CHAPTER I
INTRODUCTION AND FORMULATION OF RESEARCH PROBLEM

Drug addiction is a phenomenon with which all communities and countries have regularly been affected. This has been an ever growing menace which has confronted each one of us with the issue of drug addiction either in our families, at school, in work place or within our society in general. It is a misconception among some people that drug addiction is not a huge problem, rather it is not only a problem but a disease that counts to be very close to incurable diseases. In other words, we can also say that drug addiction is a disease that if not cured at an initial stage may become incurable and leads a person towards death.

Individual may become dependent on a wide variety of chemical substances, ranging from stimulants to depressants. Drugs are being taken for treatment or enjoyment, they have not posed any problem but their excessive use has definitely raised bio-psycho-social problems. In ancient times, drugs were mainly used for the treatment of ailments and ritualistic abuse was considered as the sign of enjoyment. The habit of addiction in India is evident from the eras of Rig-Veda and Mahabharata. According to Morrow & Suzanne (1975) the use of drug to alter consciousness is nothing new. It has been a feature of human life in all places on earth and in all ages of history.

It was only during the second half of the 20th century that the world had to face drug invasion. America was one of the earliest countries to be engulfed by the drug epidemic. The single largest factor for drug invasion at the global level was the Vietnam War. The American youth could never understand and appreciate why a war was waged against Vietnam were massacred. They preferred decadent and abandoning such a decadent society to join the force of massacre. They rather became “hippies”, with their own norms of freedom from all shackles. The growing permissive ethos of society pushed them to lead a nomadic and adventurous life full of sex and drugs (Modi & Modi; 1997). Many hippies were the products of the Vietnam War, their demands of drugs in Vietnam created many new drug production centers, suppliers or traffickers and traffic routes. The hippies influenced the youth of all countries. Number of drug addicts rose to new heights and it was difficult to meet to the drugs. Supplies of drugs from Burma, Thailand, and Laos known as Golden...
Triangle were not sufficient. Later, the countries in South and West, particularly Pakistan, Afghanistan, and Iran in Asia popularly known as Golden Crescent, joint in production, supply and distribution of drugs often through illegal channels. According to Uddin (1997), the areas in and around the Golden Triangle and Golden Crescent are just like a heaven for all those who are directly or indirectly concerned with drug production and drug addiction.

Indian Drug Scenario

Use of drugs in India is not a new phenomenon. Interestingly, it has a mythical past and also a long history of nearly ten thousand years. *Soma* and *Sura*, the two famed celestial drinks, origins of which are attributed to the mythological ‘*Sagar-Manthan*’, became essential parts of the Rig-Vedic ritualistic sacrificial ceremonies. Of the two headier liquors *soma* and *sura* to which the Aryans were addicted, soma, libation of which constituted an essential part of sacrifice, was liberally and convivially drunk after the sacrifice (Modi; 1985, Thapar; 1986). Drinking of soma has been eulogized time and again in no uncertain words in the hymns of the Vedas.

*Ganja, bhang and charas* which are derivatives of *cannabis sativa* are another type of drugs very much prevalent in India. It is used during religious and social ceremonies among the Hindus. On *Shivratri*, *bhang* is poured on *Shivlinga*, reflecting the presence of the invisible transcendental reality of *Shiva*. Other festivals during
which cannabis is used are Janmashtami and Holi. During the Holi festival, men and women drink a beverage made of cannabis leaves, milk, and dried fruit (Fisher; 1975).

In many parts of India, opium has been used as a sedative for children. It is mixed with sweets, and given to children to keep them docile while mother goes out to work (Andrew; 1926, Chopra & Chopra; 1990). Even camels are given opium before a long journey, to cope with the desert and sun in Rajasthan. Marijuana and hashish are smoked extensively in all parts of India and they are considered as a poor man’s liquor. A drink called *thandai* is made from tender leaves of cannabis, milk, and dried fruits. It is drunk to deal with extreme heat and counter dehydration. It is consumed during summer in central, eastern and north western parts of India. Cannabis is also taken in the form of cakes, sweet dishes and snacks.

During the last few decades or so, Heroin, Pethidine, Morphine, Mandrax, Fortwin, LSD, etc. have been introduced to the Indian drug scenario. According to Nagi (1996) there are many sources for heroin trafficking in India but the following three sources are the major one:

1. To Western India and Delhi from the Golden Crescent, a route-shape which cuts across Pakistan and Afghanistan and moves towards the western nations via Bombay and Delhi.

2. To the North-east, Calcutta and Delhi from the Golden Triangle which includes parts of Thailand, Laos, and Burma and goes to western countries via Calcutta, Delhi and Dhaka.

3. To Madras and Bangalore from Sri Lanka.

Drug addiction in India, in recent decades has emerged in the form of an epidemic and it is increasing at high pace. According to a national survey conducted in 2001-2002 by United Nations Office on Drugs and Crime Prevention (UNDCP) and Ministry of Social Justice and Empowerment, it was estimated that about 732 lakh persons were users of alcohol and drugs. Of these 87, 20 and 625 lakh were users of cannabis, opiates and alcohol respectively. About 26 per cent, 22 per cent and 17 per cent of the users of the three types respectively were found to be dependent on/ addicted to them. The survey also indicated that other drugs such as sedatives/hypnotics, volatile substances, hallucinogen, stimulants, and pharmaceutical preparations were also abused (*The Tribune, 21 October; 2010:10*). The report conducted by the Health Ministry and the Indian Institute of Population Sciences, Mumbai in 2009-2010, reported that, the country has 274.9 million tobacco users that
is about one-third of the total adults’ population of the country. 20.3 per cent of adult women use tobacco. The male percentage is much more i.e. 49.9 per cent. Mizo women happen to be the most addicted, with 62 per cent using tobacco. Tobacco users are much less in Punjab among Sikhs because of the abhorrence for it among Sikhs.

Illicit drugs are now being ordered online and India is emerging as the leading country of origin of internationally controlled substances being supplied worldwide via illegal Internet pharmacies. These pharmacies are using social media, primarily the Facebook, to publicise their websites, putting a large number of people across the world at risk of dangerous substances (The Tribune, 2nd March: 2012: 1).

Internationally, the INCB (International Narcotics Control Board) collects information on seizures of internationally controlled substances sent via mail including those ordered via Internet. The board has received reports of over 12,000 such seizures till date. The main country of origin identified for seized pharmaceutical preparations were India, where 58 per cent seizures were made in 2011; followed by the U.S., China and Poland. NCB (Narcotics Control Bureau) has discovered that internet pharmacies were using parcels and couriers to supply their consignments. NCB has seized a whooping 152 parcels in 2011 and these were found to be containing 38 kg heroin, 71 kg hashish, 1 kg cocaine and 41 kg amphetamines. Many of these orders were made via online pharmacies.

Concepts and Terms

There are certain terms like drug, drug addiction, drug abuse, drug dependence, craving, tolerance, cross-tolerance, abstinence, relapse which are necessary to discuss before we discuss the theoretical models. Let us discuss these one by one.

Drug: The word drug has a variety of meaning, depending upon the surrounding circumstances. Weissman (1978) has observed that drug is any substance (other than food) which by its chemical nature affect the structure or functioning of living organism. Krivanek (1982) while defining drugs, observed that drug is a chemical. But all chemicals are not drugs. The popular definition of drugs normally excludes substances naturally present in the body, though some of these, for example the hormones may be used medically. The drugs, therefore, are the substances introduced into the body, but such substances do not include food or necessary components of diet such as vitamins, even though these may be taken in forms and ways unrelated to ordinary eating. The chemical used to flavour, colour and preserve food are also
excluded from the category of drugs. Helen (1975) pointed out that drug phenomenon like any other phenomenon cannot be explained or understood outside social and cultural context. The drug for many people means simply something which a doctor prescribes for treatment of a disease or which one can buy for the same purpose from a drug store without prescription. The drug include within their ambit substance such as heroin and morphine, which were originally and are still used medically for treatment or pain but are now also manufactured and sold illegally for pleasure producing agents.

Levine (1974) observed that drug is a chemical which interacts with body chemistry. Sometimes it substitutes for chemicals, which the body lacks such as insulin. Opiate, depressants, tranquilizers, stimulants, etc. are classified as drugs. The basic pharmacological or scientific definition of drug is a substance that by its chemical nature affects the natural behaviour of those who use such drugs. The mode of action and nature of effects of drugs is the subject matter of pharmacology and varies from individual to individual. The definition virtually covers every item that the people ingest, inhale, inject or absorb. It includes medicines, Over-The-Counter (OTC) drugs, illegal drugs that are commonly referred to as beverage or cigarette, food additive and preservatives etc. In other words from the pharmacological point of view, a drug is a drug regardless of how or why it is used or what it is called.

Broadly speaking, drug is defined as any chemical which, when administered, alters the functioning of one or more systems of the organism. However, this definition is too general and would include virtually all medicines ranging from antacids to vitamins and antibiotics. The definition of the word Drug proposed by the World Health Organization (WHO; 1997) refers to all psychoactive substances i.e. “…any substance that, when taken into a living organism, may modify its perception, mood, cognition behaviour or motor function.” This distinction includes Alcohol, Tobacco, and solvent and excludes medicinal, non-psychoactive substances. According to Fuqua (1978) the term “Drug” means various to various people and drugs are not always medicinal. A non-medicinal drug is a drug when no health or medical need is required. Alcohol, tobacco, marijuana, cocaine are examples of non-medicinal drugs.

According to Paul (2005) drug is ‘any substance used in the composition of medicine’. In general way, drug means those substances which are taken for their psychotropic or psychoactive properties as defined by their capacity to alter sensation,
mood, consciousness or other psychological or behavioural functions. A more narrowly defined term is a ‘psychotropic’ drug, which induces change primarily in some aspect(s) of mental functioning; for example, an anti-depressant is meant to relieve mental depression. According to Sharma (2011) the expression "psychotropic" is composed of two separate words 'psychosis' and 'tropic'. Psychosis means a mental or personality disorder sufficiently severe to disrupt the individual's personal and social life and normally demanding special treatment and hospitalization. Tropic means pertaining to or characteristics of or, occurring in the tropics, that is, the regions falling between the corresponding parallels of latitude on the terrestrial globe, one: tropic of Cancer about 23-1/20 N and the other, tropic of Capricorn, about 23 - 1/20 S of the equator being the boundary of torrid zone. These drugs usually occur in nature in the Torrid Zone. Psychotropic substances mean drugs that have a short term effects on the nervous system, particularly that change the levels of consciousness and/or variations of mood without general stimulation or depression of the Central Nervous System (CNS).

Kirk (1974) opines that drugs, narcotics, and poisons constitute a group of materials among which there are no sharp lines of demarcation. Virtually any drug, when taken in excessive amounts, will exhibit toxic properties that can justify its classification as a poison, and only a few poisons are so potent that they cannot be tolerated in small amounts.

**Drug Addiction:** The word addiction, derived from the Latin verb *addicere*, refers to the process of binding to things. Today, the word ‘Addiction’ largely refers to a chronic adherence to drugs. James (1984) is of the opinion that addiction is a condition induced in certain higher mammals by chronic administration of central nervous system depressants like alcohol, barbiturates, opiates, in which gradual adaptation of the nervous system to the drug causes a latent hyper excite-ability that becomes manifest when the drug is withdrawn and produces psychological symptoms that are interpreted as a physical need for the drug.

The World Health Organization Committee (1950) known as expert committee on ‘Drugs liable to Produce Addiction’ has suggested the following definitions of drug addiction. Drug addiction is a state of periodic or 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 or need (compulsion) to continue taking the drug and to;
2. Obtain it by any means;
3. A tendency to increase the dose; and
4. A psychic (psychological) and sometimes a physical dependence on the effect of the drug.

Thus drug addiction entails both a psychological and a physiological reaction to a chemical substance consumed or used to produce pleasurable effects or to avoid pain or discomfort (Bedi et al.; 1997).

The addiction pertains 4 aspects i.e. habituation, tolerance, physical dependence and euphoria.

Habituation or habit formation means a psychological dependence on the use of a drug because of the relief from tension and emotional discomfort that it affords. Habituation refers to regular use of drugs that do not entail physiological dependence (Clausen; 1966).

