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Psychosocial Correlates of Drug Use in Adolescents

A Thesis Presented to the

Department of Psychology

and the

Faculty of the Graduate College

University of Nebraska

In Partial Fulfillment

of the Requirements of the Degree

Master of Arts

University of Nebraska at Omaha

by

Earl H. Faulkner

August 1989

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THESIS ACCEPTANCE

Accepted for the faculty of the Graduate College, University of Nebraska, in partial fulfillment of the requirements for the degree Master of Arts, University of Nebraska at Omaha.

Thesis Committee _____

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ABSTRACT

The purpose of this study was to examine adolescent drug involvement in relation to a variety of psychological and social constructs. One hundred ninety-nine adolescent high school students and 67 adolescents receiving drug treatment served as subjects. A battery of questionnaires was administered to assess a participant's: involvement with drugs (i.e., reported drug use index, intent to use drugs in the future, exposure to drugs, and level of drug use prior to abstinence); self-concept/self-esteem; social skills; and anxiety and depression levels. Degree of drug involvement, both within the student sample and between student and treatment samples, was related differentially to perceived psychological distress and perceived social competence. The measure most predictive of drug involvement in the student sample was the Social Avoidance and Distress Scale--suggesting that greater drug involvement is associated with greater levels of social anxiety. Additional analyses indicated that subjects less involved with drugs (i.e., abstinent and low-user student groups) tended to report less depression and anxiety and reported greater levels of self-concept/esteem and social competence (i.e., less social anxiety and less loneliness). The

predictability of drug involvement by respondents was most accurate when all psychosocial measures, combined with selected sociodemographic variables were used.

CHAPTER I

INTRODUCTION

Statement of the Problem

During the past 20 years in the United States, alcohol and drug use among adolescents has become a serious problem. The environment that youth live in today is drug saturated. For example, Morrison (1986) states that our children are being raised in a "chemical culture" of the 1980s. A re-occurring message is that one can obtain instant relief from problems through the use of drugs. It has been suggested that becoming a drunk is closely associated with growing up in Western society (Jessor & Jessor, 1975), and that adolescent alcohol use is now considered to be a statistically normative occurrence, with nine out of ten high school seniors reporting that they have tried alcohol (Jessor, 1984). In addition, 20-30% of those adolescents who drink have been classified as problem drinkers (Barnes, 1984). Teenage drinking and other drug use are modeled by peers, family members, and music "heroes," and this behavior is reinforced by both the drug effect and peer approval and/or attention.

The prevalence of adolescent chemical use has prompted interest in identifying those factors associated with their use (Johnston, O'Malley, & Bachman, 1984). Parents, teachers, and counselors are working with

young people who live in environments that are permeated with drugs, and there is a need to generate answers that will lead to effective interventions. Successful prevention and treatment efforts require an identification of drug related factors that can be used to guide these interventions.

Purpose of the Study

The purpose of the present study was to investigate the relationship between adolescent drug use and psychosocial development. Youth drug involvement is examined with reference to several psychological and social domains, including: self-concept/self-esteem, social skills, anxiety, and depression. The basic premise underlying this study is that varying degrees of adolescent drug use/involvement covary with varying levels of inter- and intra-personal well-being.

CHAPTER II

REVIEW OF THE LITERATURE

The concern about substance use, abuse, and dependency is founded in the absolute numbers of adolescents who are using drugs today, as cited previously. Svobodny (1982) states that chemical abuse, as reported by parents and teenagers, is the leading problem of growing up today. Drug use and abuse has been documented in the literature as a serious problem for the adolescent population. However, little conclusive evidence exists as to why some adolescents abuse drugs and others do not. The widespread concern over the apparent epidemic proportion of adolescents using, abusing, and becoming dependent upon drugs has led to efforts to identify physiological, psychological, and sociological factors, which may be related to patterns of alcohol and other drug use (Beschner & Friedman, 1979).

Drug Use Theories

Oetting and Beauvais (1986a, 1987) have identified two general types of theories from which researchers have sought to explain why some people abuse substances while others do not. These theories include: 1) Drug effect theories, which place emphasis on the characteristics and/or physiological effects drugs have on an individual;

and 2) psychological and social theories, which focus on both psychological and social causes of drug use.

Drug Effect Theories

Included in this theoretical orientation are disease/addiction and "gateway" theories.

Disease/addiction model: Inherent in the disease addiction model is the notion that chemically dependent persons are physiologically addicted to drugs and that this addiction is clearly marked by: 1) an increased tolerance for the drug(s), 2) withdrawal symptoms in the absence of the drug(s), and 3) compulsive use of the drug(s). It is often assumed that the addicted person was destined from birth to be unable to control, for example, his/her drinking. Indeed, there is considerable evidence which points to a possible genetic predisposition to alcoholism and other addictions (U.S. Department of Health and Human Services, 1984).

Data from studies of familial alcoholism, twin studies, adoption studies (Bohman, 1978; Bohman, Cloninger, von Knorring, & Sigvardsson, 1984; Cloninger, 1983; Gabrielli & Plomen, 1985) and animal-breeding (Crabbe, Young, & Kosobud, 1983) have found evidence for possible genetic transmission of alcoholism. Cloninger (1983) and Cloninger, Bohman, and Sigvardsson (1981) have identified two types of

genetic predisposition to alcoholism in their Swedish adoption studies--a Type I (milieu-limited) alcoholism and a Type II (male-limited) alcoholism. The milieu-limited (Type I) alcoholism accounts for most cases of alcoholism, and occurs in both men and women.

Type I alcoholism is said to be not as severe as Type II alcoholism and is associated with mild and adult-onset alcohol abuse in either biological parent. The occurrence and severity of milieu-limited alcoholism in an adoptee is influenced by the postnatal environment. Thus, it is hypothesized that the manifestation of this type of addiction requires both a genetic predisposition and environmental provocation. If only one of these factors is present in an adoptee (i.e., alcoholic biological parent or being raised in an environment conducive to substance use/abuse), the risk of alcohol abuse will be about the same as in a person from the general population. If, however, both factors are present, the risk is doubled, and the severity of the alcohol abuse is determined by the degree of postnatal provocation.

The second type of genetic predisposition, termed male-limited (Type II) alcoholism, is viewed as: 1) a more severe type of predisposition; 2) is found almost exclusively in males; 3) accounts for about 25% of all male alcoholics in the general population; and 4) its

transmission seems to be unaffected by the environment. Cloninger et al. (1981) found that in families with male-limited susceptibility (i.e., severe alcoholism in the biological father, no alcohol abuse in the biological mother, and the biological father tended to have a criminal record) alcohol abuse was nine times more frequent in adopted sons regardless of postnatal environment. This male-limited alcoholism typically developed in the biological fathers when they were adolescents, and these fathers generally had extensive treatment experiences. It is noted that although postnatal adoptive environments do not seem to prevent the development of Type II alcoholism (unless the person has been abstinent) the environment may influence the severity of the disease. Adoptees generally were less severely alcoholic as opposed to their biological fathers, which may be a reflection of a better adoptive environment.

Although there has been a genetic predisposition to alcoholism and other addictions advanced in many disease/addiction studies, the results reported in their studies have generally not been consistent (Peele, 1986). Murray, Clifford, and Gurling (1983), for example, noted that in certain studies the investigator's definition of alcoholism may produce results which are "...simply an artifact produced by the threshold for

alcoholism accidentally dividing heavy drinkers in the index and control groups unevenly..." (pg. 42). These authors point out that such definitional issues frequently raise questions in the genetic studies. The disease theory is also weakened by evidence that addiction occurs for only a minority of persons exposed to drugs (i.e., alcohol, narcotics) and that many addicts, especially those not in treatment, often "outgrow" their drug habits (Waldorf, 1983).

Gateway Theories

A second approach used within the disease/addiction orientation are "gateway" theories (e.g., Kandel, 1975a; Mills & Noyes, 1984; Robins & Wish, 1977), which emphasize the regular progression from one drug to another. Proponents of this model believe that adolescent drug use and other deviant behaviors point to the existence of identifiable events that are ordered in time, that follow a certain cumulative regularity, and that can be viewed as a developmental sequence of behaviors. Kandel (1975a), for example, contends that there are four distinct stages involved in drug use: 1) drinking of wine and/or beer ("entry drugs"); 2) smoking cigarettes and/or the ingestion of distilled spirits; 3) use of marijuana; and 4) use of other illicit drugs. These stages are assumed to be cumulative in that it is rare to find an adolescent using a drug at any

given stage who has not also used the drugs in each of the preceding stages. But, gateway theories do not hold up well. Oetting and Beauvais (1987) argue that even finding a temporal relationship between two or more drugs, "can be explained in ways that do not relate to the specific effects of the drugs involved" (p. 134). They suggest that an orderly progression is highly related to drug availability and drug use attitudes. That is, an adolescent interested in using a given drug may be asking questions such as: "What drug can I get?" "How dangerous is the drug?" "Are my friends using it?" "What will my friends think of me if I use it?"

Drug effect theories provide a conceptual base that needs to be taken into consideration when studying drug use abuse and dependency. Psychoactive properties associated with drugs can be very reinforcing to the drug user. In addition, the continued use of drugs can, under some circumstances, lead to an interrelationship between physiological, social, and psychological dependence. But, drug effect theories are less important in understanding and explaining youth drug involvement than psychosocial variables (Oetting & Beauvais, 1987).

Psychosocial Theories

Alcohol and other drug-related behavior problems have been associated with several psychological and sociological factors. Some of the variables reported to be related to youth drug involvement are: 1) early antisocial behavior (Jessor & Jessor, 1977; Johnston, O'Malley, & Evelard, 1978); 2) family factors, including parental family management techniques (Baumrind, 1983) and antisocial behavior of family members (Loeber & Dishion, 1983); 3) school factors, including school failure, dropout, delinquency, and a general lack of commitment to education (Jessor & Jessor, 1977; Kandel, Kessler, & Margulies, 1978); 4) peer factors, such as friends using drugs (Jessor, Chase, & Donovan, 1980); and 5) personality factors, including rebelliousness (Kandel, 1982) and level of self-esteem (Ahlgren & Norem-Hebersen, 1979; Smith & Fogg, 1978).

According to Oetting and Beauvais (1987), "psychosocial theories do a better job of describing the underpinnings of drug use by youth...(and) they are more successful in describing and predicting drug use" (pp. 134-135). It can be argued that psychosocial variables may be more accurate in describing and predicting drug use because they take

into account both the social environment and the intra-personal characteristics of an individual.

Peer cluster theory (Oetting & Beauvais, 1986a, 1986b) incorporates a psychosocial framework from which adolescent drug use can be viewed. Peer clusters develop when groups of individuals form associations with each other based upon a number of mutually shared psychosocial forces. These psychosocial factors (internal to the youth, i.e., his/her attitudes and beliefs) and social characteristics (part of the youth's environment) interact so that an adolescent chooses friends who either have problems or do not have problems with social and/or personal adjustment. Negative influences from these factors can lead to drug usage which isolates a "youth from the segments of society that might influence that youth in positive ways, for example, from parents and teachers" (Oetting & Beauvais, 1987, p. 134). Positive influences lead to the building of friendships with other peers who have a decreased tendency to get involved with drugs. Thus, the combination of a number of social and psychological characteristics interact in such a way that either a potential for drug involvement is created or the "inoculation" of an adolescent (protecting him/her from drug use) occurs. Oetting and Beauvais (1986a, 1986b) contend that small groups of

adolescents (i.e., dyads, such as best friends and boyfriend-girlfriend) form peer clusters in which 1) drugs are made available; 2) the youth learns to use them; 3) there is a sharing of beliefs, attitudes, values, and rationales for drug use; and 4) drug use plays an important role in group membership and identification.

Orientation of the Present Study

In the present study, the assumption is examined that youth drug involvement groups, ranging from non-users to heavy users and chemically dependent youths, constitute distinct subgroups (i.e., "peer clusters") which are different from one another in terms of psychosocial variables such as self-concept, social skills, anxiety, and depression. The evidence from the existing literature (e.g., Huba, Wingard, & Bentler [1979]; Smith & Fogg [1978]) supports the contention that drug-using adolescents differ from non-drug users, and Pandina and White (1981), who examined drug use patterns in adolescent students and adolescents in a chemical dependency treatment program, found that subpopulations of students exhibited drug use patterns similar to those of peers in treatment.

Given these findings, examining and identifying different drug involvement groups, and comparing these groups with respect to

psychological and social variables, can be an important aid in the development of effective prevention, detection, and treatment guidelines. Specifically, the following five psychosocial factors: 1) self-concept/self-esteem; 2) social skills; 3) self-monitoring; 4) anxiety; and 5) depression will be examined with regard to adolescent substance use. While these psychosocial variables do not exhaust the potential list of variables which have been found to contribute to our understanding of adolescent drug use, they may account for a large percentage of variability between drug involvement groups.

Self-Concept/Self-Esteem

Self-esteem and self-concept are assumed to be central factors related to adolescent substance use (Ahlgren & Norem-Hebersen, 1979; Charalampous, Ford, & Skinner, 1976; Domino, 1982; Harlow, Newcomb, & Bentler, 1986; Mitic, 1980; Rearden & Griffing, 1983; Samuels, 1974; Smith & Fogg, 1975; Sullivan, 1985; Yanish & Battle, 1985). According to Kaplan's theory of deviant behavior (Kaplan, 1977), negative self-attitudes (e.g., self-derogation) in adolescents can lead to a re-evaluation of their present life situation, resulting in the repulsion of a previous pattern of conformity for deviant behavior (i.e., use of drugs),

which is more consistent with a negative self-image and supported by a deviant group.

Schilling (1986) defines self-concept as the perceptions we have of ourselves in a number of areas--how we perceive ourselves physically, intellectually, and socially. Self-esteem has been conceptualized as the evaluative components of the self-concept and refers to one's feelings of self-worth (Coopersmith, 1967; Juhasz, 1985). Self-concept formation is probably the most significant developmental acquisition of adolescence (Richman, Clark, & Brown, 1985). Individuals with a strong general self-concept and self-esteem typically function effectively in a variety of situations and perceive themselves as fulfilled and happy (Coopersmith, 1967). Charalampous et al. (1976) state that "...a person with low self-esteem can be expected to behave in ways consistent with such a self-concept and consequently exhibit ineffective behavior. Observation of his own ineffectiveness will in turn serve to maintain a low self-esteem" (p. 990).

Low self-esteem is seen as a risk factor for drug use (Bry, 1982; Rees & Wilborn, 1983; Samuels & Samuels, 1974; Smith & Fogg, 1978; Svobodny, 1982). Kaplan (1977) states that the adoption of deviant response patterns (i.e., the use of drugs), regardless of subsequent

continuation of the act, is associated with an antecedent increase in negative attitudes towards oneself. This relationship was found among seventh grade students tested at three different time intervals. Subjects who either adopted and continued or discontinued a deviant act showed a greater increase in self-derogation when compared with subjects who did not adopt deviant acts. Domino (1982), who examined the self-esteem and attitude toward drug use among high school students, reported that students scoring highest on self-esteem (indicating a more positive self-esteem) used fewer drugs and showed a greater positive attitude compared to students scoring low on self-esteem. In addition, greater drug use was related to more positive attitudes toward drug usage. Many effective strategies in drug education assume that an individual will be less likely to use/misuse drugs if his/her basic feelings about self can be shifted in a more positive direction (Swisher & Abrams, 1976).

Ackerman (1978), in describing adolescents who feel powerless over their lives and being "at-risk" for chemical abuse, differentiates between two groups of adolescents--the "Haves" and the "Have Nots." The "Haves" are those individuals able to cope with life's problems; the "Have Nots" are those who cannot deal with life's problems. According

to Ackerman (1978), the "Haves" possess an ability to establish positive primary relationships with others--achieving emotional intimacy, whereas the "Have Nots" tend to possess a low self-esteem and thus are unable to establish primary relationships with others. If low self-esteem functions as an antecedent to drug abuse by making an individual vulnerable to pressures and stresses in life (i.e., peer group, school, and parental expectations and influences), this condition may increase the likelihood of drug abuse and set the stage for chemical dependency. The following scenario could follow: The drug abusing adolescent finds temporary comfort and relief from personal troubles by using alcohol and/or other drugs. As a consequence of abusing or becoming dependent upon a substance, the drug-using adolescent exhibits feelings of worthlessness and/or ineptitude as a consequence of certain actions from chemical use. These actions include the loss of old friends, contact with the law and/or legal system (i.e., driving under the influence, minor in possession, destruction of property, robbery, etc.), and poor school performance.

Assuming low self-esteem is a direct change factor in drug use/abuse, the assessment and interest in an adolescent's level of self-esteem is important because self-esteem may need to be raised before a youth can overcome his/her drug problems. The data suggest that

improvements in self-esteem can result in the reduction of drug abuse/dependency among adolescents.

Social Skills

Adolescence is an important period of establishing peer relationships--relationships different from those of childhood (Christoff, Scott, Kelley, Schlundt, Baer, & Kelly, 1985). During adolescence, individuals develop an ability to solve everyday social problems in an independent manner. Situations such as making friends of same and different sex, conversing with a variety of peers and adults, being exposed and included in a number of social activities, dating, participating in extracurricular activities, and experiencing oneself as part of a "peer group" are important social developmental tasks of adolescence (Havinghurst, 1972).

Self-monitoring has been reported to be an important component of social skills, and this process consists of two components: 1) perceptual sensitivity, and 2) behavioral flexibility (Furnham & Capon, 1983). Self-monitoring has been defined as the extent to which one manages his/her self-presentation of expressive behaviors and non-verbal displays of affect (Snyder, 1979). Individuals who possess high self-monitoring levels tend to focus on interpersonal appropriateness of social behavior and use

expressions of others in social situations as signals for regulating themselves. These persons also are better able to express a variety of emotions (verbal/non-verbal) and have good emotional self-control. The ability to engage in self-controlled behavior/emotion follows a developmental sequence (Mischel & Mischel, 1977), and a fundamental level of cognitive functioning to include problem solving, planning, and evaluating skills (Kendall, Zupar, & Braswell, 1981) must be attained before self-control can be used effectively.

