CHAPTER II
REVIEW OF RELATED LITERATURE AND
FORMULATION OF HYPOTHESES

The problem of alcohol and other drug use has been the subject of considerable research investigations. Impressionistic articles, journalistic accounts and scientific research papers and reports have been published. Nonetheless despite the proliferation of literature on the drug problem, it would be premature to conclude that the existing body of knowledge in the field of drug abuse is comprehensive. Alcohol and drug abuse by students in schools, colleges and universities appears to be a serious problem because these students form the core from which the leadership in all walks of life will eventually emerge.

The persistent problem of drug abuse in students has been studied in India from several disciplinary angles including psychological, psychiatric, sociological, medical, forensic and legal etc. Students in schools and colleges have received much research attention: youth and urban population groups have been studied indirectly. The most drug users are young males as underlined by almost all the studies. This also corroborates with studies conducted in India and elsewhere. Although the problem of drug dependence and drug abuse in India has been studied at some length yet, these studies hardly make for a comprehensive coverage.

The non-medical use of habit forming drugs is not a new phenomenon. Its extent and more certainly, its pattern and trends, may have differed, but it has been with us for generations. Drug use among students has become, more or less, a part of their, "subculture". A few researchers are of the opinion that it denotes some kind of "alternative culture." More ominous, however, is that the use of intoxicants among young people or college students has come to symbolize against "oppressive" social values and "alcoholic society."

It is difficult to assert that the prevalence rate of psychoactive drug in the country is comparable to that found in many western countries. However, the problem of alcohol and other drug use in students has often been associated with
the processes of urbanization, modernization and globalization. As a developing country, India is very much in the throes of these processes and hence the problem of scene of drug abuse in students in general, and college students in particular, need to be watched. It seems drug dependence or abuse in students has already become problem of serious magnitude.

Today, the use and abuse of alcohol and other drugs is also one of the world's most wide spread and serious problems and the cause of major public hazards and social evils especially in developing countries like ours. In several western countries, alcohol and drug abuse is considered a social problem but in India though regarded as a problem, it is yet to be considered a social problem in its true sense. It is because people in India do not yet consider the prevalence of alcohol and other drug use to be as widespread as that would make them sit and do something about it (Ahuja, 1982).

The psychological researches on alcohol and other drugs use have not been carried out extensively and this important topic received scanty attention in our country. Most of the college students are becoming adults and are above the age of 18. We cannot ignore the fact that most adults do use alcohol and other drugs in varying degrees with no apparent problems. Many college students drink alcohol, smoke cigarettes and use other drugs, although, there is evidence that they incur harmful health consequences, yet, they manage to function in their daily activities (Nathawat, 1972).

Drug abuse is not a new phenomenon. From prehistoric times, human kind has used various substances for reducing physical pain or attaining states of consciousness. It has been discovered that some intoxicants affects the central nervous system, relieving physical and mental anguish or producing euphoria. Despite the often devastating consequences of consuming such substances, their initial effects are usually pleasing, a factor that is perhaps the root of substance or drug abuse. The wide spread availability and frequent use of various drugs set the stage for potential abuse of drugs. As far back in the past as one may care to search, there are references to the problem of drug abuse. Although the different cultures in different ages may have different experiences of these problems in varieties of ways with different levels of severity, but at all times in the history of
mankind the problem of drugs has been present in some form or the other. In course of time many cultures have incorporated some of these substances of misuse into socially acceptable means of pleasure or relaxation. However, history shows that the introduction of the same substance into a culture hitherto unfamiliar with its use can have devastatingly destructive effects on most of the users.

Drug abuse has a history of nearly ten thousand years and was prevalent almost in all civilizations. Poppy was known to man in prehistoric times. Opiates have been in use for at least 8000 years for its pain relieving properties. In Sumerian civilization, Persia, Egypt, Greek and Rome culture, opium was used in medicine and religious rituals. Arabs were probably the first ones who started using opium systematically as a psychoactive substance. Arab traders spread opium habit and cultivation of poppy to Persia, India and China and introduced it to European doctors. Drug abuse in India is as old as elsewhere, if not older. In India also the use of psychotropic drugs has a history and mythology of thousands of years. Soma and Sura were two famed celestial drinks, origin of which is attributed to mythological Sagar Manthan. Use of cannabis Indica, the Indian hemp has been continued in India all through the ages. This all shows that alcoholic drinks, cannabis and its derivates and opium have been in use since long with wide socio-cultural and religious acceptance. But abuse of alcohol and other drugs is the disorder of the so called modern technological society because drugs serve as the auxiliaries for coping with recurrent psychological stresses of modern living.

Opioid dependence is the modern diagnostic term for narcotic addiction, but the older term is still often used. The term opioid refers to natural and synthetic substances that have morphine-like effects. The term opiate is generally used in a more restricted sense to refer to Morphine, Heroin, Codeine, and similar drugs derived from Opium. Opioid dependence is defined as a cluster of symptoms related to continued use of an opioid drug. One of the prominent features of the disorder is the inability to stop using the drug. Persons with repeated periods of opioid dependence are often called narcotic addicts.
the late nineteenth and early twentieth centuries the principal opioid
drugs used were Laudanum (a solution of opium in alcohol, taken orally)
and morphine (usually injected by needle). During the latter half of the
twentieth century, heroin has been the principal drug of opioid users. It is
usually taken by intravenous injection, but sometimes by insufflation, that
is, by sniffing it into the nasal cavities.

The course of opioid dependence is affected by multiple
interacting conditions in the person and in the environment. The
combined conditions create thresholds for the onset, continuation, and
relapse after remission of opioid dependence. Different methods of
investigation (for example, pharmacological, psychological, sociological,
psychiatric) have led to different theoretical conceptions of the causal
conditions and processes in opioid dependence. These conceptions,
however, tend to be compatible and supplementary rather than
contradictory.

In the United States, legal and medical conditions affecting opioid
use and dependence have changed since the nineteenth century. In the
nineteenth century many persons regularly used laudanum or morphine
that they obtained legally from physicians, retail drug stores, or other
sources. Physicians often prescribed or recommended these drugs for
treatment of chronic physical pain or psychological distress. Although
daily use of an opioid drug with consequent dependence on it probably
impaired the social performance of many persons, reports exist of
persons—including some with distinguished careers—who acceptably
filled social roles during years of opioid drug dependence. Though some
antisocial persons used opioid drugs, such use itself did not lead to
criminal behavior.

In the twentieth century, opioid dependence became closely
associated with criminal behavior. Enactment and enforcement of federal
and state laws to control the production and distribution of opioid drugs
(mostly called narcotic drugs in the laws) became prominent features of
the twentieth-century environment of opioid use. Physicians could no
longer prescribe opioid drugs to maintain dependence, and opioid users now had to obtain their drugs from illicit sources. Furthermore, because the illicit opioid drugs were expensive, users often engaged in illegal moneymaking activities—especially theft, burglary, fraud, prostitution, and illicit drug traffic—to pay for their drugs. In addition, twentieth-century opioid users have often had histories of delinquent behavior that preceded their opioid use.

Addiction to drugs has always been enormously harmful to the users, to the society and finally to the nation. The problem of drug abuse has emerged as one of the vital concerns of the human race with far reaching socio-medical and economic consequences. The process of industrialization and consequential urban drift, stresses and strains of modern life have rendered individuals more vulnerable to substance abuse than ever before. Addiction to alcohol and drug does not merely affect the physical and mental health of the individuals involved, it also disrupts the family and social relationships. An addict not only causes loss to himself but also to the society as not being a productive individual which not only hampers his own growth but also effects the national growth. This trend is most ominous for a developing country like India, which is still struggling to overcome its basic problem of poverty, hunger and disease.

As sated earlier, the use of dependence producing substances in some form or the other has been going on since time immemorial. In India too, the use of alcohol, opium and cannabis has been known for long, but the consumption of drugs like heroin, hashish, LSD etc., is altogether a new trend. Within the last decade or so, the extent of usage of such drugs in various segments of society, particularly students has acquired alarming dimensions. India has emerged as the biggest place of illegal drugs in the world and as the major transit country for narcotics. It is also fast becoming a significant consumer in the global scenario.

It is clear that the use of alcohol and other psychoactive drugs for obtaining relief from mental tension, physical discomfort, pleasure or new experience is an old one. Drug use in one form or another has been a common feature of most cultures throughout history. The problem of drug abuse or drug dependence in our
country presents certain features, which are different from those in developed western countries, because the principal drugs of dependence such as cannabis, opium and alcohol have been in use for a long period. Drug abuse does not appear only as a law and order problem as visualized by many social workers and administrative authorities. The addict does not simply use drugs, but develops a pathological craving for them. The desire is so strong that the addict must have his dose of drug at all costs. It also seems to be a psycho-social problem. Drug addiction has a negative impact on the wellbeing of the individual making his motivational capabilities weak and thus hampers his self-esteem.

The rate of drug abuse amongst student population has gone up phenomenally. The cases of these hard-core addicts and ex-addicts are reported to be largely in the age group of 20-30 years. Major determinates during indulgence particularly among students are believed to be family conflicts and poor communication at home, apathy and alienation, rejection of parental and social values, social incentives like acceptability, availability and vast appealing publicity though media, culturally and socially permissive attitude for drugs, continued loneliness, deprivation of affection, personal failure in a competitive society, aggression, impulsiveness, search for personal identity, search of feelings of adulthood and their expression, subconscious destructive motives, desire to experiment, inability to accept oneself, absence of positive values and absence of appropriate and right ideology.

The increasing problem of alcohol and drug abuse in our society has drawn both public and scientific attention. Although our present knowledge is far from complete, investigating these problems as maladaptive patterns of adjustment to life's demands with no social stigma involved, has led to clear progress in understanding and treatment. Such approach, of course, does not mean that an individual bears no personal responsibility in the development of a problem. The widespread notion that drug abuse and dependence can be viewed as forms of "disease" should not imply that the individual is a passive participant in the addiction process. Individual's life-styles and personality features are thought by many to play important roles in the development of addictive disorders and are central themes in some types of treatment.
The repeated abuse of any substance among students and youth is resulting in their tolerance for multiple substances including alcohol as well as drugs. The degree of tolerance and the rate at which it is acquired depends on the specific substance and the frequency and magnitude of its usage. The mechanism by which physiological tolerance for various substances is acquired is not fully understood. There is some evidence that it develops at the level of central nervous system. In addition, learning also plays an important role in changing an individual's attitude and his response to it after repeated use. In spite of well documented adverse physiological and psychological effects of psychotropic drugs as well as alcohol, the problem of alcohol and drug abuse has not only persisted but is also gaining grounds in its various ramifications and extending its domains and frontiers to hitherto unknown territory with every passing day.

Relapse is a central problem in the treatment of addictive behaviour, and a specific problem in the out-patient treatment of the opiate withdrawal syndrome. One study (Unnithan, Gossop & Strang, 1992) investigated factors associated with relapse among 42 opiate addicts receiving out-patient detoxification treatment at a London drug-dependence clinic. All subjects completed a questionnaire about their social, psychological, and environmental circumstances in the week before interview, and were interviewed within the first two weeks of the programme. Forty per cent had lapsed to illicit heroin abuse within the previous week. Interpersonal factors and drug-related cues were associated with lapse to opiate use. Most subjects encountered a range of high-risk situations, such as regularly meeting other drug users and being offered drugs, and persistent negative mood states. With continued daily use and physiological dependence, the user's bond to the drug becomes stronger. Drug use, drug seeking, and illegal activity become the dominant activities of the user's life. Psychosocial development is retarded. Those who become dependent during adolescence often fail to complete high school and never develop regular work habits or job skills. With continued dependence, opioid users become impaired marital partners or parents. Daily use does not continue indefinitely. In some cases, as noted, an important life change leads to cessation of use. In other cases, pressure from family or friends or other sources prompts entry into a treatment program. In still others, arrest, conviction, and incarceration interrupt the daily use. Sometimes conviction leads to probation with treatment as
a requirement of the probation. After treatment or incarceration, the majority of chronic users resume opioid use within six months. The common long-term pattern consists of initial use followed by irregular sequences and varied durations of occasional use, daily use, treatment, abstinence, and incarceration. Remissions enduring for three years or longer followed by relapse are not unusual. In follow-up studies extending from five to more than twenty years after admission to treatment, the percentages of users reported abstinent from opioid drugs have varied from 9 percent to 21 percent (Maddux, & Desmond, 1992). A follow-up of opioid users in San Antonio revealed the following different statuses twenty years after first use: 16 percent were abstinent, 29 percent were using heroin, 30 percent were in prison or other institutions, 8 percent were maintained on methadone, and the remaining 17 percent were dead or their status was unknown (Maddux, & Desmond, 1981).

**Psychological Theories of the Origin of Addiction**

Usually theories related to drug addiction put emphasis on reduction of distress, pleasant feeling and euphoric state that drug produce. The psychological theories attempt to explain why particular kind of people seems to need these effects. Most “psychoanalytical accounts” of drug addiction point to the fixation at oral stage of development as a precipitating cause of addiction. According to this point of view early mother-child interaction supposedly either frustrate dependency need during this stage of maturation or satisfy them to too great an extent. Other ‘psychodynamic accounts’ examine and describe drinking or drug usage as a defense mechanism adopted to reduce stress caused by emotional conflict and to eliminate guilt (Davison & Neale, 1998).

“Learning Based Account” of drug addiction demonstrated that drug abuse is a learned response that is acquired and maintained because it reduces distress. Sher (1991) suggested that people begin drinking to dampen tension. Research studies are replete focusing on the personality structure of individuals who ultimately develop problems with alcohol and drugs. Cox and Klinger (1988), for example, reported over 1500 references in PsyINFO data base related to personality and alcoholism, drug abuse, and other addictive behaviours, but he and others have found a number of methodological problems in research on
personality and addiction (Cox & Klinger 1988). Measured features of personality or psychopathology may represent antecedents, concomitants or consequences of substance abuse (or be independent of it), but these features further complicate the interpretation of the underlying relationships (Nathan, 1983; Meyer & Mirin, 1979).

Drug addiction is the disorder of modern technological society because drugs serve as the auxiliaries for coping with the recurrent psychological stresses of modern living. But in recent years there has been a marked rise in usage of all kinds of drugs by all kind of people everywhere. During the last decade much popular and scientific attention has been focused on the problems surrounding illicit drugs. In the following pages attempt has been made to review major aspects of drug abuse behaviour especially those which are related to the present investigation under the following titles:

- Personality and Drug Addiction
- Psychopathology and Drug Addiction
- Stress and Drug Addiction

**Personality and Drug Addiction**

As the use of illicit drugs has become widespread, researchers have begun to assess personality differences between users and non-users of such drugs. Drug addiction has been seen by many as primarily a personality disorder. It represents one type of abortive adjustment to life that individuals with certain personality dispositions may choose under appropriate conditions of availability and socio-cultural attitudinal tolerance. Certain personality features seems to enhance the likelihood of forming such habits.

Personality is complex and the role of personality in addiction is uncertain. It is difficult to disentangle the effects of personality on addiction from the effects of addiction on personality. There is no single addictive personality. The phrase 'addictive personality' is used so commonly in our culture that few of us question whether an addictive personality type really exists, yet many doctors and
psychiatrists believe that the term means nothing. Certainly, there is little evidence for an addictive personality as such. However, there are a number of personality types that have been associated with addiction and they are outlined below. The strongest evidence exists for 'antisocial personality'.

- The immature personality: - Some people never really become mature adults. They may remain unduly close to their parents. They often boast about those few things that they have actually accomplished, are unable to form close relationships with others and are self-centered.

- The anti-social personality: - These people are unable to accept frustration. They live for, expect and must have easy and continuous gratification. They often eat a lot, chew sweets and smoke as well as drink heavily. They drink for two reasons - to reduce the personal discomfort that results from frustration and to provide instant and dependable gratification. They are impulsive and do not learn from their mistakes.

- The self-punitive personality: - Some outwardly docile people are actually repressing aggressive tendencies. This results in inner tension and alcohol/drugs helps to relieve this tension. Often alcohol/drugs releases the aggression.