By Tolerance it means a declining effect of the same dose of a drug when it is administered repeatedly over a period of time. As a result it is necessary to increase the dose, in order to obtain the original degree of effect.

Physical dependence refers to an altered physiological state brought about by repeated ingestion or administration or a drug in order to prevent the appearance of characteristics illness called as ‘abstinence syndrome’. The recent tendency is to substitute the term ‘physical dependence’ for addiction and the term ‘psychological dependence’ for habituation.

Euphoria is the state of well being, relaxation, happiness and pleasure created by the drug within the individual. It is expressed in terms of ‘high’ and ‘kicks’. It is a common belief that without euphoria there would be no addiction, since it is the condition the user wants to achieve again and again and sometimes constantly.

**Drug Abuse:** The term drug abuse is also a related term. The concept and meaning of which can be derived in the light of prevailing moral and legal values.

Voss (1982) expressed that the term drug abuse is used without the precise definition and may refer to different things in different circumstances. In the past when the term abusers or addict was used, it implied heroine users, but now it includes LSD, cocaine, marijuana and other substances. Thus the concept of drug has been broadened from time to time. Hawkins (1979) observed that the very definition of
drug abuse is socially determined. The people in different social roles define drug abuse differently. For instance for a Law Enforcement Officer abuse means use of illegal psychoactive substances, to a Medical Practitioner it means non medical use of the psychoactive substances, whereas the user may recognize abuse when the drug use interferes with the acceptable patterns of family norms, maintenance and interaction. The drug user himself may define abuse as a pattern of use which has been associated with a number of issues ranging from problems with the law or family members.

Drug abuse broadly speaking is of two types viz. instrumental and appreciative. Instrumental drug use is intended for a specific psychological effect, thus it varies from person to person. The long route driver takes some local made drugs or caffeine or benzedrines to stay awake, and the insomniac takes barbiturates to fall asleep. Some person takes LSD in a deliberate effort to experience hallucinations (to make a trip), the opiate user take more opiates primarily because his body has adjusted to the presence of these drugs (developed opiate tolerance) and suffers cramps, chills and nausea (withdrawal effects) whenever most of the opiates previously injected are metabolize, all such use of drugs is instrumental, to create the specific effects by purely chemical reactions.

Appreciative drug use is done to conform to socio-cultural expectations in the particular situation, where shared norms and values encourage it. Appreciative drug use is most distinctly a group phenomenon, always liked in the group situations. It may be liked in a particular era of the history and in a particular locale with different shades of the geographic variability of cultures and sub-cultures. Both instrumental drug use and appreciative drug use lead to drug abuse (Uddin; 1997).

**Drug Dependence:** WHO has more recently developed the concept of drug dependence still further, and suggested that it may be useful to think in terms of a variety of drug dependence syndromes, the characteristics of the specific syndrome produced by any drug (or drug group) then calling for precise description. The word “syndrome” implies the association of a number of different elements (Gossop & Grant; 1990).

Fuqua (1978) observed that drug dependence is of two types viz. physical dependence which refers to body’s need for a drug and psychological dependence, referring to mind’s need for drug. The physical dependence is usually induced by prolonged use of a drug. It is an altered or adoptive physiologic stage produced in an individual by the repeated administration of drug. The physical dependence manifest
itself as intensive physiological disturbances called the withdrawal or abstinences syndrome. Thus the degree of physical dependence can be measured only by severity of withdrawal symptoms.

The development of psychological dependence is the common denominator in the abusive use of drugs that produce effects on the central nervous system. The psychological dependence or as it is sometimes called psychic dependence which refers to craving or strong psychological need for pleasurable mental effects produced by a drug. The psychic craving or compulsive abuse or what is known as psychological dependence is a condition characterized by an emotional or mental drive to continue taking a drug, the effects of which the user feels are necessary to maintain a sense of optimal well being. The psychological dependence is related to a number of factors and varies with the individual and specific drug effects.

Health professionals check dependency of drugs in an individual according to the following main six criteria given by Sartorius et al. (1992):-

1. Substance taken over long periods or larger amounts than intended.
2. Unsuccessful efforts / persistent desire to cut control substance use.
3. Withdrawal.
4. Tolerance.
5. Important social / occupational / recreational activities given up.
6. Continued substance use despite knowledge of persistent physical and psychological problems.

Rasmussen (2000) delineates the term addiction and drug addiction in more precise way. According to her, addiction is a broad term that embraces both substance-related (chemical) and behavioural (nonchemical) problems. Addictive disorders include:

a) Substance use disorders, more specifically substance dependence and substance abuse, and

b) Substance induced disorders, such as intoxication, withdrawal, and flashbacks.

Craving: Craving is an intense, strong desire, a powerful urge beyond reason for a drink, a drug, or an addictive actively (“I don’t want to use, but I just can’t help it”).

Tolerance: Tolerance is present when increased amounts of substance are needed to achieve the desired effects, or when diminished effects are experienced with use of the same amount of substance. (“I use more and more it does less and less for me”). Tolerance is one of the defining criteria of addiction.
**Cross-Tolerance:** Cross-tolerance is the development of tolerance to a new substance because of previous use of a similar substance. Cross-tolerance is apparent when the new substance fails to produce the expected effects. The two substances usually have similar pharmacological effects— for example, alcohol and barbiturates are both central nervous system depressants, and cross-tolerance for the two is common.

**Abstinence:** Abstinence is the voluntary avoidance of a substance previously used or abused. Abstinence is the usual treatment goal for the patients with diagnosis of substance dependence.

**Relapse:** Relapse is the recurrence of substance use or other addictive behaviour following a period of abstinence. Relapse prevention is the critical treatment goal.

**Classification of Drug Users**

Hanson et al. (2009) classified drug users according to their general approach or orientation, frequency of use, and types of amounts of the drugs they consume. Some are occasional or moderate users, whereas others display much stronger attachment to drug use. In fact, some display such obsessive-compulsive behaviour that they cannot let a morning, afternoon, or evening pass without using drugs. Some researchers classified such variability in the frequency and extent of usage as fitting into three basic patterns: experimenters, compulsive users, and floaters or chippers.

**Experimenters:** Experimenters begin using drugs largely because of peer pressure and curiosity, and they confine their use to recreational settings. Generally, they more often enjoy being peers who also use drugs recreationally. Alcohol, tobacco, marijuana, hallucinogens, and many of the major stimulants are the drugs they are most likely to use.

**Compulsive users:** For compulsive users, recreational fun is impossible without getting high. Other characteristics of these users include the need to escape or postponed personal problems, to avoid stress and anxiety, and to enjoy the sensation of the drug’s euphoric effects. Often, they have difficulty assuming personal responsibility and suffer from low self-esteem. Many compulsive users are from dysfunctional families, have persistent problems with the law and/or have serious psychological problems underlying their drug-taking behavior.

**Floaters or Chippers:** Floaters and chippers focus more on using other people’s drugs without maintaining a steady supply of drugs. Chippers vacillate between the need for pleasure seeking and the desire to relieve moderate to serious psychological
problems. As a result, although most are on the path to drug dependence, at this stage they drift between experimental drug taking peers and chronic drug-using peers. In a sense, these drug users are marginal individuals who do not strongly identify with experimenters or compulsive users.

Factors of Drug Addiction

Though, a number of writings are available in the literature, newspapers and magazines about the problems of drug addiction. Why does drug addiction as a problem exist in society? Why one takes drugs? What are the reasons for its use? After going through various studies on this problem, it has been concluded that drugs are taken for medicinal and non-medicinal purposes i.e. for treatment, enjoyment etc. Its excessive use has serious effects on the health of individual. Let us have a look at the factors of drug addiction, the following three are outlined:

- Biological Factors
- Personal and Psychological Factors
- Social Factors

**Biological Factor:** Biological or Genetic factors can directly or indirectly contribute to drug abuse vulnerability in several ways:

1. Psychiatric disorders that are genetically determined may be relieved by taking drugs of abuse, thus encouraging their use.
2. In some people, reward centers of the brain may be genetically determined to be especially sensitive to addictive drugs; thus, the use of drugs by these people would be particularly pleasurable and would lead to high rate of addiction.
3. Volkow (1999) states that “addiction is a medical condition” and that “in the brains of addicts, there is reduced activity in the prefrontal cortex where rational thoughts can override impulsive behaviour” (Lemonick & Park; 2007).
4. Character traits, such as insecurity and vulnerability that often lead to drug abuse behaviour may be genetically determined, causing a high rate of addiction in people with those traits.
5. Factors that determine how difficult it is to break away from drug addiction may be genetically determined, causing severe craving or very unpleasant withdrawal effects in some individuals. People with this predisposition are less likely to abandon their drug abuse.
Several studies have led to increased interest in the effect of parental alcoholism on the development of alcoholism and other disorders in the offspring (Goodwin; 1983, Jellinek and Jolliffe; 1940, McKenna & Pickens; 1981, Penik et al.; 1978). In other study by Kosten et al. (1985) examined the relationship of parental alcoholism to alcoholism among 638 opioid addicts. It was concluded that, compared to addicts without parental alcoholism with addicts with parental alcoholism were more frequently concurrent alcoholics.

Nathan (1976) stated that some twin studies have suggested that genetic factors may play a role in apparent differences in susceptibility to developing tolerance to and dependence on drugs. Grumet (1983) in one of his studies presents a case of 23 years old monozygotic twins in which one twin was a heavy abuser of heroin while other was adamantly opposed to drug abuse. The drug abusing twin was the first born, had a higher birth weight, and took a leadership role, while his twin enjoyed extra care in infancy and was less adventuresome.

**Psychological Factors:** It is believed that people who are more anxious, insecure, immature, frustrated, dependent are more prone to drug addiction. Some important psychological factors are:-

**To Avoid Loneliness:** Psychiatrist Gerald May writes convincingly in his book Addiction and Grace (1991) that we long for wholeness, completion, or fulfillment. We hunger to love, to be loved, and to move closer to the source of love. This longing gives meaning to our lives. This yearning is the essence of the human spirit; it is the origin of our highest hopes and most noble dreams. But according to May, something gets in the way. Modern experience creates a sense of aloneness, alienation, and pain for many people. Addiction offers temporary relief; it can transport people out of their loneliness and pain into a world of the extraordinary. Psychoactive substances and addictive behaviours can help people transcend reality. According to Oliveira (1995), individuals experience a sense of incompleteness or void that they attempt to fill. Through addiction, individuals replace what is missing in their lives; psychoactive substances or addictive behaviours fill this void. The addictive process is the result of an unconscious desire to become whole. Strack (1979) in this respect observed that we are conquering our solar system, we have a void in our own inner space. The actions of youth and adults today reveal this emptiness. This epidemic of drugs, the flood of immorality, suicide attempts and increase in divorce are all evidences of
loneliness. The situation is just like a person trying to survive in a famine. When one is hungry or thirsty, he will take anything to stay on.

To Acquire Salvation or Influence of Religion: According to Modi & Modi (1997) the sages and seers are said to have acquired salvation and wisdom by using drugs. It also helped them to understand themselves. Some of the commentators of Buddhist history went to the extent of associating Buddha to the use of psychotropic mushroom (an over dose of which is said to be the supposed cause of his death).

In the social system it was believed that *charas* smoking is the best instrument of accelerating meditation. This belief continues even at present and the *charas* commonly used at the places where ‘Darwashes’ and saints meditate and meet people. They continue to enjoy support from the people and use *charas* for their meditation (Uddin; 1997). According to study conducted by Charles (2001) cannabis is used by *Yogis* (people who have given up worldly pursuits for the transcendental), *Sadhus* (Hindu priests) and *Fakirs* (itinerant Muslim devotees) to facilitate meditation. For those who may number more than half a million in India, cannabis is a means to relate to the hidden realms of consciousness; it is said to help them deal with extreme climatic conditions to overcome hunger and thirst, and increase concentration.

Misconceptions of Youth Regarding their Health: Dependence on drugs may be due to some misconceptions among people. Many adolescents believe that smoking helps to keep them slim. They are more likely to take up smoking if they perceive being thin as important, and are concerned about their weight or are trying to lose weight (French; 1995, Klesges et al.; 1997, Austin; 2001, Strauss; 2001, Field; 2002, Fulkerson; 2003, Honjo; 2003). Although research by Klesges et al. (1989) typically finds a relationship between smoking and weight among adult, with smokers weighing between 1.1 and 6.8 kg (2.4 – 15 lb) less than non-smokers, it is not clear whether this is due to confounding factors. For example, people who take up smoking may already be on a trajectory of lower body weight before they started. Cooper et al. (2003) followed 12-13 year olds for up to 4 years finding that adolescents smoking for up to 3 years showed no reduction in BMI, while those smoking for just 2 years increased their BMI compared with never smokers.