There is support for the view that socialization and/or social skills deficits may, in some ways, predispose an individual to abuse drugs. These deficits can be modeled by parents (O'Leary, O'Leary, & Donovan, 1976), or they may be biologically inherited to some degree (Cadoret, O'Gorman, Troughton, & Heywood, 1985). Substance abuse interacts by maintaining preexisting socialization deficits or preventing the learning of appropriate social skills as development continues. Drug abuse in adolescents co-occurs with other behavior problems that are considered antisocial in nature (i.e., delinquency and sexual promiscuity). For example, Braucht, Follingstad, Brakarst, and Berry (1973) have found adolescent problem drinkers to be overly aggressive, impulsive, and lacking in general personal controls. In addition, problem-drinking and

drug using adolescents appear to value achievement less and have greater attitudinal tolerance for and engagement in deviant behaviors (Jessor, 1984).

Adolescents who are "at-risk" for substance use/abuse may be individuals who do not possess adequate skills for coping with situations and/or other people (i.e., peers, parents, teachers, etc.). In this case, the use of drugs provides a quick, temporary, short-term relief from one's interpersonal problems. Abrams and Nianra (1987) suggest this situation can occur in their statement that "a combination of a negative emotional state secondary to social or interpersonal conflict, plus an inability to express oneself effectively, can lead to an increase in alcohol consumption" (p. 150). In several studies (e.g., Higgins & Marlatt, 1975; Marlatt, Kosturn, & Lang, 1975) it has been found that alcohol consumption increases with social stress, but if individuals are given effective coping skills to overcome anxiety-provoking situations, they tend to consume less alcohol.

The use of drugs by adolescents can serve to facilitate social interactions--affecting the youths' perception of the quality of social interactions--or to decrease the anxiety or psychological discomfort associated with interpersonal interactions. If the use of drugs is

perceived by the adolescent as making social interactions less stressful, then drug use will be reinforced. For example, if a young person finds that interacting with peers of the opposite sex is less stressful after consuming alcohol, then drinking is reinforced (by the outcome), and the probability of future use of alcohol in similar situations is increased because of that person's experiences. Social skills are thought to be reinforced, in part, by their ability to decrease the level of anxiety experienced in social and interpersonal situations (O'Leary et al., 1976), thus social skills deficits may be accompanied by increased anxiety or tension in interpersonal situations. The anxiety experienced may, in turn, directly or indirectly, be associated with drug use.

Given the previous discussion, adolescents who involve themselves in the use and/or abuse of drugs may be less competent in perceiving their environment. Therefore, they cannot process verbal and nonverbal cues well enough to avoid the dangers and social consequences associated with the continued use and/or abuse of chemicals. Individuals unable to "read" and present themselves in a socially acceptable manner are susceptible to illicit and deviant behaviors, including the use of drugs.

Depression and Anxiety

The relation between anxiety and depression has been contested by clinicians, researchers, and theorists. Anxiety and depression are both viewed as affective or emotional states comprised of combinations of fundamental/basic emotions differing primarily in the relative salience of fear (anxiety) and sadness (depression) (Klerman, 1977).

Depression. Depressive disorders in adolescents often present in atypical ways--frequently as antisocial symptomatology and not uncommonly as syndromes of violence (Miller, 1978). When an adolescent experiences depressive symptoms, he/she will have difficulty in mastering tasks and/or experiences crucial to achieving personal growth (i.e., the establishment of healthy inter/intrapersonal relationships). The depressed adolescent may find it difficult to cope with life's challenges and is left without the benefit of mastery techniques one can utilize to avoid mental discomfort. Miller (1978) contends that severe affective disorders in adolescents prevent psychosocial development and retard personality growth and development. In addition, a false sense of self is likely to develop, and the adolescent may turn to the use of drugs to provide temporary, short-term relief as a defense against the intrapsychic discomfort of depression.

Alcoholism and other drug abuse often have a depressive component. Sadness and depression have been found to occur among substance abusers more often than among nonabusers (Guze, Woodruff, & Clayton, 1971). The coincidence of depressive symptoms with substance abuse is quite common and can create a "diagnostic puzzle" for the clinician (Willenbring, 1986). The chronic abuse of psychoactive drugs may lead to life events/situations that cause reactive depression on the one hand, and a psychiatric disorder on the other hand, which may predispose a person to seek affective relief with mood-altering drugs (often leading to a chemical dependency). An individual can potentially suffer from an affective disorder, a substance abuse disorder, or both (a dual diagnosis).

Chemically dependent and drug abusing persons often possess a predominant sad mood state and a cognitive mind set of helplessness and hopelessness. These individuals (young and old) have experienced situations and events (i.e., loss of job, loss of friends, contact with the legal system, etc.) that often cause many substance abusers to suffer from intense guilt, shame, and regret over their behavior that contributed to these situations (Lipman, Nirenberg, Porges, & Wartenberg, 1987). The substance abuser may feel he/she cannot cope with his/her feelings

of guilt, hopelessness, and helplessness without the use of drugs. Rosenberg and Amodes (1974) state that about half of the patients admitted to substance abuse treatment programs will, in concurrence with a substance abuse disorder, present a depressive disorder (ranging on a continuum from temporary grief reactions to major affective disorders). Mendelson, Babor, Mello, and Pratt (1986) found approximately 30% of adult patients admitted to alcohol programs presented with another psychiatric diagnosis.

Drug categories most associated with depression are the depressants, stimulants, and opioids (Wartenberg & Lipman, 1987). Extein, Dackis, Gold, and Pottash (1986) reported some form of depression in 79% of their sample (29% major depression, 3% bipolar disorder, and 47% atypical depression) of adult cocaine abusers. Steer and Kotzker (1980) state that the chronic administration of opioids leads to agitation, hostility, and depression.

Anxiety. When certain drugs are used, they have the dual effect of decreasing a person's experience of stress and reducing a person's ability to cope with reality. Because some substances temporarily decrease a person's experience of stress, the use of these drugs is reinforcing and may eventually lead to psychological and/or physical dependency. Often

it is when individuals are under the effects of alcohol/drugs they frequently feel free of anxiety, depression, and incompetence. The pharmacological effects of drugs may produce excitement and make a person's world less worrying, thus reducing one's level of anxiety. For example, when a person first uses small amounts of alcohol, the effects from its ingestion may produce social rewards. The shy, introverted adolescent becomes talkative, the "life-of-the-party," strong/ assertive/powerful, and feels as though things are "good," and he/she is in control of the situation (a sense of false pride). With increasing amounts of alcohol, significant changes occur--decreased accuracy of judgment and gross changes in behavior which often lead to conflicts with the law (i.e., DUI, minor in possession) and interpersonal conflicts (i.e., with parents, teachers, and friends). Drug use is often seen (and used) as a form of escapism and/or a social facilitator or lubricant. The physical act of taking drugs is also socially rewarding--indicating a person's membership into a group or subculture (i.e., "one of the boys" or anti-establishment subculture).

Substance abusers who suffer from anxiety disorders or personality disorders often have a passivity component associated with their disorders (Mullaney & Trippett, 1979). Social phobias were found to

occur in 1/2 to 2/3 of individuals in alcoholism treatment programs (Mullaney & Trippett, 1979). The fear of asserting oneself (i.e., speaking out to others) may cause feelings of helplessness and create resentments. The use of drugs can provide an outlet for pent-up anger, thus reinforcing a person to continue their use. Persons experiencing chronic anxiety, pain, or sadness are prone to drug abuse and drug addiction (Lipman et al. 1987).

Aim of the Present Study

Why is it that some teenagers use drugs while others abstain? Some adolescents will become heavily involved in the use of a variety of drugs and suffer from a number of adjustment problems as a result. Other adolescents will experiment with and even abuse different drugs but will avoid their chronic use. Still others, despite the ready availability of drugs in our society, will not use them at all. Answers to these and other drug-related questions are not easy, but the present study is an attempt to identify and understand some of the potential results and implications of adolescent substance use, abuse, and dependency.

Substance use behavior was examined in two general groups of adolescents--a sample of students from a high school and a second group

of adolescents diagnosed as chemically dependent and living within a treatment setting. Both high school students and adolescent patients were asked about their drug use, and they completed measures of: 1) self-concept/self-esteem; 2) social skills; 3) anxiety; and 4) depression. Adolescents were selected for study because most drug use has been noted to begin in pre-adolescent or adolescent years (i.e., 14 to 18 years of age). Kandel (1978), for example, has reported that it is rare for persons to try a new drug after they are 21 years of age. In addition, Oetting and Beauvais (1987) state that adolescent exposure to illicit drugs reaches a plateau around the age of 16, with a steady decline thereafter. Most serious drug problems, in adults or adolescents, can be traced to one's adolescent years. Thus, adolescents in the present study, ranging in age from 14 to 19, provided an opportunity for detecting possible age differences in adolescent substance use behavior.

The aim of the present study was to provide some insight into possible prevention and intervention of teenage substance use problems via the identification of "risk-factors" associated with problem drug use. This investigation examines the following questions: 1) Do substance use groups (i.e., abstinent vs. heavy use vs. chemically dependent) differ significantly on measures of self-concept, social skills, anxiety, and

depression?; 2) Do measures of self-concept, social skills, anxiety, and depression covary across substance use groups?; 3) Do these measures have predictive value in regard to substance involvement?

Hypotheses

It is anticipated that adolescent drug involvement groups--as measured by a subject's: 1) actual drug use index score; 2) intent to use drugs in the future; 3) exposure to drugs; and 4) degree of drug use prior to abstinence (if applicable)--will be significantly different with regard to those psychological and social predictor variables assessed in this study. Therefore: 1) Subject's with greater drug involvement (i.e., heavy user and chemically dependent groups vs. abstinent and low user groups) score lower on measures of self-concept/esteem; 2) Adolescents more involved with drugs also score higher on measures of social avoidance and distress and loneliness, and lower on measures of self-monitoring, assertiveness and self-efficacy in peer interactions; 3) Greater drug involvement is associated with increases in anxiety; and 4) Age and gender differences are associated with drug involvement. Older subjects indicate greater levels of drug involvement, and males tend to be more heavily involved than females.

CHAPTER III

METHOD

Subjects

Six groups of adolescents served as subjects. Five groups were comprised of diagnosed chemically dependent (CD) adolescents admitted to a treatment program and one group consisted of students from an inner-city "magnet" high school.

The high school population consisted of 107 females and 92 males, whose age ranged from 15 to 19, with a mean age of 16.5. The majority of students were white (70%), but a large percentage of black students (24%) was also represented. The remaining were Mexican (6%), American/Hispanic (4%), Oriental/Asian American (1%), and Native American (1%). The racial composition for the total enrollment of this high school (1987-1988 school year) was 62% white, 31% black, and 7% other. The school district from which the sample population was taken had the following racial composition in the 1987-1988 school year: 67% white, 27% black, 3.6% Hispanic, 1.3% Native American or Native Alaskan, and 1.1% Asian.

The sample used in the present study, while representative of the school population, was taken from a high school which had a slightly

higher percentage of blacks compared to the overall school district percentage of blacks (31% vs. 27%), and students participating in this study deviated slightly from the total percentages of white and black students reported for their schools' enrollment with more whites and fewer blacks represented (70% vs. 62% white and 24% vs. 31% black). Approximately 60% of this school's population is considered to be from working lower and lower-middle class working families; 20% middle class; and 20% upper-middle and upper class professional families. School dropouts were not included in this sample, which probably leads to an underestimation of the drug involvement among teenagers in this school, according to Kandel (1975b) and McKirnan and Johnson (1986). In addition, all participating subjects indicated they had no prior treatment for drug abuse.

The five CD samples consisted of 67 adolescents referred to youth agencies treating adolescents with a diagnosis of chemical dependency. These treatment programs differed from one another with respect to treatment level. Three of the agencies served as inpatient treatment facilities--referred to hereafter as inpatient treatment group A (INTX A); inpatient treatment group B (INTX B); and inpatient treatment group C (INTX C). One agency was an outpatient treatment facility (OUTTX)

and the fifth agency served as a halfway house for CD teens (HHTX). All treatment centers were located within or in close proximity to the city from which the high school sample was obtained.

Subjects from inpatient program A (INTX A) consisted of 18 adolescents with the following characteristics: 61% (n = 11) were male; ages ranged from 14 to 18; and 89% (n = 16) were white, 5.6% (n = 1) Mexican American, and 5.6% (n = 1) Native American. Data on the subjects from this treatment group indicated that 83% (n = 15) had received no prior CD treatment; 11% (n = 2) had 28 days of past CD treatment; and 6% (n = 1) had a total of 80 past treatments prior to their current program. The average length of treatment at time of testing was 19.4 days. Five of the subjects had been in the present facility for seven days; five 14 days; three 21 days; two 40 days; one for 1 day; and one for 50 days. Patients admitted to this facility receive inpatient care over approximately a 6 week period.

Subjects from the second inpatient program (INTX B) consisted of 11 adolescents and had the following characteristics: 73% (n = 8) were male; ages ranged from 15 to 18 ($\underline{M}$ = 16.5); and all subjects were white (100%). Three individuals (27%) from this sample had a total of 84 days of past CD treatment prior to their admittance to their present

CD program; three had 168 days of prior treatment; four 196 prior days; and one had 504 past treatment days. The average length of current treatment was 146 days, with a range of 42 to 308. It should be noted that this treatment group consisted of adolescents who had recently completed a prior CD treatment program. Thus, patients' past treatment days and current treatment days reflect this extended exposure to treatment.

The third inpatient program (INTX C) consisted of 11 subjects and had the following characteristics: 54.5% (n = 6) were male; ages ranged from 14 to 17 (M - 15.5); and 91% (n = 10) were white and 9% (n = 1) was Mexican American. In this sample eight adolescents had no prior CD treatment while three had 84 days of past CD treatment prior to their current program. The average length of treatment for this CD program was 55.7 days, with a range of 21 to 140 days.

Subjects from the outpatient program (OUTTX) consisted of 15 adolescents and had the following characteristics: 60% (n = 9) were female; ages ranged from 14 to 19 (M = 16.7); and all subjects were white (100%). Past treatment days ranged from 0 to 84 (M = 33.6) and the average number of days spent in the present treatment was 47.3 (range, 14 to 168).

Subjects from the half-way house (HHTX) consisted of 12 adolescents and had the following characteristics; 75% (n = 4) were female; ages ranged from 14 to 18 (M = 15.8); and 83.3% (n = 10) were white, one was black, and one was Mexican American. Past treatment days ranged from 28 to 280 days (M = 107.3), and current treatment days ranged from 14 to 224 days (M = 72.3).

Combining the treatment groups (n = 67), resulted in the following composite: 51% (n = 34) were male; age range from 14 to 19 (M = 16.2); and 92.5% (n = 62) were white, with three Mexican Americans, one Native American, and one Black. Days spent in past CD treatment ranged from 0 to 504 days (M = 68.9) and current treatment days ranged from 0 to 308 days (M, 61.9). All CD programs used in this study shared two common treatment goals: 1) The desire and ability of adolescents to remain abstinent from chemicals, and 2) The establishment and maintenance of behaviors necessary for such abstinence. These programs (inpatient, outpatient, and halfway house) each utilized three general themes in their approach to treating CD adolescents. These "themes" were: 1) Educate the patient and his/her family (i.e., through the use of lectures, videos, and assignments) on the disease concept of chemical dependency; 2) involve family members as

much as possible in the patients' treatment process; and 3) utilize the 12 steps of recovery as suggested by Alcoholics Anonymous (A.A.).

The treatment groups were similar to the high school students on average age (16.2 vs. 16.5, respectively) and average year in school (11 vs 10.7, respectively). There were differences, however, between student and patient samples and within CD samples. Inpatient samples were overrepresented by white male subjects when compared to outpatient, halfway house, and student samples; and outpatient subjects and halfway house subjects were predominately white females.

Measures Used

Drug Involvement

The degree of alcohol and other drug use for the subjects was calculated by using a modification of the Stanford University Drug Evaluation Questionnaire (SUDEQ) developed by Blum, Blum, and Garfield (1976). This instrument provided the following measures: 1) Reported life-time use of a given substance (Drug Use Index Score), 2) availability or exposure to a given substance (Exposure Score), 3) intentions to use a given drug (Intention Score), and 4) a "stopper" reference indicating a reported level of drug use prior to a given subject's

decision to stop using a drug (Stopper Score). For example, subjects were asked the following questions in regard to marijuana:

1) Have you ever smoked marijuana? (never; once or twice; 3 to 10 times; 11 to 20 times; 21 times or more).

2) Do you have a friend who smokes marijuana? (yes; no; don't know).

3) Do you have a brother/sister who smokes marijuana? (yes; no; don't know).

4) Do your parents smoke marijuana? (yes; no; don't know).

5) Do you think you will smoke marijuana within the next year? (yes; no; don't know).

In addition to marijuana, subjects were asked the same five questions (indicated above) about ten other substances which included cigarettes, beer, wine, liquor, psychedelic drugs, inhalants (i.e., gasoline, glue), amphetamines, barbiturates, heroin, and cocaine. Blum et al. (1976) originally developed the SUDEQ to study the effects of drug education on elementary and high school students (n = 2908) from four California cities. Test-retest reliability for their high school sample was 89%. The greatest disagreement for subjects occurred for the alcohol and barbiturate/amphetamine categories (78% agreement rate), followed

by hallucinogens and heroin-cocaine categories with 84% and 92% agreement rates, respectively. The highest test-retest agreement was found with the tobacco, marijuana, and inhalant categories (96%). These authors concluded that the reliability and (likely) validity rates are sufficiently high to support the self-report measures used in the SUDEQ. The SUDEQ can be found in Appendix A.