- The stressed or anxious personality: - Some people find stress more difficult to deal with than others. They may use alcohol/drugs in an attempt to cope with this stress.

- The passive-aggressive personality: - This term refers to someone with an outwardly calm and acquiescent shell that hides inner anger. They find it impossible to deal with anger-inducing situations and resort to alcohol/drugs.

Many addicts do not have these personality types. It is important to remember that no personality is immune to addiction. The social environment provides the learning experiences which shape or alter the habit patterns of the individual who has the opportunity for an initial drug experience. Drug abuse can not be just taken as conditioned solely by individuals physical presence at the time of opportunity, the individual differences in responding must be conceptualized as being carried internally within the person. The notion of predisposing personality
factors leading to the development of addiction is implicit in much of the clinical literature. This idea of ‘addiction prone personality’ has also received a substantial amount of recent attention in the empirical literature. An attempt is made below to review the available researches in this regard.

Sobriety is not a product of lengthy inpatient rehabilitation, as once believed. Many addicts are incapable of maintaining abstinence while a select few achieve sobriety. The answer lies within the individual seeking treatment. Perhaps some addicts have personality traits that foster recovery, while others have traits that perpetuate the addictive process. If a set of personality traits, common to addicts who chronically relapse, can be identified and compared to the personality traits of recovering addicts, then treatment can focus on modifying personality traits of addicts who chronically relapse. The personality trait differences between addicts who relapse and addicts who abstain can be identified through personality testing. A comparative analysis of traits in both relapsers and abstainers will present useful information for treating the addicted population. Personality traits of addicts who maintain abstinence will provide a format for chronic relapsers to follow. Personality traits of addicts who repeatedly fail treatment can be modified to match the traits of the addicts who maintain sobriety. This will improve treatment outcome by reducing recidivism and the need for future treatment.

Concerted attempts have been made to relate personality factors to substance dependence. Potential abusers tend to be emotionally immature, expect a great deal of the world, require an inordinate amount of praise and appreciation, react to failure with marked feelings of hurt and inferiority, have a low frustration tolerance, and feel inadequate and unsure of their abilities to fulfill expected male or female roles (Carson & Butcher, 2000). Certainly, many people with similar personality characteristics do not become addicts, and others with dissimilar ones do. One characteristic that appears common to the backgrounds of most problem addicts is personal maladjustment, yet most maladjusted people do not become addicts. Although the significance of addictive personality factors remains unclear, researchers have shown that the personality of substance dependents significantly influences treatment outcome (Thurstin & Alfano, 1988).
Hence, an understanding of the personality characteristics associated with substance dependence may be useful for treatment.

The characteristics of persons susceptible to opioid dependence have not been clearly defined, but clinical and other studies point to three personality problems that probably increase susceptibility. First, chronic emotional distress, such as depression, tension, anxiety, anger, or mixtures of these, is relieved by opioid drugs, and this relief probably prompts repeated use of the drug. Second, impaired capacity to regulate emotional distress increases the urgency of the need for relief. Third, an antisocial attitude makes it easy for the person to perform the illegal actions needed for regular illicit opioid use. The notion that opioid drugs are used to relieve emotional distress is called the self-medication hypothesis. The origins of the personality problems that increase susceptibility probably lie partly in genetic inheritance and partly in adverse psychosocial experience.

Researchers (Cox, Lun & Loper, 1983; Hendin, Pollinger, Ulman & Carr, 1981; Lettieri, Sayers, Wallenstein & Pearson, 1980; Barnes, 1979, 1980; Cox, 1979; Jessar & Jessar, 1977; Braucht, Brakarsh, Follingstad, & Berry, 1973) interested in the study of drinking and drug abuse have generally acknowledged the potential role of personality characteristics as predisposing factor for heavy and addictive use of alcohol and other drugs. Personality attributes have been found to be contributing to adolescent’s proneness to initiate alcohol and drug use. However empirical support for a position of addiction prone personality that persons who become addicted to a drug have specific psychological characteristics or weaknesses that are satisfied by the drug, comes from research that has focused on dimensions of personality related to psychopathology (Gendreau & Gendreau, 1973; Sutker, 1971).

Many researchers argued that “drugs destroys will power, making a jelly fish to the user, fills the victim with an irresponsible urge to violence, incites to revolting immoralities and causes insanity as its specialty” (Oetting & Beanvais, 1990). This study, however, does not under-estimate the already existing disposition. Snyder (1971) strongly argued that the most serious adverse effects of marijuana and of all psychedelic drugs are the precipitation of functional psychosis. In all these cases, all observers agree that the psychosis is not a direct
product of the drug, rather, in an individual whose psychic organization is already unstable and the drug triggers a breakdown. These researchers further opined that “a person who takes recourse to drugs is an immature, poorly adjusted person with an inadequate personality. He is likely to have few close relationships with either family or friends; he distrusts authority and is overcome with a sense of futility and failure. He had probably never identified himself with normal adult goals. He has a low frustration tolerance, is unable to carry on in the faces of difficulty or to accept any responsibility”. He also warns that the number of people being admitted to mental hospital are psychotics with marijuana panic and that the apathetic, academically impaired young person without ambition or social involvement often has a history of several years of persistent insidiously developing personality changes including loss of judgment, withdrawal from social relationships, and an aimless, utterly hedonic life style.

Univariate and multivariate analyses strongly supported the hypothesis that non users, moderate users, and heavy users of illicit drugs differ in personality characteristics. Holroyd and Khan (1974), in a sample of university students concerning illicit psychotropic drug use administered the Personality Research Form to them. Dramatic sex differences were observed in the personality characteristics associated with illicit drug use, suggesting that sex and personality interact in a crucial way to influence drug use. The relationship between illicit drug use and grade point average, satisfaction with academic performance, aptitude and other relevant variables were also investigated. The data suggested that both male and female heavy users may have rejected their stereotypic sex roles.

Retka and Chatam (1974) has described personality of drug addict as alienated, frustrated, passive psychopath, aggressive psychopath, emotionally unstable, nomadic, narcissistic, dependent, sociopath, hedonistic, childlike, paranoid, rebellious, hostile, infantile neurotic, over attached to mother, retreater, cyclothymic, constitutionally immoral, hysterical, neuroesthenic, hereditarily neuropathic, weak character and will, lack of moral sense, self indulgent, introspective, extroverted, self conscious, pseudo-psychopathic delinquent and finally, essentially normal. Teasdale & Hinkson (1971) suggested that people who become dependent upon amphetamines may be using these drugs to counteract
their lack of confidence and social anxiety. Other studies have also suggested that heroin and barbiturates may be used by addicts to cope with their feelings of hostility and worthlessness (Teasdale et al., 1971).

Gasser et al. (1974) and Kaldegg (1975) administered EPQ to addict and non addict subjects but did not find significant differences in the scores of addicts on extraversion-introversion using Eysenck's Personality Inventory. On the other hand, heroin addicts scored comparatively high on neuroticism, psychoticism and lie scale and low on extraversion in studies conducted by Das, 1986; Blaxzcynski et al.,1985; Eysenck,1975 except that in Blaxzcynski's study lie scale score was much lower (almost half) and in Eysenck's study neuroticism scores were higher than the present study. Sahasi (1988) also observed higher lie and neuroticism scores among heroin addicts compared to their extraversion and psychoticism scores comparatively.

Khavari and Mabry (1977) obtained data from 298 adult male and female members of labour unions. Data from the Eysenck Personality Inventory, the Zuckerman Sensation Seeking Scale, the Marlowe Crowne Social Desirability Scale, and the Taylor Manifest Anxiety Scale were subjected to multivariate analyses to determine the amount of variance accounted for by each factor. The analysis revealed that (a) use of psychedelics, depending on the type of drug, is strongly associated with a person's need to seek out new and often unconventional experiences, that (b) marijuana users could be differentiated from users of other hallucinogenic drugs by their characteristics of seeking social approval and displaying uninhibited modes of self-expression, and that (c) the use of other psychedelics is associated with manifest anxiety and with general tendencies to seek out social stimulation and extraversion/introversion, but not with approval seeking or uninhibitedness.

Drug abuse behaviour has been observed as an interactional phenomenon, wherein, the drug or a toxic agent, the personality of the drug user and the environment interact with each other. However, personality characteristics of the drug user are found to play the pivotal role in this interaction. Researchers (Thomas & Chess, 1986; Plomin & Dunn, 1986; Kandel & Yamaguchi, 1985; Robins & Przybeck, 1985; Lerner & Lerner, 1980; Singh, 1977) have attempted to
bring out the role of the variables like ego-strength, anxiety-level, neuroticism and extraversion in drug-use behaviour of 60 students comprising of two groups of drug users and non users. The two groups were comparable in size, sex, average age, educational standards and family income. The results showed that the drug taking subjects, in general, possessed a low degree of ego strength, a higher level of anxiety and score high on neuroticism and extraversion dimensions of personality, in comparison to the subjects who did not indulge in drug use. Similar results have been found to be reported by Singh (1977).

According to Kandel (1978, 1980a, 1980b) most available longitudinal studies, however, have either followed individuals from late adolescence into adulthood or have been carried out in the late 1960s and early 1970s. In addition, evidence from archival and retrospective studies is mostly based on non random and non representative samples (Cox et al., 1983). Data for this study was obtained from, the Rutgers Health and Human Development Project. Using a sequential longitudinal design and a randomly selected and fairly representative sample of adolescents, the data collected in this project provided a relatively broad assessment not only of alcohol and drug use but also of potentially relevant intra and extra personal factors for the age periods of 12 to 15, 15 to 18, and 18 to 21. In other words, the data provided an opportunity to reexamine the relation of personality characteristics to alcohol and drug use over the full range of adolescence and for a different cohort of individuals. More specifically, it is possible to investigate whether and to what extent extreme (either elevated or deflated) levels of various personality attributes are associated with a heightened or a lowered risk of alcohol and drug involvement in early, middle, and late adolescence.

Venkoba Rao et al. (1978) in a five years follow up study reported an abstinence rate of 46% of opiate addicts. More encouraging results have been reported by researchers working on opiate addicts of Western Rajasthan. For instance, abstinence rate in opiate addicts reported by Purohit and Vyas (1982) in their follow up study lasting 5 years, has come to be 73%. Satija et al. (1987) found an abstinence rate of 57% and 67% in relapsed and first contact opiate addicts, but in none of the
above studies the addicts with and without psychopathology were studied separately. Rajasthan completed a study in India, (1995) to determine whether the addictive personality is a result of the drugs or if the addictive personality came before the addiction. The personality traits of 140 adolescents who reported using drugs were tested using the MMPI. The conclusion was that certain personality factors did precede the addiction and that the addiction may not create the addictive personality. Another researcher Lopez et al. (1989) questioned the existence of a personality profile of addiction that was separate from borderline or narcissistic personality disorder. The results indicated that there were variables present enough to clearly identify certain traits in people who used drugs or alcohol. The theory was that addicts used these substances in order to lower paralyzing levels of anxiety. The results revealed that there were addictive personality traits that were indicative of addicts.

McDonough, (1989) studied addictive tendencies and personality traits of graduate students who were in school for nursing and nurse anesthesia. The nursing students were the control group and the nurse anesthesia students were the study group. The personality facets studied were impulsiveness, assertiveness and excitement seeking from the NEO-PI, a five-factor personality inventory. Addictive tendency was determined by using the MacAndrew scales of the MMPI. The study group had lower scores on assertiveness, was no different than the control group for impulsivity, but was much higher in excitement-seeking scores. The addiction tendency in the study group was significantly higher than the control group. The results suggested that there were not only differences in personality facets of nursing students who specialized in anesthesia, but they also have higher addictive tendencies, indicating that they may already have a greater risk for developing addictions in the presence of drugs in their line of work. It may also indicate that the addictive tendencies may have directed their choice of careers. The MacAndrew scale of the MMPI was also used to study personality as an explanation of drug use by Lavelle. (1991). Personalities of patients in a residential drug treatment center were compared to those in a long-term hostel for the homeless as well as with students who had no addictions. Drug users tended to be shrewd, toughminded, anxious and high in experience seeking.
Bickle et al., (1988); Vining et al., (1988); Millman et al., (1981); Blackland & Lundwall, (1975) reported that 30 to 50% of patients dropout of treatment during opiate detoxification. Several researchers have investigated the factors related to non-completion of treatment. Age, employment status, social class, social stability and nature of treatment yielded inconsistent findings. Often high level of anxiety, depression, sociopathy, impulsivity and low frustration tolerance have been associated with dropout (Wilson & Whelan, 1983; Blackland & Lundwall, 1975). Craig (1984) in his review reported that often the predictors failed to generalize from one study to another. By and large it has been felt that longer period of inpatient stay is associated with better outcome and less likelihood of relapse (Kaplan & Meyerowitz, 1969). However, the relationship is not exactly linear between length of stay and outcome and some may do well after a relatively short period of ward stay (Gossop, 1978). We cannot remain complacent about patients dropping out and efforts must be made to predict such a phenomenon and minimize its occurrence. Often the reasons for leaving were personal, viz want to get high, drug problem is not serious enough and attempt to consume drugs in the ward (Deleon, 1991; Gossop, 1978). Patients own estimate of how long they needed treatment correlated well with actual length of stay (Deleon, 1991).

Demographic features, drug use characteristics and severity of withdrawal were found unrelated with dropout of treatment (Nigam, Ray & Tripathi, 1992). Alcohol Anonymous (AA) members were found to be significantly more extraverted and less tough minded and emotional on the Eysenck Personality Inventory than nonusers (Hurlburt, Gade & Fuqua, 1984), although, it has not been proven that AA members were associated with better treatment response.

In an effort to understand differences between abstaining addicts and those who chronically relapse, as a function of personality traits, it is necessary to examine studies that have previously attempted to differentiate addictive personality subtypes. Subtypes of cocaine abusers
were studied by Ball, Carroll, Babor, & Rounsaville, (1995) to determine if they fell into two categories that had been previously found to be true of alcoholics. The Type A cocaine abusers were defined as having later age of onset, lower heritability, fewer childhood risk factors, less severe dependence, lower impulsivity and novelty seeking, and high harm avoidance. Type B cocaine abusers were defined as having an earlier onset, higher heritability, more childhood risk factors, more severe dependency, polydrug abuse, psychiatric comorbidity, high impulsivity and novelty seeking and antisocial behavior. After one-year follow-up Type B cocaine abusers had higher relapse probability. The study findings were consistent with previous studies regarding alcohol types. Vukov et al., (1994) studied opiate addicts and their personality dimensions. The opiate addicts were compared to controls with the Diagnostic Statistical Manual third edition revised, (DSM IIIR) and the Tridimensional Personality Questionnaire, (TPQ). Novelty seeking, harm avoidance, and reward dependence were studied. The addicts scored higher on the novelty seeking and on subscales of the harm avoidance and reward dependence. The addicts also demonstrated a higher percentage of impulsivity and erratic personality disorders. The personality dimensions of opiate addicts showed certain temperament traits which included impulsiveness, shyness with strangers, fear of uncertainty, and dependence.