Jennifer et al. (2007) in their longitudinal study between 1999 and 2003 concluded that taking up regular smoking during adolescents may result in a lower Body Mass Index (BMI), but the effect is small and of uncertain significance. Adolescents who are concerned about weight should be advised strongly that smoking
is not an appropriate solution and made aware of healthier approaches to weight control.

**Age of Experimentation:** Age is another most common factor in drug addiction. Drug addiction is commonly denoted as “youth problem” because youth are more vulnerable towards drug addiction than any other age. Youth is a time of experimentation with drugs. A report given by United Nation shows that a key factor affecting illicit drug demand is that the age of initiation is falling almost every year, especially with regard to people seeking treatment for opiate abuse. During 1995 more young people in the age group of 15-19 years entered treatment plan than during the entire three years period from 1992-1994 (World Drug Report; 1997).

Meena et al. (2002) in their study at Rohtak found that age at which alcohol users had started taking alcohol illustrated that alcohol use was starting at a younger age as 94.8 per cent respondents had their first drink between 15-25 years. Alcohol affects not only users’ physical life but also affects on his familial and social life. It is reflected that 50.03 per cent users had arguments or physical fights with family or friends. 8.94 per cent reported financial hardships in the family due to money spent on alcohol while 3.34 per cent subjects had strained to get out of the clutches of the gang which has exercised some kind of illegal control over them. A small percentage of addicts (6.5%) mentioned patriotic feelings. And lastly, a very small minority 3.2 per cent chooses to go for de-addiction under the influence of voluntary agencies or non-governmental organizations (NGOs).

**Emotional and Behavioural Difficulties:** The person with Emotional and Behavioural Difficulties (EBD) embracing difficulties resulting from abuse or neglect, physical or mental illness, sensory or physical impairment or psychological trauma, which manifest themselves in a wide variety of forms, including ‘withdrawn, depressive or suicidal attitudes; obsessional eating habits; school phobias; substance abuse; disruptive, antisocial and uncooperative behaviour; and frustration, anger and threat of or actual violence’(UK Dept. of Education; 1994).

**Social Factor:** Disorganization in to the social structure leads to many problems. Drug addiction is one of the serious problems that are increasing day by day. Social factors unlike biological and psychological are external to drug users. It includes outside forces such as media, peer group, availability and accessibility of drugs, role models, broken families etc. Degree of influence and involvement with external
factors exerted pressure on individual to take drugs. Factors from various studies are described below:

**Influence of Mass Media:** The print and electronic media both have a tremendous role so far as promotion or control of the drug abuse is concerned. The media can play both positive as well as negative role, depending upon as to what is being highlighted to appeal the people.

The drug addicts in some films, tele-films and other programs are projected as heroes and thereby attract the people towards drugs. The advertisements projecting the brighter side of drugs also motivate the people for drug use. The drug companies produce and mass media advertise drugs for every conceivable occasion. The advertising is not generally false but it is usually misleading. Cold remedies do not cure the illness but they remove some of the symptoms. Tranquilizers do not solve problems but they make people less concerned about them. Sometimes, it is not a matter of what is said but what is left un-said.

In an interview to Karan Thapar on one of the TV channels viz. CNN - IBN’s advocate program, Former Union Health Minister Anbumani Ramdoss said he has urged Bollywood mega stars Amitabh Bachchan and Shah Rukh Khan to desist from these things in their films. The movies are most responsible for encouraging smoking. He said that they have statistics which show that 52 per cent of children have their first puff of a cigarette because of movie celebrities (The Tribune, 28 January; 2008:1).

**Peer Pressure:** Company played an important role with approximately half of the drug-addicts. In a study by Modi & Modi (1997) it was found that except the common element of sex (78.9%) and in half of the cases the common element of the same age, no other similarity was predominant among the addicts and their drug friends. Narramore (1966) observed that teens desire ‘peer group’ approval more than parents’ approval. They are usually preoccupied while being accepted by the gang, particularly when at this stage family relations are strained. This influence may lead an individual to arrest or addiction through the drug subculture. The boys or girls who have weak upbringing in the family are swept away by the influence of the peer groups or any other external influence.

**Easy Availability and Accessibility to Drugs:** One of the major causes of drug use and abuse is the ready availability of psychoactive substances. In relation to alcohol, tobacco and prescribed drugs it is evident that, as the levels of ‘normal’ use of these substances vary so too does the level of harm. In addition, it appears that when a
specific form of drug use increases, the level of related problems may also rise. Availability, though, is a very complex concept: it embraces not only sheer physical availability but also what can be called emotional availability—whether it is or not “all right” to take the drug. The fact that those who grow opium are prone to develop opium dependence or that doctors are apt to become dependent on their own drugs clearly shows the importance of this physical aspect of availability. WHO reports, “The universal availability of volatile substances, such as petrol, glue and solvents, make this a particularly popular choice in developing countries and remote communities, with use starting in children as young as five years” (World Drug Report; 1997).

In a study conducted by the All India Institute of Medical Sciences, New Delhi, it has been reported that one of the major factors that has led to a rapid increase in heroin abuse in India, was the spill-over effect of the increased heroin availability in the neighbouring countries.....Among other factors that are likely to have contributed to the current increasing trend in heroin addiction is the popular abuse of cannabis and alcohol among students and among in and out of school youth. Strack (1979) found that easy access to every kind of drug at the youth centers and in the most school rest-rooms is an important reason why so many are turning on drugs. The availability is not the only problem, but it certainly contributes to drug abuse. The easy access and availability rather over-availability of all these substances, whether legal or illegal and their relatively affordable cost per dose, contributes to drug addiction. It is also found that in the areas, where cannabis and other drugs are cultivated, the people had more chances to get involved in the drug abuse (Uddin; 1989). Another study has revealed that in Punjab there is an easy accessibility to opium and its derivatives. As a result, its youth are paying a heavy price (The Tribune; 17 February 2011:1).

**Influence of Role Model:** Role model plays a crucial role in the life of concerned individual. Children get very easily attracted towards experimental things without knowing pros and cons. Parents who consume drugs or alcohol daily or occasionally invite their children for the same habit. Family history of alcohol users in the study suggested by Meena et al. (2002) is that if there is some user already present in the family it has strong effect at the initiation of use in the next generation. According to another study (Sharma et al.; 2006) the students were asked to mention having ever seen any six “Role Models” smoking cigarette. Nearly 31.6 per cent of the students
had seen their father smoking, boys being more than girls in number. A very small number had seen their mother ever smoking. A sibling had been seen smoking by 5.1 per cent and best friend by 16.4 per cent. Large number of respondents (43.5 %) reported having seen their favorite celebrity smoking cigarette. Study conducted by Fergusson et al. (2007) showed drug addiction is mainly prevalent among disadvantaged group where people are more illiterate, lack of awareness and their role model with addiction habit. If the adolescents see their parents using psychotropic substances or at least think that their parents use such drugs, then adolescents are more likely to use drugs.

**Influence of Broken Families:** Family is a strong unit and plays vital role in shaping attitudes and behaviour of its members particularly that of young persons and children. Broken families where one of the parents may be dead or alcoholist or quarrelsome or violent or arrogant, mounts pressure upon its members and consequently the children and youth remain under constant psychological strain. In order to escape from psychological strain children and youth take drugs and get themselves trapped in drug addiction. Detailed investigation by Uddin (1997) in this issue has shown that on an average, 10 per cent of this group eventually become dependent. Khan and Unnitham (1979) also found relation between family background and the use of psycho-active drugs is quite relevant particularly in the context of a pre-dominantly traditional society such as Indian. The family is the basic biological and social unit which embodies and transmits values and norms of society. The factors like familial background and tradition are expected to have a profound influence on the behaviour of an individual member, especially on adolescent and young adults. The study interestingly revealed that the use of drugs tends to increase with the level of family educational status. Moreover, inter-parental tensions indicate a noticeable linkage with drug use. The students whose parents have been disagreeing with each other on different issues have been easily drawn to drugs. For majority of the drug addicts, involvement in drug abuse voluntarily or involuntarily, willingly or un-willingly, consciously or unconsciously in drug abuse is response to or an escape from such complex personal or family’s problem or conditions in their lives, which appear to them to be without any solution (Beschnev et al.; 1979).

**Influence of Parental Relationship:** While investigating causes of drug addiction Okasha (1985), reported that most of the drug users feel rejected by their parents and they reject their parents too, having no clear idea of what they want to do. According
to Hartman (1969) drug dependent adolescents are unable to tolerate frustration or
develop affectionate and meaningful relationship and may have started using drugs in
an attempt to gain independence from their parents. Graham (1972) found that one of
the most important differences between drug users and non-users was the degree of
separation from their parents they felt. Drug abusers felt rejected at home. They also
felt that their parents did not care about them and there was little to talk about in
common with their parents.

Elliot et al. (2006) described parents are assumed to play the dominating role
in socialization and development, particularly during early childhood. These are
parents who are very skilled and effective in directing the developmental progress of
their children and there are parents who are neither skilled nor effective in their
parenting. Family conflict, separation, divorce, unemployment, and mental health
problems (especially maternal depression) have consistently been linked to poor
developmental outcomes for children. Parent’s involvement in criminal activity, illicit
drug use, alcohol abuse and other forms of problem behaviour is one of the best
predictors of children’s involvement in these same behaviours as well as other
dysfunctional developmental outcomes.

**Self-Medication:** Many psychotropic drugs are served to lessen the anxiety and
depression. Opiates give ready relief from pain. Whether functional use of drugs for
such purposes is fully intentional or partially accidental, a matter of self-medication
with illicit drugs or iatrogenic introduction by a doctor, there can be no doubt that a
proportion of drug problems originate in this way. Peasants in Thailand use opium
because they have no other remedy for cough, diarrhea, or depression. The young
mother in the urban housing development uses (& later abuses) sedatives and minor
tranquilizers because she is mildly depressed and mildly distressed, a condition that
no exact psychiatric labels (Gossop & Grant; 1990).

Britto and Charles (2000) studied that Indian people have a vast repertoire of
home remedies, tribal medicines and folk medical practices, which also use mind
altering substances (MAS). As a household remedy, opium is used for various
inflammatory conditions, hemorrhage, erysipelas, etc. Opium in liquid form was taken
for conjunctivitis, ear-ache, toothache, to control diabetes, to reduce sensitivity during
the advanced stages of smallpox and prevent relapse of malaria fever. For dental
problems such as a hollow tooth, a pellet of opium was kept inside the cavity.
The western methods are too costly for majority of the Indian population and allopathic doctors prefer to practice in cities. A recent study in two districts of western India shows that traditional practitioners use opium and cannabis for medicinal purposes for various illnesses of people and animals (ibid; 2000).

**Social Interaction and Recreation**: The more gregarious and convivial a drug habit the more likely it is to establish itself as a social custom. Drugs are often used as facilitators of social intercourse and recreational activities (Gossop and Grant; 1990). Opium has been used for social function in different communities in India. During the Mughal period, Emperors occasionally took beverage made of poppy capsules. The beverage called *Charburgha* was composed of a mixture of hemp, opium, wine, and *kuknar*. In the Saurashtra region, opium is consumed in a liquid form known as Kasumba (Chopra & Chopra; 1990, Masahi & Desai; 1998).

Opium is consumed among Rajputs during marriage, for sealing an important business deal, to facilitate catharsis after the death of immediate relative. The host offers his guest to drink a few drops of opium in a cupped palm of the hand as a mark of respect (Chopra & Chopra; 1990).

Some reasons cited by Persaud (2007) are “to celebrate, drown sorrows, for pleasure, enjoyment and excitement, escapism and avoidance of stressful situations, to feel socially comfortable, boredom, peer pressure, coping with withdrawal symptoms and craving, coping with depression and low self-esteem, to increase confidence, relieve other psychological, psychiatric and physical symptoms or pain, increase energy and concentration, or to enhance performance, to loose weight, unwind and to have fun”. Chatterjee (1985) identified the following factors which contribute drug addiction:

- The availability of the drugs;
- The drug sub-culture among young people;
- The lack of parental care;
- Broken homes and
- The lack of appropriate and effective legislation.