Drug Use Index. The drug use distributions for both student and patient samples are presented in Tables 1 and 2, respectively. A single weighted drug use index (DUI) score was constructed for each subject based on his/her response to life-time (actual) use of all eleven drugs assessed by the SUDEQ. DUI scores were determined by using a modification of a drug indexing procedure advocated by Lu (1974). The DUI score is an indication of substance use involvement of a given subject relative to others in the same sample. Each subject was given one weight for each drug scale category (i.e., abstinent, stopper, low use, moderate use, and heavy use) and a DUI score was derived by averaging these weights across drugs. For example, if a subject reported no past use of a given substance (abstinence) he/she was given a weighted score of .00 for that substance, and if all other drugs had this weighting, the DUI score would be .00. If, however, a subject was more involved with

Table 1

Distribution of 199 Adolescent Students' Involvement in Drug Use According to Type of Drug, Sex of User, and State of Use

	Types of Drugs*										
States of Use	D^1	D^2	D^3	D^4	D^5	D^6	D^7	D^8	D^9	D^{10}	D^{11}
Female											
Abstinent	27	12	19	21	56	95	63	86	86	101	100
Abstinent (Stopper)	34	21	24	25	25	3	20	7	10	2	3
Experimental	1	10	15	5	4	3	8	6	6	3	1
Low	6	17	27	20	4	4	7	4	2	1	2
Moderate	6	9	10	19	9	1	4	2	2	0	1
Heavy	33	38	12	17	9	1	5	2	1	0	0
Totals	107	107	107	107	107	107	107	107	107	107	107
Male											
Abstinent	36	10	14	18	37	79	60	71	78	89	78
Abstinent (Stopper)	35	12	26	13	22	4	13	11	9	2	3
Experimental	1	3	10	8	5	1	7	4	3	0	2
Low	3	14	18	11	6	3	4	3	0	0	3
Moderate	2	9	8	17	6	5	4	2	0	0	3
Heavy	15	44	16	25	16	0	4	1	2	1	3
Totals	92	92	92	92	92	92	92	92	92	92	92
Both Sexes											
Abstinent	63	22	33	39	93	174	123	157	165	191	178
Abstinent (Stopper)	69	33	50	38	47	7	33	18	19	3	6
Experimental	2	13	25	13	9	41	51	0	9	3	3
Low	9	31	45	31	10	7	11	7	2	1	5
Moderate	8	18	18	36	15	6	8	4	2	0	4
Heavy	48	82	28	42	25	1	9	3	2	1	3
Totals	199	199	199	199	199	199	199	199	199	199	199

* D^1 = Tobacco D^2 = Beer D^3 = Wine
D^4 = Liquor D^5 = Marijuana D^6 = Psychedelic Drugs
D^7 = Amphetamine Drugs D^8 = Barbiturate Drugs D^9 = Inhalants
D^{10} = Heroin D^{11} = Cocaine

Table 2

Distribution of 67 Adolescent Patients' Involvement in Drug Use According to Type of Drug, Sex of User, and State of Use

	Types of Drugs*										
States of Use	D^1	D^2	D^3	D^4	D^5	D^6	D^7	D^8	D^9	D^{10}	D^{11}
Female											
Abstinent	1	0	0	1	4	10	4	16	16	29	15
Abstinent (Stopper)	1	9	13	12	9	7	10	5	4	1	5
Experimental	1	0	0	0	1	3	3	2	2	1	2
Low	0	1	3	1	1	5	4	3	1	0	3
Moderate	0	1	7	1	0	5	4	3	2	1	1
Heavy	30	22	10	18	18	3	8	4	8	1	7
Totals	33	33	33	33	33	33	33	33	33	33	33
Male											
Abstinent	0	1	5	5	0	9	7	17	7	24	12
Abstinent (Stopper)	2	12	12	12	13	13	13	7	15	8	14
Experimental	1	1	1	0	1	3	1	2	1	1	2
Low	1	3	3	3	1	1	1	0	3	0	2
Moderate	0	3	4	2	2	2	2	1	1	0	0
Heavy	30	14	9	12	17	6	10	7	7	1	4
Totals	34	34	34	34	34	34	34	34	34	34	34
Both Sexes											
Abstinent	1	1	5	6	4	19	11	33	23	53	27
Abstinent (Stopper)	3	21	25	24	22	20	23	12	19	9	19
Experimental	2	1	1	0	2	6	4	4	3	2	4
Low	1	4	6	4	2	6	5	3	4	0	5
Moderate	0	4	11	3	2	7	6	4	3	1	1
Heavy	60	36	19	30	35	9	18	11	15	2	11
Totals	67	67	67	67	67	67	67	67	67	67	67

* D^1 = Tobacco D^2 = Beer D^3 = Wine
D^4 = Liquor D^5 = Marijuana D^6 = Psychedelic Drugs
D^7 = Amphetamine Drugs D^8 = Barbiturate Drugs D^9 = Inhalants
D^{10} = Heroin D^{11} = Cocaine

drugs (i.e., was using drugs in a heavy use category), he/she may have a DUI score of .94, for example. Thus, greater involvement with drugs

was reflected in a greater DUI score. The computation of categorical weights was achieved through a mathematical procedure which places less weight on more commonly used substances (i.e., cigarettes and beer), and conversely more weight is placed on lesser used substances (i.e., cocaine and barbiturates). Through the substitution of appropriate weights for category ranks, each subject had 11 drug weights, and the average of these weights was used as an indication of that individual's drug involvement. Table 3 summarizes the category weights for all drugs for student and chemically dependent patients.

Table 3

Index Weights of Drugs According to States of Use

	Types of Drugs*										
States of Use	D^1	D^2	D^3	D^4	D^5	D^6	D^7	D^8	D^9	D^{10}	D^{11}
Abstinent	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Abstinent (Stopper)	.16	.06	.08	.10	.23	.44	.31	.39	.41	.48	.45
Experimental	.67	.31	.48	.42	.73	.92	.82	.90	.95	.98	.93
Low	.70	.42	.66	.53	.77	.95	.89	.95	.97	.99	.95
Moderate	.74	.54	.81	.70	.84	.98	.93	.98	.98	.99	.97
Heavy	.88	.79	.93	.89	.94	1.0	.98	.99	1.0	1.0	.99

* D^1 = Tobacco D^2 = Beer D^3 = Wine
D^4 = Liquor D^5 = Marijuana D^6 = Psychedelic Drugs
D^7 = Amphetamine Drugs D^8 = Barbiturate Drugs D^9 = Inhalants
D^{10} = Heroin D^{11} = Cocaine

Mean Drug Use Index scores for all subjects are presented in Table 4. The continuous nature of the DU scores made distribution of

its scores suitable for the assignment of DUI groups into 1) abstinent, 2) low use, 3) moderate use, and 4) heavy use.

Table 4

Mean Drug Involvement of Adolescent Students and Patients Classified According to Overall Drug Use Index Scores and Sex

	Types of Drugs*											
	D^1	D^2	D^3	D^4	D^5	D^6	D^7	D^8	D^9	D^{10}	D^{11}	M
Students												
Female(N=107)	.41	.43	.44	.41	.26	.09	.26	.15	.13	.04	.05	.24
Male(N=92)	.25	.51	.44	.49	.36	.11	.23	.15	.09	.02	.13	.25
All(N=199)	.34	.47	.43	.44	.31	.10	.24	.15	.11	.03	.09	.25
Patients												
Female(N=33)	.83	.57	.55	.56	.62	.56	.63	.41	.44	.11	.45	.52
Male(N=34)	.83	.44	.44	.44	.65	.51	.51	.37	.53	.17	.41	.48
All(N=67)	.83	.51	.49	.50	.64	.53	.57	.39	.49	.14	.43	.50

* D^1 = Tobacco; D^2 = Beer; D^3 = Wine; D^4 = Liquor; D^5 = Marijuana; D^6 = Psychedelic Drugs; D^7 = Amphetamine Drugs; D^8 = Barbiturate Drugs; D^9 = Inhalants; D^{10} = Heroin; D^{11} = Cocaine

Exposure to drugs. The "drug exposure" distributions for both student and patient samples are presented in Table 5. The Exposure score is an indication of a subject's drug environment with respect to parental, sibling, and peer (friend) drug use--as reported by a subject. This is a cumulative measure of drug exposure in which scores can range from an absence of exposure to all 11 drugs (i.e., parents, siblings, and friends are not using any drugs) to a complete exposure to all 11 drugs (i.e., parents, siblings, and friends use/believed to be using each of these drugs).

Table 5

Mean Drug Involvement of Adolescent Students and Patients Classified According to Overall Drug Exposure Scores and Sex

	Types of Drugs*										
	D^1	D^2	D^3	D^4	D^5	D^6	D^7	D^8	D^9	D^{10}	D^{11} M
Students											
Female(N=107)	3.74	4.03	3.42	3.51	2.38	1.15	1.79	1.13	.85	.78	1.04 2.17
Male(N=92)	3.82	4.23	3.44	3.53	2.36	1.02	1.41	1.03	.72	.55	1.12 2.11
All(N=199)	3.77	4.12	3.43	3.52	2.37	1.09	1.69	1.09	.79	.67	1.08 2.14
Patients											
Female(N=33)	4.21	4.70	4.73	4.03	2.58	2.15	2.21	1.64	1.24	1.18	2.0 2.79
Male(N=34)	4.06	4.15	3.62	3.47	2.71	2.24	2.41	1.53	1.77	1.38	2.15 2.68
All(N=67)	4.14	4.43	4.18	3.75	2.65	2.20	2.31	1.59	1.51	1.28	2.08 2.74

* D^1 = Tobacco; D^2 = Beer; D^3 = Wine; D^4 = Liquor; D^5 = Marijuana; D^6 = Psychedelic Drugs; D^7 = Amphetamine Drugs; D^8 = Barbiturate Drugs; D^9 = Inhalants; D^{10} = Heroin; D^{11} = Cocaine

Intent to Use Drugs. The "drug intention" distributions for both student and patient samples are presented in Table 6. The Intent score is a measure of a subject's intentions to use drugs in the future across each of the 11 substances assessed in this study. Scores range from "no intention" to use a given drug (within the next year), an "intention" to use drugs, and "not sure" of future drug use.

Table 6

Mean Drug Involvement of Adolescent Students and Patients Classified According to Overall Drug Intent Scores and Sex

	Types of Drugs*											
	D^1	D^2	D^3	D^4	D^5	D^6	D^7	D^8	D^9	D^{10}	D^{11}	M
Students												
Female(N=107)	.76	1.25	1.15	1.06	.42	.18	.38	.24	.16	.09	.13	.53
Male(N=92)	.45	1.45	.99	1.21	.61	.20	.36	.17	.10	.04	.16	.52
All(N=199)	.61	1.34	1.08	1.13	.51	.19	.37	.21	.13	.07	.15	.53
Patients												
Female(N=33)	1.82	.76	.55	.67	.70	.49	.52	.33	.33	.24	.49	.63
Male(N=34)	1.65	.53	.50	.50	.53	.41	.35	.29	.21	.12	.21	.48
All(N=67)	1.74	.65	.53	.59	.62	.45	.44	.31	.27	.18	.35	.56

* D^1 = Tobacco, D^2 = Beer, D^3 = Wine, D^4 = Liquor, D^5 = Marijuana, D^6 = Psychedelic Drugs, D^7 = Amphetamine Drugs, D^8 = Barbiturate Drugs, D^9 = Inhalants, D^{10} = Heroin, D^{11} = Cocaine

Drug Stopper. The "drug stopper" distributions for both student and patient samples are presented in Table 7. This measure is applicable only to those subjects indicating both past drug use and future abstinence from all drugs. The Stopper score is a measure of a subject's level of drug use (i.e., experimental, moderate, heavy) prior to his/her abstinence (i.e., no intention to use any drug in the next year).

Table 7

Mean Drug Involvement of Adolescent Students and Patients Classified According to Overall Drug Stopper Scores and Sex

	Types of Drugs*											
	D^1	D^2	D^3	D^4	D^5	D^6	D^7	D^8	D^9	D^{10}	D^{11}	M
Students												
Female(N=107)	1.37	.95	.94	1.0	.96	.43	.83	.53	.60	.39	.54	.77
Male(N=92)	1.53	.63	1.03	.73	1.07	.45	.80	.65	.59	.39	.44	.76
All(N=199)	1.45	.79	.99	.87	1.01	.44	.83	.59	.60	.39	.48	.77
Patients												
Female(N=33)	.15	1.36	1.70	1.67	1.27	.79	1.09	.58	.46	.12	.64	.89
Male(N=34)	.35	1.85	1.41	1.68	1.97	1.59	1.74	.97	1.65	.77	1.71	1.43
All(N=67)	.25	1.60	1.56	1.68	1.62	1.19	1.42	.78	1.06	.45	1.18	1.16

* D^1 = Tobacco, D^2 = Beer, D^3 = Wine, D^4 = Liquor, D^5 = Marijuana, D^6 = Psychedelic Drugs, D^7 = Amphetamine Drugs, D^8 = Barbiturate Drugs, D^9 = Inhalants, D^{10} = Heroin, D^{11} = Cocaine

Self-Concept/Self-Esteem

The Self-Perception Profile for Adolescents (SPPA) is a 28-item self-report instrument developed by Harter (1982, 1985, 1987, 1988) to assess self-concept and self-esteem. The instrument consists of nine subscales, eight of which are designed to measure an adolescent's perception of competence in specific skill domains, including the following: 1) scholastic competence (e.g., "Some teenagers do very well at their classwork" vs "Other teenagers don't do very well at their classwork"; 2) social acceptance (e.g., "Some teenagers have a lot of friends" vs "Other teenagers don't have very many friends"); 3) athletic competence (e.g., "Some teenagers do very well at all kinds of sports" vs

"Other teenagers don't feel that they are very good when it comes to sports"); 4) physical appearance (e.g., "Some teenagers are not happy with the way they look" vs "Other teenagers are happy with the way they look"); 5) job competence (e.g., "Some teenagers feel that they don't have enough skills to do well at a job" vs "Other teenagers feel that they do have enough skills to do a job well"); 6) romantic appeal (e.g., "Some teenagers are not dating the people they are really attracted to" vs "Other teenagers are dating those people they are attracted to"); 7) behavioral conduct (e.g., "Some teenagers usually do the right thing" vs "Other teenagers often don't do what they know is right"); and 8) close friendship (e.g., "Some teenagers are able to make really close friends" vs "Other teenagers find it hard to make really close friends"). The ninth domain is intended to measure one's general (global) self-worth (e.g., "Some teenagers are often disappointed with themselves" vs "Other teenagers are pretty pleased with themselves"). A "structured alternative" format is used to control for response bias and requires participants to decide two things when answering each item: 1) which kind of teenager they are more like (i.e., "Some teenagers like to go to movies in their spare time BUT other teenagers would rather go to

sports events") and 2) is this statement really true of them or sort of true for them?

Harter (1987) reported an average internal consistency reliability of .83 across all subscales and across six grade levels (7th-12th). Similar reliabilities from four separate samples of adolescents across four grade levels (8, 9, 10, and 11) were obtained by Harter (1988) with internal consistency reliabilities (Cronbach's alpha) ranging from .55 to .93 (M = .81). A factor analysis of this instrument revealed eight domain-specific subscales defining separate factors with the omission of Global Self-Worth (Harter, 1988). The SPPA can be found in Appendix B.

Social Skills Measures

Social Avoidance and Distress. The Social Avoidance and Distress Scale (SAD) (Watson & Friend, 1969) is a 28-item questionnaire using a true/false response format to measure one's level of social anxiety. The SAD scale is comprised of two sub-scales, social avoidance--defined as the avoidance or desire for avoidance of "being with, (or) talking to, others for any reason" (pg. 449)--and social distress (the experience of negative emotions such as being upset, distressed, tense, or anxious, in social interactions). Persons high on the SAD measure experience anxiety or distress with social interaction and/or the thought of social

interaction. Watson and Friend (1969) reported a mean bisereal correlation of .77 for the SAD items and a Kuder-Richardson-20 reliability of .94 and .92 for their separate samples. Test-retest reliabilities ranging from .68 to .79 have been reported for this instrument (Warren, Good, & Velten, 1984). The SAD can be found in Appendix C.

Self-Efficacy for Peer Interaction. The Self-Efficacy for Peer Interaction Scale (SEPI), developed by Wheeler and Ladd (1982), is a 22-item questionnaire designed to measure a respondent's perception of his/her "ability to enact prosocial verbal persuasive skills in specific peer situations" (pg. 796). Participants are given a series of statements describing different social situations. Twelve items depict conflict situations (e.g., "Some kids are arguing about how to play a game. Telling them the rule is _____ for you"). Ten items depict nonconflict situations (e.g., Some kids want to play a game. Asking them if you can play is _____ for you"). Adolescents answer these statements by selecting one of four response choices: 1) HARD!, 2) hard, 3) easy, or EASY! Higher ratings (i.e, the EASY! response) indicate greater efficacy. Response ratings for each statement are summed for a total self-efficacy score. Wheeler and Ladd (1982) report

test-retest reliability ranging from .90 (for boys) to .80 (for girls). A factor analysis was also performed indicating a two-factor solution accounting for 53% and 47% of the total variance in two separate samples (Wheeler & Ladd, 1982) with conflict items correlating highest with the first factor and nonconflict items correlating highest with the second factor. The CSPI can be found in Appendix D.

Assertiveness. The Wolpe-Lazarus Assertiveness Scale (AS) (Wolpe & Lazarus, 1966) is a 28-item questionnaire which utilizes a true-false (yes/no) response format. This scale "is intended to reveal specific areas and degrees of assertive and non-assertive interaction" (p. 42). Participants are questioned with regard to relatively impersonal situations (e.g., complaining about poor service, short change, faulty merchandise, etc.) and more personal or intimate situations (e.g., contradicting a parent and/or police office, saying "no" to a friend, expressing displeasure, emotions, etc.). Research has shown this questionnaire to have a clear factor structure (Hersen, Bellack, Turner, Williams, Harper, & Watts, 1979). Hersen et al. (1979) report split-half reliabilities (using the Kruder Richardson-20 statistic) of $\underline{r} = .85$ for males and $\underline{r} = .63$ for females with an overall $\underline{r}$ of .78. Test-retest reliability (using the Pearson Product Moment correlation) was $\underline{r} = .56$ for males and $\underline{r} = .79$ for females. The AS can be found in Appendix E.

Loneliness. The Loneliness Scale (LS), developed by Asher, Hymel, and Renshaw (1984), is a 24-item questionnaire designed to measure a respondent's feelings of loneliness or social dissatisfaction. Each item is answered by indicating on a five-point scale: a) always true; b) true most of the time; c) true sometimes; d) hardly every true; or e) not true at all, how much a given statement is like the respondent. The 16 questionnaire items examine an adolescent's feelings of loneliness (e.g., "I'm lonely"), feelings of social adequacy versus inadequacy (e.g., "I'm good at working with other children"), or subjective estimations of peer status (e.g., "I have lots of friends") (Asher et al., 1984, p. 1457). The remaining 8 items are "filler" statements (e.g., "I like to paint and draw"; "I watch T.V. a lot") and were included to help respondents feel more relaxed and open to answering this questionnaire. Factor analysis (quatrimax rotation) indicated a primary factor involving all 16 of the loneliness/social dissatisfaction items. This scale was found to be internally consistent (Cronbach's alpha = .90) and internally reliable (split-half correlation between forms = .83; Spearman-Brown reliability coefficient = .91; Guttman split-half reliability coefficient = .91). The LS is presented in Appendix F.