A study by Meszaroski et al., (1999) utilized the Tridimensional Personality Questionnaire as a predictor of relapse. The results showed that Novelty seeking was a strong predictor of relapse in males but not females. Harm Avoidance and reward dependence was not a predictor in long-term abstinence but it was predictive of early relapse. Brewer et al., (1998) believed that identifying patient characteristics that predict continued opiate use after treatment could be done through meta-analytic techniques. Many studies attempting to identify risk factors of relapse to opiate use had not used a systematic approach of summarizing previous research. Most opiate addicts relapse after treatment, typically within the first three months. (Hunt et al.,1974) Many opiate addicts even continue to use during treatment. Brewer et al., (1998) attempted to determine the characteristics
of continued opiate use after treatment through a review of literature on the topic. The results revealed 28 independent variables for which there were at least two studies with similar results between the independent variable and relapse. There were eight basic subgroups of independent variables: demographics, drug use history, non-opiate drug use, physical and mental health, criminal behavior and legal problems, employment, psychosocial variables, treatment length, and completion. Demographic variables, except occupational status, had no significant correlation to continued drug use. Younger, non-married, noncaucasian subjects were slightly more likely to continue using or relapse. Gender and education had no correlation. Those with a higher status occupation had a slightly lower chance of relapse to opiate use. Subjects with a longer history of substance abuse problems prior to seeking treatment were more likely to continue using after treatment. Addicts with a longer history of opiates use and an earlier age onset of use, in particular, also had a higher risk of relapse. Physical and mental health variables had a weak correlation to continued use. Criminal behavior and legal problems had a mild to moderate concurrent associating with continued use. Employment problems, referring to degree of employment and income showed a significant correlation to continued use. Those subjects who were unemployed were more likely to continue using opiates after treatment than those who were employed. Psychosocial variables were among the strongest predictors of relapse to opiate use after treatment, however, few studies have been done in this area. Low self-efficacy, referring to the lack of self-confidence in the ability to remain abstinent, and social support variables, such as continued contact with drug using peers, had high correlation to continued use. Family and social problems were only slightly correlated with continued use. Residential relocation after treatment showed a negative correlation with continued use. If the addict is removed from the people associated with opiate use, he or she is better able to maintain abstinence according to previous studies. Treatment length and completion are negatively correlated to continued use of opiates, which indicated that the subjects who stayed in treatment for a longer time and completed treatment were less likely to relapse or continue to use opiates. The evidence in this study showed that there was no single variable that definitively predicted relapse to opiate use and only a few variables appeared to be modestly longitudinally associated with continued use.
Another study by McGue et al. (1999) revealed that high levels of the trait Neuroticism and low levels of constraint were associated with more severe addiction. Although that study did not investigate the relapse rates of the subjects, the results may indicated that the severity of the addiction, itself, may be a predictor of relapse. The author postulates that addiction may be only one symptom of high Neuroticism and low constraint and that psychiatric disorders and antisocial behavior may be another. The existence of the aforementioned trait levels may predispose the individual to addictive behaviors and could perpetuate the addiction once the threshold has been crossed.

According to Sahasi, Chawla, Bhushan & Kacker (1990) as in accordance with other studies too, heroin addicts appear to have statistically significant higher levels of psychoticism and neuroticism as distinct from normal population. Elevated psychoticism explains their manipulative and attention seeking behavior, whereas, high neuroticism suggests the possible unsuccessful development of familiar defensive, neurotic, characterlogical and other common adaptive mechanisms as a way of dealing with stress. Consequently, when faced with stressors involving ordinary human pain, disappointment, anxiety, loss, sexual frustration etc., they may submit to an extraordinary solution through the powerful action of the drug. High neuroticism seems to be a more consistent feature than deviation on extraversion.

Porrata and Rosa (2000) examined the personality and psychopathology of drug addicts during treatment and found them to be high on neuroticism and low on psychoticism and extraversion. Narayan et al. (1997) compared users with non users, users were significantly more neurotic, extraverted, impulsive and sociable. The users also showed less emotional stability, were more sensitive and likely to be easily upset, had less ego-strength, were more insecure and troubled, were more tense and frustrated, tended to disregard rules, and had weaker super ego-strength. Findings are similar to the results of the early MMPI studies of hard core addicts in the United States and to later studies of male and female multiple substance abusers who in addition

The numerous clinical and research reports on the personality dynamics in opiate addiction present a number of differing and at times contradictory viewpoints. Predominant are formulations that consider opiate addiction as an attempt to deal with intense depression related to feelings of deprivation by seeking a soothing, infantile, symbiotic experience, or as an attempt to seek relief from cruel, harsh, excessively punitive parental standards that create feelings of being unacceptable and worthless, or as a defense against the emergence of profound and overwhelming aggressive impulses that could precipitate an underlying psychotic potential.

Janowsky et al., (1999) found that alcohol and substance use disorder patients with no affective disorders differed from a normative population only in being significantly more often sensing and significantly less often intuitive single factor types. The extraverted sensing, feeling and judging type was also significantly over represented in this group, compared to a normative population. Mood-disordered alcohol and substance use disorder patients were significantly more often introverted-sensing, feeling, and perceiving and significantly less often extraverted, intuitive, thinking and judging types.

Harrigan, Schroeder, & Schaffer (2000) identified the behavioural traits and life events most strongly associated with substance abuse. Patients who were reported as positive for substance abuse did not respond differently from their counterparts for issues of demographics, pregnancy, social support, and career. They were highly likely to have had a history of severe depression.

Temperament factors may also mediate the effects of parent alcoholism on offspring substance use. Tarter, Alterman, & Edwards (1985) suggested that children of alcoholics were more likely to be high in activity, low in persistence, slow to soothe after stress, and emotionally labile and dis-inhibited. Other
researches also suggest that these characteristics are associated with substance use as well (Wills, Duhamel, & Vaccaro, 1995; Watson & Clark, 1993; Hawkins et al., 1992). Moreover, cross sectional studies of college student children of alcoholics (Sher, Walitzer, Wood, & Brent, 1991) support a mediational role for "behavioural undercontrol". Thus, adolescent children of alcoholics may be at risk for substance use because they are temperamental, emotionally reactive and underregulated.

Basu, Verma, Malhotra, & Malhotra (1995) assessed two psychological parameters i.e., sensation seeking and alienation in opiate dependence sample and compared the two parameters with non drug abusing control groups. Opiate dependent subjects were found to score higher both on sensation seeking and alienation than those in the control groups.

Abuse of psychoactive substances including opium are associated with higher sensation seeking score in general, and some of its sub scale scores in particular (Virkkunen et al., 1994; Pedersen, 1991; Pedersen et al., 1989; Zukerman, 1987; Kohn & Coulas, 1985; Khavary & Mabry, 1985; Galizio & Stein, 1983; Gersick et al., 1981). DeMoja studied drug addicts and locus of control in 1997 to determine if there is a correlation between drug use and personality. The author hypothesized that external locus of control is a fundamental factor in personalities of drug abusers. Locus of control was defined as a person's view about how much they feel personally responsible for what happens to them. Internal locus of control was characterized by an individual's belief that they have control internally. When a person believed that events occur by something beyond their control, they were defined as having an external locus of control. The author further defined external locus of control as related to an escape mechanism to cover problems rather than cope with them. Drug addicts, according to the author, may exhibit elements of an external locus of control by demonstrating very little control over their impulses. The study also involved testing for spontaneous aggression and correlated both scores. The results showed that addicts had high scores on spontaneous aggression, had little control over their aggressive impulses, and additionally, had high external locus of control. The results are mixed regarding support for an "addictive personality." While studies have found
many differences in personalities between the addicted population and those who are not addicted, there seems to be a set of sub-traits that are most commonly noted in the data. These are self-esteem, depression, anxiety, hypochondria, hostility, and fantasy (Sutherland, 1997).

Findings from a study (Lisa, Enid, Lauren, Carrie, Edythe, & Igor, 2005) of opiate addicts in Methadone Maintenance Therapy (MMT) support a consistent picture of personality impairment, characterized by impulsivity, poor affect regulation, and impaired self-concept and interpersonal skills. Such information has previously been the basis of targeted treatments for opiate addicted patients (Tremeau, 2003; Kirby, et al., 1999)

McCormick, Dowd, Quirck, and Zegarra, (1998) performed a study of the relationship of the NEO-PI hostility scale (subscale of Neuroticism) performance to coping styles, patterns of use and triggers among substance abusers. Substance abusers were more neurotic and less agreeable and less conscientious than the normative sample. Neuroticism was highly related to escape avoidant coping, agreeableness was negatively related to confrontive coping, Conscientiousness was related to problem solving and negatively related to escape avoidance. Neuroticism, agreeableness and extraversion were associated with reported triggers of use including negative emotional states, social rejection and tension. Higher levels of Conscientiousness, agreeableness, and extraversion were associated with greater confidence in ability to refrain from use, however, neuroticism was associated with a corresponding lack of confidence in self-restraint. Quirk and McCormick (1998) showed that the NEO-PI was effective in demonstrating meaningful subtypes of substance abusers. The areas of study included coping style, psychopathological symptoms and pattern of substance choice. The largest differences were noted in measures of Neuroticism, agreeableness, and Conscientiousness. Those subjects with elevated levels of Neuroticism had low levels of both Conscientiousness and Agreeableness. The more extreme the levels on these dimensions, the higher reported level of depressive symptoms, aggressiveness, impulsivity, maladaptive coping styles, and the likelihood of abusing more than one substance. A study by McCormick and Smith (1995) utilized the NEO-PI hostility scale and reported that subjects
who were polysubstance abusers scored significantly higher on all measures of hostility and aggression. These subjects utilized escape-avoidance, distancing, and confrontational coping styles on a more regular basis than those addicts scoring lower on aggression and hostility. The subjects scoring higher on aggression and hostility reported more situations in which they had triggers and less confidence that they would resist using. This was particularly true when involving situations such as rejection, and interpersonal conflict with family and friends. This study showed that higher levels of subscales of Neuroticism were predictive of relapse in polysubstance abusers.

Fisher, Elias, and Ritz, (1998) performed a study predicting relapse to substance abuse as a function of personality dimensions. In this study substance abusers were assessed in the following variables as they related to relapse: severity of drug dependence, number of previous treatment attempts, age, co-morbid psychopathology, depression, and antisocial personality disorders. These factors were then related to the five-factor analysis of personality dimensions, which are: neuroticism, extraversion, openness, agreeableness, and conscientiousness. Neuroticism was defined as the degree to which individuals are susceptible to experiencing negative emotions. It was noted that negative affective states played a role in relapse and high levels of neuroticism played a role in relapse. Agreeableness involves interpersonal behaviors and interpersonal conflict was a determining factor in relapse. Low levels of agreeableness were indicated in relapse. Conscientiousness was related to the level of motivation, organization and persistence. Lacking the organizational skills required for maintenance represented a low level of conscientiousness in relapers. Those who were able to maintain abstinence had a high level of conscientiousness. In this study, the NEO-PI was utilized to test personality traits as they predicted relapse. It was noted that no current studies directly examine the influence of these five factors on relapse. Personality testing was used on opiate addicts and the subjects scored high on Neuroticism, low on Agreeableness and Conscientiousness. Lower Agreeableness was also associated with earlier age of onset. Differences that had important implications regarding relapse were Neuroticism, Agreeableness, and Conscientiousness. An association was demonstrated between high hostility on the NEO-PI hostility scale, a subscale of
Neuroticism, and self reported relapse. Those with high hostility had greater number of relapse triggers across a wider number of situations. It was stated that negative affective states led to an increased likelihood of relapse. The purpose of this study was to gain a better understanding of the personality characteristics of substance abusers by assessing an inpatient population. Another purpose was to determine whether these stable personality dimensions were related to the relapse after treatment. Patients were in a 28-day rehab and were given the NEO-PI after seven days to avoid elevated scores due to detoxification. The patients scored higher than the norm on Neuroticism and lower than norm on Conscientiousness scales. The Neuroticism and Conscientiousness scores both significantly influenced relapse patterns. Openness, extraversion, and agreeableness did not influence relapse patterns. Previous literature has shown that a correlation between substance abuse, emotional instability (Neuroticism), behavioral disinhibition, and lack of constraint (Conscientiousness) has been well established. Emotional instability was established as a precursor for the development of substance abuse disorders. Many have postulated "individuals develop addictive disorders in an effort to modulate negative affectivity" (Fisher et al., 1998). The data suggested that high scores on Neuroticism and low scores on Conscientiousness might even serve to maintain the addiction by their correlation with higher relapse rates. However, other factors may be predictive of relapse such as age of onset, psychiatric co morbidity, number of previous treatment, and severity of dependence. Opiate abusers also scored lower than controls on cooperativeness and self-directedness (Ball, Rounsaville, Tennen, & Kranzler, 1997).

Chaudhury, Das, & Ukil (2006) reported in a study that the finding of significantly higher scores on extraversion indicate that substance-dependent subjects are characterized by traits such as being more assertive, dominant, sociable, carefree and venturesome as compared to non-dependent people. This finding is in agreement with that of Mathew and Baby (1998) but not of King et al. (2003). Substance-dependent patients also obtained significantly higher scores on the neuroticism dimension. This indicates that they are significantly more emotional, frequently anxious and/or depressed, moody and tense. Similar results were reported in earlier studies (Cardoso et al., 2006; Nielson et al., 1994).
Substance-dependent individuals also obtained significantly higher trait and state anxiety scores. These findings support those of a few earlier studies (King et al., 2003; Neeliyara et al., 1989). This aspect may be aetiologically significant in substance dependence. Anxiety has been suggested to be an important factor in the initial development and subsequent maintenance of substance abuse and dependence. Some patients use substance as a medication for the treatment of anxiety. Unfortunately, an accurate diagnosis of anxiety disorders is difficult to make, since current anxiety symptoms may be secondary to substance withdrawal rather than reflecting underlying anxiety disorders (Thevos et al., 1991). The findings of the study also reveal that substance dependent individuals are different from those with anxiety neurosis, since they have a high state anxiety unlike those with anxiety neurosis, who have a high trait anxiety. This indicates that anxiety in substance-dependent individuals is transitory, varies in intensity and fluctuates over time, and can be easily modified. One of the sources of anxiety is a low level of self-esteem, fear of disapproval from significant people, loss of position, prestige, stature or self-esteem (Neeliyara et al., 1989). Thus, these findings also support the finding that substance-dependents have low self-esteem, which underlies the need for reducing anxiety using suitable therapeutic interventions.

A person's self-structure is an important aspect of his personality. A healthy personality is manifested when an individual has a positive attitude towards him/herself. Studies in this area have shown that psychiatric patients have unhealthy self-structures by way of poor self-concept. In this view, substance-dependent individuals suffer from lowered feelings of self-esteem, pervasive feelings of inferiority and powerlessness, coupled with unusually strong inhibitions against the expression of hostile or aggressive impulses (Neeliyara et al., 1989). This indicates that substance-dependent individuals have less positive self-feelings and more feelings of alienation and isolation.

There have been several studies that have addressed the issue of different personality styles based upon substances of addiction. Craig and Olson (1990) studied the different personality styles between cocaine addicts and opiate addicts to support the explanation of drug of choice. The data suggested that both types of drug addicts were quite similar in basic personality style and therefore, the data
did not support the hypothesis. In conjunction with determining differences between personality styles among drug addicts, Schinka (1994) hypothesized that personality testing would show underlying pathology behind the individual's choice of drug. They believed those addicts self-medicate their underlying pathology with that specific drug. They utilized the MMPI and the Personality Assessment Form, (PAF), to find if the addicts were, in-fact, self-medicating. Neither study showed any evidence of self-medication. This data suggested that personality traits that were different among addicts were not due to self-medication behaviors. Anxiety, depression, nor mania played a significant role in discriminating between drugs of choice.

Moffett et al. (1996) discussed the design and implementation of personality assessments of patients in a therapeutic community. The Personality Research Form (PRF), a general personality assessment, was utilized to assess normal traits rather than pathological ones so the results could assist in treatment planning to improve coping styles such as social irresponsibility, impulsivity, easily offended by criticism, and hostility. By getting feedback on their results, the patients could understand their problems and counselors could employ specific interventions for problematic traits. These were traits that would otherwise be overlooked.

A study by Miller, 1991 evaluated a neuropsychodynamic model for assessing and treating the addicted population. Variables that were predictive of both relapse and sustained recovery were discussed. Personality features of abstainers included future goal-oriented, frustration tolerance, and self-efficacy. Relapsers were shown to do poorly on tests of language, abstract reasoning, planning, and cognitive flexibility. They were categorized as being impulsive, having antisocial personality and affective disorders. The author stated that chronic relapsers had a cognitive style that was nonreflective and impulsive and they lacked the ability to use inner speech and other types of self-regulating mechanisms that enable evaluation and planning of behavior. Opiate addicts who were more likely to remain abstinent had higher IQs than those who relapsed and the author attributes their abstinence, in part, to having greater cognitive coping resources. In summary, the variables that were most predictive of relapse
included lower educational and employment status, lower intelligence and lower levels of cognitive efficiency, specifically those functions involving abstraction, problems solving, perceptuomotor integration, language skills, and verbal reasoning. The preceding neurological functions have been associated with impaired frontal lobe and/or left hemisphere functioning. The author suggested that these qualities were likely indicative of pre-morbid features of cognitive style that predisposed certain individuals to chronic substance dependence.