**Effects of Drug Addiction**

The individual looks to drugs or alcohol as the cure for their unwanted feelings and problems. The painkilling effects of drugs or alcohol become the solution to their emotional or physical discomfort. This release from the individual’s unwanted feeling
and problems is the main reason they use drugs or alcohol a second or third time. The 
effects of drug addiction are felt at many levels: biological/physiological, 
psychological and social. Individual who use drugs experience a wide range of 
physical effects due to their drug addiction that they had never anticipated.

**Biological Effects:** Drug addiction results in a harmful effect on individual health. 
According to United Nations International Drug Control Program (UNDCP; 1997) a 
pregnant woman who consumes drugs may unwittingly cause harm to the foetus; she 
may stop on becoming aware of her condition although it is still possible some harm 
may result; if she cannot or will not give up, it is more likely that the consequences 
will carry through the problems during and after the birth. Attempts to pinpoint 
precise health effects on newly born babies of drug dependent women are hampered 
by other circumstances.

In 2003, the United Nations Office and Drug and Crime estimated that there 
were 1.4 million IDUs in North America. Injecting drug use is also a major problem 
in urban areas such as Mumbai, Kolkata, Delhi, and Chennai (Reid & Costigan; 
2002). A profile of the typical IDU emerged from WHO’s multi-city study (supported 
by UNDCP), the largest international comparative study on injecting drug use and 
HIV infection, undertaken between October 1989 and March 1992. The comparison 
was based on the recruitment of 6390 drug injectors mainly outside drug treatment 
setting. The results for 12 cities (Athens, Bangkok, Berlin, Glasgow, London, Madrid, 
New York, Rome, Rio De Janerio, Santos, Sydney and Toronto) indicated that IDUs 
were: mainly male; predominantly 20-30 years of age; single, never married, 
widowed, separated, divorced, childless or at most with one child; majority were 
problem of intravenous drug users (IDUs) is increasing at an alarming rate in many 
countries of the world. The global spread of the IDUs since the 1960s has set the 
scene for massive outbreaks of HIV infection among this group, their sexual partners, 
and children. According to estimates by the United Nations Drug Control Program 
and World Health Organization, 114 countries are experiencing HIV transmission 
among the IDUs.

Injecting drug users are characterized in most studies as sexually active. The 
drug and alcohol use effects on decision making about safer sex and overall sexual 
safety (Rhodes et al.; 1996), the association of drug use with commercial sex, sex
with multiple partners, all makes the IDU population prone to a higher occurrence of sexually transmitted diseases (STDs), like syphilis, gonorrhea, chancroid, genital herpes, and other virological origin, including hepatitis B, C and HIV are emerging and expanding fast.

Data compiled by a World Health Organization Committee (The Tribune; 17, February 2011:1) has found that the sperm count of men from Punjab has drastically gone down and this is evident from increasing cases of infertility in young males. According to Dr. B.S. Shah (Medical Superintendent and Head of Department of Pathology at the Dayanand Medical College and Hospital in Ludhiana) “The average sperm count of males’ world over was 60 million three decades ago. This has now decreased to 15 million and Punjab is amongst the most adversely affected states in India”. He said addiction to drugs, intoxicants, excessive use of pesticides, smoking and use of mobile phones have resulted in a steep increase in infertility cases in Punjab. Young boys from affluent families in the state (Punjab) have the means to afford cocaine and marijuana, which are known to reduce sperm count by 50 per cent, revealed by Dr Shah. Liquor consumption is another cause of infertility as alcohol is toxic to sperms and reduces its count and quality.

**Psychological Effects:** Majority of the addicts have no idea about the potential or harmful effects of drugs on their psychic. According to Modi & Modi (1997) different drugs render different results and different people respond differently. All drugs have powerful effects on the nervous system and, to a lesser extent, on the other system of the body, mostly involving behavioural disorders. The ‘relief of escape’ found in drugs becomes both an obsession and also a source of pain, discomfort and general deterioration. Bergeret (1981) reported that all serious drug addiction (may) take on a suicidal aspects, constituting not only a challenge to others but also a game of life and death with one’s own body. Pauchard & Calanca (1983) studied 76 narcotic addicts admitted to a university psychiatric clinic over a 7 year period were followed up 5-12 years later. Results show that 5.3 per cent of the subjects had died, half directly from their addiction and half by suicide. Two recent reports from SAMHSA’s Drug Abuse Warning Network (DAWN) examined emergency department (ED) visits for drug-related suicide attempts by youth age 12 to 17 and young adults age 18 to 24 (SAMHSA; 2010).
Social Effects: As discussed earlier it has been seen that drugs effects physical and mental health of individual with drug addiction. Apart from this drug users also affect his/her social life like work performance, academic performance, conflict in family, violence, crime, etc. After going through various studies on effects at social level following factors are enumerated:

Effect on Family
When effects of alcohol use on familial and social life were studied by Meena et al. (2002), it was reflected that 50.03 per cent users had arguments or physical fights with family or friends. 8.94 per cent reported financial hardships in the family due to money spent on alcohol while 3.34 per cent subjects had strained marital relationships due to alcohol consumption. Sreedevi et al. (2001) investigated the sufferings of an alcoholics family members especially wives. According to them, the consequences of living with an alcoholic family member are significant. The problem most frequently reported in the family because of alcoholism was violence, mainly physical assault of the wife and assault of the children and destruction of the property. The study showed the problem of domestic violence experienced by wives of alcohol dependent individuals admitted in the de-addiction center at NIMHANS (National Institute of Mental Health And Neuroscience) were selected. It also showed, domestic violence was commonly reported. Intellection violence was commonest variety of violence (69%) followed by emotional violence (58.6%) and social violence in 41.6 per cent.
The least commonly reportedly violence was sexual violence (27.4%). High level of stress was seen in wives of alcoholics.

**Effect on Work:** Drug users may take increased sick days and unable to work properly. US study examined the relationship between illicit drug and various measures of workplace performance by comparing records for employees in the Georgia Power Company. Drug users were found to have consumed almost twice the medical benefits as the non-drug-using control group; to have been absent 15 times as often and to have made over twice number of workers’ compensation claims (Word Drug Report; 1997).

**Accidents:** Drug use may affect a person’s ability to respond appropriately to a given situation, their ability to think clearly and to maintain attention, and may cause physical symptoms such as blurred vision, cramps, and nausea. Such effects can increase the risk of car accidents, drowning, and reduce the ability to be able to safely cross roads. Alcohol is one of the leading causes of death and disability globally. In India, the estimated numbers of alcohol users in 2005 were 62.5 million, with 17.4 per cent of them (10.6 million) being dependent users (Ray et al.; 2004) and 20-30 per cent of hospital admissions are due to alcohol-related problems (Benegal et al.; 2002). According to National Highway Traffic Safety Administration (NHTSA) recently “more attention has been given to drugs other than alcohol that have increasingly been recognized as hazards to road traffic safety….overall, marijuana is the most prevalent illegal drug detected in impaired drivers, fatally injured drivers, and motor vehicle crash victims” (Catalyst; 2011).

**Effect on safety:** Due to its powerful influence on brain functioning drugs affect behaviour of individual which result in anti-social or criminal behaviour. According to Modi & Modi (1997) in order to understand the relationship between drug-addiction and criminal behaviour, informed persons were asked whether the drug-addicts are more prone to committing crimes. An over-whelming percentage of informed persons (83.9%) gave their response in the affirmative. Only 11.8 per cent of them thought that drug- addicts are not more prone to committing crimes than the non-drug-addicts. According to 1997 report by National Center on Addiction and Substance Abuse at Columbia University (CASA), 80 per cent of the adults held in U.S. prisons are there because of criminal activity linked to drug and alcohol abuse. The relationship between addiction and crime is strong and very complex. Some people use illicit drugs; other people sell drugs. Still others commit crimes to obtain
alcohol or drugs or to gamble. And many people commit crimes against persons or property while under the influence of alcohol or other drugs (Rasmussen; 2000). According to one of the news published in “Chandigarh Tribune” (18 April; 2011: 3) drug addiction has played a major role in the increasing crime graph recorded in the Chandigarh city. While most chain snatchers caught by the police were found to be addicts, many other criminals who committed heinous crimes like murder and rape were also abusing drugs.

Studies have indicated that 25-30 per cent of aggressive crimes, and 3-4 per cent of property crimes are caused due to factors associated with alcohol consumption. For example in England, 60-70 per cent of the total murders, 75 per cent of total stabings, 70 per cent of total beatings and 50 per cent of total fights and households assaults are caused due to alcohol (Sussman et al.; 2001). Another study indicated that in cases where drug users are in need of money there is criminal involvement (Kebede; 2002). According to one of the studies by Wechsler et al. (2002) many students confront problems because their classmates misuse alcohol: interrupted study and sleep (60.0 %), having to take care of a drunken student (47.6 %), being humiliated (29.2 %), having a serious argument (19.0 %), having personal property damaged (15.2 %), receiving unwanted sexual advances (19.5 %), being hit or assaulted (8.7 %) and being victim of sexual assault or date rape (1.0 %). In addition, alcohol is sometimes a precursor to other substance abuse often illicit or more dangerous (Fergusson et al.; 2000).

A nationwide 8 years longitudinal study of American high school youths (Johnston et al.; 1978) found that illicit drug use was strongly related to other illegal behaviour and that the extent of delinquency increased in proportion to the degree of drug involvement. Property crimes (minor theft, shoplifting and trespassing) rather than aggressive crimes dominated of the offences of drug users but use of heroine related more to major than minor thefts. Barton (1980) interviewed over 10,000 American prisoner inmates. Over 60 per cent had used illicit drugs. Offences of robbery occurred more frequently in drug users while offences of violence were common in prisoners without a record of drug use.

Effect on Academic Performance: Several national studies have documented high rate of drinking on college campuses and wide range of negative repercussions of student alcohol use. Associated with fighting, vandalism, acquaintance rape, and unprotected sex, drinking on college campuses have a clear and damaging effect on
campus life (Abbey; 1991). Difficulty meeting academic responsibility is one of the most common consequences of alcohol use. The National Institute on Alcohol Abuse and Alcoholism (NIAAA; 2002) Task Force on College Drinking reports that about 25 per cent of college students report academic problems caused by alcohol use, such as earning lower grades, doing poorly on exams or papers, missing class and falling behind. Students under the influence of drugs are ready to learn and are at the risk of long-term impairment of cognitive ability and memory (Goode; 1971, Pope & Yurgelun-Todd; 1996). Substance use is frequently associated with a lack of motivation and self-discipline as well as reduced school attendance (Griffin et al.; 2002, Ginn; 2004).

**Theoretical Framework**

Various theories have been developed to explain drug addiction. These explanations are grounded in the biological, psychological and sociological interpretations. Some theories are interdisciplinary in that they seek to combine two or more of these perspectives. Regardless of where they originate, theories of addiction are important in that they contribute to our understanding of the causal factors that lead to drug dependence. We are once to identify the causal processes, we are in a better position to develop social policies and treatment initiatives that can see addicts more effectively.

**Biological Theory**

Biological theories are those that postulate specific physical mechanisms in individuals that impel or influence them either to experiment with drugs or to abuse them once they are exposed to them. Some are constitutional, that is, are based on mechanisms that are present at birth and vary from one person to another. Others are partly environmental; that is, inborn factors in conjunction with environmental factors generate drug-using behaviour. Two of these explanations are genetic theories and the theory of metabolic imbalance (Goode; 2011).