Self-Monitoring. The Revised Self-Monitoring Scale (RSM), developed by Snyder (1974, 1986) consists of 18 true-false, self-descriptive statements which specify: a) concerns with social appropriateness of one's self-presentation; b) attention to social cares situationally suitable for self-presentation; and c) the ability to control and modify one's expressive behavior to fit particular social situations. The original Self-Monitoring Scale (Snyder, 1974) had a Kruder-Richardson 20 of .70 and a test-retest reliability of .83. The revised version of this scale (Snyder & Gangestad, 1986) has an internal consistency reliability (Cronbach's alpha) of .70. The RSM can be found in Appendix G.

Anxiety. The Institute for Personality and Ability Testing (IPAT) Anxiety Scale (Krug, Scheier, & Cattell, 1976) consists of 40-items, requiring endorsement of one of the three alternatives along a most-to-least or true-false continuum (e.g., "I seem to tremble or perspire when I think of a difficult task ahead--a) yes, b) in between, c) no"). This self-report scale was developed to assess an individual's "free anxiety level" (trait anxiety or one's general level of anxiety). The 40 items are divided into two 20-item subscales (covert and overt anxiety) and into five primary trait factor scales (apprehension, tension, low self-control,

emotional instability and suspicion). The reliability and validity of this scale has been demonstrated in several studies (e.g., Briggs, Cheek, & Bass, 1980; Gabrenya & Arkin, 1980; Snyder, 1974; Snyder & Monson, 1975). Internal consistency reliabilities (Cronbach's alpha) are .86 for the total score, .80 for the overt subscale, and .77 for the covert subscale (Krug et al., 1976). The IPAT Anxiety Scale correlates .70 with the Taylor Scale of Anxiety and .73 with the Maudsley and Eysench neuroticism scale. The IPAT Anxiety Scale can be found in Appendix H.

Depression. The Dimensions of Depression Profile for Children and Adolescents, (DDP) developed by Harter and Nowakowski (1987), is a 30-item self-report survey designed to assess five dimensions of depression 1) affect/mood, 2) global self-worth, 3) energy/interest, 4) self-blame, and 5) suicidal ideation. This instrument utilizes the question format designed for the Perceived Competence Scale for Children (Harter, 1982) (see the Assessment of Self-Concept/Self-Esteem section described previously). Internal consistency reliabilities (using Cronbach's alpha) from six Colorado samples across all subscales (mood/affect, self-worth, energy/interest, self-blame, and suicidal ideation) ranged from .72 to .90. Intercorrelations among subscales ranged from .33 (suicide and self-abuse) to .82 (self-worth and mood) across four sample groups.

Correlations of subscales ranged from $\underline{r}$ = .48 (mood/affect and suicidal ideation) to $\underline{r}$ = .62 (energy interest), suggesting some stability over time. But, it appears that these constructs are not to be thought of as "traits" in the strict sense of the term. Correlations of the Affect/Mood subscale and The Perceived Competence Scale for Children (Harter, 1982) ranged from .29 (Athletic Competence subscale) to .75 (Self-Worth subscale). The DDP can be found in Appendix I.

Procedure

All six groups completed the same ten-part survey questionnaire consisting of 1) sociodemographic questions, 2) the Stanford University Drug Evaluation Questionnaire, 3) The Self-Perception Profile for Adolescents, 4) the Social Avoidance and Distress Scale, 5) the Children's Self-Efficacy for Peer Interaction Scale, 6) the Wolpe-Lazarus Assertiveness Scale, 1966), 7) the Loneliness Scale, 8) the Revised Self-Monitoring Scale, 9) the Institute for Personality and Ability Testing (IPAT) Anxiety Scale, and 10) the Dimensions of Depression Profile for Adolescents.

The questionnaires for the high school sample were administered by this investigator. Subjects were recruited for participation three weeks prior to the actual testing process from a pool of 432 high school

students from study halls (S.H.) and physical education (P.E.) classes. The investigator introduced himself to the students as a graduate student conducting a research project for his thesis. The following instructions were given to the students:

> The purpose of my study is to learn more about teenage drug use and how drugs might effect the way teenagers feel about themselves and about their peers.... I am here today to ask your permission for you to be a part of this study by answering a series of survey-type questionnaires. One of these surveys will ask you to answer questions about 1) your use/nonuse of a variety of drugs ranging from cigarettes to cocaine, 2) your friends' use/non-use of these drugs, and 3) your parents' use/nonuse of these same drugs. Other questionnaires will ask you how you feel about yourself, your classmates and your friends.... All answers you give are kept completely confidential...you are given a number and cannot be identified in any way.... This study is also completely voluntary and should you decide to participate you can also decide to stop at any time.

The students were then asked if they had any questions regarding the description of the study and to raise their hand if they wanted to be a participant in the study. At that point, a parental consent form, a youth assent form, and a letter addressed to the students' parent/ guardian (explaining the study) were distributed to each student with a raised hand. After these students had all three forms, each form was explained. It was again stressed that 1) the study was completely confidential and 2) that participation was voluntary. Each student was then asked to sign his/her youth assent form and take the parental/guardian letter and the consent form home to be signed by his/her parent/guardian. From the total pool of subjects, 397 (92% of those present) indicated they would participate by signing their youth assent forms. Two hundred and sixty-four students (66% of those indicating a desire to participate) returned both youth assent plus parental consent forms for participation in this study. Only those students with both forms signed were allowed to participate. The final group of subjects totaled 199 (75% of the students with signed forms). Subject attrition was due to 1) school schedule conflict (n = 20), 2) absenteeism (n = 15), 3) school disciplinary actions (n = 12), and 4) improperly completed forms (n = 18).

Three separate data gathering sessions were held for study hall (S.H.) students and physical education (P.E.) students over two separate weeks. Study Hall subjects completed the questionnaires first in either a cafeteria or classroom setting. Study halls are scheduled for eight, 47 minute, class periods throughout the school day. For the purpose of data gathering, five of the periods were held in the school's cafeteria and three S.H. periods were in regular classrooms. The P.E. students were taken from the school's gymnasium to the same classroom used for three of the S.H. subject groups.

Two class periods (94 minutes) were allotted to complete the ten survey questionnaires. A third day was scheduled for those students who were absent or had schedule conflicts (i.e., a student had study hall every other day), so that all questionnaires could be completed. All data gathering was conducted in small groups of subjects ranging in size from 3 to 22 ($\underline{M}$ = 15). Questionnaires were randomly numbered and distributed to students who were seated four to a table (tables were capable of seating eight). Students were asked to remember where they were seated so that during their second test session they would be in the same seat. Seating charts were constructed, which the researcher coded with the appropriate subject questionnaire number, assuring for example,

that subject 005 on day one would have data pack questions 005 on day two. This method of coding was used to insure confidentiality in the study. The students were cooperative, and they appeared to appreciate the fact that their names did not appear on any questionnaire. The average student required approximately 35 to 40 minutes each session to complete the questionnaires (70-80 minutes total).

Adolescents in Treatment

Data gathering procedures were identical to those used with the high school sample with two exceptions: 1) the manner in which consent was obtained and 2) the duration of the sessions. Youth assent was obtained for all CD subjects, as was the case for high school students, but parental consent was handled differently for the CD groups. For example, for the OUTTX sample the investigator presented his study proposal to most of the parent(s) of those youths in treatment during two family group sessions. Following these meetings, parental consent forms were signed. For the four remaining samples (INTX A, INTX B, INTX C, and HHTX) parental consent was obtained by treatment staff personnel, typically the patient's primary counselor. A major disadvantage with this method was the loss of potential subjects. Of those CD youths who were present when the experimenter first explained

the study (n = 113) over 95% (n = 107) signed assent forms indicating their desire to be part of this study. Several events lead to many of these potential subjects not being used in the study. The vast majority of subject attrition was due to the fact that parental consent was not obtained or parental consent was obtained, but the youth was no longer in treatment to be tested. This circumstance accounted for most of the loss of CD subjects in this study (n = 37). The remaining loss of subjects (n = 3) was due to scheduling conflicts between the experimenter and one treatment facility (INTX A).

The second change in procedure was the administration time of survey questionnaires. CD subjects were allowed to complete the entire battery of questionnaires in one sitting. It generally required CD subjects 75 to 90 minutes to complete all ten questionnaires.

CHAPTER IV

RESULTS

Data Analysis

Two general groups of subjects were used for statistical analysis in this study. These two samples consisted of high school students (n = 199) and CD patients (n = 67). This latter group, comprised of adolescents from five separate CD treatment facilities (INTX A, INTX B, INTX C, OUTTX, and HHTX), was considered a single composite CD sample due to the lack of subjects within individual CD samples (range, n = 11 to 18). The following analyses were performed:

1. Analyses of variance (ANOVAS) comparing CD samples.

2. Internal consistency reliabilities, determined by Cronbach's alpha, computed for all relevant measurement scales.

3. Descriptive statistics on the major predictor variables of drug involvement and sociodemographic factors.

4. Pearson product moment correlations comparing all measurement scales.

5. Stepwise regression analyses comparing predictor variables against degree of drug involvement.

6. Factor analyses of predictor and criterion (drug involvement) variables.

7. ANOVAS comparing drug use index (DUI) groups on each of the covariate predictor measures used in this study. In addition, selected sociodemographic variables were compared on these same covariate measures.

8) Discriminant analyses determining how accurately students and patients can be assigned to their appropriate drug involvement groups based upon how they score on covariate (predictor) measures and selected sociodemogrpahic variables.

CD Samples

Separate ANOVAS were used to determine if the five CD samples used in this study could be collapsed to form a single composite CD sample. The analyses compared drug involvement scores (DUI, Intent, Exposure, and Stopper) for each of the following subject variables: CD group (INTX A, INTX B, INTX C, OUTTX, and HHTX); age; sex; and ethnic background. Four, four-way ANOVAS were generated using each of the drug involvement measures as dependent variables. Only one significant main effect was found for the drug stopper score, F (17,66) = 1.33, p < .001. A one-way ANOVA indicated that OUTTX subjects had a greater

mean stopper score (M = 1.96) than either HHTX subjects (M = .56) or INTX A subjects (M = .59). More subjects in the outpatient facility (OUTTX) had indicated that they did not anticipate using drugs in the near future than subjects from either one of the inpatient programs (INTX A) or the halfway house (HHTX). It should be noted that all CD subjects used in this study were exposed to treatment philosophies which emphasize the goal of abstinence "one day at a time." Many adolescents were either unable and/or unwilling to answer questions concerning future drug use with any certainty. Thus, comparisons between student and patient or comparisons within patient groups should be viewed with caution whenever the drug stopper involvement measure is used.

Reliability

Internal consistency reliabilities (Cronbach's alpha) were computed for all relevant measurement scales. Separate reliabilities were calculated for student and patient samples. Scales from the high school student sample demonstrated generally high reliabilities, with all but two measures having reliabilities ranging from .79 (Wolpe-Lazarus Assertiveness Scale) to .93 (Self-Efficacy for Peer Interaction Scale). The two scales below this reliability range were the Revised Self-Monitoring Scale (.61) and the drug stopper (.51) scales. Although this latter drug involvement

measure had a relatively lower internal consistency, the remaining three drug involvement measures (DUI, Intent, and Exposure) had reliabilities of .87, .84, and .80, respectively. When all drug involvement measures were combined, an internal consistency reliability of .88 was obtained.

Reliabilities for the CD group were also generally high, with all but two scales having reliabilities between .82 (SPPA) and .94 (SEPI). The RSM scale and the WLAS scale had alphas of .53 and .65, respectively. It is of interest to note that the RSM scores had internal consistencies of .61 and .53 in student and patient samples, respectively. These lower reliabilities may be due, in part, to the relatively small number of items (18) used in this scale. Overall, however, reliabilities were quite high for both samples, indicating that measurement scales used in this study were generally internally consistent for the groups used.

Descriptive Statistics

Means and standard deviations for each of the psychosocial predictor variables and Drug Involvement criterion variables for student and patient samples are shown in Table 8. Selected subject variables (sex, age, and ethnic background) were compared for each of the drug

Table 8

Means and Standard Deviations for Predictor and Criterion Measures for Adolescent Student and Patient Samples

Measure	Students (N=199) M	SD	Patients (N=67) M	SD
DI				
DUI	.25	.21	.50	.26
Intent	.53	.43	.55	.41
Exposure	.21	.83	2.70	1.10
Stopper	.39	.40	1.20	1.30
SPPA				
Scholastic Competence	2.90	.72	2.70	.71
Social Acceptance	3.20	.64	3.20	.62
Athletic Ability	2.70	.83	2.50	.81
Physical Appearance	2.60	.77	2.60	.83
Job Competence	3.20	.55	3.10	.67
Romantic Appeal	2.60	.70	2.80	.68
Behavioral Conduct	2.60	.57	2.30	.61
Close Friendship	3.30	.63	3.30	.58
Self-Worth	2.90	.71	2.60	.74
DDP				
Mood/Affect	3.00	.68	2.70	.76
Global Self-Worth	3.00	.67	2.70	.75
Energy/Interest	2.90	.65	2.70	.69
Self-Blame	2.50	.61	2.40	.69
Suicide Ideation	3.30	.77	3.00	.83
Social Skills				
RSM	9.10	3.10	11.10	2.80
LS	30.10	9.30	32.30	10.20
SEPI	68.00	11.40	66.00	14.40
WLAS	17.30	5.30	17.30	4.10
SAD	19.50	6.20	18.00	7.60
Anxiety (Overt & Covert)				
IPAT	38.00	11.70	38.60	10.20

involvement groups. It should be noted that CD scale groups were created using the same scale distributions used for the student sample. This procedure was done so that initial observations between student and CD samples could be made.

Drug involvement measures were coded in such a way that high scores indicated greater drug involvement. The measures used were: 1) DUI--greater index scores indicated greater drug use; 2) Intent--higher scores indicated greater intention to use drugs in the future; and 3) Exposure--higher scores indicated greater exposure to drugs. The fourth drug involvement score (stopper) was coded so that higher stopper scores indicated that drug use prior to a youth's decision to stop using drugs was greater than, for example, a youth in a "low stopper" group level. Thus, high scores on this measurement were not necessarily positive or negative.

Chi square analyses were computed for all drug involvement variable comparisons, controlling for subject variables. These analyses were performed in order to obtain descriptive data on the basic association between DI groups and the psychosocial variables examined in this study. In addition, by controlling for the sex, age, and ethnicity of subjects, it was possible to examine differences between these subject variables as

they relate to drug involvement. Results are presented separately for student and CD samples and for drug involvement variables.

Drug involvement and students. Only two significant Chi-squares were found when drug involvement groups were compared across student variables (i.e., sex, age, and ethnic background). Both significant findings were in reference to the ethnic background (white vs. black) of subjects, $\underline{X}^2(3) = 15.17$, $\underline{p} < .001$ and $\underline{X}^2(2) = 10.77$, $\underline{p} < .005$ were found when DUI and drug exposure groups (respectively) were compared by the ethnic background of students. Black students tended to be less involved with drugs than white students. Among the black students, 83% were in the low to moderate user groups compared to 72% of the white students. When the drug intent measure was considered, 94% of the blacks were in the low to medium intention groups, compared to 73% of the whites.

Drug involvement and CD patients. No significant Chi-square values were found between drug involvement (DUI, Intent, Exposure, and Stopper) and the age and sex of CD subjects. The ethnic background of subjects was not used in these comparisons due to the lack of non-white participants from treatment programs.

Correlational Analyses

Intercorrelations were examined within and between measurement scales and subscales used in this study. These analyses were performed so that associations within and between measures could be assessed. Of particular interest were the relationships between DI measures (DUI, Intent, Exposure, and Stopper) and the various predictor variables and their subscale domains. Pearson product moment correlations for student and CD samples were examined separately.

Drug Involvement Measures

DI correlations for both student and patient samples are presented in Table 9. Significant relationships were found within DI measures.

Table 9

Intercorrelations of Drug Involvement Measures (DUI, Intent, Exposure, and Stopper) for Adolescent Students and Patients

Students	(N=199)	DUI	Intent	Exposure	Stopper
DUI		1.00			
Intent		.90**	1.00		
Exposure		.54**	.55**	1.00	
Stopper		-.06	-.24*	-.09	1.00
Patients	**(N=67)**				
DUI		1.00			
Intent		.65**	1.00		
Exposure		.40**	.25*	1.00	
Stopper		-.45**	-.61**	.16	1.00

* $p < .01$ ** $p < .001$

In the student sample, DUI scores correlated significantly with both exposure to drugs and intent to use drugs. Greater drug index scores were associated with greater exposure and intent to use drugs. A significant negative relation was found between drug Intent and Stopper scores, indicating that students anticipating future drug use were less likely to have been at higher levels of drug stoppage. A significant positive relation was found between Intent and Exposure measures, suggesting that students with greater exposure to drugs were more likely to indicate an intent to use drugs in the future than students with less exposure to drugs.

Relationships of drug involvement measures for CD patients were similar to those found for students. Drug use index scores were correlated significantly with all other indices of drug involvement. Significant positive correlations with both drug Intent and Exposure suggest that patients with greater DUI scores were more likely to indicate future use of drugs and they had greater exposure to drugs than patients with smaller drug index scores. A significant negative association between DUI and Stopper scores indicates that increases in DUI among the patients were related to decreases in Stopper levels. Exposure and Stopper scores were not found to be significantly

correlated for the CD or student groups. A significant negative correlation, however, was found between Intent and Stopper scores suggesting that a subject's intentions to use drugs negatively reflect upon his/her abstinence level.

Self-Perception Profile for Adolescents Subscales Domain

Correlations among SPPA domains for student and patient samples are presented in Table 10. Within the student group, all correlations were positive, and only three failed to reach significance at the $p < .01$ level. The nonsignificant correlations were Job Competence and Athletic Competence, Athletic Competence and Close Friendship domains, and Physical Appearance and Job Competence domains. Apparently, student feelings of competence in the areas of employment and friendship do not necessarily depend on athletic competence. Also, how one views physical appearance has less influence on competence in the work place. The remaining correlations were generally quite high, r's from .19 to .67. Correlations between Scholastic Competence and all other domains were significant at the $p < .001$ level. This was also true for the Social Acceptance and Global Self-Worth domains.

When students were compared across SPPA domains they tended to have self-concept scores which were interrelated. For example, students

who indicated high levels of scholastic competence (i.e., made good grades and felt he/she was generally an intelligent person) also tended to indicate high levels of being socially accepted, having competence in his/her athletic abilities, liking the way he/she looked physically, being romantically appealing to others, behaving appropriately, having close friendships, and having a feeling of general self-worth.