DiClemente et al. (1994) showed how self-efficacy, in addictive behavior change, could be a reliable predictor of relapse potential. Increased self-efficacy was shown to reduce the probability of relapse. Efficacy increases with the individual's ability to cope with negative emotional states, interpersonal conflict and social pressure. It was evident in the results of this study that a measure of self-efficacy, among other things, can improve the ability to predict relapse.

The early social and family environment of the child is generally regarded as dominated by the parents and others. Researchers regarded them as playing a very significant role in developing normal or deviant personalities of children. Much research has focused on the familial environment of the adolescent addict. There is ample evidence that the familial factors like family fragmentation, parent-child relationships, parent-parent relationships, parental attitudes, family structure, family type, family size and history of drug abuse in the family play a significant role in drug abuse behaviour.

Researchers focusing on the variable of family history were trying to find out whether some linkage exists in addictive behaviour of parents and their offsprings. Ohannessian, McCauley, & Hesselbrack (1999) compared the offsprings with positive family history and with negative family history to determine whether characteristics of the individual context predict substance abuse or dependence. Results showed that gender was a significant predictor, with men being more likely to have received a diagnosis for substance problems.

Finn, Sharkansky, Brandt, & Turcotte (2000) found positive correlation between alcohol abuse and family alcoholism. The path from familial alcoholism to social deviance proneness leads directly to alcohol problems. The path from
familial alcoholism to excitement/pleasure seeking was associated with increased drinking, which in turn, was associated with alcohol problems. Similarly Kilpatrick, Acierno, Saunders, Resnick et al., (2000) interviewed 4023 adolescents by telephone about substance use and concluded that who had family members with alcohol or drug use problems had increased risk for current substance abuse.

Moss, Vanyukov, Yao, & Kirillova (1999) tested the familial basis of pre-pubertal cortical under reactivity might be associated with subsequent drug abuse behaviour during adolescence. Preadolescent Salivary Cortical responses were examined in the context of risk-group status, parental substance abuse offsets, and subsequent adolescent drug use behaviour. Results confirmed a decreased Salivary Cortical response to an anticipated stressor among sons of substance use disorder fathers. McKeganey & Norrie (1999) confirmed that the illegal drug using subjects were much more likely to have some one in their family who was also using illegal drugs. Milberger, Faraone, Biederman et al., (1999) examined the risk for substance use disorders in offsprings of substance use disorders parents and found that parental substance use disorders was associated with substance use disorders and all substance use disorders subtype in the offsprings. Findings suggest that alcoholism and drug abuse may run from parents to their offspring. Findings also suggest a possible common diathesis that is expressed as co-morbid alcohol and drug use in the offspring of alcoholic parents.

Hawke, Jainchill, & DeLeon (2000) reported that amphetamine users tended to come from homes where one or both parents used illicit drugs, drunk regularly, or had a mental illness, and often reported histories of childhood maltreatment. Baron (1999) found that exposure to parental substance abuse increases street youths’ risk of alcohol and hard-drug use. Study also reveals that long term homelessness influences hard drug use.

Malhotra, Malhotra, & Basu (1999) examined and compared the perspectives of relapsed alcohol dependent patients and their family members regarding relapse precipitants. The rank order correlation
between the items by patients and their families was positive and statistically significant. Individual item wise comparison by chi-square test yielded statistically significant differences. Chassin, Curran, Hussong, & Colder (1996) in a longitudinal latent growth curve modelling showed that adolescents with alcoholic fathers, boys and adolescents with drug using peers had steeper growth in substance use over time than did adolescents without alcoholic fathers, girls, and adolescents without drug using peers. Chassin, Pillow, Curran, Molina, & Barrera (1993) assessed 3 hypothesized mediating mechanisms underlying the relation between parental alcoholism and adolescent substance use. Using structural equation modeling, they analyzed data obtained from a large community. In a sample of adolescent children of alcoholics and a demographically matched comparison group, the results suggested that parental alcoholism influenced adolescent substance use through stress and negative affect pathways, through decreased parental monitoring, and through increased temperamental emotionality (which was associated with heightened negative affect). The goal of the study was to test potential mediators of the effect of parental alcoholism on substance use during early and middle adolescence. The first notable finding is simply that there was a significant effect of parental alcoholism on adolescent substance use. This is in contrast to some recent reports that failed to find elevated alcohol use in adolescent children of alcoholics (Johnson et al., 1989; Pandina & Johnson, 1989). Elsewhere they discuss the differences in sampling and methodology that may account for these discrepancies (Chassin et al., 1991).

Chassin, Mann, & Sher (1988) found that adolescent drinking was predictable as a function of demographic variables, self-awareness, failure feedback and a family history of alcohol use. These studies are consistent with a large body of previous literature in finding that adolescent alcohol involvement is related to poor school grades, negative life events, and a family history of alcohol abuse (Mann et al., 1987; Wills, 1986). There are several alternative mechanisms that might underlie these relations. First, the results could be explained by a stress reduction mechanism in which poor school grades, parental alcohol abuse, and negative life events are viewed as stressors, and alcohol use
acts to decrease the negative impact of these stressful life events. A family history of alcohol use could also serve to model the use of alcohol as a way of coping with stress. Such a stress reduction mechanism has previously been suggested as one determinant of adolescent alcohol use (Newcomb & Harlow, 1986; Wills, 1986).

Seldin (1972) presented a review of literature approached from the varying view points, and generally concluded that family instability and disorganization, parental rejection, and either over or under domination by the parents are critical (Braucht et al., 1973; Seldin, 1972). But such conclusions need to be verified in non-retrospective studies. One such study (Baer & Corrado, 1974) which is retrospective, also, did provide comparison groups. These authors found what many have suggested, namely, that early life experiences in the home (lack of parental concern, harsh physical punishment, and experiencing an unhappy childhood) can be important predisposing factors to subsequent initiation of illicit drugs.

A healthy family system would prevent adolescent substance abuse even in the face of heavy peer pressure. The key to such family functioning was in the family's flexibility, and an ability to adapt to different stresses.

Studies reflect different family patterns for occasional users and abusers. Occasional drug users came from families where there was no communication gap and parents used democratic disciplinary techniques. Bulk of drug abusers come from families, where there is a communication gap and either laissez-faire or authoritarian discipline. In addition, drug abusers belonged to families in which the person whom they defined as most powerful tended to use psychological clutches to cope up with stress (Jurich et al., 1985). To conclude, drug abusers come from multi-problem families.

Deficits in parental support and ineffective parental control practices have been frequently identified as risk factors for adolescent
substance use (Hawkins et al., 1992). Dishion, Patterson, & Reid (1988) found a cross sectional relation between parent drug use and early adolescent drug use. Parent drug use was associated with decreased monitoring of the adolescent’s activities and this decreased monitoring was associated with membership in a drug-using peer group that was the proximal pathway into adolescent drug sampling (Chassin et al., 1993).

Wills & Cleary (1996) tested how the effect of parental, emotional and instrumental support on substance abuse in adolescents is mediated. They concluded that parental support was inversely related to substance use throughout the period from early to middle adolescence, and stress-buffering effects were observed throughout this period. The results are consistent with previous findings on effects of social support for adolescents (Wills, 1990b; Sandler et al., 1989), and the pattern of results is consistent with the theoretical position that enhancement of coping ability is an important mechanism through which social support contributes to adjustment (Wills, Blechman, & McNamara, 1996; Thoits, 1986).

Tests of the mediation process in structural modeling analyses indicated that effects of parental support occur through multiple pathways. Rather than showing the effect of support mediated through a single variable, the results show independent paths from parental support to four different constructs, plus a direct effect to substance use. The independent pathways demonstrate that parental support operates both through relationships to higher levels of protective factors and through relationships to lower levels of risk factors. Indirect effects, such as the effect of support on negative life events through academic competence and self-control, were also substantial. Studies on resilience (Haggerty, Sherrod, Garmezy, & Rutter, 1994; Rutter, 1990; Werner, 1986) also suggest the importance of those factors in addiction.

There has been a considerable amount of research showing that support from family, friends and community networks is related to better
physical health, lower level of psychological symptomatology and absence of alcoholism and drug abuse in adolescents (King, Reis, Porter, & Norsen, 1993; House, Landis, & Umberson, 1988; Cohen & Syme, 1985). O'Dowd (1973) examined one aspect of the family relationships, i.e. emotional support to determine whether supportiveness among family members correlated with the absence of illicit drug use. The central interest was that group of young black males who despite ample opportunity and environmental exposure to such deviancy remained non-deviant and drug free. It was also predicted that within the same family, a high level of congruence would exist between the level of support perceived by the adolescents and preadolescents in both the drug free and drug using families. Drug free adolescents perceived themselves, and were perceived by family members to receive and were observed to receive significantly more support than did the drug-using adolescents, preadolescents in drug-free families also obtained more support than did the pre-adolescents with the drug-using adolescent brothers. Mothers of the drug using adolescents perceived themselves giving support to their sons at a level equal to that perceived by mothers of drug-free adolescents. Supportiveness did discriminate between the two groups, showing that emotional support was related to illicit drug use immunity. The parent-child relationship was a significant factor in predetermining the behaviour of children. The family as a primary socializing agent predisposes the individual towards deviancy or non deviancy which includes use of hard narcotics. Protective effects of social support among adults have been found both for structural measures such as total network size and for functional measures such as availability of emotional and instrumental support (Wills, 1991; Cohen & Wills, 1985). Beneficial and protective effects of social support on adolescents also have been extensively demonstrated (Wills, Mariani, & Filer, 1996; Sandler, Miller, Short, & Wolchik, 1989).

Research with adult populations is replete with evidence that social support is inversely related to substance use (Wills, 1990a; Umberson, 1987; Mermelstein, Cohen, Lichtenstein, Kamarck & Baer,
Most researches on adolescents have been focused on the role of support from parents as a protective factor, parental support has been indexed through measures of closeness and confiding in the parent-child relationships or of adolescents' perceived support from parents for helping them to deal with problems. Such measures of functional support from parents are related to better mental health outcomes and to lower likelihood of substance use (Barerra, Chassin, & Rogosch, 1993; Wills, Vaccaro, & McNamara, 1992; Brook, Brook, Gordon, Whiteman, & Cohen, 1990; Greenberg, Siegel, & Leitch, 1983). In addition, several studies have demonstrated stress buffering effects. The relationship between negative life events and adverse outcomes is reduced for adolescents with a higher level of emotional support from parents (Wills et al., 1992; Greenberg et al., 1983).

Slaght (1999) interviewed 150 male inmates after three months in the community to determine what environmental influences were having the greatest impact on drug reuse and suggested that more emphasis is needed on family relationships before and after the treatment.

Some investigators analyzed effects of parental support in terms of observational learning that when parents engage in supportive interactions with children, they demonstrate task-oriented problem-solving skills, which children then learn through observation and modeling. This could occur directly in the context of supportive transactions between parents and child or indirectly as the child observes a parent interacting with others. The observation of supportive communications between family members would be conducive to learning how to listen to others, empathize with others distress, and engage in cooperative efforts to master problems (Eisenberg & Fabes, 1992; Dubow & Tisak, 1989). To the extent that a child has multiple opportunities to see alternative solutions being considered and problem-solving skills being demonstrated, he or she would be more likely to approach problems with the attitude that they can be solved through
Parent’s appropriate responsiveness would increase the effectiveness of socialization processes and enable the child to better develop the ability to self-regulate during times of emotional distress rather than taking refuge in drugs (Gunnar, 1994; Rothbart, Derryberry, & Posner, 1994). A close parent-child relationship thus enable an individual to enter adolescence with better self-regulation skills and with better ability to establish supportive relationships with persons outside the family thus checking the alienation and reducing the possibility of indulgence into drugs.

Social support has beneficial effects because the availability of supportive functions from other persons helps an individual to deal better with problems (Wills & Filer, 1996; Thoits, 1986; Wills, 1985b). In the context of adolescence, emotional or instrumental support from parents help adolescents to cope with problems from school, home, or family domains and may help them deal with emotional states such as anxiety, depression, or anger (Wills, Mariani, & Filer, 1996; Sandler et al., 1989). When parents provide this kind of support, adolescents become better at regulating their emotions at problem solving (Blechman & Culhane, 1993; Eisenbeg & Fabes, 1992; Wills, 1990b). Models of resiliency effects also posit that parental support assists children to achieve good adaptation in difficult life circumstances because it contributes to the development of better competence in academic and asocial domains (Wills, Blechman, & McNamara, 1996; Masten, Morison, Pellegrini, & Tellegen, 1990; Rutter, 1990). These models predict for adolescents that parental support will be related to more adaptive coping (e.g., problem solving), less maladaptive coping (e.g., coping with problems through anger) and better competence in academic tasks. Because these variables are risk factors for adolescent substance use (Newcomb, Maddahian, & Bentler, 1986; Wills, 1986) a mechanism is predicted in which the effect of parental support on adolescent substance use is
mediated through effects on coping and competence. Implicit in this model is the suggestion that good support may help to reduce the occurrence of negative life events, which also are a risk factor for adolescent substance use (Chassin, Mann, & Sher, 1988; Newcomb & Harlow, 1986; Wills, 1986).

The study of Thom, Ashby, Wills, & Cleary (1996) suggest two perspectives on the relation of parental support to adolescent behaviour. One perspective emphasizes the role of instrumental and social competence in the development of problem behaviour. To the extent that young persons are rejected or devaluated by others in significant social relationships, they are likely to become distressed and angry and hence would have less reason to accept conventional values and more reason to see deviant values as acceptable. Such a process is implicit in Jessor and Jessor (1977) theory of problem behaviour, and evidence of similar processes has been demonstrated in several contexts (Cole, 1991; Asher & Coie, 1990; Dodge, Coie, Pettit, & Price, 1990). Similarly, difficulty with academic performance may be conducive to viewing a major social institution (school) and a major social value (academic achievement) as boring or irrelevant and hence may encourage affiliation with individuals who reject these values. This process has been suggested by a body of findings linking lower academic competence to propensity for problem behaviours including substance use and delinquency (Wills et al., 1992; Newcomb et al., 1986). From this perspective, the role of parental support for helping to build academic and social competence would theoretically be a part of its operation as a protective factor.

A second perspective, not mutually exclusive is more cognitive. This perspective suggest that adolescents who feel they are not supported by, and cannot trust, their parents would also derive a negative perception of other social relationships, they would have systematically different schemes of what people are like (Sarason et al., 1991; Kobak & Sceery, 1988). To the extent that a young person
perceived others as untrustworthy and potentially hostile, he or she would be less likely to form intimate asocial relationships and more likely to provoke others or respond aggressively to others even in objectively neutral situations. A negative scheme of social relationships predisposes an adolescent, to multiple drug usage (Sarason, Pierce, & Sarason, 1990; Dodge, Pettit, Mc Claskey, & Brown, 1986).

A number of investigators have portrayed adolescent drug abuse as a system dysfunction. It reflects a defect in the normal family “launch sequence” by which adolescent is prepared for gradual disengagement and separation from the family. Parental denial and inability to set consistent limits and an atmosphere of emotional anesthesia make a doomed future for the adolescent (Reilly, 1984). The social distance between parents and child increases so much that abusers put less value on their parents opinions. They become rebellious. Gradually parents loose control over them. Abusers start indulging in extensive negative events including drugs and addict adolescent’s in turn challenge the authority of parents.

Results of study conducted by Blumberg et al. (1974) and Ahuja (1982) indicate that presence or absence of parents is less crucial than the nature of parental relationship. If it is positive then it is less likely that child is likely to become involved with illicit drugs. The typical family profile of an addict is that the parents are overly dominant with autocratic child rearing practices (Lather, 1993). They behave as the authority of law. Parents whose child rearing methods encourage autonomy, independence and reward good behaviour more than they punish misbehaviour have children who less often abuse drugs and even smoke cigarettes.