**Genetic Theory:** According to genetic theories the genetic makeup of individuals predisposes them toward drug abuse and alcoholism. A gene or combination of genes influences the specific biological mechanisms relevant to substance abuse—such as being able to achieve a certain level of intoxication when using drugs, becoming ill at low doses as opposed to much higher doses, lowering or not lowering anxiety levels when under the influence, or having the capacity to metabolize chemical substances in
the body. Any and all these factors could vary from one individual to another, or from one racial or national group to another, and could influence continued use. This “genetic loading,” in combination with environmental and personality factors, could make for a significantly higher level of drug abuse or alcoholism in certain individuals or groups in the population (Schuckit; 1980). Indeed, the tendency to prefer alcohol to other beverages can be bred in animals, suggesting the relevance and strength of the genetic factor in drug use and abuse. Most of the research attempting to demonstrate a genetic factor in drug abuse has focused on alcoholism. Studies have shown that adopted children have rates of alcoholism closer to those of their natural parents than to those of their adoptive parents (Schuckit; 1984). Some experts conclude that the rate of heritability of alcoholism—the chance of inheriting the disorder—is “similar to that expected for diabetes or peptic ulcer disease” (Schuckit; 1984). Now that the entire human DNA sequence has been “decoded,” it is entirely possible that during the coming decade scientists will discover a genetic link with alcoholism. No researcher exploring the inherited link with alcoholism asserts that genetic factors represent the only or even the principal factor in compulsive drinking. Rather, they posit a genetic predisposition toward alcoholism. Inheritance is one factor out of several. Alone, it does not “make” someone a compulsive, destructive drinker. However in combination with other variables, genetic factors may facilitate.

**Metabolic Imbalance Theory:** A second theory postulates metabolic imbalance as a possible causal factor in at least one type of drug abuse—narcotic addiction. Developed by physicians Vincent Dole (1980) and Marie Nyswander (1965, 1980), this theory argues that heroin addicts suffer from a metabolic disease or disorder, much as diabetics do. Once certain individuals begin taking narcotics, a biochemical process “kicks in,” and physiologically, they begin to crave opiate drugs in much the same way that the bodies of diabetics crave insulin. Repeated doses of a narcotic complete their metabolic cycle; narcotics act as a stabilizer, normalizing an existing deficiency. The narcotic abuser can never be withdrawn from drug use because his or her body will continue to crave opiates, just as diabetics cannot be withdrawn from insulin; in both cases, the substance provides what the body lacks and cannot provide. No precise biological mechanism corresponding to metabolic imbalance has ever been located. It is possible that the theory is relevant only on the clinical, and not the theoretical, etiological, or causal, level. Indeed, it may remain as a relevant theory only in order to justify the maintenance of addicts on methadone for life.
Psychological Theory

Theories relying on psychological factors fall into two basic varieties: those emphasizing the mechanism of reinforcement, and those stressing that the personalities of the drug user, abuser, and especially addict are different from those of the abstainer, and are causally related to use and abuse. The mechanism of reinforcement is fairly straightforward: People tend to maximize reward and minimize punishment; they continue to do certain things because they have a past history of being rewarded for doing them. Drug users are individuals who have been rewarded for use, and hence they continue to use (Goode; 2011).

Reinforcement Theory: A major psychological theory underplays the idea of personality differences between users and nonusers, and emphasizes the role of reinforcement. Even animals use certain drugs compulsively under the right experimental conditions, casting doubt on the need to invoke psychodynamic variables in the development of addiction (McAuliffe and Gordon; 1980, Wikler; 1980). In addition, experiments have shown that, independent of personality factors, human subjects who are administered opiates without knowing what they have taken wish to repeat taking the drug; their desire grows with continued administration (McAuliffe; 1975). After all, if two people are taking the same highly reinforcing drug (a constant), and one becomes addicted to it while the other does not (a variable), it is insufficient to argue that reinforcement explains continued use because it does not account for the difference in behaviour. There are two distinctly different types of reinforcement—positive and negative—and consequently two different theories that cite reinforcement as a mechanism in continued drug use. Positive reinforcement occurs when the individual receives a pleasurable sensation and, because of this, is motivated to repeat what caused it. In brief, “The pleasure mechanism may . . . give rise to a strong fixation on repetitive behaviour” (Bejerot; 1980). With respect to drug use, this means that getting high is pleasurable, and what is pleasurable tends to be repeated. According to this view, the continued use of all drugs that stimulate euphoria is caused by their “extremely potent reinforcing effects” (McAuliffe and Gordon; 1980). Negative reinforcement occurs when an individual does something to seek relief or to avoid pain, thereby being rewarded—and hence motivated—to do whatever it was that achieved relief or alleviated the pain. In the world of drug use and addiction, when someone who is physically dependent on a particular drug
undergoes painful withdrawal symptoms upon discontinuing the use of that drug, and takes a dose to alleviate withdrawal distress, he or she will experience relief with the termination of the pain. Such an experience will motivate the addict to do what has to be done to obliterate the painful sensations associated with withdrawal. While positive reinforcement can occur with any euphoric drug—indeed, with any pleasurable sensation (Bejerot; 1972, 1980)—the theory emphasizing the mechanism of negative reinforcement as a major factor in drug abuse is largely confined to drugs that produce a physical dependence, especially the opiates.

**Psychodynamic Theory:** Early psychodynamic writings about addiction reflected the predominant way of understanding the psyche at that time, namely, a topographic model of mind. Hence, they stressed regressive behaviour caused by unconscious conflicts about libidinal pleasures, homosexuality, and aggression. In a letter to Wilhelm Flies in late 1897, Freud wrote: ‘The insight has dawned on me that masturbation is the one major habit, the primary addiction,’ and it is only as a substitute and replacement for it that the other addictions— to alcohol, morphine, tobacco and the like come into existence. From this statement we can deduce that Freud saw addictions as substitute for regressive infantile autoeroticism, which was first experienced as pleasurable, then unalterable, the vicious circle of most addictions (Freud; 1985). Psychologist also like physicians takes drug addiction as a disease and ignores all other aspects of its harmful effects on society. According to them drugs effects individuals’ psychic and he then indulges in deviance.

**Sociological Theory**

Biological and psychological theories tend to emphasize individualistic factors, although the researchers who propose them usually indicate that broader factors are at work. For instance, two psychologists associated with the problem behaviour-proneness line of thinking (Jessor and Jessor; 1980) incorporate the environment or, to be more specific, the “perceived environmental system”—especially parents and friends—into their model. However, their focus is on the characteristics of the individual. In contrast, sociologists tend to make broader, structural factors the focus of their theories. For most sociologists, the crucial factor to be examined is not the characteristics of the individual, but the situations, social relations, or social structures in which the individualist, or has been, located. More specifically, it is the individual located within specific structures. The field of sociology proposes seven partially
overlapping sociological theories to help explain drug use: (1) Anomie, (2) The
Differential-Association Theory, (3) Subcultural, (4) Labeling, (5) Social Control (6) 
Family interaction, and (7) Peer Cluster. The overlap among these theories is 
sufficiently great that some of the theorists who endorse one of them also support one 
or all of the others.

The Anomie Theory: - The anomie theory as explained by Emile Durkheim (1893) is 
based on the assumption that lack of regulation or control of behaviour in modern 
societies can lead to deviant or criminal behaviour. Robert Merton (1938) further 
explained anomie and argues that deviance results not from ‘pathological 
personalities’ but from the culture and structure of the society itself. According to him 
members of the society are placed in different positions in the social structure, for 
example they differ in terms of class position, they do not have the same opportunity 
of realizing the shared values. This situation can generate deviance. Merton gave the 
term ‘retreatism’ which applies to alcoholic, drug addicts, vagrants or severely 
mentally ill. These are societal dropouts who give-up their efforts to achieve their 
goals. Merton also suggested that retreatists are most likely to be viewed as pariahs by 
conventional members of society. In this respect they might be seen as filling the role 
of Durkheim’s inferior minority, or of folk devils (Cohen; 1980).

Cloward & Lloyd (1960) extended Merton’s anomie theory and applied it to 
juvenile delinquency. Cloward and Lloyd stressed on opportunity as an ingredient in 
the etiology of crime is often overlooked. It is certainly a necessary condition. By 
definition, if a person does not have an opportunity to commit crime, that person will 
not. Opportunity theory goes further, however, and argues that the learning of 
criminal means to legitimate goals is as critical as blocked goals in the process of 
becoming a delinquent. But this hypothesis is inconsistent with the fact that much 
delinquency and crime is apparently a spontaneous individual adaptation. 

The Differential-Association Theory: Differential-Association Theory is a 
brainchild of Edwin Sutherland, whose ambition was to invent a theory that could 
explain both individual criminality and aggregate crime rates by identifying 
conditions that must be present for crime to occur and that are absent when crime is 
absent. In his theory of Differential-Association, he posited that criminal behaviour is 
a result of a process of socialization, during which criminal “definitions” (our 
experiences for us, how we see, our attitudes, values, etc.) are not only transmitted 
culturally but are learned through social interactions with intimate groups. For
Sutherland (1956) crime was a normal learning process; we learn crime in much the same way as we learn everything else. Far from being genetic or biological, it was also not a matter of pathology or abnormal learning. Learn any social pattern—whether conventional or deviant—is a process that takes place in groups. One of his propositions outlined how “excess definitions” are affected by four factors: frequency, duration, priority, and intensity. How often, how long, how early in life, and from whom an individual is exposed to criminal associations will affect the relative impact on an individual’s behaviour. For example, a young child who is raised by a drug addicted parent will be exposed to stronger definitions of deviant behaviour than a teenager who witnessed a cousin snorting cocaine at a party. In this case, the child would be frequently exposed (frequency) for many years (duration) in early life (priority) to pro-criminal definitions.

Thus, to Sutherland, any person’s tendency towards conformity or deviance depends on the relative frequency of association with others who encourage conventional behaviour or, as the case may be, norm violation. This seems to be a very valid observation considering the fact that peer pressure, and the nature of one’s circle of friends are very important aspects that increase one’s susceptibility to drugs. This is perhaps the reason why sociologists and criminologists emphasize on the need to have a good neighbourhood for growing children so that they are not exposed to the dangers of drugs and violence.

**Subcultural Theory:** Walter Miller (1958) suggests in his paper “Lower class culture as a Generating Milieu of Gang Delinquency.” This theory is typical of normative theories that “explain” crime or delinquency by referring to the fact that it exist and then postulating that differences in values account for the differences in behaviour. Cohen’s (1958) study of delinquent boys pioneered the idea that boys become delinquent because of what he termed “Status frustration”, the process by which people feel thwarted when they aspire to a certain status. In schools especially, Cohen noted that boys from more deprived backgrounds often found school life an alienating and frustrating experience. They initially wanted to be successes, but found that they had not developed the skills to do this in their family and community life. Cohen asserted that delinquency was most pronounced among low-class youths because it is they who contented with the least opportunity to achieve success in conventional ways. Sometimes those whom society neglects seek self-respect by building a deviant


subculture that ‘defines as meritorious the characteristics they do possess, the kinds of conduct of which they are capable’.

**The Labeling Theory:** Howard Becker (1963) argues that social groups create deviance by making the rules whose infraction constitutes deviance, and by applying those rules to particular people and labeling them as outsiders. From this point of view, deviance is not a quality of the act the person commits, but rather a consequence of the application by others of the rules and sanctions to an “offender”. The deviant is one to whom the label has successfully been applied; deviant behaviour is behaviour that people so label’. The value of Becker’s approach can be seen from its application by Jock Young (1971) in his study of ‘hippie’ marihuana users in Notting Hill in London. Young examines the meanings which colour the police view of the hippies, how their reaction to the hippies is directed by these meanings, and the effects upon the hippies of this reaction. The police tend to see hippies as dirty, idle, scruffy, unstable, depraved, immature, good-for-nothing drug addicts. Police action against marihuana users tends to unite them and make them feel different. As such, they rationalize and accept their difference. In self-defense they retreat into a small, closed group. Young argues that because of increased police activity, ‘drug taking in itself becomes of greater value to the group as a symbol of their difference, and of their defiance of perceived social injustices’.

**Social Control Theory:** Travis Hirschi (1969) takes this as his starting point and theorize that people who refrain from committing criminal acts are bonded,” or tied closely, to people who see criminality as unacceptable behaviour. He is arguing that it is not the number or quality of associations that keep people from committing criminal acts, but rather it is the close interpersonal attachments to people who disapprove of criminality. Hirschi identified four factors: attachment, involvement, commitment, and beliefs.

