potent pain relieving drugs but they produce changes in the central nervous
system, for example Morphine and Methadone induce drowsiness, lessen anxiety, inhibit sexual desires, alleviate hunger and relieve pain. These drugs are used therapeutically but addicts use them chiefly for the changes induced by continuous or chronic administration leads to physical dependence and development of tolerance to the drug.

According to John A.O. Donnel and John C. Bell (1969) 'of the pharmacological properties of drugs which make them liable to abuse, tolerance and physical dependence are the most important.

Psychiatric factors and psychological approach:

As has been mentioned earlier medical men regard drug addiction either as a disease or as a symptom of disturbed or abnormal personality. Such people require drugs to cope up with life's problems. According to Wikler and Rasor (1953) 'the personality deviation found in addicts may be described in several ways. From a diagnostic point of view addicts can be classified in having neurotic traits, psychopathic traits, psychosis or infrequently, as having normal personality. In this formulation, neurotics are presumed to use drugs to relieve anxiety ('negative euphoria') while psychopaths, use drugs in order to induce an elated state 'positive euphoria'. Normal individuals become addicted only in order to relieve pain, while 'psychotic' individuals use the drug to alleviate feelings of depression. The development of 'physical dependence' is regarded as merely a complicating process which is undesirable
Psychological characteristics play a prominent role in making a person an addict. From the point of view of a psychologist the psychological structure of the addict-prone becomes of central importance. The teenage user presents a picture of pervasive development emotionally, academically and vocationally. There is pleasure associated with the suspension of self-critical ability, which lightens feeling of personal value and security. This helps the addict in confidently coping with the basic problems of everyday life viz., society, marriage and love, work and education. The adjustive impact of the drug, is so great for the addict that the habit becomes difficult to extinguish. According to David Laskowits (1971) 'empirically, it seems as if non addicted non delinquents are more likely to respond to moderate to severe frustration with adjustive motivated behaviour whereas the addict because of a lower threshold for experiencing stress of inadequate preparation for dealing with stress betrays an inadaptive constellation of behaviour.'

The most striking character is that the addict-prone person as a whole would be making marginal-adjustment before they become acquainted with narcotics. After their first.
experience with the drug they feel an exhilaration and a sense of relief comparable to the solution of a difficult problem or the shaking off of a heavy responsibility. Having once found this new world of greater happiness and efficiency they attempted to regain it and to live there in for all time.

**Social factors:**

Apart from personality factors the social pattern or the environmental factors also play an important role. Psychopaths, psychoneurotics or emotionally disturbed persons would not use narcotics as a solution for their personal problems unless such drugs are available. Vinike (1957) discussing the causes of addiction concludes 'not the least of these reasons is his (addicts) access to a social group in which drug use was both practised and valued.'

The environmental factors, cultural attitude and the interpersonal relationship shapes the behaviour of the individual. The family life plays an important role in determining how, the individual would respond to the social problems of the social situation.

The New York University study (1956) compared the family background of 80 boys who were addicts with that of 30 boys who were non-addicts. All the families lived in a highly drug use neighbourhood. Almost all of the 50 addicts came from families
with disturbed family relationship between parents such as divorce, separations and hostility. There was evidence of weak parents relationship and inconsistent parental standard for the boy.

Many sociologists conceive addiction as arising from the discrepancy between critically approved goals of achieving success and status and the perceived or available means for achieving them. The resulting conflict or frustration forces the individual to resort to some adaptive device to get rid of the tension—drug use is conceived as such a device. The addict or user solves his problem by withdrawing from these situations and taking refuge in the imaginary world of the drugs. As Kolb (1925) has put it, 'his use of drugs is comparable to the compensation of little men who endeavour to lift themselves to greatness.'

Whether drug addiction is regarded as a disease or a symptom of personality disorder, viewed in the socio-cultural or socio-economic perspective it involves three basic characteristics, mentioned in W.H.O. definition viz., 1. tolerance, 2. emotional dependence and 3. physical dependence.

1. **Tolerance:** Repeated use or administration of drugs tolerance to the effect of the drug. The same dose cannot produce the desired effect that is, there is a need to increase the dose in order to obtain the original effect.
2. Emotional Dependence: When the drug is used as a substitute to some adaptive behaviour this is referred to as emotional dependence. Instead of taking a constructive action to meet the problem of life the individual seeks refuge in the drug.

3. Physical Dependence: According to Isbell and White (1963) 'Physical dependence' refers to the development of an altered physiologic state which requires continued administration of a drug to prevent the appearance of a characteristic illness, termed as 'abstinence syndrome.'

Abstinence or Withdrawal Syndrome:

If the user reaches the stage of physical dependence, it becomes necessary for him to take the drug regularly to avoid the withdrawal distress. This distressing experience is also known as the abstinence or the withdrawal syndrome. These symptoms appear if there is an abrupt or complete withdrawal of the drug. These characteristic changes are described by Wilken as non-purposive and purposive.

Non-purposive:

These consist of Yawning, tremors, muscle twitchers, restlessness, hot and cold lashes, nausea, vomiting, diarrhoea, anorexia, weight loss, elevation in body temperature, cardiac and respiratory rates and blood pressure, home concentration, elevation of blood sugar etc. Often the patient curls up in the lateral recumbent position with a blanket drawn over his head, preferably on a hard cold surface, such as the floor.
These changes, refer to such behaviour as appear to be directed towards obtaining the drug. The subject may exhibit patterns of behaviour which are highly individualised—threatening suicide or violence assuming bizarre posture and exaggerating his distress in dramatic ways.

From the above discussion it is evident that drug addiction is a complex process in which pharmacological, psychological, socio-economic factors play interdependent roles.

1.15 Aim of the Present Investigation:

In rapidly changing societies that are becoming more diverse and more impersonal and whose institutions are less able to respond to rapid changes. Communities and nations must continually assess their role in nurturing individuals who feel they are worth while, are competent, are willing to face challenges, even at the risk of failure, and have a reasonable chance to accomplish the tasks their particular society defines as required for successful adulthood.

Young people are using drugs, including alcohol not as many of them as indiscriminate reports from visible areas and schools colleges would tend to show, but enough of them to suggest that it may be necessary to ask some searching questions about youth, about drug use, about society and its response to both to youth and to drug use.
Indeed, such an inquiry may be one of the most positive steps that can be taken as a result of the concern caused by the use of drugs in present society. Mood-altering substances have been in use for ages. In modern times substances have wreaked havoc, affecting generation after generation of young boys and girls. Newer and more potent hallucinogens have appeared on the most recent what is alarming is that they are filtering down to highly vulnerable sections of society including school and college students.

Many researches have been published in Journal and in books regarding the drug abuse - a multi-dimensional phenomena and also its relationship with psycho-socio-cultural factors. The work of Gosset et al (1971), Helsinki (1973), Strimber Jerry and et al (1974), Mohan D. and Arora (1976), Dube (1977) and Verma et al (1977) and others suggested that there are many causes drug addiction and it has unique influence on behaviour of addicts.

In the Indian context little dependable information has been available about drug users, particularly the youth. The present investigation is one more attempt to study the factors of drug abuse. The aim of the study was to explain the problem along Psychological as well as social lines. The complexity of the problem, however, defies such explanations.

Before describing the present investigation, it would be more appropriate to get acquainted with the studies that have already been made to examine the factors of drug abuse. This would provide a good background to the present problem.