The adequate development of ‘ego’ and feeling of self care and self regulation require optimal nurturing and caring in the early years where mother-child relationship is significant. Praise and recognition given by parents develop feeling of self-esteem. Baer and Corrado (1974) studied the role of parental influence in the etiology of heroin
addiction. The addicts reported more physical punishment, more evening freedom as teenagers, encouragement to bring friends home, and less parental cohabitation, less career planning assistance, and parents having less influence on their conduct. Finally, the addicts reported religion as less important aspect of family life and less inclination to turn to their parents for sympathy or support. Majority of addicts lead an unhappy childhood which include, harsh physical punishment and a general pattern of parental neglect and rejection.

Zucker and Gomberg (1986) noted that the relationship between an alcoholic parent and his or her child is often characterized by inadequate parenting and a lack of contact with parents both of which may be secondary effects of parental substance use. Furthermore, inadequate contact between parent and child has been found as a predisposing factor in substance use (Barnes, 1984; Chassin, 1984, Kandel, 1980; Jessor & Jessor, 1977).

It has been repeatedly demonstrated that parental modeling of substance use and ineffective parental control practices are related to adolescent substance abuse. Children of alcoholics are at increased risk for adult alcoholism. Several researchers have commented specifically that the parents may be providing models of substance use or may possess certain characteristics that predispose their children to use drugs. Kandel et al. (1978) found that parental use of alcohol predicted adolescent use of alcohol and other illicit drugs except for marijuana and that parental use of psychoactive drugs predicted use of illicit drugs other than marijuana. Newcomb et al. (1983) contrasted a direct modeling theory with a cognitive mediational positioning with regard to the influence of mothers on their children’s use of alcohol, marijuana, and pills. A direct modeling explanation accounted for marijuana use, whereas a cognitive mediational process accounted for alcohol and pills use in teenagers (Chassin, 1984; Fawzy, Coombs, & Gerber, 1983; Newcomb, Huba, & Bentler, 1983; Kandel, 1980; Zucker, 1979; Kandel et al., 1978) also supported
that parental substance use has been related to drug use by their adolescent children.

The traditional use of Bhang in Indian families provide positive milieu to children to take up abuse to marijuana. Parents and grandparents set such examples in Indian families. In 1970, the US National Institute of Mental Health Commissioned a study of ganja use in Jamaica by the Research Institute for the study of man. Report of the study prepared by Rubin and Comitas (1975) revealed that most of the ganja smokers had parents and grandparents who had also smoked cannabis. Parental abuse of alcohol is another common feature in modern families. Alcohol being socially accepted, off-springs imitate their parents' deviating behaviour and model after them. Margado et al. (1982) interviewed 96 heavy drug users admitted to psychiatric hospitals between 1980 and 1982. Almost 65% of the subjects reported alcohol and/ or drug abuse by at least one family member. Alcohol abuse was common in their fathers and drug abuse was almost always found among siblings.

The family with a history of drug abuse serves as a model for the youngsters who follow suit. They imitate their parents or their siblings abuse of substance. If the family system is already predisposed to the pathological inclination, and there are weak disciplinary ties to check children's behaviour, there is likelihood that children would fall prey to drug addiction.

Sher & Descutner (1986) provided a direct effect of the modeling hypothesis in a study designed to answer two important questions. He hypothesized that (a) both illicit and licit drug use will be more frequent in families where parents are reported to be users of psychoactive drugs (i.e., tranquillizers, barbiturates, and stimulants); and (b) the more reported use of psychoactives by the parents, the more likely the adolescent use of licit and illicit drugs. Significant differences were reported in parental psychoactive drug use between those who had used marijuana and those who had not for both sexes. This positive association between reported drug use by parents and their offspring is interpreted as favoring the view that parents provide a model for adolescent drug abuse. It appears that direct parental teaching regarding drug, as expressed in
their own behaviour is probably a powerful factor in determining whether or not a child will decide to sample on drug (Kandel, 1973; Blum et al., 1972).

However, there have been conflicting findings concerning whether children of alcoholics have elevated risk for substance use during adolescence, with some studies finding elevated risk (Wills et al., 1994; Hawkins, et al., 1992) and others finding no elevated risk for adolescent alcohol use (Klinge, 1983; Verma et al., 1977).

The reasons for the conflicting findings appear to be primarily methodological, including variations in sampling strategies, definition of parental alcoholism and whether parental alcoholism is assessed directly or by adolescents’ report (Sher et al., 1991). Moreover, studies have not often considered the effects of co-occurring factors that influence the magnitude of children of alcoholics risk for adolescent substance use (e.g., parental psychiatric disorders, environmental stress). To the extent that samples vary along these dimensions, the magnitude of the effect of parental alcoholism on adolescent substance use will also vary. Finally, children of alcoholics are heterogeneous with regard to risk; only a minority of children of alcoholics will actually develop negative outcomes. This heterogeneity reduces the magnitude of differences between children of alcoholics and children of non alcoholic’s groups, so that studies with small sample sizes may lack the power to detect parental alcoholism effect (Sher et al., 1991). The net result of these methodological problems has been inconsistent demonstrations of the effect of parental alcoholism on adolescent substance use. However, at least two recent studies with large samples have demonstrated both statistically reliable results.

Some studies investigate the role of factor of parental deprivation on drug abuse. Parental deprivation includes lack of parental presence whether due to death, separation, or divorce. Parental absence or deprivation, in early childhood proves crucial in later stages. Bucky (1971) found the father or father figure to be absent in most of the drug abuse cases. The question of the absence of the father or mother avoids some of the usual problems with retrospective studies. It is a relatively objective question and, therefore, should be reported accurately even after several years. And in as much as it is measured for the early years, it is not
likely to result from the drug experience of the children within the family. Unfortunately, family intactness is only an indirect measure of many of the important family variables. A father who lives with, but never interacts with the child may be less influential than one who is gone, but write many letters.

Evidence on the description of the childhood family has only occasionally been found to be related to initial drug abuse of adolescents. On the supportive side are reports by Hetherington, Clingempeel (1992); Brook et al., (1985) who reported that more addicts have one parent families. Braucht et al., (1973) suggested the hypothesis that "the adolescent addict, in his early years, suffer from the absence of one or both parents." Baer and Corrado (1974) reported that persons are significantly more likely to become drug users if their parents did not live together. Subjects of the heroin addict sample did not know if their fathers were living, 17% were unaware whether their mothers were still alive.

Parental divorce seems to be related to drug problem more than parental death. Separation due to divorce and its alarming psychological impact than separation due to death has vital influence on children's behaviours. In such broken homes, there is not only parental deprivation but also emotional deprivation, which the child thrives upon in childhood and adolescence. Malhotra (1983) who studied the familial and personal correlates of drug consumption youth found that drug consumption was higher in families in which one or both of the natural parents were absent. Wellisch (1984) believes that parental absence or deprivation make individual more vulnerable to drug abuse as "neuroses of mobility" or rapid changes of family status and family patterns increase the risk of adolescents. But not all the studies support the importance of parental absence. Ainsworth et al. (1978) noted that addicts had fewer father figures in the home than did controls. However, Ainsworth et al. (1978) noted that the addicts did have fathers in the house throughout the entire period. Blum (1972) found that divorce occurs more frequently in white middle-class families with drug-using children than in without.

Blumberg et al. (1974) and Ahuja (1982) also reported contradictory finding which lead to the conclusion that the presence or absence of parents is less crucial than the nature of the parental relationship. If the parental relationship is
positive (and the parenting may be provided by a non biologically related adult), then the child is less likely to become involved with illicit drugs. The mere presence of a parent seems unimportant if that parent is not effectively involved with the child.

Subjective perception of satisfactory familial relationships including such components as communicativeness, closeness, and love have been reported to be associated with less drug abuse. Unsatisfactory interfamilial relationships and child-rearing practices, on the other hand, have frequently been implicated as prime determinants of personalities that are susceptible to drug and alcohol abuse. The drug usage is unlikely to be terminated until the underlying disturbances can be remedied.

It can be interpreted here that the attitudes of rejection or not accepting the child develops a feeling of alienation in them. Substantial proportions of addicts view their parents in negative terms and completely alienated from the parents and family support system. Parents must be extra careful in bringing up the children. Their child rearing practices must bind the child to the family.

Findings of above discussed studies tend to highlight various personality aspects, factors and processes as predisposing factors in drug addiction and that greater personality impairment predicts to poorer treatment adherence and outcome (Cacciola, et al., 2001; King, 2001; Calsyn, 2000). However emphasis on constellation of various factors in addictive person as well as influence and contribution of each factor in addictive behaviour has been different by different researchers. Some of the investigators have tried to account for the treatment related aspects and issues. But again equivocal findings have been reported by all. However these studies seemed important pointers in devising the hypotheses for our study.

**Psychopathology and Drug Addiction**

The psychodynamic perspective is that psychopathology is the underlying motivation for initial drug use, drug dependence, and relapse after a period of abstinence. The high prevalence of additional psychiatric disorders among treated
opioid-dependent patients has now been repeatedly confirmed. Currently no specific sub typology of opioid-dependent patients based on psychopathology has been proposed. However, the type and severity of those additional diagnoses can powerfully influence the course of the disorder and the kind of treatment most likely to be effective.

Relapse rates following treatment for substance dependence are remarkably high, and efforts to address this unfortunate reality are becoming an integral part of treatment (Daley & Marlatt, 1997). In outcome studies of alcoholics, for example, approximately 65.70% of patients have been found to relapse within one year of treatment, with the majority of these patients relapsing within less than three months (Miller & Hester, 1986; Emrick, 1974; Hunt et al., 1971). In outcome studies of drug or polysubstance-dependent patients, relapse rates following treatment are similar to, if not greater than, those found for patients solely dependent on alcohol (McKay et al., 1999; Emrick, 1974).

A number of investigators have focused on analyzing the multiple variables associated with relapse in an attempt to develop screening tools that might identify subpopulations most in need of relapse-prevention treatment. A number of risk factors have been identified. More severe levels of alcohol or drug dependence have, for example, been associated with an increased likelihood of relapse (Winterer et al., 1998; Kampman et al., 1998; Langenbucher et al., 1996; McLellan et al., 1994; Booth et al., 1991). In such studies, severity of dependence has been quantified using scores on either alcohol or drug use problem scales, DSM symptom counts, or the number of previous hospitalizations.

The presence of an additional, comorbid psychiatric disorder is likewise associated with an increased risk for relapse. One such disorder is the presence of severe conduct problems both before and after age 15, i.e., a conjoint diagnosis of Conduct Disorder (CD) and Antisocial Personality Disorder (ASPD) (Leal et al., 1994; Hesselbrock, 1991; & Woody et al., 1984, 1985). Comorbid depression also appears to promote relapse. However, the association between comorbid depression and treatment outcome is complex, and appears to depend upon the nature of the treatment, the gender and age composition of the patient sample, and the preferred drug of abuse (Hodgins et al., 1999; Bobo et al., 1998; Brown et
Substance use disorders co-vary with other psychiatric disorders. Comorbidity is prevalent for substance use and dependence and for anxiety, affective, antisocial and other personality disorders (Farrell et al., 1998; Kessler et al., 1994). Clinical studies suggest that half of opioid- and cocaine-dependent individuals report lifetime depression, whereas one-third have depressed mood at intake to addiction treatment (Rounsaville et al., 1982; Kleinman et al., 1990). Improvement in psychological well-being and functioning is an important treatment goal for people with drug dependence (Task Force to Review Services for Drug Misusers, 1996), but the nature and course of psychiatric symptoms and disorders remain under-researched. Among opioid addicts seeking treatment at a Yale University-affiliated program in the 1980s, 87 percent met the Research Diagnostic Criteria (RDC) for a psychiatric disorder, in addition to opioid dependence, at some point in their lives. The most common diagnoses were mood disorders, alcoholism, antisocial personality, and anxiety disorders. The frequency and distribution of additional psychiatric disorders among opioid users seeking treatment have not changed substantially since that early study and are also observed among such patients in Europe and Australia.

If DSM-III criteria, which do not require that the diagnosis of antisocial personality be independent of the need for drugs, had been used, 54 percent of the sample would have received the diagnosis of antisocial personality. The proportion of opioid users meeting the criteria for a current episode of a psychiatric disorder was 70 percent, with mood disorder, antisocial personality, and depression. Similar patterns of additional psychiatric disorders have been found by workers at other public clinics and by clinicians in private practice. Among patients in therapeutic communities, 60 percent reported depressive symptoms during the year before entry, 28 percent had contemplated suicide, and 13 percent had made at least one suicide attempt.

According to Edgar P. Nace (1990), the most severe levels of substance abuse are associated with character pathology rather than serious mental illness. In most cases, the personality disorder precedes the substance abuse. However,
substance abuse may produce a syndrome diagnostically compatible with personality disorders. Substances can produce a combination of toxic and organic effects on the brain; they can also reinforce regressive behavior. This combination may result in a personality disorder that is secondary to alcoholism and drug dependence. This addicted personality (the effect of chronic use of drugs or alcohol on personality functioning) is marked by impulsivity, decreased frustration tolerance, self-centeredness (stubbornness, defiance, lack of empathy), grandiosity (overvaluation or undervaluation of self), passivity, and affect intolerance (Nace & Brown, 1995).

Beck et al. (1993) noted that when a personality disorder contributes to drug use the pattern becomes more compulsive and rigid. Once the alcohol or drug use begins, personality-disordered individuals are more likely to continue using until they go into a full-blown addiction. These individuals are also more vulnerable to relapse and have more difficulty working cooperatively and collaboratively with service providers.

The presence of a personality disorder (PD) has been associated with certain types of poor treatment outcomes in patients with substance use disorders (SUDs). In a study (Ross et al., 2003) one hundred consecutive inpatients admitted to a mixed dual diagnosis inpatient unit were assessed using semistructured interviews for SUDs, non-SUD Axis I disorders, and PDs. Outcome measures were assessed both during hospitalization and at an initial follow-up appointment after discharge. A significant number (53%) of the patients met criteria for at least one personality disorder. Of the PDs, Cluster ‘B’ PDs (Ross et al., 2003; Franques et al., 2000) were the most prevalent, particularly borderline personality disorder (74%) and antisocial personality disorder (66%). Opiate dependent PD subjects entering treatment had more severe problems and lower retention rate than non PD subjects (Franques et al., 2000).

Haro et al. (2004) studied the role of personality disorders on drug dependence treatment outcomes following inpatient detoxification. The 6 month follow-up study was conducted to investigate the possible influence of comorbid personality disorders on drug treatment, as well as associated psychopathology and HIV-related risk behaviors outcomes. Data were collected initially from a
consecutive sample of 74 patients with a diagnosis of opiate abuse or dependence, admitted for inpatient detoxification. During intake, 80.9% of patients reported at least one HIV-related risk behavior in the previous 6 months. Not using condoms during sexual intercourse was the most common and the only risk behavior that showed a statistically significant reduction over the follow-up period. A total of 58.1% of subjects had at least one personality disorder. Borderline personality disorder was the most prevalent. However, antisocial personality disorder was the only personality disorder that influenced substance use outcomes. The presence of this diagnosis increased the chances of worse opiate use outcomes, but decreased likelihood of not using condoms. Patients with low obsessive-compulsive personality disorder dimensional scores showed a significant increase in the number of risk behaviors. These results suggest that personality disorders need to be considered when planning effective interventions for opiate dependent individuals and when preparing and evaluating HIV risk-reduction interventions, particularly for the more severe substance dependent patients.