*Attachment* refers to the extent to which individuals are sensitive (respect) to thoughts, feelings, and expectations of others. This notion assumes that the more attached one is to others, the less one is inclined to deviate. *Involvement* refers to the amount of time an individual has to engage in deviant activities. The more time one devotes to positive/legal club, church and other social group activities, the less likely one would become involved in deviant behaviour. *Commitment* is concerned with investments/devotion an individual puts into a particular objective e.g. education, family, career or being socially respected. *Beliefs* refer to the intensity to which an
individual believe they should obey the law. Altogether, Hirschi contends that the extent to which an individual is attached, involved, committed and believe that you should uphold the law determines the extent to which one would deviate.

**Family Interaction Theory:** The Family Interaction theory (Brook & Brook, Gordon, Whiteman, & Cohen; 1990) proposes that adolescents who have good attachment to parents, affectionate parents, and conventional values experiment less with substance use and have fewer associations with peers who use alcohol and drugs. Adolescents with warm ties to their families might jeopardize these relationships if they use drugs excessively. Maternal control and maternal psychological adjustment minimize the involvement with deviant activities such as drug use.

Support for the theory was obtained in a two-stage study (Brook, Cohen, & Jaeger; 1998) that interviewed mothers and 210 younger adolescents (ages 12-14) and 199 older adolescents (ages 15-18) twice over a 3 year period. Adolescent unconventionality was a determinant for both initial and increased levels of drug use for both age groups, but intrapsychic distress was a stronger factor for initial use among younger adolescents. Lack of maternal attachment and poor control techniques were associated with initial level of drug use for both age groups. However, the mother-child relationship and models of the mother’s unconventionality had a greater impact on increased drug involvement for the older than for the younger group.

**Peer Cluster Theory:** The Peer Cluster theory (Oetting & Beauvais; 1987) considers the central role of peers as influences on drug use. Low socio-economic level, for example, may be associated with environmental conditions that favour choice of peers who engage in drug use; psychological variables such as low self-confidence or poor school performance also may lead to increased association with peers who are involved with deviant behaviours, including drug use. A process of peer selection (Farrel; 1994) suggests that adolescents who already use drugs seek out or prefer the company of other adolescents who share their involvement with drugs. Those who disdain drugs will tend to choose as friends other non-drug using adolescents.

Differential Association theory of Edwin Sutherland is different from all the theories we have discussed. Drug addiction is a learned behaviour. Individual learns almost its consumption and types from its community and it has strong influence on an individual.
Drug De-Addiction Treatment

From the above discussion we conclude that the problem of drug addiction exists in our society and its effects on user and his/her counterparts are very serious. Once the addiction is established, it is very hard to control the personality of addict against the drugs. It is necessary to control this problem, to upgrade people, community, and society. According to doctors addiction is a completely curable disease. Treatment of drug addict patients is a challenging task. The major challenges are not only to maintain follow up in these patients but also to prevent relapse. The best results are achieved when a comprehensive multidisciplinary approach which includes diversified pharmacological and psychosocial interventions is available to respond to different needs.

The massive problem of drug addiction results in an estimated 1.6 million admissions to treatment programs per year in the United States at an annual cost of approximately $ 1.6 billion (Frances & Franklin; 1989). According to Persaud (2007) in 2002-2003, around 140,900 people received treatment from drug treatment agencies or general practitioners in England. Around 13 per cent of drug users recorded on regional drug misuse database are aged under twenty – so around 18,000 young people are receiving some form of treatment. A study conducted by Sachdev et al. (2002) in India showed very different scenario of treatment. The study conducted among patients attending de-addiction centre of Guru Gobind Singh Medical College and Hospital Faridkot. It was reported that there was an increase in the patients using the drugs available Over-The-Counter with chemists. It was also found that there was a decrease in the number of patients using the raw opium in the year 1998 as compared to the year 1994. The number of cases reporting for the treatment of alcoholism and tobacco has decreased. Sachdev et al. (ibid) gave three main reasons of less number of patients reporting for treatment. Firstly, alcohol and tobacco have become more socially acceptable. Secondly, in this region until a person consumes up to one bottle a day family members are not much bothered. Thirdly, in alcoholism, it is mostly the wives of addicts who come to take treatment in the form of Tablet Disulfiram which they give to their husbands without the knowledge of their husbands. Tablet Disulfiram is an aversive treatment. If patients drink alcohol or ingest substances containing alcohol after taking Disulfiram, it results in flushing, decreased blood pressure, nausea, vomiting, and pounding in the chest. More serious
but rare consequences include seizures, myocardial infarction, cerebrovascular haemorrhage and cardiovascular collapse. Despite of the use of this medication for over fifty years, deaths have rarely occurred (Cutler & Marcus; 2010).

Treatment of drug addiction can be done in a variety of settings with a variety of clinical modalities. A combination of pharmacological and non-pharmacological (psychosocial) interventions yields most favourable treatment outcome. According to Dr. Vijay Girdhar (Neuropsychiatrist, Civil Hospital, Manimajra, Chandigarh) “In any model of treatment of drug addiction, medication is always a part of its necessity”. In general, treatment for all drugs including alcohol is similar and includes both medicinal and non-medicinal treatment. However, treatments for specific substances may differ as the problems associated with drug abuse and medicines needed are different (Ray & Mondol; 2005).

Main broad categories of drug treatment from various studies are addressed here (Clayton; 2007, Rasmuseen; 2000, Hanson et al.; 2009):

1. Pharmacological drug treatment
2. Residential drug treatment programs
3. Compulsory drug treatment
4. Alcoholic Anonymous and related “peer support” and 12-step programs
5. Out-patient drug treatment
6. Psychodynamic approach

The first category of treatment i.e. pharmacological drug treatment involves the use of drugs or medications (e.g. methadone, buprenorphine, nicotine patches, nicotine gum etc) to treat drug addiction.

**Buprenorphine Maintenance:** Buprenorphine is used as an analgesic has been approved for treatment. Buprenorphine sublingual (literally 'under the tongue', from Latin, refers to the pharmacological route of administration by which drugs diffuse into the blood through tissues under the tongue) preparations are often used in the management of opioid dependence (that is, dependence on heroin, oxycodone, hydrocodone, morphine, oxymorphone, fentanyl or other opioids). The first buprenorphine treatment program for opiate addiction in the United States was founded by Dr. David McDowell at Columbia University and reported 88 per cent success rate with its patients (Dougherty; 2004).

Buprenorphine sometimes used only during the detox protocol with the purpose of reducing the patient’s use of mood-altering substance. It considerably
reduces acute opioid withdrawal symptoms that are normally experienced by opioid-dependent patients on cessation of those opioids, including diarrhea, vomiting, fever, chills, cold sweats, muscle and bone aches, muscle cramps and spasms, restless legs, agitation, gooseflesh, insomnia, watery eyes, running nose and post-nasal drip, nightmares, etc. The buprenorphine detox protocol usually lasts about seven to ten days. According to Sidana et al. (2006) in opioids dependence syndrome (cluster of physiological, behavioural and cognitive symptoms which if taken together indicates repeated and continuing use of opioids drugs despite significant problems related to the use of these drugs), opioid agonist therapy is considered a better treatment modality than opioid antagonist is a retrospective analysis of patients with opioid dependence syndrome. Naltrexone was used as pharmacological agent for relapse prevention in 58 patients. Out of which 69 per cent of patients maintained follow up till 6 months and 28 per cent maintained follow up till a period of one year. Naltrexone (agonist therapy) found to be a good pharmacological agent for relapse prevention in patients with opioid dependence syndrome.

**Methadone Maintenance**: Methadone is also long acting opioid agonist that is used widely to prevent withdrawal symptoms in opioid addicts in west. Many studies have shown the advantage of methadone maintenance is reducing drug use, criminality and blood-born virus infection and improving general health and social status. Urine analysis from one sample of 435 methadone maintenance clients showed that almost half were able to quit daily heroin after 12 months (Simpson et al.; 1997). The average number of crime days fell from 11 per month to 4. Two large cohort studies suggest that the odds of HIV infection were five times greater among those who were not in methadone maintenance treatment than among those who were (Ward et al.; 1999).

**L-Alpha-Acetylmethadol (LAAM)**: This type of treatment has the same set of effects as methadone differing only in that the methodol is effective in relieving narcotic hunger and suppressing withdrawal symptoms for two to three days period in contrast to twenty four hour relief afforded by methadone. LAAM is also reported to offer the patient a smoother and more sustained drug effect than methadone, allowing patients to appear more alert and more emotionally settled. Goldstein et al. (1978) has supported his finding by saying that every patient he interviewed who had taken both methadone and LAAM claimed to feel ‘just generally better’. Thus from the standpoint of substitution treatment, LAAM is preferable for maintenance.
Nicotine preparations (patches, gum, lozenges and nasal spray) and medications varenicline and bupropion are available for individuals addicted to tobacco. Disulfiram, acamprosate, naltrexone, and topiramate are medication used for treating alcohol dependence, which commonly co-occurs with other drug addictions. In fact, most people with severe addiction are polydrug users and require treatment for all substances abused. Psychoactive medications, such as antidepressants, anti-anxiety, mood stabilizers, and antipsychotic medications, may be critical for treatment success when patients have co-occurring mental disorders, such as depression, anxiety disorders, bipolar disorders, or schizophrenia (NIDA; 2009).

Second category for de-addiction is a residential drug treatment programs, in which patients live in a treatment facility for periods of from one month to two years. It was first developed in the 1960s and 1970s to help inner-city drug users with social problems. These programs were originally designed to treat alcoholism but have been used to treat other forms of addiction. The best-known residential model is the therapeutic community (TC).

Therapeutic community (TC) are based on the assumption that the person seeking treatment is in some way deficient; as a result, treatment “may be characterized as an organized effort to resocialize the client” (DeLeon; 1994). Resocialization is termed either “habilitation” or “rehabilitation,” depending on whether the particular client has “ever” adopted values that are believed to be “associated” with socialized living” (NIDA; 2005), and this socialization process emphasizes the importance of “right living” (DeLeon; 1994). According to TC model “right living” means adhering to specific values and includes “truth and honesty (in work and deed), the work ethic, learning to learn, personal accountability, economic self-reliance, responsibility concern for peers, family responsibility, community involvement, and good citizenry”. As needs, the process of resocializing individuals towards “right living” involves the use of the peer community; thus, other members of the TC are seen as central in achieving social and psychological change in the particular person (ibid; 1994).

The third category is compulsory drug treatment is mandated in some way by the criminal justice system. The term “compulsory treatment” is used here to describe a wide variety of legally coerced drug treatment strategies. As Faupel et al. (2004) note, compulsory treatment is based on the philosophy that certain populations of drug users will not seek treatment themselves or will not remain in treatment once
they have entered it. Such individuals must be forced to enter drug treatment not only “for their own benefit but especially for the benefit of the community”

Fourth category of drug treatment is *Alcoholic Anonymous and related “peers support” and 12-step programs*, which is a fellowship of men and women who share their experience, strength and hope with each other that they may solve their common problem and help others to recover from alcoholism. The only requirement for membership is a desire to stop drinking.

Alcoholic Anonymous mutual self help support groups, began in 1935 in Akron, Ohio, with an encounter between Bill Wilson and Dr. Bob. They first met to help each other stay sober and eventually founded Alcoholic Anonymous. No professional staff is required for the most self-help group. The “Twelve Steps” were written in 1938. The only requirement for admission to this self-help group is the individual desire to stop drugs. The 12-steps that supposedly guide recovery from alcoholism under Alcoholic Anonymous (Rasmussen; 2000) are as follows:

1. We admitted that we were powerless over alcohol—that our lives had become unmanageable.
2. Came to believe that a power greater than ourselves could restore us to sanity.
3. Made a decision to turn our will and our lives over to the care of God as we understood Him.
4. Made a searching and fearless moral inventory of ourselves.
5. Admitted to God, to ourselves, and to another human being the exact nature of our wrongs.
6. Were entirely ready to have God remove all these defects of character.
7. Humbly asked Him to remove our shortcomings.
8. Made a list of all persons we had harmed, and became willing to make amends to them all.
9. Made direct amends to such people wherever possible, except when to do so would injure them or others.
10. Continued to take personal inventory and when we were wrong promptly admitted it.
11. Sought through prayers and meditation to improve our conscious contact with God, as we understood Him, praying only for knowledge of His will for us and the power to carry that out.
12. Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics and to practice these principles in all our affairs.