When the CD patient sample was considered, correlations were again all positive, but fewer significant correlations were found among the measures. Correlations ranged from $\underline{r} = .31$ to $\underline{r} = .70$. The correlation between Global Self-Worth and Behavioral Conduct suggests that patients who feel good about themselves tend also to be well-behaved. A cluster of relations was formed around the Social Acceptance, Physical Appearance, and Romantic Appeal domains. Patients reporting high levels of Social Acceptance tended to report high levels of Athletic Competence, Physical Appearance, Romantic Appeal, Close Friendship, and Global Self-Worth. When the Physical Appearance domain is examined, high levels are associated with increases in Romantic Appeal, Behavioral Conduct, Close Friendship, and Global Self-Worth. A third cluster, involving the Romantic Appeal domain, revealed that CD patients

indicating high levels of romantic attractiveness tended to have high levels of Behavioral Conduct, Close Friendship, and Global Self-Worth.

Table 10

Intercorrelations of SPPA Subscale Domains for Adolescent Students and Patients

	SCH	SOC	ATH	PHYS	JOB	ROM	COND	FRND	SW
Students		(N=199)							
SCH	1.00								
SOC	.29**	1.00							
ATH	.29**	.35**	1.00						
PHYS	.29**	.44**	.45**	1.00					
JOB	.33**	.29**	.16	.12	1.00				
ROM	.24**	.52**	.35**	.53**	.19*	1.00			
COND	.39**	.31**	.28**	.28**	.36**	.23*	1.00		
FRND	.29**	.67**	.18	.24**	.21*	.39**	.25**	1.00	
SW	.49**	.57**	.48**	.65**	.30**	.49**	.48**	.45**	1.00
Patients		(N=67)							
SCH	1.00								
SOC	.31*	1.00							
ATH	.31*	.39*	1.00						
PHYS	.29	.48**	.17	1.00					
JOB	.26	.30	.11	.29	1.00				
ROM	.21	.54**	.19	.52**	.39*	1.00			
COND	.24	.25	.35*	.39*	.27	.32*	1.00		
FRND	.16	.55**	.09	.44**	.39*	.43**	.18	1.00	
SW	.31*	.43**	.20	.68**	.42**	.52**	.70**	.38*	1.00

SCH = Scholastic Competence
SOC = Social Acceptance
ATH = Athletic Competence
PHYS = Physical Appearance
JOB = Job Competence
ROM = Romantic Appeal
COND = Behavioral Conduct
FRND = Close Friendship
SW = Self-Worth

* $p < .01$ ** $p < .001$

The correlational patterns among students and patients were quite similar with the exception being a lack of significance in the patient sample. These results were also similar to those found in several samples of adolescents from a study by Harter (1988), who reported average r's ranging from .12 (Athletic Competence and Job Competence) to .69 (Physical Appearance and Self-Worth).

Social Skills

The five scales used in this study to measure social skills (Revised Self-Monitoring, Loneliness, Self-Efficacy for Peer Interaction, Wolpe-Lazarus Assertiveness, and the Social Avoidance and Distress Scales) were compared across both student and patient groups (see Table 11). For the student sample, correlations between social skills measures indicated that SEPI subscales (Conflict and Nonconflict) were significantly correlated ($r = .77$, $p < .001$) suggesting that students who feel confident in peer interactions involving conflict also feel confident in nonconflicting peer interactions. When the LS measure was considered, all correlations were negative and significant at the $p < .01$ level. Decreases in levels of loneliness were associated with increases in peer interaction confidence (conflict and nonconflict), increases in assertiveness, and increases in social avoidance and distress scores--

Table 11

Intercorrelations of Social Skills Measures (RSM, LS, SEPI, AS, and SAD) for Adolescent Students and Patients

	RSM	LS	SEPI	WLAS	SAD
Students (N=199)					
RSM	1.00				
LS	-.13	1.00			
SEPI	.25**	-.29**	1.00		
AS	.07	-.31**	.34**	1.00	
SAD	-.04	-.31**	.01	.15	1.00
Patients (N=67)					
RSM	1.00				
LS	-.21	1.00			
SEPI	.11	-.37*	1.00		
AS	.25	-.38*	.52**	1.00	
SAD	.29	-.57**	.38*	.57**	1.00

RSM = Revised Self-Monitoring Scale
LS = Loneliness Scale
SEPI = Self-Efficacy for Peer Interaction Scale
WLAS = Wolpe-Lazarus Assertiveness Scale
SAD = Social Avoidance of Distress Scale

* $p < .01$ ** $p < .001$

indicating lower levels of social avoidance and distress. Increases in self-monitoring ability (as measured by the RSM scale) were not significantly associated with loneliness, but the negative relation indicates that decreases in loneliness were slightly associated with increases in self-monitoring ability. The RSM scale was significantly related to measures of SEPI, suggesting that increases in peer interaction confidence were associated with increases in self-monitoring ability.

Conflict and nonconflict SEPI subscales for the CD group were significantly correlated (r = .79, p < .001). In addition, LS measures also correlated with SEPI, AS, and SAD measures. The RSM scale was not significantly related with any of the other social skills measures in the patient sample.

Dimensions of Depression

Intercorrelations for the five DDP domains for student and CD patient samples are presented in Table 12. For students, all correlations were positive, and only one was insignificant at the p < .001 level. Correlation coefficients ranged from r = .22 to r = .78. The intercorrelation between Mood/Affect and Self-Worth suggests that with an increase in feelings of cheerfulness/happiness, students' feelings of liking for self also increase. Overall, correlations were consistently in the .45 to .66 range.

Correlations within the patient sample were generally higher than those found with students. All correlations were positive and significant at the p < .001 level. Correlations ranged from r = .46 to r = .86. The Mood/Affect of patients also was highly correlated with Self-Worth and all other subscale domains.

Table 12

Intercorrelations of DDP Subscale Domains for Adolescent Students and Patients

	Mood	GSW	Energy	Self-B	Suicide
Students (N=199)					
Mood	1.00				
GSW	.78**	1.00			
Energy	.58**	.61**	1.00		
Self-B	.45**	.44**	.22**	1.00	
Suicide	.66**	.64**	.49**	.38**	1.00
Patients (N=67)					
Mood	1.00				
GSW	.86**	1.00			
Energy	.55**	.58**	1.00		
Self-B	.73**	.67**	.46**	1.00	
Suicide	.67**	.71**	.48**	.56**	1.00

Mood = Mood/Affect GSW = Global Self-Worth
Energy = Energy/Interest Self-B = Self-Blame
Suicide = Suicidal Ideation

* $p < .01$ ** $p < .001$

Intercorrelations for the student and patient samples were also consistent with those found in a study by Harter and Nowakowski (1987). These authors report average r's across four separate samples of children and adolescents from .32 (Self-Blame and Energy/Interest) to .78 (Self-Worth and Mood/Affect).

Self-Perception Profile for Adolescents and Drug Involvement

Intercorrelations between SPPA and DI measures are presented in Table 13 for both student and patient groups. Two SPPA scale domains

(Self-Worth and Behavioral Conduct) for students are related to three of the DI measures (DUI, Intent, and Exposure). Increases in student reported levels of self-worth were significantly associated with:

Table 13

Intercorrelations of Drug Involvement Measures with SPPA Subscale Domains for Adolescent Students and Patients

	SCH	SOC	ATH	PHYS	JOB	ROM	COND	FRND	SW
Students (N=199)									
DUI	-.13	-.12	-.21*	-.22*	-.20*	-.13	-.43**	-.07	-.26**
Intent	-.10	-.07	-.20*	-.23*	-.16	-.09	-.43**	-.06	-.27**
Exposure	-.19*	-.10	-.23**	-.24**	-.08	-.16	-.27**	-.13	-.24**
Stopper	-.07	-.07	-.01	.04	-.01	.13	.09	.09	.03
Patients (N=67)									
DUI	.08	.20	-.02	-.08	.02	.05	-.17	.03	-.21
Intent	.12	.17	.07	.01	.03	.12	-.17	.07	-.11
Exposure	-.14	.04	.01	-.10	-.11	-.02	-.06	-.26	-.23
Stopper	-.01	-.17	.07	.03	.01	-.13	.14	-.14	-.01

SCH = Scholastic Competence
SOC = Social Acceptance
ATH = Athletic Competence
PHYS = Physical Appearance
JOB = Job Competence
ROM = Romantic Appeal
COND = Behavioral Conduct
FRND = Close Friendship
SW = Self-Worth

* $p < .01$ ** $p < .001$

decreases in DUI scores, decreases in Intent to use drugs scores, and decreases in Exposure to drugs scores. Students who indicated they were well behaved tended to: use fewer drugs, intended to use fewer drugs, and were less exposed to drugs. A student's self-concept

regarding his/her athletic competence and physical appearance was negatively related to levels of Exposure to drugs and levels of DUI.

Two other significant correlations were: Scholastic Competence and Drug Exposure, and Job Competence and DUI. Apparently, those students who feel competent in school tend to report less exposure to drugs, and as reported levels of employment competence increased, levels of DUI decreased. Although significant relations were not found between all SPPA and DI measures, the correlations were generally in the predicted direction. For example, small negative relations were found between social acceptance levels and DUI, Exposure, and Intent scores, which might suggest that increases in social acceptance were followed by decreases in drug use, intent to use, and exposure to drugs.

A different picture is found between measures when the CD patients are considered. No correlations were found to be significant at the $p < .01$ level; however, consistent negative relationships were found between a patient's general level of Self-Worth, and all DI measures. Increases in self-worth tended to be associated with decreases in: DUI, Intent to use and Exposure to drugs. Similarly, small relations were found between Behavioral Conduct and DUI, Intent, and Exposure scores, suggesting that patients who feel they are well behaved tended to have smaller DUI scores, intend to use fewer drugs, and have less exposure to drugs.

Social Skills and Drug Involvement

Table 14 presents the intercorrelations, for students and patients between social skills (RSM, LS, SEPI, WLAS, and SAD) and DI measures. Only two clusters of correlations reached significance for the student group. The Intercorrelations were: SAD scale and three DI measures--DUI, Intent, and Exposure and the LS and three DI measures--DUI, Exposure, and Intent. These results suggest that students indicating lower social avoidance and distress tended to also have lower DUI Intent and Exposure scores. In addition, students who were less lonely generally indicated lower drug use, lower exposure to drugs, and were less likely to use drugs in the future. A single significant correlation was found between students' self-monitoring and their reported intentions to use drugs, indicating that with increased self-monitoring ability, reported intentions to use drugs decreased.

Table 14

Intercorrelations of Drug Involvement Measures with Social Skills for Adolescent Students and Patients

	RSM	LS	SEPI	WLAS	SAD
Students (N=199)					
DUI	.15	.27**	.01	-.14	-.51**
Intent	.20*	.23*	.03	-.16	-.55**
Exposure	.10	.19*	.05	-.16	-.37**
Stopper	.03	-.01	-.03	.12	.18
Patients (N=67)					
DUI	.01	-.04	.20	.07	.10
Intent	.13	-.05	.01	.05	.19
Exposure	-.05	.09	.05	-.14	-.13
Stopper	-.08	.01	-.12	-.20	-.22

RSM = Revised Self-Monitoring Scale
LS = Loneliness Scale
SEPI = Self-Efficacy for Peer Interaction Scale
WLAS = Wolpe-Lazarus Assertiveness Scale
SAD = Social Avoidance of Distress Scale

* $p < .01$ ** $p < .001$

When patients were considered, the relationships between social skills and drug involvement were generally small and insignificant. Correlations ranged from .0 to -.22 (SAD and drug Stopper score).

Dimensions of Depression Profile and Drug Involvement

Student and patient group correlations between DDP domains and DI measures are presented in Table 15. The students sample had generally strong negative interrelations between levels of depression and

Table 15

Intercorrelations of Drug Involvement Measures with DDP Subscale Domains for Adolescent Students and Patients

	Mood	GSW	Energy	Self-Blame	Suicide
Students (N=199)					
DUI	-.27**	-.26**	-.31**	-.15	-.45**
Intent	-.26**	-.26**	-.31**	-.13	-.45**
Exposure	-.19*	-.20*	-.16	-.24**	-.31**
Stopper	.01	-.02	-.01	.01	.01
Patients (N=67)					
DUI	-.22	-.29	-.06	-.24	-.26
Intent	-.15	-.14	.12	-.10	.01
Exposure	-.32*	-.28	-.17	-.22	-.25
Stopper	.01	.04	-.17	.03	-.03

* $p < .01$ ** $p < .001$

drug involvement. Specifically, three depression domains (Mood/Affect, Self-Worth, and Suicidal Ideation) were negatively correlated with DUI, Intent, and Exposure measures. Results indicated that increases in student happiness, self-worth, and lack of suicidal ideation were associated with decreases in DUI and Intent to use drugs in the future. The Energy/Interest subscale significantly correlated with DUI and Intent to use drugs, suggesting that increases in student's level of energy were associated with decreases in both DUI and Intent to use scores. In addition, a significant negative correlation was found between Self-Blame depression scores and drug Exposure scores indicating that students who

place less blame on themselves for different problems in their lives are not as likely to be exposed to drugs, based on self-report.

In the patient sample, only one significant correlation was found--Mood/Affect subscale and Exposure to drugs. Apparently, patients reporting greater levels of happiness were also more likely to report less exposure to drugs. It should be pointed out that while the correlations were non-significant, their direction was generally negative, indicating that decreases in depression were followed by smaller DUI, Intent, and Exposure scores.

Anxiety and Drug Involvement

Intercorrelations between IPAT Anxiety measures and DI measures are presented in Table 16 for both student and patient samples. For students, these correlations centered primarily around covert (unconscious) anxiety scores more than overt (conscious) anxiety scores. Students who reported increased levels of covert anxiety tended to have higher DUI scores, Intent to use scores, and Exposure scores. Overt anxiety was significantly associated with exposure to drugs, indicating that students with conscious feelings of anxiety tended to have greater exposure to drugs.

Table 16

Intercorrelations of Drug Involvement Measures with IPAT Anxiety Measures (Overt, Covert, and Combined Anxiety) for Adolescent Students and Patients

	Covert	Overt	Combined
Students (N=199)			
DUI	.26**	.14	.19*
Intent	.27**	.13	.19*
Exposure	.26**	.25**	.29**
Stopper	-.04	.02	.03
Patients (N=67)			
DUI	.08	-.01-	.03
Intent	.09	-.04	.02
Exposure	.35*	.11	.23
Stopper	.04	.08	.07

* $p < .01$ ** $p < .001$

In the patient sample, significant intercorrelations were not found, with the exception of one comparison--Covert anxiety and drug Exposure. When patients reported increases in covert anxiety, they tended to have increased levels of exposure to drugs.

Self-Perception Profile for Adolescents and Social Skills

Table 17 presents intercorrelations between SPPA domains and social skills for both student and patient samples. Three social skills measures

Table 17

Intercorrelations of SPPA Subscale Domains with Social Skills for Adolescent Students and Patients

	RSM	LS	SEPI	WLAS	SAD
Students (N=199)					
SCH	.12	.29**	.15	.24**	.25**
SOC	.20*	-.64**	.32**	.32**	.29**
ATH	-.03	-.28**	.19*	.24	.19*
PHYS	-.01	-.39**	.15	.27**	.38**
JOB	.06	-.17	.11	.11	.22*
ROM	.15	-.45**	.33**	.32**	.33**
COND	-.14	-.26**	.07	.24**	.37**
FRND	.12	-.53**	.21*	.25**	.24**
SW	-.03	-.49**	.16	.33**	.49**
Patients (N=67)					
SCH	.10	-.20	.13	.19	.27
SOC	.16	.55**	.36*	.56**	.64**
ATH	.05	-.28	.31*	.22	.32*
PHYS	-.13	-.45**	.21	.18	.30
JOB	-.09	-.31*	.21	.24	.42**
ROM	.19	-.48**	.22	.43**	.57**
COND	-.24	-.31*	.16	.18	.15
FRND	.04	-.46**	.16	.37*	.58**
SW	-.26	-.41**	.21	.39*	.36*

SCH = Scholastic Competence
SOC = Social Acceptance
ATH = Athletic Competence
PHYS = Physical Appearance
JOB = Job Competence
ROM = Romantic Appeal
COND = Behavioral Conduct
FRND = Close Friendship
SW = Self-Worth

* $p < .01$ ** $p < .001$

(LS, WLAS, and SAD) were significantly related to SPPA subscales in the student sample. As students reported decreases in feelings of loneliness, they tended to report increased positive feelings of self-concept across all

subscale domains. When the WLAS is considered, students indicating greater levels of assertiveness had generally more positive scores on all but one of the SPPA self-concept subscales. The correlation between SAD scale and all self-concept measures suggests that students reporting less social avoidance and distress tend to also have a more positive self-concept across domains compared to students expressing greater levels of social avoidance and distress. When the SEPI scale (Conflict and Non-Conflict) is considered, four self-concept scales were found to be significantly related--socially accepted, athletically competent, romantically appealing, and having close friendships. One additional significant relation was observed between the RSM scale and Social Acceptance. Apparently, students indicating greater levels of self-monitoring ability also reported greater levels of social acceptance.

In the patient sample, the same three social skills measures (LS, WLAS and SAD) reported for the student sample were generally also found to be associated with self-concept measures.

The second grouping of significant correlations was found between WLAS scores and four SPPA subscales. Increases in assertiveness in patients was significantly correlated with increases in Social Acceptance, Romantic Appeal, Close Friendship, and Global Self-Worth.

The SAD measure was the third social skills measure that formed a cluster across self-concept measures. Patients reporting less social avoidance and distress (i.e., had greater SAD scores) indicated corresponding score increases in Social Acceptance, Athletic Competence, Job Competence, Romantic Appeal, Close Friendships, and Global Self-Worth. When the SEPI measure is considered, two significant correlations were found between self-concept domains. As patients felt more confident in interactions with peers, they tended also to report increases in self-concept.