In a study by Lisa, Enid, Lauren, Carrie, Edythe, & Igor (2005), research subjects who had been heroin dependent manifested higher levels of Cluster B and Cluster C disorders on the MCMI-II compared with control subjects, irrespective of whether they were receiving Methadone Maintenance Therapy. They also had abnormal scores on Cluster A and Axis I scales, indicating a broader level of impairment than previously reported (Ball et al., 2001; Craig, 2000; First et al., 1995; Marsh et al., 1988) Subject showed elevated scores on measures of Antisocial, Passive-Aggressive, Borderline, Avoidant and Paranoid personality disorders, as demonstrated in other studies (Craig, 2000; Calysn et al., 1990; Marsh et al., 1988) but did not show elevation on other measures, such as Narcissistic or Histrionic personality disorders, as has been found previously (Marsh, Stile, Stoughton, & Trout-Landen, 1988). Findings also suggested that both Methadone Maintained (MM) and Methadone Withdrawn (MW) subjects scored higher than controls on scales related to Cluster ‘A’ pathology and psychotic syndromes. Such findings may relate to the concept of a schizophrenia spectrum, a group of disorders characterized by positive psychotic or psychotic-like symptoms (such as paranoid delusions or ideation), and by negative
symptoms (such as social withdrawal). Schizophrenia spectrum disorders include schizophrenia and schizotypal personality disorder (Siever & Davis, 2004), as well as additional Axis I and Axis II disorders, such as schizoaffective disorder and paranoid personality disorder (Kety, 1983). Supporting the relationships among these different disorders, another study of comorbidity in new onset schizophrenics showed elevated Cluster A scores (Paranoid, Schizoid and Schizotypal) relative to both a healthy control group and a sample of patients with non-schizophrenic psychotic disorders (Craig, Vernis, & Wexler, 1985). Moreover, the comorbidity between schizophrenia-related disorders and substance abuse has been noted previously (Calsyn, Roszell, & Chaney, 1989).

Henry Jay Richards (1993) views persistent addiction as related to failures in self-regulation. The most important mediator of self-regulation is the personality. If there is personality pathology related to cognitive style, affective tolerance, activity, interpersonal style and relationships, there is vulnerability to addiction.

Calsyn et al. (1990) found that ninety percent of a sample of opiate abusers exhibited significant character pathology and exceeded the threshold for a DSM-III-R Axis-II disorder on the Millon Clinical Multi-Axial Inventory (MCMI-II). Thirty-six percent showed elevated scores on Antisocial and Narcissistic subscales, which were the highest scored scales in this sample. Craig (2000) found that a sample of opiate abusers scored highest on scales for Antisocial, Passive – Aggressive (Negativistic), and Depressive personality disorders as measured by the MCMI-III. Another sample of opiate abusers scored highest on the MCMI-I scales of Antisocial, Narcissistic, Histrionic, and Paranoid personality disorders (Marsh, Stile, Stoughton, & Trout-landen, 1988). Additionally, Ball & Cecero (2001) found that a sample of methadone maintained subjects met criteria for Antisocial, Borderline, Avoidant, or Depressive personality disorders on the Structured Clinical Interview for DSM-IV for Axis-II (SCID II). Thus Cluster B and C traits and disorders, particularly Antisocial Personality Disorder, appear to be the most common in this patient group.

Wairagkar et al. (1994) surveyed 395 drug addicts from the states of Assam and Nagaland and reported mild forms of physical and psychiatric disorders. Desai (1997) compared the intrinsic and extrinsic motivation of under
treatment for alcohol and noted the associated psychopathology. Grilo et al. (1997) found the presence of personality disorders in adolescent in-patients with major depression and substance use disorders. Borderline personality disorder was diagnosed more frequently in major depression substance abuse group.

Horner, Harvey & Denier (1999) examined the self-reported cognitive deficits in 86 patients of drug abuse treatment and found strong association between self ratings of cognitive impairments and depression and vulnerability to stress in drug addicts.

Most investigators in the area of drug addiction who were interested in personality of addicts focused on those factors which were part of psycho-pathological syndrome. Suang et al. (1982) reported that long term drug users had more pre-morbid personality disorders and greater familial risk of schizophrenia. McLellan et al. (1983) observed that narcotic users showed some evidence of moderate depression, primary sociopathic character and criminality.

Another study (Nace, Saxon, & Shore, 1986) revealed that at the one year post treatment follow-up alcoholic patients with a diagnosis of borderline personality disorder showed a significant decrease in drug use for the first month of follow-up but showed uncertain results after the end of the follow-up period, whereas, alcoholic patients without the diagnosis showed significant decreases in drug use through the entire one year follow-up period.

As regards to mechanism of production of psychopathology in opiate addicts, it is not much clear. Kleber et al. (1983) observed that high degree of psychopathology displayed by opiate addicts is the result of use of illicit substance frequently in response to psychiatric symptoms like depression and anxiety, leading to addiction. Linda et al. (2006) reported that a sample of drug addicts (N = 60) in treatment were interviewed, and their descriptions of their lives were elicited and recorded. Their scores on a measure of anxiety based on content analysis of these descriptions were compared with those of two other groups of people matched for sex and age. The chief element in the pattern of anxiety that
differentiated the groups was shame. Addicts also expressed more guilt, loneliness, fear of death, and vague worries than the other groups.

Antisocial personality, psychopathy and depressive disorders were the commonest patterns of psychopathology observed among drug abusers. Rounsaville et al. (1982) reported that major depression was the commonest psychiatric disorder in opiate addicts (17%) followed by alcoholism, anti-social personality and anxiety disorders. Similarly, Khantzian et al. (1985) using DSM-III criteria found that of the 133 narcotic addicts, 77% met the criteria for one or more on Axis I disorders (depression 56%, mixed 4%, anxiety related disorders 11% and other diagnoses 6%) and 65% met criteria for personality disorder on Axis II, of which one third had antisocial personality disorder. In total 93% met the criteria for one or more psychiatric diagnosis other than substance use. These observations are further substantiated by Rounsaville & Kleber (1983). They found the psychopathological states like major depression (34%), minor depression (3%), alcoholism (15%), phobic disorder (11%), obsessive compulsive neurosis (2%), schizophrenia (2%) and hypomanic disorder (2%). McLellan et al., (1983) observed that narcotic addicts show some evidence of moderate depression, primary sociopathology, psychopathology characters and criminality. However, presence of hysterical reaction and psychosomatic disorders in association with opiate addiction is rarely reported in the west, which appears to be not an uncommon feature in our set up. Due to ignorance some persons believe that opium gives relief in psychosomatic disorders and therefore initiates medicinal use which gradually results in addiction.

It has been found that alcoholics with diagnosis of antisocial personality disorder have often experienced an earlier onset of alcohol-related problems than alcoholics without this diagnosis (Hesselbrock, Hesselbrock, & Workman Daniels, 1986). The rates of substance use and abuse are higher among psychotic patients and anti-social individuals than in the general population. Individuals with anti-social traits identified by the impulsive non conformity scale (Chapman et al., 1984) exceeded a control group on rates of substance use disorders. As hypothesized the Per-Mag group demonstrated preferential patterns of
substance use similar to those reported for schizophrenic patients. Participants who scored deviantly on both the Per-Mag and Noncon Scales were at especially heightened risk for substance use disorders (Kwapil, 1996). The preferential use of stimulants and hallucinogens by schizophrenic patients seems counterintuitive because these substances have been reported to precipitate or exacerbate psychotic symptoms (Hall, Popkin, Beresford, & Hall, 1988; Bowers, 1972, 1977). The rates of psychoactive substance use and abuse are higher among psychotic patients than the general population (Regier et al., 1990). However, Schneier & Siris (1987) and Dixon, Haas, Weiden, Sweeney, & Francis (1990) suggested that patients may use these substances to counteract negative symptoms or the effects of neuroleptic medications. Mueser et al. (1990) and Schneier & Siris (1987) concerning alcohol use appear in direct contrast to the epidemiological data of Regier et al. (1990), which indicate that schizophrenic individuals abuse alcohol more than the general population.

Several theories and studies have suggested that particular personality disorders or psychiatric symptoms should be associated with substance abuse (Ahmadi et al., 2003; Luthar & Rounsaville, 1993; Campbell et al., 1990). One such study (Yeager, DiGiuseppe, Resweber, & Leaf, 1992) was undertaken to clarify these relationships by comparing scale profiles on the Millon Clinical Multiaxial Inventory obtained by 144 inpatient residentially treated substance-abuse clients and 1000 general clinical outpatient clients in psychotherapy. A surprisingly large number of significant differences were noted. Substance-abuse clients displayed relative elevations on scales for Alcohol and Drug Abuse, Hypomania, Antisocialism, Narcissism, Schizoidism, Paranoia, Psychotic Thinking, and Psychotic Delusions. General clinical outpatients showed relative elevations on Anxiety, Somatoform, Dysthymia, Borderline, and Compulsive scales.

Marsh, Stile, Stoughton, & Trout-Landen (1988) reported that the MMPI and MCMI were administered to 163 former opiate addicts who
were being maintained in a methadone program affiliated with an urban hospital. Highest group mean MMPI scores were found for Psychopathic Deviate, Depression, Hypomania, and Hysteria. For the MCMI, highest group mean clinical syndrome scores were found for Drug Abuse, Alcohol Abuse, Anxiety, and Dysthymia; highest personality disorder scores were found for Antisocial, Narcissistic, Histrionic, and Paranoid. The MCMI Drug Abuse Scale identified only 49% of subjects as having a recurrent or recent history of drug abuse. Frequency and factor analyses documented the heterogeneity of the population with respect to clinical syndromes, as well as the prevalence of personality disorders (86% had elevations on MCMI Personality Scales).

Chaudhury, Das, & Ukil, (2006) found that on the MPQ, substance-dependent patients scored significantly higher on paranoia, mania, depression, schizophrenia, psychopathic deviance (Pd) and the anxiety scale. Compared to control subjects, substance-dependent patients had significantly higher scores on state and trait anxiety, depression and stressful life events. On the Self-Esteem Inventory, substance-dependent patients scored significantly higher, indicating markedly lower self-esteem among them compared with normal subjects. Substance-dependent subjects obtained significantly higher scores on the Pd scale of the MPQ, which is in agreement with the findings of Neeliyara et al. (1989). A longitudinal study of men older than 40 years also revealed that antisocial behaviour in adolescence is the sole individual predictor of substance dependence (Vaillant et al., 1985). However, it must be pointed out here that the high Pd scores in substance-dependent patients indicate a transitory state, which may be amenable to change with treatment. The finding that substance-dependent patients showed disturbances in the depression, mania, schizophrenia, psychopathic deviance and anxiety scales is consistent with previous research that the disturbance in the MPQ in people with substance abuse is broad-based, variable and non-specific (Mattoo et al., 2001). The finding of significantly higher depression scores in substance-dependent persons is in agreement with earlier work
(Cardoso et al., 2006 & King et al., 2003). While some patients may use the substance as 'selfmedication' for their depression, substance itself may produce clinically significant depression. Clinicians obviously need to carefully assess substance-dependent individuals for depression, which must also be treated.

Interrelationship of schizophrenia and substance use is complex and multifactorial. Substance abuse among the patients with schizophrenia is an increasingly recognized problem (Smith et al., 1994; Lieberman et al., 1990), with 15-65% of schizophrenics reported to be using various substances (Lehman et al., 1994; Mueser et al., 1992). These groups of patients are difficult to treat because of high relapse rates, poor drug compliance etc. (Kavanagh et al., 2002; Carey et al., 1991, & Lieberman et al., 1990). They are likely to pose a burden to their families as well as to the societies to a greater extent than either a patient of substance abuse or schizophrenia alone (Siris, 1990).

Psychoactive substances can also interact with the psychopharmacological agents used for the treatment of schizophrenia by directly counteracting their desired effects, by worsening their side effects profile or by altering their pharmacokinetic properties (Dixon et al., 1990). All these variables in combination can alter the course of illness in both acute and chronic frames (Siris, 1990).

The relations between drug abuse and schizophrenia can be of three types (Turner et al., 1990). The drug abuse antedates the onset of psychosis and is, therefore, either a cause or precipitant of psychosis; the drug abuse follows the onset of psychosis and may represent self-medication, or can cause relapse or exacerbation of psychosis; drug abuse and schizophrenia co-exist without influencing each other. Different researchers have tried testing these models in various studies. Negrete et al. (1986) found that schizophrenic patients who use marijuana reported an enhancement of psychotic symptoms. They suggested that the observed effects may be due to an exacerbation of psychotic symptoms or a secondary psychosis, superimposing on the schizophrenic state or, a diminution of the effectiveness of the antipsychotic medication. Zisook et al. (1992) evaluated...
effects of previous alcohol and drug use on the course and symptoms of schizophrenia by comparing 34 patients with schizophrenia who had histories of substance abuse with 17 patients with schizophrenia who had no such history. It was concluded that there was no difference between the two groups. From the existing literature, it is evident that equivocal evidence exists for all the three proposed relationships between schizophrenia and substance use. Literature is deficient on the account that no data is available on influence of various psychoactive substances on course of patients with pure dual-diagnosis schizophrenia. As the course of substance abuse is marked by remissions and relapses, no attempt exists to examine the relationship of this pattern of course with course of schizophrenia, which too is highly variable in same terms. There is limited data available regarding the influence of substances such as opioids, alcohol, and cannabis (commonly used in India) on course of schizophrenia. Most of the prospective studies have followed a cohort of patients and then stressed the increased vulnerability or substance abusers to psychotic episodes - an evidence for the vulnerability model (Andreasson et al., 1987; McLellan et al., 1979).

In a study Goswami, Singh, Mattoo, & Basu, (2003) the relationship between the course of substance use and schizophrenia in the dual-diagnosis patients was studied. 22 male outpatients with schizophrenia and psychoactive substance abuse/dependence for at least a month preceding intake were taken. 17 out of 22 patients developed substance use disorder prior to schizophrenia. This is in line with the vulnerability model. The case record studies along with semi structured interview of patients and relatives revealed that schizophrenic exacerbations were related to increase in substance abuse in seven out of 22 cases.

Turner & Tsuang (1990) and Drake et al. (1990) reported that substance abuse in schizophrenia is associated with earlier onset, exacerbation of symptoms, and poorer prognosis. Dixon, Haas, Weiden, Sweeney, & Francis (1991) suggested that schizophrenic patients who abuse drugs tend to have less severe symptoms and better prognosis than non-drug abusing schizophrenic patients. Shedler & Block (1990) investigated relation between psychological characteristics and drug use.
Adolescents used drugs showing a distinct personality syndrome marked by interpersonal alienation, poor impulse control, and manifest emotional distress.

Strain (1999) reports the results from a study testing the effectiveness of different forms of non pharmacologic treatments for substance dependence and concluded that psychotherapy in combination with counseling is better than counseling alone. Other studies showed that the benefits of psychotherapy do not extend to patients with antisocial personality disorder, except perhaps in cases where the patients have antisocial disorder and is also depressed (Turner et al., 1999).

Vazquez & Becona (1999) examined the effect of depressive symptoms on the results of a smoking cessation programme. 186 smokers received a multi-component behavioural program for smoking cessation. After treatment completing they found that depressive symptoms at 12 month follow-up were associated with smoking cessation. Results show that depressive symptoms have an influence on efficacy at the 12 month follow-up, but not at the end of treatment.

The International Consortium of Psychiatric Epidemiology has confirmed the high comorbidity in community-drawn samples between substance use disorders and anxiety or depression. In the same way, associations between substance use and specific personality traits (such as novelty seeking, harm avoidance or antisocial personality) have also been extensively documented. Self-medication and social deviance are among the most commonly evoked explanatory models for these forms of comorbidity, and are based on findings that affective disorders and specific personality traits often precede the onset of substance use disorders. The self-medication model postulates that an individual chooses a specific substance according to its psychopharmacologic action on the given psychological state of the person. By contrast, the social deviance model posits that this form of comorbidity is due to the fact that persons consuming certain substances may have affective or personality characteristics that are more severe or more deviant than
non-consumers (or than consumers of socially well-accepted substances). In this way, the individual does not use a particular substance to assuage pre-existing disorders but, due to a more deviant personality, is less influenced by social norms and may more easily turn to using illicit substances or to polyconsumption. In a study by Chakroun, Doron, & Swendsen, (2004) self-medication were tested by multiple logistic regression by comparing each group of substance consumption to the non-consumer group relative to levels of anxiety, depression and scores of novelty seeking and harm avoidance. The social deviance model was tested by ANOVAs using contrasts which allowed for a test of a linear tendency across the four groups of consumption relative to each of the personality traits (novelty seeking, harm avoidance and antisocial personality). The results obtained in this non-clinical sample are in favor of social deviance model which posits that the personality trait of novelty seeking is associated to the consumption of the most illicit and deviant substances (such as heroin or cocaine). On the other hand, no support was found for the hypothesis of self-medication which assumes that specific substances should be particularly associated with specific psychological characteristics or vulnerabilities.