Fifth category is *out-patient drug treatment* involves a diverse range of treatment options that individual can receive while they reside in the community. The outpatient model developed in the 1960s in the form of “crises clinics”. This model is particularly popular with and well-suited to those individuals who are in need of drug treatment but also have stable employment, which might be disrupted by having participate in inpatient in treatment (NIDA; 1999). However despite of their popularity, there is not much research on the effectiveness of outpatient programs (Fiorentine; 1997, Hubbard et al.; 1989).

The last category is *psychodynamic approach* which is also known as non-pharmacological drug treatment where the addicts be removed from their environment to “resocialize” them and prepare them for re-entry into conventional society. Resocialization is a relearning of cultural norms and sanctions, on their return to a social system, by those who voluntarily or involuntarily left that system so that they can again be fully accepted within that system (Marshal; 1998). Following are some therapies which help drug addicts to get de-addict/ or resocialized:

A) **Individual Therapy:** It aims to increase individual’s sense of their own well being. Some clients may feel that they need complete confidentiality regarding the issue discussed in treatment. Within individual therapy, Reality, Gestalt, and Behavioural therapy are frequently employed.

(i) **Reality Therapy:** This approach was developed by William Glasser in 1950s and 1960s is based on the assumption that individuals are responsible for what they do. It focuses on present and avoid discussing past, encourage people to judge their actions by “Is what I am doing getting me closer to what I need?” help people to create specific, workable plan to succeed in fulfilling their needs, and then follow through by helping them evaluate their progress (William Glasser Institute; 2004).

(ii) **Gestalt Therapy:** Gestalt therapy was developed by Frederik S. Perls and Laura Perls in the 1940s. This approach teaches youngsters to pay more attention to their immediate experiences and to be more direct and open in their communications (Simkin; 1985). Gestalt therapy helps a client move from dependence to independence.

(iii) **Cognitive-Behavioural Therapy:** Cognitive Behavioural Therapy is based on view that our perception of events rather than events themselves cause us to feel and
behave in a particular ways. CBT (Cognitive Behavioural Therapy) implies that we learn how to perceive things irrationally or negatively through experiences. Through this, clients are encouraged to adopt more adaptive beliefs that in turn lead to therapeutic change. Cognitive-behavioural methodology reflects learning theory, social learning theory, behavioural theory, and cognitive-behavioural therapy. Albert Ellis pioneered the development of rational-emotive therapy (RET) and the A-B-C model of thinking and feeling, as illustrated below (Ellis & Grieger; 1977):

\[ A \rightarrow B \rightarrow C \]
Events $\rightarrow$ Thoughts $\rightarrow$ Feelings/Behaviour

Cognitive therapy, as developed by Aaron Beck, employs cognitive and behavioural techniques in an active, structured, and usually time-limited approach to treatment (Beck et al.; 1993) specific cognitive-behavioural strategies include thought stopping, thought replacement, cognitive restructuring, self-talk, problem solving, behaviour reduction, behaviour enhancement, behaviour rehearsal, role playing, role reversal, and modeling (Rasmussen; 2000).

As the individual undergoes a process of deconditioning, cognitive restructuring, and skill acquisition, he/she can begin to accept greater responsibility for changing the behaviour. This is the essence of the self control or self management approach: one can learn how to escape from the clutches of the vicious cycle of addiction, regardless of how the habit pattern was originally acquired (Marlatt & Gordon; 1985).

**B) Family Therapy:** Family therapy approach, shifts the focus treatment from individual to the family, was grown rapidly since 1950s. Crowley (1988) observed that in order to understand addiction, it is necessary not only to focus on its medical symptoms but also to examine the constellation of behavioural interactions reflective of psycho-social development in the context of family, the community and wider socio-economic networks in which the family functions and to which the family relates. Crowley maintains that family therapy has made a substantial contribution to the prevention of drug addiction. Drug addiction is a manifestation of serious dysfunctional relationships and inter-actions in family and is often interrelated with child and spouse abuse. Such family situations require multidisciplinary therapy
measures for which the family with its network of relationships and behavioural interactions, rather than individual alone, is regarded as the unit of treatment.

C) Group Therapy: Group therapy is a form of psychotherapy in which a small, carefully selected group of individuals meet regularly with a therapist. Vannicelli (1995) states that group bring client together who share the common problem of addiction, thereby helping clients stay vigilant about recovery. A Yalom (1985) state, group therapy is a microcosm of the real world. Therefore, how an addict operates in the real world will show up in the group, allowing the addict individual to work through those issues differently. Alcoholic Anonymous (AA) and Narcotic Anonymous (NA) are well known peer support groups.

D) Motivational Enhancement Therapy (MET): Motivational enhancement therapy is patient-centered counseling approach for initiating behaviour change by helping clients to resolve ambivalence about engaging in treatment and discontinuing drug use. Instead of guiding the patient through the recovery process, MET employs strategies to evoke rapid and internally motivated change in the client (NIDA; 1999).

E) Yoga Therapy: Yoga plays an effective role in the de-addiction. It offers a new avenue for positive mental and physical health and helps individual to free from drug dependency and its associated problems. Clements & Molk (1988) in respect the Transcendental Meditation (TM) observed that effectiveness of TM in the prevention and reduction of drug abuse has been documented in many studies in the last 18 years. TM strengthens the individual and produces an over-all improvement and stable state of well being. It naturally removes the need and craving for drugs.

Each of the above treatment strategies focus on its respective part whereas to treat the drug addict, we need amalgamation of these all above mentioned therapies and treatment. Drug addicts are isolated from the community and admitted in a hospital for a specific time period for de-addiction. After completion of treatment drug addict is set free and send to his/her community from where he again picks up the habit of drugs. This means that drug addict has to face all the circumstances again and drug addict is once again sent to hospitals. Thus drug addict trapped in a vicious circle of drugs, community, relapses, and hospitals. Community Based De-Addiction Clinic is one of the comprehensive approaches which facilitate de-addiction treatment at the grass root level or at the door steps of community people.

In the present study focus is on the Community Based De-Addiction Clinics (hereinafter CBDC) which are set up by the hospitals in the local community and are
within the easy reach of the patients and their families. These CBDCs work with the help of different people and groups residing in local community who are working for the betterment of society. Before discussing community based de-addiction clinics it is important to go through the terms like community, participation, community participation, and community health.

**Community**

The definition of community accepted by WHO Expert Committee is “A community is a social group determined by geographical boundaries and / or common values and interests. Its members know and interact each other. It functions within a particular social structure and exhibits and creates certain norms, values, and social institutions.” The individual belongs to the broader society through his family and community. Young (1950) defines community as a group of people who occupy a well defined territorial area, have common interests and needs and have common pattern of socioeconomic relationship, derives a common bond of solidarity from the conditions of its abode, and has a constellation of social institutions and subject to some degree of group control. Community may be rural or urban. Community can be small, large or large as district, state or nation. Community is a group of people living in same geographical area sharing definite basic values and organizations and / or a group of people sharing the same basic interest (Rifkin et al. 1988).

**Participation**

The term ‘participation’ is often used to cover all the forms of action by which citizens ‘take part’ in the operation of administration (Mumtaz; 1966). The word ‘participation’ is used broadly to refer to the role of members of the general public, as distinguished from that of appointed officials, including civil servants, in influencing the activities of government or in providing directly for community needs. It may occur on any level—from village to the country as a whole. It may be only advisory, as in the case of an advisory committee to a minister, provisional governor or head of a hospital; it may involve decision making, as it may extend to actual implementation, as occurs when villagers decide to carry out a community self-help project. The participation may be direct, as in community projects and in work of private welfare organizations, or it may be indirect through elected officials and representatives. In the latter case; the degree of participation will depend on the extent to which the election process makes the officials or representative bodies responsible to public
opinion. Individuals may participate through non-governmental or statutory bodies. The latter may be concerned with only one function (special-purpose bodies) or with a number of decentralized functions (multi-purpose local authorities).

Thus participation comprises every kind of citizen intervention in administrative action. Participation can only be described as such in real sense of the term when person who participate is fully conscious of the responsibility he assumes in doing so. In a democratic society, participation gives the ordinary citizen a means of voicing his opinion and of showing by his behaviour and action that he is able to take on responsibilities. It gives ordinary citizen a chance to show his willingness to carry out constructive public work and to demonstrate his good citizenship by other means than periodically exercising his right to vote (Mumtaz; 1965).

Participation is defined as a voluntary contribution of the people in one or another of the public programs supposed to contribute to national development, but the people are not expected to take part in shaping the program or in criticizing the content (Economic Commission for Latin America; 1973).

What gives real meaning to popular participation is the collective effort by the people concerned to pool their efforts and whatever other resources they decide to pool together, to obtain objectives they set for themselves. In this regard participation is viewed as an active process in which participants take ineffective control. The idea of passive participation involves the people in actions that have been thought out and controlled by others and in unacceptable (ACC Task Force & Working Group on Rural Development program Harmonization, Rone; 1978). Rifkin (1968) suggest that motivation behind participation cannot be quantitatively accessed.

As regards to dimensions of participation, it seems most instructive to think in three terms:

1. What kind of participation is under consideration?
2. Who is participating in it?
3. How is participation occurring?

Moreover, it is necessary to consider closely the context in which participation is occurring or intended to occur.

**Community Participation**

Community Participation is an educational and empowering process in which people, in partnership with those who are able to assist them, identify the problems and needs
and increasingly assume responsibility themselves to plan, manage, control, and assess the collective actions that are “proved necessary”. Community participation defined by WHO (1980) is a “process by which individuals and families assume responsibility for their own health and welfare and develop capacity to contribute to their and the community’s development.” Refkin et al. (1988) defined ‘community participation’ as “a social process whereby specific groups with shared needs living in defined geographic area actively pursue identification of their needs, take decisions and establish mechanisms to meet their needs.”

Community participation is movement towards better living for whole community with active participation. It is the initiative of community by the use of techniques for the arousing and stimulating it in order to secure its active and enthusiastic response to the movement. It includes the whole range of development activities in district whether these are undertaken by the government or unofficial bodies. In primary health care approach community participation is one goal of health care reform and also means to reach the other objectives like equity. The expected outcomes of community participation in the sector includes more health consciousness and knowledge, further pushing up the demand, more access to health care through community level health workers, and improvement of community level health infrastructure (WHO; 1980). Community participation is an active process by which beneficiaries or client groups influence the direction and execution of a development project with a view to enhance their well-being in terms of income, personal growth, self-reliance, or other values they cherish (Paul; 1987).

The major theoretical framework for community participation has been done by the Cornell University (Uphoff et al., 1979). Participation may take place in decision making, in implementations, in benefits and in evaluation. The participating individuals or groups may be local residents, local leaders, government personnel, and foreign personnel.

During past decade many health planners have come to use a community approach in many of their health programs (Farquhar et al.; 1985, Puska et al.; 1985, Mittelmark et al.; 1986). Community participation has been considered to be of major importance in health programs in the developing countries (Rifkin; 1985, Midgley; 1986 & Bracht and Tsouros; 1990).

According to Sharma (2005) in the field of substance abuse different approaches can be visualized in the context of community based treatment. These include both
non-participatory (concerned authorities delivering services to the community) to participatory (grass root involvement for appropriate action). Community based treatment approaches seek to mobilize the elements of mutual support and common interest and characterize a natural community. The main approaches to community mobilization (process of solving problems prevailing in community by using their own methods and making decisions about issues of common concern to their members) are “Bottom up” and “Top down”. The former includes grass root strategies, developed and implemented by community members. In the top down approach, outside experts and/or self selected community leaders formulate strategies in delivering services. Problem of drug addiction can be removed from the society with the help of people themselves and their counterparts in society.

In village Sarpanch and in colonies or urban areas Municipal Councillor (hereinafter MC) are community leaders in their respective areas. They are responsible for the development of their areas. So their participation in a community in every developmental program is mandatory. And they are also responsible to bring the people close to each other. The counterparts or components other than community leaders are family, neighbourhood, peer group, teachers, NGOs, and police can involve in a participatory efforts in eradication of the problem of drug addiction, help in treatment and better outcomes.

**Community Health**

Every nation has unsolved health problems which have plagued mankind for centuries. To manage problems outside the control of affected individual, coordinated efforts are necessary to prevent, control, and improve those conditions which affect adversely the health of mankind. Thus community health is the coordinated effort of all individuals and groups in the community to promote, maintain, and improve the health and well-being of the people.