Dimension of Depression Profile and Social Skills

Student and patient intercorrelations between depression subscales and the five social skills measures are presented in Table 18. Intercorrelations within the student sample are consistent with those indicated in comparisons between SPPA subscales and social skills. The LS, AS, and SAD measures were again found to cluster around the depression domains used in this study. The third cluster, involving SAD and DDP measures, suggested that students with lower social avoidance and distress tended to: be generally happy, have a positive self-worth,

Table 18

Intercorrelations of DDP Subscale Domains with Social Skills Measures for Adolescent Students and Patients

	RSM	LS	SEPI	WLAS	SAD
Students (N=199)					
Mood	-.01	-.49**	.25**	.31**	.35**
GSW	-.01	-.44**	.27**	.32**	.46**
Energy	-.01	-.34**	.16	.21*	.38**
Self-Blame	-.02	-.23*	.23**	.33**	.19*
Suicide	-.06	-.35**	.02	.23	.37**
Patients (N=67)					
Mood	-.11	-.45**	.21	.36*	.35*
GSW	-.11	-.43**	.19	.37*	.33*
Energy	.07	-.26	.24	.30	.39*
Self-Blame	-.14	-.35*	.04	.31	.24
Suicide	.05	-.37*	.14	.26	.28

* $p < .01$ ** $p < .001$

lots of energy, not blame themselves for things that go wrong, and not be suicidal. Three significant correlations between SEPI and depression subscales were found. Students indicating greater self-confidence regarding peer interactions (conflicting and nonconflicting) tended to be happy and have a positive self-worth.

In the patient sample, only two clusters were observed. Loneliness Scale scores tended to correlate with DDP subscales in that patients reporting less loneliness also were less depressed. Three significant correlations were found between SAD and depression domains.

Decreases in Social Avoidance and Distress were associated with increases in Mood/Affect and Self-Worth.

Dimensions of Depression Profile and Self-Perception Profile for Adolescents

Intercorrelations between DDP and SPPA domains are presented in Table 19 for both student and patient samples. Measures of self-concept and depression in the student sample tended to correlate in a linear fashion, with increases in self-concept associated with decreases in depression. For patients, fewer significant correlations were found; but, overall, the self-concept and depression measures tended to follow a similar pattern to that for students.

Self-Perception Profile for Adolescents and IPAT Anxiety

Student and patient intercorrelations between self-concept domains and anxiety scores are presented in Table 20. Increases in students' reported levels of anxiety were associated with decreases in levels of self-concept.

The correlational pattern for the patient sample revealed five significant associations between overall anxiety levels and self-concept subscales, suggesting that patients who reported higher levels of anxiety

tended to have low self-concept in Scholastic Competence, Athletic Competence, Physical Appearance, Behavioral Conduct, and Self-Worth.

Table 19

Intercorrelations of SPPA Subscale Domains with DDP Subscale Domains for Adolescent Students and Patients

	Mood	GSW	Energy	Self-Blame	Suicide
Students (N=199)					
SCH	.35**	.40**	.31**	.27**	.32**
SOC	.43**	.45**	.39**	.24**	.26**
ATH	.35**	.42**	.42**	.30**	.32**
PHYS	.45**	.61**	.34**	.41**	.35**
JOB	.19*	.22*	.26**	.03	.20*
ROM	.34**	.42**	.23*	.24**	.20**
COND	.37**	.43**	.41**	.16	.43**
FRND	.40**	.36**	.28**	.09	.23*
SW	.71**	.80**	.56**	.44**	.56**
Patients (N=67)					
SCH	.18	.25	.46**	.21	.19
SOC	.35*	.35*	.29	.32*	.23
ATH	.31*	.25	.30	.27	.18
PHYS	.43**	.59**	.25	.28	.39*
JOB	.25	.34*	.43**	.18	.34*
ROM	.54**	.56**	.40**	.35*	.50**
COND	.63**	.63**	.32*	.50**	.41**
FRND	.29	.31	.16	.32*	.33*
SW	.74**	.83**	.49**	.58**	.57**

SCH = Scholastic Competence
SOC = Social Acceptance
ATH = Athletic Competence
PHYS = Physical Appearance
JOB = Job Competence
ROM = Romantic Appeal
COND = Behavioral Conduct
FRND = Close Friendship
SW = Self-Worth

* $p < .01$ ** $p < .001$

Table 20

Intercorrelations of IPAT Anxiety (Covert, Overt, and Combined Anxiety) with SPPA Subscale Domains for Adolescent Students and Patients

	SCH	SOC	ATH	PHYS	JOB	ROM	COND	FRND	SW
Students (N=199)									
Covert	-.26**	-.17	-.28**	-.30**	-.15	-.23*	-.28**	-.16	-.37**
Overt	-.33**	-.30**	-.29**	-.47**	-.03	-.36**	-.17	-.23**	-.56**
Combined	-.39**	-.35**	-.35	-.47	-.12	-.36**	-.29**	-.29**	-.59**
Patients (N=67)									
Covert	-.28	-.13	-.29	-.30	-.22	-.21	-.41**	-.12	-.52**
Overt	-.30	-.41**	-.35*	-.41**	-.25	-.26	-.44**	-.20	-.57**
Combined	-.32*	-.31	-.36*	-.39**	-.26	-.26	-.47**	-.18	-.60**

SCH = Scholastic Competence
SOC = Social Acceptance
ATH = Athletic Competence
PHYS = Physical Appearance
JOB = Job Competence
ROM = Romantic Appeal
COND = Behavioral Conduct
FRND = Close Friendship
SW = Self-Worth

* $p < .01$ ** $p < .001$

Social Skills and Anxiety

The intercorrelations between social skills and anxiety appear in Table 21. Those students who report increased feelings of loneliness were found to have higher levels of covert and overt anxiety. Greater assertiveness was negatively reflected in students' overt anxiety levels, suggesting that conscious awareness of anxiety decreased students' reports of assertiveness. The third social skills measure (SAD) indicated

Table 21

Intercorrelations of DDP Subscale Domains with Social Skills Measures for Adolescent Students and Patients

	RSM	LS	SEPI	WLAS	SAD
Students (N=199)					
Covert	.06	.27**	-.03	-.12	-.25**
Overt	-.07	.41**	-.18	-.31**	-.28**
Combined	-.01	.43**	-.15	-.31**	-.34**
Patients (N=67)					
Covert	.28	.33*	-.15	-.23	-.29
Overt	.14	.45**	-.41**	-.40**	-.43**
Combined	.22	.43**	-.33*	-.36*	-.40**

RSM = Revised Self-Monitoring Scale
LS = Loneliness Scale
SEPI = Self-Efficacy for Peer Interaction Scale
WLAS = Wolpe-Lazarus Assertiveness Scale
SAD = Social Avoidance of Distress Scale

* $p < .01$ ** $p < .001$

that students reporting high levels of social avoidance and distress also were experiencing greater levels of anxiety. Similar results were found for the patient sample. Increased loneliness scores were associated with increased levels of anxiety. Patients indicating greater levels of assertiveness tended to have less overt anxiety and overall levels of anxiety. Patients who were more socially anxious and distressed also indicated greater levels of overall anxiety. In addition, SEPI (conflict and nonconflict) scores indicated that patients feeling more self-confident in

peer interactions also had less overt anxiety and less overall anxiety.

Dimension of Depression Profile and IPAT Anxiety

Intercorrelations between depression domains and Anxiety are presented in Table 22 for both student and patient samples. Students reporting high levels of covert and overt anxiety indicated lower levels of depression. The correlations for the patient sample also suggested that high anxiety is associated with less depression.

Table 22

Intercorrelations of DDP Subscale Domains with IPAT Anxiety for Adolescent Students and Patients

	Covert	Overt	Combined
Students (N=199)			
Mood	-.33**	-.52**	-.53**
GSW	-.35**	-.53**	-.55**
Energy	-.27**	-.34**	-.37**
Self-Blame	-.24**	-.43**	-.40**
Suicide	-.29**	-.37**	-.40**
Patients (N=67)			
Mood	-.57**	-.56**	-.62**
GSW	-.50**	-.50**	-.54**
Energy	-.33*	-.40**	-.40**
Self-Blame	-.43**	-.43**	-.47**
Suicide	-.36*	-.44**	-.44**

* $p < .01$ ** $p < .001$

Multivariate Analyses

Multiple regression and stepwise regression analyses were used to determine the variance accounted for in adolescent drug involvement (defined in terms of: DUI, Intent, Exposure, and Stopper) with self-concept/esteem, social skills, anxiety, and depression as predictor variables. Sex, ethnic background, and year in school for all subjects were also included in the predictor variable list to determine if demographic differences in gender, ethnicity, and age exist between predictor-criterion relationships. Separate analyses were performed for student and CD patient samples, and also for each of the four DI measures used in this study. All predictor variables were entered simultaneously into the regression equation because no hypotheses had been formulated concerning the priority of particular predictors.

Student Sample

Table 23 presents the results of the multiple regression analyses for the student sample. The multiple correlations for each DI criterion (DUI, Intent, Exposure, and Stopper), using all predictor variables as a set, ranged from a nonsignificant .15 (drug Stopper as the DI criterion) to a statistically significant .57 (drug Intent as the DI criterion), $p < .00001$. The remaining two Drug Involvement criteria (DUI and Exposure) had

Table 23

Multiple Correlations and Proportion of Drug Involvement Variance Accounted for by Individual Predictor Variables and a Psychosocial Predictor Set

	Students		
	R	R^2	F
DUI			
Social Avoidance and Distress	.51	.26	69.97**
DDP-Suicidal Ideation	.58	.34	50.01**
SPPA-Behavioral Conduct	.61	.37	38.08**
DDP-Self-Worth	.64	.41	33.24**
Ethnicity	.66	.43	29.64**
Year in School	.67	.45	25.98**
Loneliness	.68	.46	23.17**
SPPA-Social Acceptance	.69	.47	21.40**
All Measures	.72	.53	6.71**
Intent			
Social Avoidance and Distress	.55	.30	85.25**
DDP-Suicidal Ideation	.61	.37	58.36**
DDP-Self-Worth	.63	.40	43.71**
SPPA-Behavioral Conduct	.66	.44	38.05**
SPPA-Scholastic Competence	.69	.47	34.22**
Ethnicity	.69	.48	29.88**
Self-Monitoring	.70	.49	26.57**
All Measures	.76	.57	8.14**
Exposure			
Social Avoidance and Distress	.37	.13	30.42**
Anxiety (Overt & Covert)	.41	.17	20.04**
DDP-Suicidal Ideation	.43	.19	15.09**
DDP-Self-Worth	.46	.21	12.91**
SPPA-Athletic Competence	.48	.23	11.28**
All Measures	.55	.31	2.67**
Stopper			
Social Avoidance and Distress	.18	.03	6.69*
All Measures	.39	.15	1.06

* $p < .01$ **$p < .001$

significant multiple correlations of .53 and .31, $p < .00001$, respectively. Due to the lack of association between the Stopper criterion and predictor variables, no further analyses, using this DI variable, were performed. Apparently the level of drug use prior to a student's reported abstinence has little influence on his/her reported levels of self-concept, social skills, anxiety, or depression.

Stepwise regression analyses were performed on the three remaining DI measures (DUI, Intent, and Exposure) to determine which individual predictor variables accounted for the greatest proportion of variance in DI criterion. When DUI scores were considered, 26% of the variance in student drug use was accounted for by a single variable--Social Avoidance and Distress (SAD). Because over half of the total variance in DUI ($r^2 = .53$) was accounted for by this measure, a separate regression analysis was conducted across all 28 items of the SAD scale to determine which item(s) correlated most highly with DUI scores. The results indicated that students with greater drug use tended to agree most with the following statement: "I often want to get away from people" ($r^2 = .29$). An additional 21% of the total regression variance in DUI was accounted for by the predictor variable set that included DDP-Suicidal Ideation; SPPA-Behavioral Conduct; DDP-Self-Worth; ethnic background;

year in school; Loneliness; and SPPA-Social Acceptance. All beta weights for these individual predictors of DUI were significant at the $p < .05$ level. The direction of these betas indicated that increases in drug use index scores were associated with increases in social avoidance and distress; higher levels of suicidal ideation; increases in "bad" behavior; decreases in self-worth; white students indicating higher DUI levels compared to black students; older students using more drugs than younger students; increased feelings of loneliness; and increases in reported feelings of social acceptance. It is of interest to note several things. First, white students and, as anticipated, older students (regardless of race) tended to be heavier users of drugs. Second, a positive relation existed between a student's drug use and his/her reported level of social acceptance. This later observation was contrary to what was anticipated, namely that a negative relation between DUI and the SPPA subscale Social Acceptance would exist (i.e., increases in DUI associated with decreases in social acceptance).

Results from stepwise regression analyses using the Intent DI criterion, were very similar to those found with the DUI criterion. SAD was again the single best predictor of a student's intent to use drugs, with 30% of the variance being accounted for by this measure. When

the 28 SAD items were analyzed, students reporting greater levels of drug use intention (i.e., more likely to use drugs in the future) agreed most with the statement, "I often want to get away from people." This was the same statement indicated to be predictive of DUI. Six other predictor variables, accounting for an additional 19% of the variance in Intent scores, were: DDP-Suicidal Ideation; DDP-Self-Worth; SPPA-Behavioral Conduct; SPPA-Scholastic Competence; ethnic background; and RSM. Thus, as intentions to use drugs increased, students tended to report: increased levels of social avoidance and distress; greater levels of suicidal ideation; less self-worth; increased "bad" behavior; less scholastic competence; ethnic differences, with white students indicating greater levels of intention to use drugs compared to black students; and increased levels of self-monitoring ability. All beta weights for these individual predictor variables were significant ($p < .05$), and their direction is in agreement with the general thesis of this study. As with DUI levels, Intent levels tended to be greater for white students, but in contrast to DUI levels, no significant age differences were observed. Contrary to prediction, RSM scores were positively related to a student's intentions to use drugs. Apparently, students with greater Intent scores tended to report increased self-monitoring abilities.

Stepwise regression analyses using the DI Exposure measure as the criterion variable were also consistent with results from both DUI and Intent criterion regression analyses. The SAD measure was, again, the best predictor variable, accounting for 37% of the variance in the students exposure to drug levels. Analyses of SAD items also indicated that students more exposed to drugs tended to agree most with the statement: "I often want to get away from people." This single statement was found to be significantly correlated across all but one of the DI measures. An additional 11% of the variance in Exposure was accounted for by: DDP-Suicidal Ideation; DDP-Self-worth; and SPPA-Athletic Competence. Increases in exposure to drugs was to be followed by: increased social avoidance and distress; increased suicidal ideation; decreased self-worth; and decreased athletic competence. Again, all beta weights were significant ($p < .05$), and all were in a direction consistent with the general thesis of this study. In contrast to DUI and Intent criterion, a student's exposure to drug level was not significantly related to his/her ethnic background. Consistent with Intent levels, no age differences were observed when a student's exposure to drugs was considered.

Patients

CD patient sample. Multiple regression analyses for patients are presented in Table 24. Among the patient sample, the multiple correlations for DUI, Intent, Exposure, and Stopper criterion using all predictor variables as a set, were generally nonsignificant with the exception of one measure--DUI. When drug use index scores were examined in relation to the predictor variables, 40% of the variance in the DUI criterion was accounted for. Stepwise regression analyses

Table 24

Multiple Correlations and Proportion of Drug Involvement Variance Accounted for by Individual Predictor Variables and a Psychosocial Predictor Set

	Patients		
	R	R^2	F
DUI			
DDP-Self-Worth	.29	.08	6.02*
SPPA-Social Acceptance	.43	.19	7.39**
All Measures	.63	.40	.97
Intent			
All Measures	.51	.25	.52
Exposure			
Anxiety (Overt & Covert)	.35	.12	9.05**
All Measures	.69	.47	1.30
Stopper			
All Measures	.58	.34	.75

* $p < .01$ **$p < .001$

indicated that 24% of the variance was significantly accounted for by three variables: 1) DDP-Self-Worth; 2) SPPA-Social Acceptance; and 3) Ethnic background. Thus, patients reporting increases in drug use tended to indicate: decreases in self-worth, increases in social acceptance, and white students reported higher DUI scores than black students. These tendencies were consistent with findings from the student sample. Beta weights for these predictor variables were all significant ($p < .05$).

Multiple correlations for DI criterion Intent (.26), Exposure (.47), and Stopper (.34) were not statistically significant. Thus, no further analyses were performed on these measures.

Factor Analyses

A factor analysis of the predictor and criterion variables was conducted to help explore these relationships further. Results for both student and patient sample are presented in Tables 25 and 26, respectively. Because nonsignificant correlations had been found between the DI Stopper measure and predictor variables, this variable was not included. Principal factoring with varimax rotation was used, and only factors with Eigen values greater than 1.0 were retained. Only factor loadings of .35 or greater are shown to enhance interpretation of the factors.

Table 25

Factor Loadings of Predictor and Criterion Variables

Students

Variables	Factors 1	2	3	4	5
DDP - Self-Worth	.81				
SPPA - Self-Worth	.76		.39		
DDP - Mood/Affect	.76				
DDP - Self-Blame	.67				.37
IPAT - Anxiety (Covert & Overt)	-.66				
SPPA - Physical Appearance	.66				
DDP - Suicidal Ideation	.63				
DDP - Energy/Interest	.54			.43	
SPPA - Athletic Competence	.52				
DI - Intent		.92			
DI - DUI		.90			
DI - Exposure		.72			
SAD		-.56			
SPPA - Social Acceptance			.78		
SPPA - Close Friendship			.76		
LS			-.67		
SPPA - Romantic Appeal			.60		
SPPA - Job Competence				.77	
SPPA - Behavioral Conduct		-.36			
SPPA - Scholastic Competence	.38				
SEPI - Conflict & Nonconflict					.75
WLAS					.64
RSM					.46
% Variance Accounted For	34.30	11.10	6.30	5.70	4.60

Table 26

Factor Loadings of Predictor and Criterion Variables
Patients

Variables	Factors 1	2	3	4	5	6
DDP - Mood/Affect	.87					
DDP - Self-Worth	.86					
DDP - Suicidal Ideation	.77					
DDP - Self-Blame	.72	.39				-.35
SPPA - Self-Worth	.65					-.39
IPAT - Anxiety (Covert & Overt)	-.50		-.45			
SPPA - Close Friendship		.84				
SAD		.68	.37			
SPPA - Social Acceptance		.65	.44			
SPPA - Romantic Appeal	.53	.58				
SPPA - Physical Appearance	.42	.57				
LS		-.57	-.37			
SPPA - Job Competence		.54			.46	
SEPI - Conflict & Nonconflict			.75			
SPPA - Athletic Competence			.67			
WLAS		.44	.54			
DI - DUI				.81		
DI - Intent				.81		
DI - Exposure				.68		
SPPA - Scholastic Competence					.79	
DDP - Energy/Interest		.55			.61	
RSM						.87
% Variance Accounted for	34.80	12.40	6.90	5.90	5.40	4.60

In general, the factors were interpretable and they provide additional insight into the nature of the relationships among the measures included in this study. A five-factor solution was obtained for the student sample, accounting for 62% of the common variance in the factored variables. A similar six-factor solution was obtained in the patient sample, accounting

for 70% of the common variance. For the student analysis, 10 variables loaded on the first factor: five DDP subscale domains, four SPPA domains, and the IPAT anxiety scale. This factor could be interpreted as representing general "psychological well-being." The same psychological well-being factor was also found for the patient sample, with the exception of one SPPA domain (Romantic Appeal).