In a study (Rokhlina, Kitkina, & Blagov, 1996) 194 male patients were observed for prevalence of mental disorders among patients who abuse homemade opiates. The age of patients was 18-45 years, narcotization period lasted 3-22 years. In all the patients psychopathological symptoms were observed during all stages of disease. There were both affective and psychopathic-like disorders as well as the changes of personality. The psychic disorders were especially pronounced in the acute period of abstinence syndrome but were also observed during the remote stages of disease as well as during remission. There were different variations and types of affective disorders in different stages of disease. The two types of remissions were recognized with prevalence of depression at the first type and emotional lability and psychopathy at the second. The formation of
psychopathic-like defect was quite typical for this type of opiate narcomania.

Prescription opioids are an important therapeutic option in clinical practice and bring important improvements to quality of life in the treatment of pain. Most opioids, however, are potentially addictive. In fact, it appears that the abuse of prescription opioids might have become the predominant form of illicit opioid use in Canada. Very little is known about prescription opioid abuse, particularly the characteristics of this use and of the individual users. The Centre for Addiction and Mental Health (CAMH) in Toronto, Ontario, has been treating a large number of prescription opioid–addicted individuals, providing an opportunity to investigate this population. An increase in prescription opioid–addicted treatment seekers was first noticed in the 1990s, with the expansion of the methadone maintenance treatment program. In a review of the 178 patients who were admitted to the program between 1997 and 1999, it was found that 24% had used prescription opioids only, 24% had used prescription opioids initially then heroin, 35% had used heroin first and prescription opioids later, and only 17% had used heroin only. Codeine and oxycodone were the primary prescription opioids used by these individuals. Since a controlled-release oxycodone product became available in 1995, the numbers of individuals seeking treatment for oxycodone addiction in particular appeared to be increasing at CAMH. Physician prescriptions were the source of prescription opioids for a large percentage of the patients in this study, with the percentage increasing in older age groups. These prescription opioid users reported considerable comorbidity, including other substance use problems, pain, and psychiatric symptoms. With the rise in abuse of controlled-release oxycodone, there have been a few studies specifically aimed at identifying the characteristics of this population. These studies have also demonstrated a pattern of problems with multiple opioids and other substances, substantial pain, and psychiatric co-morbidities. The primary source of prescription opioids varies in these reports. For example, the source of controlled-release oxycodone was primarily from the street in a
study conducted in Kentucky; yet in a report from the Researched Abuse, Diversion and Addiction-Related Surveillance System, which used a key informant network across the United States, 70% of the controlled-release oxycodone abusers listed prescriptions as their main source. Very few studies have characterized abusers of other prescription opioids; however, the presence of polysubstance abuse, pain, and psychiatric comorbidities are consistent findings, even in studies conducted before the advent of controlled-release oxycodone.

The numerous clinical and research reports on the personality dynamics in opiate addiction present a number of differing and at times contradictory viewpoints. Predominant are formulations that consider opiate addiction as an attempt to deal with intense depression related to feelings of deprivation by seeking a soothing, infantile, symbiotic experience, or as an attempt to seek relief from cruel, harsh, excessively punitive parental standards that create feelings of being unacceptable and worthless, or as a defense against the emergence of profound and overwhelming aggressive impulses that could precipitate an underlying psychotic potential. Clinical and empirical investigations indicate that while there may be a small group of addicts who function at a psychotic or borderline level, most opiate addicts are severely neurotic or character disordered, dealing with intense depression. Clinical experience and research findings indicate that opiate addicts have serious difficulty managing painful, dysphoric affects, especially depression, anxiety and anger. Depression is often considered a central issue for many heroin addicts. Depression in opiate addiction is often discussed as focused around feelings of deprivation, neglect, and a lack of affection and love. But recent evidence suggests that issues of guilt, shame, and profound feelings of self-criticism and worthlessness are paramount. Rather than being able to contain depression and/or anxiety, or finding appropriate ways for expressing their anger, opiate addicts prefer to withdraw from the pain and stress of interpersonal relationships into self-induced grandiose, omnipotent experiences of bliss. Subsequent research is needed to confirm and elaborate these...
formulations and in particular longitudinal research is needed which will permit the differentiation of whether these personality factors are the cause or the consequence of opiate addiction. Also, while these formulations seem appropriate for opiate addicts as an overall group, evidence suggests that there may be several different subtypes of individuals who are vulnerable to intense involvement with opiate and subsequent research should be directed toward attempting to identify meaningful subtypes among individuals with opiate addiction (Manchikanti et al., 2007; Chakroun et al., 2004; Ahmadi et al., 2004, 2003; Blatt, 2002; Rokhlina et al., 1996; Carey et al., 1991; Rounsaville et al., 1982).

Many people treated for opiate addiction continue to use drugs during and after treatment. It may be possible to improve outcomes by addressing patient characteristics that predict continued drug use. Brewer, Catalano, Haggerty, Gainey, & Fleming (1998) in a review used meta-analytic techniques to identify risk factors for continued drug use in patients treated for opiate abuse. A thorough search of the published literature yielded 69 studies that reported information on the bivariate association between one or more independent variables and continued use of illicit drugs during and after treatment for opiate addiction. Most of the patient variables summarized had weak longitudinal relationships with continued drug use, although several variables displayed moderate longitudinal associations. Ten variables showed statistically significant and longitudinally predictive relationships (average r>0.1) with continued use, including: high level of pretreatment opiate/drug use, prior treatment for opiate addiction, no prior abstinence from opiates, abstinence from/light use of alcohol, depression, high stress, unemployment/employment problems, association with substance abusing peers, short length of treatment, and leaving treatment prior to completion.

Baron (1999) examined 200 homeless male street youths and found that job histories and depression were linked to alcohol and hard
drug abuse, whereas self-blame for unemployment increases alcohol abuse. Rende & Weissman (1999) used analysis of sibling aggregation to identify homogeneous subtype of familial risk for psychopathology and addiction. Sibling aggregation was most notable for depressive and anxiety disorders but only in the presence of co-morbid depressive disorders in the parents.

Slaght (1999) interviewed 150 male inmates after three months of treatment in the community to determine what environmental influences were having the greatest impact on drug re-use. Findings suggest that more emphasis is needed on family relationships before and after release since satisfaction with family life was strongly correlated with drug abuse.

Spangenberg & Campbell (1999) investigated the relationship between the coping strategies used by recently detoxified alcoholics and anxiety as well as depression. Out of 53 subjects, 72% experienced above average anxiety and depression was present in 77%. A problem solving coping strategy emerged as a significant negative predictor of both anxiety and depression, which indicates the adaptive value of a problem solving coping strategies, as opposed to avoidance, may improve the success rate of alcohol rehabilitation programs.

Marchiori et al. (1999) reported that the substance abusers scored higher on the dependence self rating scale than the controls. Self rating scale assessed dependence, locus of control, orientation, parental bounding perceptions and personality disorders in substance abusers and non-abusers. The substance abusers showed a much longer prevalence of personality disorders than normals.

Dodge & Potocky (2000) studied 64 female substance abusers in residential treatment for chemical dependence. Multivariate analyses revealed that levels of self esteem were related to detoxification status and social support. Depression levels were found to be associated with social support.
Lewis (2000) examined psychosocial adjustment of adult children of alcoholics. Adult children of alcoholics appear at increased risk for a variety of negative outcomes, including substance abuse, depressive symptoms and *antisocial behaviour*.

*Peirce et al.* (2000) examined perceived social support, depression and substance abuse. An integrative model was developed from affect regulation theory and theories of social support and dysfunctional drinking results revealed that perceived social support was in turn, negatively related to depression and depression was in turn positively related to alcohol use.

Mitra & Mukhopadhyay (2000) compared 3 drug abuser groups. The levels of depression and social anxiety were significantly higher among drug addicts and the follow-up relapsed group with low social approval motive when compared with the normals and follow-up rehabilitation groups.

O'Leary, Rohsenow, Martin, Colby *et al.* (2000) found that state and trait anxiety both were correlated positively with the alcohol composite index of the addiction severity index. State anxiety scores significantly declined from pre to post-treatment and remained stable into the three month follow-up period regardless of relapse status. Trait anxiety was correlated positively with negative consequences due to cocaine use and negatively correlated with days in treatment.

A correlation can be established between mental disorders/symptoms and drug addiction or drug-related problems. The more unfavorable the course of the mental symptoms, the greater the problems of the client's current life situation. There is also an overall relationship between increased drug consumption and mental symptoms like depressivity and anxiety, and the psychosocial functioning level. However, the expected correlations between mental disorders and the extent of drug consumption are not very marked. This indicates that specific constellations of drug consumption and mental disorders are not
isolated but are related, as elements of a complex behavioral pattern, to the development of other life areas of the client. During a 5-year follow-up study in Hamburg, of 350 opiate addicts who were in contact with the help system at the time of the initial investigation, 219 (63%) could be interviewed three times at 1-year intervals. The general life situation of the investigated persons had, on the whole, improved in the course of the last 2-3 years. Drug consumption had markedly decreased. One third of the opiate addicts were in a comparatively good mental condition on all three survey interviews, for 17% there was a worsening of the condition, and for another 17% the negative mental condition was reinforced (Michael, Uwe, & Peter, 1999).

Substance abuse is a known risk factor for suicidal behavior (Kosky et al., 1990; Pfeffer et al., 1989). Substance abuse (both alcohol and drug abuse) is associated with a higher frequency of suicidal ideation, suicide attempts, and suicide completion (Levy et al., 1988; Maris, 1981). Suicide ideation is an important determinant of suicide risk because it precedes suicide. Moreover suicide ideation is common, with an estimated annual incidence of 5.6% (Crosby et al., 1999) and estimated lifetime prevalence of 13.5% (Kessler et al., 1999). The rate of suicide attempts among opiate addicts is equivalent to that found in alcoholics, with the rate of suicide attempts in both groups substantially higher than in the general population (Murphy, Rounsaville, & Klebber, 1983). Among persons seeking drug treatment, the suicide attempt rate is as much as 12 times greater than in the general population (Saxon, Kuncel, & Aldrich, 1978). Substance abusing patients who avoid professional treatment may be at even higher risk for suicidal behavior (Harris & Barraclough, 1997; Hasin, Grant, & Endicott, 1988).

Trémeau, Darreye, Staner, Correa, Weibel, Khidichian, & Macher, (2008) determined suicide attempt characteristics in 160 opioid-dependent subjects. Three aspects of suicide vulnerability were examined i.e. familial aggregation of suicidal behaviors, degree of aggression/impulsivity, and smoking. Forty-eight percent of subjects had
a personal history of suicide attempt. A personal history of suicide attempt was associated with an early onset of heroin use, but not with gender differences. A family history of suicide was a progressive risk factor for suicide attempt. Subjects with a personal history of suicide attempt had a higher degree of aggression/impulsivity and smoked more cigarettes. In conclusion, opioid-dependent subjects who attempt suicide show familial aggregation and clinical expressions of suicidal liability similar to those described in other psychiatric groups.

The frequency of accidental or deliberate overdose was investigated among 200 opiate addicts in methadone substitution treatment in clinics in Edinburgh and South London. One hundred and three of the participants reported a mean of 3.4 overdoses, with 71 (69%) reporting that their most recent overdose was accidental, 27 (26%) deliberate-the remainder was uncertain. Those whose last overdose was deliberate were more likely to have been prescribed diazepam at that time and were more depressed at the time of interview (Marsden, Gossop, Stewart, Rolphe, & Farrell, 2000).

Recognition of the importance of understanding the links between substance use behaviour and psychiatric disorders and their implications for treatment services is now gaining momentum (Hall & Farrell, 1997; Johnson, 1997). Opiate users with concurrent polydrug use may need special consideration and treatment planning (Strain et al., 1991).

The above findings show that the relationship between psychopathology and drug addiction is a robust one. In this respect these studies seemed important pointers in devising the hypotheses for our study.

**Stress and Drug Addiction**

Throughout history, alcohol and other drugs have been used to provide relief in times of stress and frustration. Research has confirmed this association between disruptive life change events and substance abuse. It was hypothesized that two psychological constructs facilitate
and mediate this relationship between stress and substance abuse. Uncontrollable stress (negative life change events) was assumed to create a sense of loss of control, which in turn engendered a decreased level of meaning in life. This meaninglessness in life, experienced as stressful and uncomfortable, is then treated or mediated with various drug substances. Researchers have long been interested in how individuals and environments affect each other, primarily to be able to explain age-related behaviour and individual differences. One focus has been to study life events. Through the life events scale one can get a simple index of life stress.

Research has confirmed these anecdotal observations that stressful life events frequently result in increased substance use (Penk et al., 1981; Headlam, Goldsmith, Hanenson, & Rauh, 1979; Morrissey & Schuckit, 1978). The nature of the stressor can be as catastrophic as the major war (Foy, Sipprelle, Rueger, & Carroll, 1984; Roberts et al., 1982; Penk et al., 1981), can lead to alcohol, cannabis and opiate abuse (Bruns & Geist, 1984; Headlam et al., 1979; Morrissey & Schuckit 1978). Stressful experience with its discomfort and disequilibrium and the resultant use of alcohol and other substances may also arise from economic hardships (Pearlin & Radabaugh, 1976), or in members of racially repressive society (Kleinman & Lukoff, 1978). This relationship between stressful life events and the use of drugs is also evident among adolescents (Bruns & Geist, 1984; Carman, 1979; Headlam et al., 1979). For example, Headlam et al. (1979) examined the medical records of 235 adolescents who were seen in an emergency room for voluntary chemical intoxication. Results indicated that many of these adolescents had recently experienced a traumatic life event or lived in a life context characterized by fairly constant stress. Sixty-three percent of these reported major family problems, thirty three percent had experienced a recent abused alcohol. In a study of high school students, Carman (1979) found that frequent intoxication (from marijuana, amphetamines, hallucinogen, or barbiturates) was significantly associated with motivation to enhance personal effects and reduce distress. In other words the use of drugs was firmly linked to an attempt to cope with stress. Bruns and Geist
(1984) found that increased drug involvement was associated with exposure to
greater number of life change events.

Various mechanisms and processes have been suggested to explain this
association between stress and drug abuse. Loss of personal control and
meaninglessness in life were considered as major factors in this regards. Many
distressful events can occur environmentally, interpersonally that are beyond
personal control. These uncontrollable negative events or inescapable stressors
often lead to a perceived loss of control, perhaps even to a sense of
powerlessness, inefficacy, or helplessness (Rosenbaum & Hadari, 1985; Fleming,
Baum, & Singer, 1984; Folkman, 1984; Mark, 1983; Murphy, 1982; Peterson,
1982; Bandura, 1982; Seligman, 1975). A person will not feel as helpless, out of
control, or that external influences are in control if he or she can influence whether
or not the event takes place (Folkman, 1984).

A perceived lack of personal control over ones situation may result from
experiencing various life change events that are beyond the personal control of
the individual and, in fact may lead to helplessness and then lead to the use of
drugs (Bandura, 1982). For example, it has been found that lack of mastery (low
personal control) with regard to various life tasks (Pearlin & Radabough, 1976),
low personal competence (Smith & Fogg, 1978) and feelings of powerlessness or
inadequacy ( Bookman, 1980) were associated with increased alcohol and drug
use.

A second crucial component of life change events is the perceived
desirability of the occurrence. For instance, negative life events have been found
to be associated with symptoms of psychological distress and then drug abuse
(Sarason, Johnson, & Siegel, 1978).