**Goals of community health:**

1. Promotion of healthful living;
2. Prevention of disabilities;
3. Correction of remedial defects and the treatment of illness;
4. Rehabilitation of the handicapped; and
5. Evaluation of current programs and research to improve methods and techniques.
Community Based Health Services

During deliberations in East Asia, it emerged that the traditional Christian pattern of the delivery of health care services through large medical institutions and by trained medical professionals were not only curing many of the sick-let alone but also improving the health of majority of Asian people. We need to devise some alternatives that would not only give access to some type of medical care but also help them to obtain in the words of the World Health Organization (hereinafter WHO) “physical, mental and social well being.” To this end it was suggested in the conference that new priorities in health care be set. These priorities focused on developing health care for the rural areas and Community Health Programs. It is a matter of some debate among those responsible as to the development of structures for participation in community health programs. Over the last few years, two distinct approaches to community health have emerged. Firstly, hospital and doctors define the community health programs which are administered by hospital-based doctors in majority of non-socialist Asia. A typical example is mobile clinic services started by many hospitals throughout the region. In India, the hospital establishes a program and staff outreach these programs through health education and provide home nursing. Under the banner of community health, these programs rely on community participation mainly to provide information in which the medical professionals modify their services and work towards achieving community health.

World Health Organization conference at Alma Ata (now city known as Almaty) in 1978 emphasized the role of the community in the delivery of health care. The primary health care program was the outcome of Alma Ata declaration. Although a large number of Primary Health Centers (hereinafter PHC) and subsidiary health centers were opened in rural sectors, they failed to provide specialized care due to inadequate facilities. To boost health care in rural setting, a camp approach was started in which professionals reached the drug addict at the doorstep. With the help of local resources, they started organizing camps for eye ailments, family welfare activities, school health, immunization, etc. these camps became successful and attractive. More and more medical problems are now being tackled through the camp approach.

Drug and alcohol dependence is one area where patients do not prefer to go to hospitals for the treatment due to various reasons. To tackle this situation, camps and
clinics serve a purpose of community health. Camps offer many advantages like participation of community in the treatment process, better compliance, easy acceptability by patients etc. (Raj et al.; 2005).

**Community Based De-Addiction Clinics (CBDC)**

Role of community in drug de-addiction is of vital importance. Individual often do not seek help in hospital settings due to financial constraints and social stigma. Community based treatment and prevention approach emerged as a key strategy to reach these vulnerable groups. The rationale behind the approach is that treatment process is brought closer to alcohol/drug affected individuals and afflicted families, who may not be able to avail these facilities on account of social stigma and host of other factors. The advantage of community based treatment is that flexibility can be maintained in the delivery of services (Sharma; 2005). These clinics are run by the hospitals of the region and are known as community Based De-addiction Clinics (CBDC).

**Formulation of the Research Problem**

It is very much clear from the above discussed literature that the problem of drug addiction is multidimensional in nature. Its reasons are personal, familial, social, and biological. The treatment of this serious problem is also multifaceted and demands an attention of all the institutions of community both primary and secondary. Hospitals have taken a lead in this by introducing community based de-addiction clinics which will run parallel to the concept of community participation i.e. participation of different members/groups of the community.

There is hardly any study on how the community participates in providing de-addiction treatment through community based de-addiction clinics. We need to have empirical studies to assess the effects of community participation on this phenomenon. The question lies in the fact that despite the massive use of community based de-addiction clinics, drug addiction is still on the rise. There is a need to look at this approach of community participation from a holistic perspective.

Community Based De-Addiction Clinics are different from the hospital set-ups. It has been observed that patients avoid treatment in hospitals due to many personal and social reasons. In community based de-addiction clinics facilities reach the community at the door step of the patients. In Chandigarh there are two pioneer institutions which are organizing Community based de-addiction clinics (CBDCs),
Government Medical College and Hospital, Sector 32 (hereinafter GMCH-32) and Post Graduate Institute of Medical Education and Research, Sector 12, Chandigarh (hereinafter PGIMER-12). GMCH – 32 covers areas of Khudda Ali Sher, Palsaura, Bapu Dham (Sector 26) and Dhanas. Apart from this the hospital staff also visits Model Jail, Chandigarh. Catchment area of PGIMER – 12 consists of only one area is Kharar. These CBDCs are held once in a week for two and a half hours and patients receive both pharmacological and non-pharmacological (counseling) treatment.

In the earlier discussion of the treatments available for drug de-addiction it is realized that the community based health services through community participation are recent and upcoming treatment, used by health care service providers. It has been very successful in the cases of HIV/AIDS and disaster management. Community based treatment is very effective in preventing HIV/AIDS and has been successfully carried out in many areas of India (Ministry of Social Justice and Empowerment, Government of India, 2004). Now, medical service providers have also started using this method in drug de-addiction.

A report released by Punjab Governor, S. F. Rodrigues “Drug Addiction in Punjab: A Sociological Study” disclosed that Punjab has a high incidence of drug abuse in the age group of 16-35 years, this problem is more acute in the rural areas where unemployment is rampant. He suggested that a mechanism involving legal, social, administrative and medical support is required to combat this menace. He also underscored community participation in the drive against addiction (PTI; 2006).

Treatments available for the addicts include pharmacological treatment, residential treatment, alcoholic or narcotic anonymous and 12-step programs etc. Experience from these approaches led to the evolution of the concept of community based clinics for de-addiction. It involves a diverse range of treatment options that individuals can receive while they reside in the community.

Thus community based clinic is a clinic that fulfills its mission of providing:

- high quality primary care through medical as well as non-medical agencies;
- health related services for medically underserved persons;
- health education to the community focusing on economic, social or cultural barriers.

Community based de-addiction clinics involve a combination of pharmacologic and non-pharmacologic management, including social support. It is not only the duty
of hospitals and serving staff of CBDCs to provide treatment but the other groups of community are also involved in it. Besides the role of doctors it involves the support of family, neighbourhood, peer group, teachers, NGOs, local administrators and the police.

An overview of the existing literature on the causes and effects of drug addiction shows that social factors play a significant role in the making of a drug addict. Factors such as family, peer group, influence of role model, unemployment, etc. are not only promoting the consumption of drugs but these institutions are becoming strong agents of starters of drug menace. It is interesting to note that the institutions like family, peer group, neighbourhood etc. are the components of the community. Thus it will not be wrong to say that one’s community is forcing him to start drugs and to stay with drugs. It is further argued that if community is an initiator of drugs then how community participation as a method of treating addicts is followed by the medical services? The present problem is designed in this backdrop to study community participation and drug de-addiction through community based de-addiction clinics in and around Chandigarh.

**Objectives**

Drug addiction is a serious problem in our country. The present study aimed at investigating the role of community participation in the de-addiction process. The main focus of our study was community based de-addiction clinics. We analyzed the role of community participation through doctors, teachers, NGOs, family, neighbourhood, police etc. Thus, the present study had the following objectives:-

1. To study the socio-economic background of addicts who visited the community based de-addiction clinics for de-addiction;
2. To study the functioning of community based de-addiction clinics in providing its services towards de-addiction;
3. To study the role of family, neighbourhood, peer group, teachers, etc. in helping the addict to get de-addicted;
4. To study the problems faced by addicts in the community based de-addiction clinics with regard to doctors, staff, and other agencies like family, neighbourhood, peer groups, police etc. and vice-versa;
5. To suggest measures to control the problem of drug addiction and strategies to enhance community participation for more effective de-addiction programs.
Research Methodology and Data Collection

The present study was conducted in the colonies and villages in and around Chandigarh, where community based de-addiction clinics were held by two hospitals of Chandigarh i.e. GMCH-32 and PGIMER-12. List of hospitals and area covered by them is given in Table 1.1.

Table 1.1
List of Hospitals and their Catchment Areas in and Around Chandigarh

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the Hospital</th>
<th>Name of the (village/colony) Catchment Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GMCH-32</td>
<td>Bapu Dham, Palsaura, Dhanas, Khudda Ali Sher, Model Jail, Chandigarh (Burail)</td>
</tr>
<tr>
<td>2</td>
<td>PGIMER-12</td>
<td>Kharar</td>
</tr>
</tbody>
</table>

Constant visits to these areas and interviews with the doctors indicated that these areas were hub of addicts and represented different socio-economic backgrounds within population. The reason for taking up these areas was to study the functioning of CBDCs which were run by two hospitals of Chandigarh i.e. Government Medical College and Hospital, Sector 32 and Postgraduate Institute of Medical Education & Research, Sector 12.

The total sample of the present study was targeted at 200. The data was collected with the help of an interview schedule. As the present study was limited to addicts visiting CBDCs in and around Chandigarh, it was decided to select the same number of drug addicts from each center but number of drug addicts registered in the community based de-addiction clinics (CBDCs) showed huge variance (Table 1.2).

Table 1.2
Addicts Visiting Community Based De-Addiction Clinics (January - April 2009)

<table>
<thead>
<tr>
<th>Name of the Colonies/villages</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bapu Dham</td>
<td>52</td>
<td>79</td>
<td>88</td>
<td>103</td>
</tr>
<tr>
<td>Palsaura</td>
<td>127</td>
<td>149</td>
<td>160</td>
<td>181</td>
</tr>
<tr>
<td>Dhanas</td>
<td>57</td>
<td>54</td>
<td>46</td>
<td>52</td>
</tr>
<tr>
<td>Khudda Ali Sher</td>
<td>62</td>
<td>69</td>
<td>56</td>
<td>75</td>
</tr>
<tr>
<td>Kharar</td>
<td>11</td>
<td>15</td>
<td>15</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>299</td>
<td>326</td>
<td>329</td>
<td>390</td>
</tr>
</tbody>
</table>
As it is clear from Table 1.2 that in community based de-addiction clinics there was no permanency of addicts on rolls. Every month variation was noticed in their number. Interestingly there was no decline in the number of addicts but a constant increase was noticed.

Initially, it was decided to use quota sampling but we could not fix any quota nor we stratified the sample into male and female categories. During the pilot study, we faced a few practical difficulties in selecting the sample. Firstly, the patients were not willing to give interviews. Secondly, women patients were not available and thirdly, CBDCs were held once in a week for two and a half hours. So, we could not target any fixed set of population. Thus, purposive sampling was used. Respondents in the present study comprised of those who were willing to give an interview. Thus, whosoever visited the CBDCs irrespective of age and sex and was willing to give interview was made part of the study. Distribution of respondents taken up for study is presented in the Table 1.3.

<table>
<thead>
<tr>
<th>Name of the Area</th>
<th>Number of Respondents from Each Area Taken for Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bapu Dham</td>
<td>61</td>
</tr>
<tr>
<td>Palsaura</td>
<td>60</td>
</tr>
<tr>
<td>Dhanas</td>
<td>33</td>
</tr>
<tr>
<td>Khudda Ali Sher</td>
<td>30</td>
</tr>
<tr>
<td>Kharar</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
</tr>
</tbody>
</table>

Besides drug addicts, detailed interviews were also conducted with family members, addicts’ friends, psychiatrists, social workers, government school teachers, police officers, Non Governmental Organisations (hereinafter NGO), and community leaders (sarpanches and municipal councillors) in each selected area. This was done to have an overall view of the problem and the efforts made by them to combat this problem from their areas. I have used their quotes and statements in verbatim at relevant places. A few case studies (8) which reflected interesting behaviour pattern of respondents with regard to drug addiction were also taken up for analysis. Apart from this, six prison inmates were also interviewed from Model Jail, Chandigarh (Burail). It took nearly one and half years to complete the field work. After the completion of the field work, interview schedules were edited and data was
transferred to the master sheet manually. Tabulation was done and inferences were drawn from them after analysis.

In the present study various terms have been abbreviated, list of abbreviated terms is provided on page iii & iv for reference.

The chapter scheme for the present study is as follows:

I. Introduction and Formulation of Research Problem

II. Community Based De-Addiction Clinics: An Analysis

III. Drug Addicts Undergoing De-Addiction: A Profile

IV. Community and Drug De-Addiction: An Interface-I

V. Community and Drug De-Addiction: An Interface-II

VI. Conclusion and Suggestions