The second factor obtained in the analysis for students and the fourth factor obtained in the analysis for patients clearly represented drug involvement. In each case DI measures were represented: DUI, Intent, and Exposure. In the student analysis, SAD scores had loadings above the cutoff point, and were negatively associated with DI. This negative relationships between SAD and DI (i.e., higher drug involvement associated with greater social avoidance and distress) is consistent with results from the regression analyses that was reported previously. An additional variable loaded on this DI factor only in the student analysis. A negative loading of one SPPA subscale domain (Behavioral Conduct) indicated that increased DI in the student sample was associated with an increased self-reported "bad" behavior self-concept.

The third factor in both analyses had moderately high loadings from a range of variables. This factor seems to denote "social well-being."

Variables in the student analysis loading on this factor included: four self-concept domains (Physical Appearance, Social Acceptance, Close Friendship, and Romantic Appeal), one depression domain (Self-Worth) and the Loneliness scale. Variables included in the patient analysis were: Anxiety, SAD, two self-concept domains (Social Acceptance, and Athletic Competence), the Loneliness scale, and the WLAS. In both cases, loneliness was negatively associated with this social well-being factor and for patients, anxiety was also negatively related.

The fourth factor indicated in the analysis for students and the fifth factor indicated for students appear to represent similar constructs. In each case, two self-concept/esteem domains and one depression domain were represented: Job Competence, Scholastic Competence, and Energy/Interest. Given this pattern of loadings, the factor seems to represent an "achievement oriented" factor. An additional SPPA variable, Behavioral Conduct, loaded on this factor only in the student analysis.

The final factor retained in the analysis for students can be interpreted as a "social awareness" factor, because three of the four measures loading on this factor involve some form of self-awareness of social interaction and behavior. The variables include one DDP domain (Self-blame), and three of the social skills (SEPI, WLAS, and RSM).

The predictor variables loading on the sixth patient factor included: two SPPA domains (Self-Worth and Behavioral Conduct) and one of the social skills (RSM). The relationship among these variables indicated that greater self-monitoring ability (i.e., self-control of expressive behavior) was associated with decreased levels of self-esteem and "good" behavior. This factor might best be interpreted as a negative "social compliance" factor.

Although the DI measures for both student and patient analyses did not load heavily on other factors, there were some associations between DI and factors (below the cutoff point) worth pointing out. For example, DI variables had loadings on factor one (psychological well-being) ranging from -.12 to -.27 in both analyses. Thus, adolescents reporting greater levels of drug use, intent to use, and exposure to drugs also tended to load negatively on a factor interpreted as psychological well-being. Similar trends were indicated across several other factors, including one loading in the patient analysis approaching the cut off point. The Exposure variable loaded on the patient's fifth factor (-.33) indicating that greater exposure to drugs was negatively related to this achievement oriented factor.

Analyses of Variance

Analyses of variance (ANOVAS) were used to compare student and patient differences across DI groups. These analyses were performed so that DI groups could be examined with respect to the various psychosocial variables used in this study. For each of the DI measures (i.e., DUI, Intent, and Exposure) groups were created based upon separate distributions of DI scores for students and patients. For example, four DUI groups were formed in the following manner: 1) Abstainers--subjects with a DUI index score of .00 across all 11 drug categories; 2) Low users--subjects with DUI scores less than one-half standard deviation below the mean DUI score; 3) Moderate users--subjects with DUI scores falling within one-half standard deviation below and above the mean DUI score; and 4) Heavy users--subjects with DUI scores greater than a one-half standard deviation above the mean DUI score. Intent and Exposure groups (i.e., low, moderate, and high) were formed in a similar manner. Results from these analyses are reported separately for student and patient samples and by gender for each sample.

In addition to within group comparisons for each of the two samples, between group mean differences were examined with reference to the

DUI measure only. Patients were combined to form a single CD DUI group irregardless of individual DUI scores. Thus, student mean scores across DUI groups (abstainers and low, moderate, and heavy users) were compared with mean predictor variable scores for the patient sample.

Drug Involvement and Subject Variables

The gender, age (year in school), and ethnic background of students and patients were compared across DI measures (DUI, Intent, and Exposure) using one-way ANOVAS. Mean DI scores across these subject variables are presented in Table 27 for both student and patient groups.

Student Group

There were no significant gender or age differences in student DI measures. Significant differences, however were found between white and black students with regard to DUI and Intent scores. White students as a group were statistically heavier users of drugs, and they indicated a greater intent to use drugs in the future compared to black students F (1,198) = 3.67, $p < .001$ and F (1,198) = 2.95, $p < .01$, respectively). White and black students did not differ with regard to their level of exposure to drugs.

Table 27

Mean Scores on Drug Involvement Across Subject Variables (Sex, Age, and Ethnicity) for Adolescent Students and Patients

	Subject Variables									
	Sex			Age				Ethnicity*		
DI Students	F	M	F	10th	11th	12th	F	Black	White	F
DUI	2.9	2.9	.01	2.7	3.0	3.0	2.34	2.4	3.0	15.81*
Intent	1.9	1.9	.04	1.8	2.0	2.1	1.91	1.6	2.0	10.86**
Exposure	2.0	2.0	.03	2.0	1.9	2.0	.14	1.8	2.0	1.83
DI Patients										
DUI	3.5	3.4	.46	3.6	3.7	3.3	2.07	--	--	--
Intent	2.1	1.8	2.79	2.0	2.2	1.7	1.78	--	--	--
Exposure	2.5	2.5	.04	2.7	2.4	2.4	.54	--	--	--

Students	(N=199)	Patients	(N=67)
Females	(N=107)	Females	(N=33)
Males	(N=92)	Males	(N=34)
10th	(N=85)	10th	(N=25)
11th	(N=74)	11th	(N=14)
12th	(N=48)	12th	(N=28)
Black	(N=48)		
White	(N=140)		

* $p < .05$ ** $p < .01$

Note: Due to lack of non-white patients, no ethnic comparisons were made in the patient sample

Patient group. Due to the absence of non-white subjects in the patient sample, only gender and age groups were compared across DI measures (see Table 27). There were no significant gender or age differences between any of the three DI measures.

Drug Involvement and Self-Concept/Esteem

Mean self-concept/esteem domain scores from the SPPA were compared across DI groups. These results are presented in Tables 28 and 29 for student and patient groups, respectively.

Student group. An orderly relationship between SPPA domains and DUI level was demonstrated in the student sample (see Table 28).

Table 28

Mean Scores on the Self-Perception Profile for Adolescents With Respect to Drug Use Index, Drug Intent, and Drug Exposure Groups

	DI Group -- Students												
	DUI					Intent				Exposure			
SPPA Scholastic Competence	A	L	M	H	F	L	M	H	F	L	M	H	F
All	3.2	3.0	2.8	2.7	1.39	3.0	2.8	2.8	1.63	2.9	2.9	2.7	1.19
Female	3.3	2.9	2.8	2.7	1.20	3.0	2.8	2.8	.98	3.0	2.8	2.6	2.33
Male	3.0	3.0	2.9	2.8	.09	3.0	2.9	2.8	.40	3.0	2.9	2.8	.59
Social Acceptance													
All	3.4	3.2	3.2	3.0	1.10	3.2	3.3	3.0	2.11	2.9	2.8	2.7	1.19
Female	3.8	3.2	3.2	3.0	2.31	3.3	3.3	2.9	2.22	3.0	2.8	2.6	2.33
Male	2.9	3.2	3.3	3.2	.75	3.2	3.3	3.2	.22	3.0	2.9	2.8	.59
Athletic Competence													
All	3.0	2.8	2.7	2.4	1.96	2.8	2.7	2.4	3.50*	2.7	2.7	2.3	3.32*
Female	3.2	2.6	2.3	2.3	2.43	2.7	2.3	2.3	2.09	2.6	2.4	2.3	1.77
Male	2.6	2.9	3.2	2.6	4.19**	2.9	3.1	2.5	4.59**	2.9	3.1	2.7	2.06
Physical Appearance													
All	3.1	2.7	2.6	2.3	3.90**	2.8	2.6	2.2	8.41**	2.7	2.6	2.2	4.45**
Female	3.1	2.7	2.4	2.1	3.98**	2.8	2.4	2.1	5.86**	2.6	2.5	2.2	1.90
Male	2.8	2.8	2.9	2.6	.72	2.9	2.8	2.5	2.34	2.6	3.0	2.5	4.01**
Job Competence													
All	3.6	3.3	3.1	3.0	4.58**	3.4	3.1	3.1	5.77**	3.2	3.1	3.2	1.15
Female	3.6	3.4	3.2	3.1	2.37	3.4	3.2	3.1	2.83	3.3	3.3	3.2	.35
Male	3.6	3.3	3.0	3.0	2.31	3.3	3.0	3.1	4.06**	3.2	3.1	3.1	.10

Romantic Appeal													
All	2.9	2.6	2.7	2.4	2.14	2.7	2.6	2.4	2.6	2.6	2.6	2.4	3.18*
Female	3.2	2.6	2.7	2.3	2.58*	2.7	2.7	2.4	2.01	2.7	2.6	2.5	1.06
Male	2.6	2.6	2.7	2.5	.31	2.7	2.6	2.5	.68	2.5	2.7	2.4	2.20
Behavioral Conduct													
All	3.1	2.9	2.5	2.3	13.77**	3.0	2.6	2.3	23.69**	2.7	2.6	2.4	3.14*
Female	3.2	2.9	2.5	2.4	6.92**	3.1	2.6	2.3	14.82**	2.9	2.6	2.4	4.45**
Male	2.9	2.9	2.6	2.3	5.92**	2.9	2.6	2.2	8.71**	2.7	2.6	2.4	1.37
Close Friendship													
All	3.4	3.3	3.3	3.2	.67	3.3	3.3	3.2	.62	3.4	3.4	3.1	2.90
Female	3.9	3.4	3.4	3.2	1.99	3.5	3.3	3.2	1.78	3.4	3.5	3.1	4.38**
Male	3.9	3.1	3.3	3.3	.98	3.2	3.3	3.2	.36	3.1	3.4	3.2	1.76
Self-Worth													
All	3.3	3.1	3.3	3.2	.67	3.2	2.9	2.7	7.70**	3.0	2.9	2.6	4.06**
Female	3.7	3.2	3.4	3.2	1.99	3.3	2.8	2.5	8.41**	3.1	2.9	2.6	3.21*
Male	2.6	3.1	3.3	3.3	.98	3.1	3.1	2.9	.87	3.0	3.1	3.0	.06

A = Abstinent L = Low User M = Moderate User H = Heavy User

* $p < .05$ ** $p < .01$

Table 29

Mean Scores on the Self-Perception Profile for Adolescents With Respect to Drug Use Index, Drug Intent, and Drug Exposure Groups

	DI Group -- Patients												
		DUI				Intent				Exposure			
SPPA													
Scholastic Competence	A	L	M	H	F	L	M	H	F	L	M	H	F
All	--	2.6	2.4	2.8	.70	2.7	2.4	2.7	.97	2.8	2.5	2.7	1.41
Female	--	2.5	2.3	2.7	.62	2.5	2.6	2.6	.13	2.6	2.4	2.8	.64
Male	--	2.8	2.5	2.8	.47	2.9	2.3	2.9	1.9	3.1	2.5	2.6	1.83
Social Acceptance													
All	--	3.1	3.2	3.3	.51	3.1	3.3	3.3	.41	2.8	2.5	2.7	1.41
Female	--	3.3	3.1	3.3	.12	3.3	3.3	3.2	.09	2.6	2.4	2.8	.64
Male	--	3.0	3.3	3.3	.73	3.0	3.3	3.4	.91	3.1	2.5	2.6	1.83
Athletic Competence													
All	--	2.5	2.4	2.6	.12	2.6	2.6	2.4	.18	2.4	2.6	2.6	.44
Female	--	2.4	1.2	2.5	5.96**	2.4	2.4	2.3	.11	2.0	2.5	2.5	1.88
Male	--	2.6	3.0	2.7	.46	2.7	2.8	2.7	.05	2.8	2.6	2.7	.18

Physical Appearance												
All	--	2.7	2.8	2.5	.65	2.7	2.7	2.5	.25	2.6	2.6	2.7	.05
Female	--	2.8	2.8	2.3	1.87	2.8	2.6	2.4	1.06	2.6	2.6	2.6	.01
Male	--	2.6	2.8	2.7	.12	2.6	2.8	2.8	.17	2.7	2.6	2.7	.08
Job Competence													
All	--	3.1	3.0	3.2	.16	3.2	3.1	3.1	.13	3.2	3.0	3.1	.32
Female	--	3.2	3.2	3.0	.46	3.3	3.1	2.9	.88	3.1	3.2	2.9	.77
Male	--	3.1	2.9	3.4	1.03	3.1	3.0	3.3	.34	3.4	2.8	3.3	2.00
Romantic Appeal													
All	--	2.8	2.8	2.9	.17	2.8	2.8	2.9	.22	2.8	2.6	3.1	2.37
Female	--	2.9	2.7	2.9	.40	3.0	3.1	2.8	.60	3.0	3.0	2.8	.48
Male	--	2.7	2.9	2.8	.20	2.7	2.6	3.1	.98	2.6	2.2	3.3	7.87**
Behavioral Conduct													
All	--	2.4	2.4	2.2	1.30	2.4	2.4	2.2	1.36	2.3	2.3	2.4	.09
Female	--	2.2	1.7	2.0	1.29	2.1	2.3	1.9	1.14	2.0	2.1	2.0	.16
Male	--	2.7	2.7	2.4	.63	2.6	2.6	2.6	.02	2.6	2.5	2.7	2.70
Close Friendship													
All	--	3.3	3.3	3.3	.02	3.2	3.4	3.4	1.26	3.5	3.2	3.2	1.03
Female	--	3.4	3.6	3.4	.25	3.4	3.5	3.4	.04	3.4	3.4	3.4	.04
Male	--	3.1	3.2	3.3	.12	3.0	3.4	3.4	1.82	3.5	3.0	3.0	1.69
Self-Worth													
All	--	2.7	3.3	3.3	.02	2.7	2.6	2.4	.88	2.6	2.5	2.5	.17
Female	--	2.7	3.6	3.4	.25	2.6	2.7	2.2	1.90	2.5	2.6	2.2	1.01
Male	--	2.8	3.2	3.3	.12	2.7	2.5	2.7	.24	2.8	2.3	2.7	1.15

A = Abstinent L = Low User M = Moderate User H = Heavy User

* $p < .05$ ** $p < .01$

All mean subscale scores generally increased in a steady manner from the highest to the lowest DUI group, except those on Social Acceptance (low and moderate users were the same) and Close Friendship (abstinent and moderate users were the same). ANOVAS performed on overall means were significant for four of the nine subscale domains, which included: Physical Appearance, Job Competence, Behavioral Conduct, and Self-

Worth. Mean comparisons using the Tukey-B procedure ($p < .05$) indicated the following: abstinent and low users reported feeling more physically attractive than heavy users; abstinent and low users felt more competent in employment situations than either moderate or heavy users; heavy users reported being less well behaved than all other DUI groups; moderate users were less well behaved than either low user or abstinent groups; and abstinent and low users reported having greater self-worth than heavy users.

Similar relationships between the remaining two DI measures (Intent and Exposure) and SPPA domains were found. For example, students reporting lower Intent scores (i.e., were least likely to use drugs in the future) also tended to report more positive levels of self-concept and self-worth, except for the Social Acceptance subscale, which was highest for the moderate level Intent group.

Significant effects from the ANOVAS were found between Intent groups and five SPPA domains: Athletic Competence, Physical Appearance, Job Competence, Behavioral Conduct, and Self-Worth. All but one of these domains (Athletic Competence) were significant among the DUI groups. The Tukey analyses indicated that students in the low Intent group generally felt more competent than the high Intent group in

the following areas: athletics; physical attractiveness; the work place; behavior (i.e., were well behaved); and general self-worth. The moderate level Intent group was also more likely than the high Intent group to indicate more positive levels of physical attractiveness and good behavior. In addition, the low Intent group reported more positive levels of employment competence, good behavior, and general self-worth compared to the moderate Intent group.

Finally, when the Exposure DI measures were examined, a consistent relationship between a student's level of exposure to drugs and his/her level of self-concept/esteem was observed. All mean subscale scores increased from the highest to the lowest Exposure group, except those on Athletic Competence, in which case low and moderate levels of exposure were equally high. Significant effects were found between Exposure groups and four SPPA subscale domains, including: Athletic Competence, Physical Appearance, Romantic Appeal, and Self-Worth. These results are generally consistent with results found with the previous two DI measures, with the exception of one subscale (Romantic Appeal). Apparently, students with less exposure to drugs (i.e., fewer friends and/or family members using drugs) tended to report greater

levels of: athletic ability; physical attractiveness; romantic appeal; and general self-worth.

Patient group. The relationships between SPPA subscale domains and patient DUI groups (low, moderate, and heavy user) did not follow any consistent pattern (see Table 29). Nonsignificant effects from the ANOVAS were found between DUI level and the nine self-concept/esteem measures. Results between SPPA subscales and both Intent and Exposure DI groups, were also statistically nonsignificant ($p > .05$). The level of a patient's DI (i.e., DUI, Intent, and Exposure) was not reflected in his/her SPPA across the same SPPA domains.

Drug Involvement and Social Skills

Mean scores from the social skills measures (i.e., RSM, LS, SEPI, WLAS, and SAD) were compared across DI groups. Results from these analyses are presented in Table 30 for the student sample and Table 31 for the patient sample.

Student group. Relationships between student DI groups and social skills were generally consistent. Results for DUI, Intent, and Exposure groups are presented in Table 30. Two social skills, however, achieved statistical significance with DI measures. Significant ANOVAS were found between LS scores and DUI groups. In addition, significant results

were found between SAD scores and all three DI measures. The Tukey-B

procedure for mean comparisons ($p < .05$), indicated that students reporting greater levels of loneliness also tended to report greater drug use and intent to use drugs. Students with smaller SAD scores (i.e., reported less social avoidance and distress) also tended to report less: drug use, intent to use, and exposure to drugs.