**Stress, Loss of Control, Meaninglessness and Drug Abuse**

Loss of control has been found to lead to various forms of psychological
distress and psychiatric symptomatology (Rosenbaum & Hadari, 1985) inefficacy,
fear arousal (Bandura, Reese, & Adams, 1982) and a variety of other
disequilibrating emotional conditions (Lefcourt, 1976). Numerous forms of
emotional disequilibrium or distress were also associated with the use of alcohol and other substances. Alcohol and drug abuse have been found to be the result of lack of well-being and psychological distress (Aneshensel & Huba, 1983), alienation (Pandina & Schuele, 1983; Steffenhagen, Polich & Lash, 1978), lack of religious belief system (Christiansen & Goldman, 1983; Bry, McKeon, & Pandina, 1982), lack of purpose in life (Crumbaugh, 1977; Jacobson, Rutter, & Mueller, 1977; Padelford, 1974), and lack of future plans (Mills and Noyes, 1984). All of these specific factors may reflect a general lack of direction as meaning in life or general psychological distress as noted in higher order confirmatory factor analyses of standard distress measures (Tanaka & Huba, 1984). Michael, Newcomb, & Harlow (1986) tested a theoretical sequential model in two separate studies with independent samples of adolescents using latent variable structural models. One study was cross sectional, whereas the other provided longitudinal data. Results supported the theoretical hypothesis that perceived loss of control and meaninglessness mediate the relation between uncontrollable stress and substance abuse. Researchers (Newcomb, Maddahian, & Bentler, 1986; Huba & Bentler, 1982) have found that teenagers seek solace from alcohol, marijuana and other drugs in order to relieve a sense of meaninglessness and lack of direction in life. Use of drugs to cope with psychological distress has been noted by other researchers working with adult samples (Newcomb & Harlow, 1986; Bruns & Geist, 1984; Aneshensel & Huba, 1983; Crumbaugh, 1977). Some showed the important role of perceived loss of control in creating a sense of meaninglessness (alienation or lack of direction) which leads to the problem of alcoholism and drug abuse (Bandura, 1982; Seligman, 1975, 1981). Recent research has indicated that only those events that are beyond individual control have an impact on poor health; controllable events are not related to health status. This feeling of low control or inefficacy can lead to a dystonic experience, which tend to be lessened temporarily by the use of mood-altering drugs.

In the context of stressful life experience, expectancies play an important role in alcohol and drug abuse. The expectancy that substance use decreases aversive psychological states (e.g., tension, the self-monitoring of failure) or enhances positive states (sexuality, creativity) serve as re-inforcer for drug addiction. Tension reduction expectancies were important predictors of alcohol
abuse (McKiman & Johnson, 1984; Brown, Goldman Inn, & Anderson, 1980). David, McKirnan, & Peterson (1988) hypothesized that specific attitudes or expectancies make people vulnerable to responding to stress via alcohol or drugs. This “stress- vulnerability” model was tested among homosexual men who show elevated rates of substance abuse and have culturally specific stressors and vulnerability results support a stress- vulnerability approach to alcohol abuse and, to a lesser extent, marijuana/ drug abuse. Tension reduction expectancies of alcohol effects represented a general vulnerability factor, whereas an orientation towards bars as a social resource was more specific to homosexual men. Both variables had substantial main effects on alcohol and marijuana drug abuse. The hypothesis that the interactions of personal or social stress with these vulnerability measures would significantly predict alcohol abuse was supported. The stressors of discrimination attributable to sexual orientation and negative affectivity were directly related to alcohol abuse, and had significantly greater effects among those who were more “vulnerable” in terms of expectancies or a bar orientation. Results of this study showed that vulnerability to substance abuse was learned, but that such learning was strongly activated by stress. They found that people were disposed toward learning tension reduction expectancies by individual differences in the stress dampening effects of substance or, more specifically, tolerance to the behaviorally disruptive effects of substance use.

The role of stressful life events in the aetiology and course of various drug related problems were studied (Bhatia et al., 1990; Mahatme et al., 1989; Radhakrishnan et al., 1984; Venkoba Rao, 1976; Brown et al., 1973; Uhlenhuth & Paykel, 1972; Paykel et al., 1969). Strong evidence emerged supporting the contribution of stressful life events in initial onset or recurrence of psychiatric/ medical problems and drug addiction simultaneously.

Patients with substance dependence experience significantly more stressful life events over their lifetime (Taylor, 2005; King et al., 2003; Mathew et al., 1998). Men who are lifelong abstainers experience fewer life events than substance abusers (King et al., 2003). Substance abusers may offset stress-induced emotional distress by resorting to substance intake which, in turn, might lead to a further increase in negative life events.
Although various social situations and stressful circumstances have been implicated in relapse of treated alcoholics, the relationship between life events and relapse following treatment of alcohol dependence has not been studied adequately. One study has examined the life events in three treatment outcome categories viz. abstainers, moderate drinkers and relapsers (Canton et al., 1988). Desai, Channabasavanna, & Sinha (1992) examined the relationship between stressful life events and alcoholic relapse in a group of patients who received a single treatment package. The relationship between the independent variable i.e. stressful life events and the dependent variable i.e. relapse can be inferred with confidence. During follow up relapsed group had more life events than the non relapsed group. Significant results for the frequency and stress score of life events indicate a strong positive relationship between stressful life events and relapse. Undesirable life events were also found to have an equally strong relationship with relapses. These results were in agreement with findings of Moors et al. (1979), Canton et al. (1988). Significant results also emerged for “ambiguous” life events on Presumptive Stressful Life Events Scale. An important finding in this regard was that relapse was strongly associated with personal life events but not with impersonal life events.

However, a critical review of the existing literature on life events and addiction identified retrospective design, absence of control group and absence of a theoretical framework as important methodological problems in studies on stressful life events and drug abuse (O’Doherty & Davies, 1987). Some researchers postulated that the potential influence of life events in outcome of treatment derives from the stress buffering effect of alcohol in the mediation of disturbing emotional states. The life events exert a dis-inhibiting effect on control of drinking behaviour and patients may use stress buffering properties of alcohol to mitigate symptoms of psychobiological disturbance that life events cause (Neff, 1985). Perhaps such an influence in relapse of treated alcoholics can be said to have only a triggering influence and not a formative influence.
In spite of the common assumptions that alcohol can reduce tension (or stress) and that alcohol is often consumed for this desired effect research seeking to determine the exact relationship between alcohol and tension reduction has produced equivocal and contradictory findings (Cappell, 1975; Cappell & Herman, 1972). There appears to be both methodological and theoretical reasons for this apparent lack of harmony in the data. Tension or stress has been equated with a wide range of experimental manipulations and dependent variables, including behavioural and self-report measures of anxiety and other affective states. Additional complexity derives from the dose dependency of the tension-reducing properties of alcohol, with considerable stress response dampening reported at higher doses (Levenson, Sher, Grossman, Newman, & Newlin, 1980; Wilson, Abrams, & Lipscomb, 1980), but more equivocal findings at lower doses (Wilson et al., 1980). To this must be added, further complications associated with subjects' expectancies (Rohsenow & Marlatt, 1981), the nature of the stressor (Higgins & Marlatt, 1973, 1975), and individual differences factors, all of which may influence the tension-reducing effects of alcohol.

In two experiments conducted by Sher & Levenson (1982) individual differences in the effects of a 1gm/kg dose of alcohol on physiological and affective responses to stress were found to be related to characteristics thought to relate to risk for alcoholism. In the first study of ninety five male non-alcoholics, subjects considered to be at heightened risk for alcoholism on the basis of high scores on the MacAndrew Alcoholism Scale of the Minnesota Multiphasic Personality Inventory were found to show much more pronounced reduction of their cardiovascular and affective responses to stress when they consumed alcohol than did their low risk controls. In the second study of eighty two male non-alcoholics, a similar finding for cardiovascular responses to stress was observed when risk was predicted on the basis of low scores on the socialization scale of the California Psychological Inventory. These results were interpreted as indicating that the outgoing, aggressive, impulsive, and antisocial individuals who were identified by...
these measures (and who have been shown to have a high incidence of alcoholism in prospective studies) may find alcohol consumption particularly reinforcing by virtue of their obtaining a greater amount of alcohol's stress-response dampening effect when they drink. These studies indicates that alcohol increases pre-stressor arousal in some physiological functions and decreases pre-stressor arousal in others, and that further cardiovascular and electrodermal responses to stress are differentially affected by alcohol.

The theory that alcohol reduces stress or tension and that people drink to achieve this effect has long been invoked to explain alcohol use and abuse. The twin assumptions of the tension reduction theory were widely shared by alcoholics themselves (Edwards, 1972) and by the therapists who treat them (Cappell, 1975). However, a variety of studies have shown that alcohol may variably increase, decrease, or not affect tension in social drinkers and alcoholics (Sher & Levenson, 1982; Wilson, 1982).

A sizable literature links relapse to stressful situations. Most evidence supporting the role of stress is retrospective, however, and therefore subject to the problems of recall (O'Doherty & Davies, 1987). Current research on treatment outcomes in the addictions assumes that adequate coping skills prevent relapse. Coping skills and training has shown promise with drug-dependent persons (Chaney, O'Leary & Marlatt, 1978), although contrary findings do exist (Hawkins, Catalano, Gillmore, & Wells, 1989).

Positive mood which is one aspect of subjective wellbeing (Diener, 1984) may also be crucial in maintaining cocaine abstinence. Longabaugh and Lewis (1988) argued that alcohol treatment patients expect to have increased feelings of well-being when they quit drinking. If they do not, they may relapse. Strack, Carver, & Blaney (1987) found that greater optimism, a variable related to well-being, predicted completion of an alcohol aftercare program. The anhedonia prominent in
early cocaine abstinence may make cocaine users especially prone to relapse (Gawin & Ellinwood, 1988).

Hall et al. (1990) measured mood states, stress, and drug use at study intake and weekly thereafter. These frequent measurements ensured a short time (7 days or less) between measurement of predictors and a lapse. Mood and stress scores obtained concurrent with the subject’s report of drug-use status were correlated with drug use. When lagged scores (obtained the week before the slip) were analyzed, however, the effects were lost.

This analytic strategy was replicated by (Hall & Havassy, 1991). Results suggested that solidifying abstinence goals and enhancing positive moods may facilitate early abstinence. During the first 12 weeks after treatment, cocaine users who endorsed a goal of absolute abstinence at study intake and follow up were at lower risk for a first slip than were those who chose a less restrictive goal. There were now data from cocaine users, alcoholics, cigarette smokers, and opiate users suggesting that choice of goal was a robust predictor of abstinence across treatment populations. The prospective finding for positive moods was more reliable than the earlier findings for alcoholics, opiate users, and cigarette smokers (Hall et al., 1990). Alcohol can modify the negative affective reactions embraced by the tension reduction theory in different ways. Self efficacy is likely to be affected by the initial phase of the biphasic physiological reaction to alcohol. The arousal of this phase tends to boost perceived efficacy directly in the form of increased energy and power and heightened personal well-being according to Marlatt (1984). The overall impact of intoxication was a dampening of stress arousal (Yankofsky, Wilson, Adler, Hay, & Vrana, 1986; Sher & Levenson, 1982).

Hull (1981) in a series of studies has successfully shown that alcohol reduces tension by its primary effect on cognitive processes and by its subsequent, secondary influence on affective reactions. He found that treated alcoholics who were high in dispositional self-consciousness
and alcoholics who encountered negative life events during follow-up were more likely to return to drinking than their counterparts with low self-consciousness.

Steele, Southwick, & Pagano (1986) like Hull, (1981) proposed a model in which alcohol's effect on psychological stress was indirect, mediated through its known impairment of the information processing capacity. Alcohol's narrowing of perception to immediate cues and its reduction of the cognitive abstracting capacity restricts attention to the most immediate, salient aspects of stressful experience. Experimental studies, with social drinkers as subjects, have confirmed the predictions of this model (Steel & Josephs, 1986). Langenbucher (1985) found that in a small group of alcoholics who were drinking in a conventional bar setting, alcohol consumption reduced tension or anxiety. However, when the group process was disrupted and social stress was induced, alcohol consumption was associated with increased tension. This pattern matched precisely what Steele et al. (1986) model would predict.

Brennan, Schutte, & Moos (1999) found the reciprocal relation between stressors and addictive behaviour in late middle aged and older women and men. Findings suggest that among older adults there may be harmful feedback cycle whereby problematic addiction and life stressors exacerbate each other. Storr, Trinkoff, and Anthony (1999) in their study found that subjects with high strain jobs were 1.5 times more likely to be recent non medical drug users than in low strain jobs. Droomers et al. (1999) examined the role of psychosocial and material stressors. Psychosocial stressors such as financial problems, deprivation and income were related to excessive alcohol and drug consumption.

Relations between life events, neighbourhood stress and drug abuse have found that life event and neighbourhood stress uniquely predicted alcohol and drug abuse among adolescents (Scheier, Protvin, & Miller, 1999). Tinako et al. (1999) found that individuals with stress and
depression who enter formal treatment or alcohol anonymous experienced low outcome as compared to others.

Studying the craving phenomenon, Anton (1999) suggested that the prolonged presence of substance abuse induces changes in brain cell function. In the absence of substance, those changes cause an imbalance in brain activity that result in craving. Furthermore, the adaptive changes generate memories of alcohol's/drug's pleasant effects that can be activated when substance related environmental stimuli were encountered, even after prolonged abstinence, thereby leading to relapse. Similarly, stressful situations may trigger memories of the relief afforded by substance, which could also lead to relapse.

Perceived stress and depressive symptoms were examined by Ludman, McBride, Neson, Curry et al. (2000) as correlates and predictors of smoking cessation and concluded lower levels of stress and depressive symptoms were not predictive of cessation. Kilpatrick, Acierno, Saunders, Resnick et al. (2002) found the positive correlation between posttraumatic stress disorder and marijuana and hard drug abuse behaviour. Lopez, Garcia, Izquierdo et al. (2000) found that drug abusers show significantly lower scores in self control than non consumers.

Whether current age and age of onset of substance dependence were related to the type of stress experienced preceding treatment were examined by McQuaid, Brown, Aarsons, Smith et al. (2000) and they concluded that nature of some stress experienced prior to treatment for substance dependence may be related to current age and the course of substance dependence.

Most of the studies discussed above make it amply clear that stressful life events tend to destabilize an individual emotionally and indirectly act as facilitator in drug abuse behavior.
Findings of above discussed studies tend to highlight various personality aspects, factors and processes as predisposing factors in drug addiction. However emphasis on constellation of various factors in addictive person as well as influence and contribution of each factor in addictive behavior has been different by different researchers. Some of the investigators have tried to account for the treatment related aspects and issues. But again equivocal findings have been reported by all. However these studies seemed important pointers in devising the following hypotheses:

1. Ego strength would be relatively high in cases who maintain abstinence after treatment as compared to relapsed cases.

2. Emotional stability would be higher in cases who recover successfully after treatment as compared to those who relapse afterwards.

3. The level of paranoid tendencies would be higher in drug addicts who relapse and resort to drugs again than those who successfully respond to detoxification treatment and maintain abstinence.

4. Relapse prone drug addicts would be high on guilt as compared to those who recover successfully and remain abstinent.

5. The level of frustrative tension would be relatively high in drug addicts who relapse and resort to drugs again than those who remain drug free after treatment.

6. Relapse prone cases would be higher on anxiety as compared to those who successfully respond by remaining abstinent.

7. Relapse prone cases would be higher on depressive tendencies as compared to their counterparts.

8. Relapse prone addicts would be relatively high on hopelessness as compared to those who remain abstinent.
9. Relapse prone cases would be high on negative automatic thoughts as compared to their counterparts.

10. Suicide ideation would be higher in relapse prone cases than those who maintain abstinence after treatment.

11. Relapse prone cases would be high on psychopathic deviation as compared to their counterparts.

12. Schizophrenic tendencies would be greater in relapsed cases as compared to those who respond successfully to treatment and remain drug free.

13. Drug abusers who relapse after detoxification would be having higher hypomanic tendencies than those who recover after treatment.

14. The level of hysterical tendencies would be higher in drug addicts who relapse after detoxification treatment as compared to those who continue to remain abstinent.

15. Repression-Sensitization would be higher in drug addicts who relapse than those who remain abstinent after treatment.