Patient group. The relationship between DI and social skills for patients was generally inconsistent across DI measures (see Table 31). Results from ANOVAS comparing group mean differences were all statistically non-significant.

Table 30

Mean Scores on the Revised Self-Monitoring Scale, the Loneliness Scale, the Self-Efficacy for Peer Interaction Scale the Wolpe-Lazarus Assertiveness Scale, and the Social Avoidance and Distress Scale, with Respect to Drug Use Index, Drug Intent, and Drug Exposure Groups

	DI Group -- Students												
	DUI					Intent				Exposure			
Social Skills	A	L	M	H	F	L	M	H	F	L	M	H	F
RSM													
All	8.7	8.3	9.5	9.5	2.12	8.4	9.3	9.7	2.74	8.8	9.4	9.9	1.52
Female	8.0	8.3	9.6	8.8	1.43	8.3	9.2	9.3	1.10	8.7	9.4	8.9	1.10
Male	9.5	8.3	9.4	10.4	1.65	8.5	9.4	10.4	2.02	8.8	9.4	9.7	.42
LS													
All	25.3	28.9	28.6	35.1	7.28**	28.1	29.0	35.1	9.08**	29.1	31.4	32.8	2.30
Female	19.8	29.1	28.2	36.5	7.95**	28.0	28.1	36.0	8.67**	29.4	28.9	32.5	1.44
Male	31.3	28.6	29.0	33.5	1.49	28.2	30.1	33.3	1.76	29.8	29.3	32.2	.67
SEPI													
All	67.2	66.8	69.0	67.0	.43	67.1	68.4	68.2	.26	66.7	69.1	69.8	1.31
Female	73.8	66.3	69.1	66.5	.95	67.8	68.2	67.4	.04	67.0	67.8	69.0	.23
Male	57.0	67.4	68.8	69.2	1.37	66.1	68.7	69.4	.61	68.8	66.8	69.8	.55
AS													
All	20.1	18.1	17.0	16.5	1.78	18.2	17.3	16.1	2.08	17.7	16.9	16.1	1.09
Female	17.4	17.3	16.5	15.5	.84	16.9	16.6	15.8	.48	16.5	16.4	16.6	.02
Male	24.0	18.9	17.5	17.8	1.54	19.5	18.1	16.6	1.38	20.6	17.7	16.8	2.81
SAD													
All	23.4	22.6	19.5	15.0	18.01**	23.9	19.0	14.4	43.24**	20.7	19.1	14.6	11.21**
Female	21.4	22.5	19.5	14.9	8.60**	23.8	18.7	15.2	17.56**	21.2	19.9	16.3	5.47**
Male	24.8	22.7	19.6	15.1	8.87**	23.8	19.3	13.2	26.46**	22.1	19.9	16.1	6.04**

RSM = Revised Self-Monitoring Scale
LS = Loneliness Scale
SEPI = Self-Efficacy for Peer Interaction Scale
WLAS = Wolpe-Lazarus Assertiveness Scale
SAD = Social Avoidance of Distress Scale

* $p < .05$ ** $p < .01$

Table 31

Mean Scores on the Revised Self-Monitoring Scale, the Loneliness Scale, the Self-Efficacy for Peer Interaction Scale the Wolpe-Lazarus Assertiveness Scale, and the Social Avoidance and Distress Scale, with Respect to Drug Use Index, Drug Intent, and Drug Exposure Groups

	DI Group -- Patients											
	DUI					Intent				Exposure			
Social Skills	A	L	M	H	F	L	M	H	F	L	M	H	F
RSM													
All	--	10.9	11.4	11.2	.15	10.9	11.0	11.5	.32	11.5	11.2	11.1	.10
Female	--	11.6	10.7	12.0	.39	11.8	11.7	11.6	.04	11.9	12.0	11.0	.50
Male	--	10.3	11.7	10.2	.62	10.2	10.4	11.4	.37	10.9	10.2	11.1	.21
LS													
All	--	32.9	31.2	32.0	.12	33.6	31.0	31.4	.47	31.1	33.0	31.2	.25
Female	--	30.8	35.0	32.6	.34	31.3	30.1	33.5	.39	32.6	30.5	33.4	.34
Male	--	34.9	29.6	31.2	.62	35.7	31.8	27.6	1.22	29.2	36.4	29.4	1.27
SEPI													
All	--	62.4	68.6	69.2	1.84	65.8	66.7	65.6	.03	63.0	67.4	68.9	.87
Female	--	62.9	61.7	66.8	.33	68.8	62.1	62.2	.80	62.9	68.8	60.1	.99
Male	--	61.8	71.6	72.5	2.27	63.9	70.6	71.5	1.03	63.1	65.6	75.6	2.20
AS													
All	--	16.7	18.0	17.6	.48	17.5	17.0	17.1	.08	17.2	16.8	17.7	.27
Female	--	17.3	19.0	16.5	.46	18.1	17.9	15.9	1.01	17.5	17.5	16.1	.35
Male	--	16.2	17.6	19.0	1.62	17.1	16.3	19.3	1.22	16.9	15.8	19.0	1.90
SAD													
All	--	17.1	18.3	18.9	.41	16.5	17.5	20.4	1.78	18.7	16.4	19.6	1.04
Female	--	18.6	20.3	20.7	.39	18.4	19.3	21.1	.53	18.2	19.8	21.4	.59
Male	--	15.7	17.4	16.5	.11	15.2	15.9	19.3	.68	19.2	11.9	18.1	2.50

RSM = Revised Self-Monitoring Scale
LS = Loneliness Scale
SEPI = Self-Efficacy for Peer Interaction Scale
WLAS = Wolpe-Lazarus Assertiveness Scale
SAD = Social Avoidance of Distress Scale

* $p < .05$ ** $p < .01$

Drug Involvement and Anxiety

Mean Anxiety scores were compared across DI measurement groups. Results for students and patients are presented in Table 32.

Student group. All mean IPAT anxiety scores increased in a steady manner from the lowest to the highest DI group (see Table 32). Significant relationships appeared between anxiety scores and the three DI groups. Mean comparisons with the Tukey procedure revealed that students in the heavy user group reported greater anxiety than students in the low user group; moderate and high Intent groups had greater anxiety scores than the low Intent group; and students in the high Exposure group reported more anxiety than students in the low Exposure group.

Table 32

Mean Scores on the IPAT Anxiety Scale with Respect to Drug Use Index, Drug Intent, and Drug Exposure Groups for Adolescent Students and Patients

	DI Group												
	DUI					Intent				Exposure			
Students	A	L	M	H	F	L	M	H	F	L	M	H	F
All	32.3	35.4	38.3	41.4	3.18**	34.2	38.8	41.4	5.51**	36.1	39.4	44.4	5.88**
Females	34.0	36.6	41.0	45.0	2.92**	34.4	42.5	43.5	5.84**	36.7	40.8	44.0	3.06*
Males	33.3	34.0	35.2	37.0	.37	34.5	34.4	38.3	.97	31.5	35.4	39.3	3.1*
Patients													
All	--	38.6	37.8	39.0	.05	38.4	37.6	39.7	.20	39.3	39.2	39.2	.00
Females	--	41.9	42.0	40.1	.15	42.7	39.1	40.6	.33	43.7	39.0	40.8	.78
Males	--	35.6	36.0	37.5	.10	35.5	36.3	38.0	.14	33.8	39.4	37.9	.80

A = Abstinent L = Low M = Moderate H = Heavy

* = $p < .05$ ** = $p < .01$

Patient group. Anxiety levels for patients were generally the same across DI levels. Nonsignificant effects from the ANOVAS were found between anxiety scores and all DI measurement groups (see Table 32).

Drug Involvement and Depression

Mean depression domain scores from the DDP were compared across DI groups. Results are presented in Tables 33 and 34 for student and patient groups, respectively.

Student group. Mean depression scores for students increased in a steady manner from the highest to the lowest DI groups (see Table 33). Four depression subscales were found to be significantly related to both DUI and Intent groups. Scores on Mood/Affect, Self-Worth, Energy/Interest, and Suicidal Ideation were significantly related to DUI and Intent groups respectively. Mean comparisons showed that abstinent and low user groups were less depressed (i.e., reported more positive moods and self-worth, more energy/interest, and less suicidal ideation) than the heavy user group. Similarly, students in the low Intent group

Table 33

Mean Scores on the Dimensions of Depression Profile with Respect to Drug Use Index, Drug Intent, and Drug Exposure Groups

	DI Group -- Students													
			DUI			Intent				Exposure				
DDP	A	L	M	H	F	L	M	H	F	L	M	H	F	
Mood/Affect														
All	3.3	3.1	3.0	2.7	3.37**	3.2	3.0	2.7	5.55**	3.0	3.0	2.7	2.14	
Female	3.5	3.1	3.0	2.6	3.68**	3.2	2.9	2.6	3.85**	3.1	2.9	2.8	.80	
Male	2.8	3.2	2.9	2.9	.98	3.1	3.0	2.8	1.27	3.0	3.1	2.7	1.26	
Self-Worth														
All	3.3	3.1	2.9	2.7	4.06**	3.2	2.9	2.7	8.47**	3.0	2.9	2.7	2.0	
Female	3.5	3.1	2.9	2.5	5.64**	3.2	2.8	2.6	7.23**	3.1	2.9	2.7	2.19	
Male	2.9	3.2	3.0	3.0	.47	3.2	3.0	3.0	1.25	3.0	3.0	2.8	.30	
Energy														
All	3.2	3.0	2.9	2.6	5.63**	3.1	2.9	2.5	14.01**	2.9	2.9	2.6	3.33*	
Female	3.3	3.0	2.7	2.5	3.57**	3.1	2.8	2.4	6.48**	2.9	2.8	2.6	1.18	
Male	2.9	3.1	3.0	2.6	2.70*	3.1	3.0	2.5	6.88**	2.9	3.0	2.8	.27	
Self-Blame														
All	2.6	2.5	2.5	2.4	.47	2.6	2.4	2.3	2.30	2.5	2.4	2.2	2.68	
Female	2.7	2.4	2.3	2.2	1.81	2.5	2.3	2.2	2.91*	2.5	2.3	2.2	1.84	
Male	2.6	2.6	2.6	2.7	.17	2.6	2.6	2.5	.21	2.7	2.6	2.3	2.10	
Suicidal Ideation														
All	3.7	3.6	3.3	2.81	1.39**	3.6	3.3	2.7	20.09**	3.4	3.2	2.9	5.32**	
Female	3.8	3.6	3.2	2.7	7.12**	3.6	3.3	2.7	10.44**	3.6	3.2	3.0	4.23**	
Male	3.6	3.5	3.4	2.9	4.03**	3.6	3.4	2.8	8.97**	3.5	3.3	2.9	4.13**	

A = Abstinent L = Low M = Moderate H = Heavy

* $p < .05$ ** $p < .01$

Table 34

Mean Scores on the Dimensions of Depression Profile with Respect to Drug Use Index, Drug Intent, and Drug Exposure Groups

		DI Group -- Patients											
		DUI				Intent				Exposure			
DDP	A	L	M	H	F	L	M	H	F	L	M	H	F
Mood/Affect													
All	--	2.8	2.6	2.5	1.12	2.8	2.8	2.4	1.33	2.7	2.6	2.6	.19
Female	--	2.6	2.1	2.5	.86	2.6	2.6	2.3	.95	2.5	2.7	2.1	2.15
Male	--	3.0	2.9	2.6	.96	2.9	2.9	2.7	.12	2.9	2.5	2.9	1.04
Self-Worth													
All	--	2.9	2.7	2.4	2.9*	2.8	2.8	2.5	1.44	2.7	2.6	2.6	.21
Female	--	2.8	2.4	2.3	2.54	2.7	2.8	2.2	2.45	2.5	2.7	2.2	2.15
Male	--	3.0	2.9	2.6	.63	2.9	2.8	2.9	.02	3.0	2.5	3.0	1.41
Energy													
All	--	2.7	2.7	2.7	.02	2.6	2.8	2.8	.55	2.9	2.6	2.7	.74
Female	--	2.6	2.6	2.7	.17	2.4	2.9	2.7	1.55	2.5	2.8	2.5	1.38
Male	--	2.9	2.8	2.8	1.15	2.8	2.8	3.0	.25	3.3	2.3	2.9	5.35**
Self-Blame													
All	--	2.5	2.3	2.3	1.21	2.5	2.5	2.3	.63	2.5	2.2	2.4	.89
Female	--	2.5	2.1	2.1	1.37	2.4	2.5	2.1	1.65	2.3	2.3	2.1	.29
Male	--	2.6	2.4	2.5	.26	2.6	2.4	2.6	.15	2.7	2.2	2.6	1.49
Suicidal Ideation													
All	--	3.1	3.2	2.8	1.61	2.9	3.2	2.9	.46	3.0	3.0	2.8	.32
Female	--	2.9	2.7	2.8	.21	2.8	2.9	2.9	.01	2.8	3.1	2.6	1.17
Male	--	3.2	3.5	2.7	1.98	3.0	3.4	3.0	.70	3.3	2.8	3.0	.80

A = Abstinent L = Low M = Moderate H = Heavy

* $p < .05$ ** $p < .01$

were also less depressed in these areas than were students in the high intent groups. Among exposure groups, two depression scores (Energy/Interest and Suicidal Ideation) were found to be significantly different. Students who reported less exposure to drugs also reported less

suicidal ideation and a more positive mood than students in the high exposure group, according to the Tukey Analyses of means. No significant age or ethnic differences were observed among the five DDP subscales, but one sex difference was found.

Patient group. No clear relationship between patient DI groups and DDP subscale domains were found (see Table 34). But, Self-Worth scores differed among DUI groups F (2,66) = 2.90, $p < .05$. Patients in the low use group reported greater feelings of self-worth than patients in the heavy use group.

Student DUI Groups vs. Patient DUI Group (CD)

When the student DUI groups (abstainers and low, moderate, and heavy users) were compared with the CD patient group (i.e., mean DUI score for all patients) across predictor variables; significant results were found. Table 35 presents the results from these analyses.

Table 35

Mean Scores on Predictor Measures with Respect to Drug Use Index Drug Intent, and Drug Exposure Groups, and Results of the ANOVAS for Adolescent Students and Patients

	DUI Group					
Predictor	A	L	M	H	CD	F
SPPA						
Sch Comp	3.3	3.0	2.8	2.7	2.7	2.26
Soc Acc	3.4	3.2	3.2	3.0	3.2	.85
Ath Com	3.0	2.8	2.7	2.4	2.5	1.87
Phy App	3.1	2.7	2.6	2.3	2.6	2.81**
Job Com	3.6	3.3	3.1	3.0	3.1	3.22**
Rom App	2.9	2.7	2.6	2.4	2.8	3.07**
Beh Con	3.2	2.9	2.6	2.3	2.3	13.43**
Cl Frnd	3.4	3.3	3.4	3.2	3.3	.52
SW	3.3	3.1	2.9	2.7	2.6	6.29**
Social Skills						
RSM	8.7	8.3	9.5	9.5	11.1	7.07**
LS	25.3	28.9	28.6	35.1	32.3	5.79**
SEPI	67.2	66.8	69.0	67.7	65.9	.62
WLAS	20.1	18.1	17.0	16.5	17.3	1.49
SAD	23.4	22.6	19.5	15.0	18.0	11.84**
Anxiety						
IPAT	32.3	35.4	38.3	41.4	38.6	2.57*
DDP						
Mood/Affect	3.3	3.1	3.0	2.8	2.7	4.88**
Self-Worth	3.3	3.1	2.9	2.7	2.7	4.97**
Energy	3.2	3.0	2.9	2.6	2.7	4.44**
Self-Blame	2.6	2.5	2.5	2.4	2.4	.43
Suicide	3.7	3.6	3.3	2.8	3.0	10.12**

A = Abstinent L = Low M = Moderate H = Heavy

* = $p < .05$ ** = $p < .01$

The CD group reported self-concept/esteem scores which were similar to or slightly above those reported by students in the heavy use group.

Mean patient scores were generally nonsignificant except for three SPPA subscales (Romantic Appeal, Behavioral Conduct, and Self-Worth). The CD group scored significantly higher than the heavy DUI student group on Romantic Appeal, indicating that patients (as a group) felt more competent in romantic relationships with persons of the opposite sex than students who were heavy users of drugs. In addition, abstinent, low, and moderate user groups had Behavioral Conduct and Self-Worth scores that were significantly higher than the mean CD group score. These latter results suggest that students who were not heavy drug users tended to feel more positive about themselves and better behaved than were the CD patients.

Mean CD social skills scores were generally more positive than scores found in the student heavy use group. That is, adolescents from the drug treatment facilities tended to report greater self-monitoring ability, less loneliness, more assertiveness, and less social avoidance and distress than students in the heavy drug use group. It is of interest to note that in regard to the RSM scale, CD subjects had a statistically greater mean self-monitoring score than any of the other student DUI groups. In contrast, abstinent and low use student groups had statistically greater mean SAD scores than the CD patient group, indicating that the

adolescents in treatment for drug dependency were more socially avoidant and distressed than the student non-users or low users of drugs.

Although no significant differences were found between mean IPAT anxiety scores and student/CD groups, the CD anxiety level was greater than abstinent, low, and moderate student user groups. Thus, it appears that adolescents in CD treatment may experience more anxiety than adolescents not in treatment who are less involved in the use of drugs. Students in the heavy drug use group, however, had the highest mean anxiety score (41.4).

The relationships between CD patient and the heavy student DUI group were generally consistent across depression subscales domains, with these two groups indicating greater levels of depression. Statistically significant group differences were found for three DDP subscales (Mood/Affect, Self-Worth, and Suicidal Ideation). Abstinent, low, and moderate DUI groups reported having less suicidal ideation than the CD group. Abstinent and low use student groups indicated greater self-worth than CD patients, and low and moderate DUI students indicated being in better moods than CD patients.

Discriminant Analyses

The observations made thus far suggest that drug involvement in adolescents is related differentially to each of the four constructs examined (self-concept/esteem, social skills, anxiety, and depression). The degree and complexity of the relationship varied for each construct and its sub-dimensions and also appeared, in certain instances, to have been influenced by several subject variables, including the sex, age, and ethnic background of the subjects.

In this section all constructs and subject variables were considered together to examine how well these variables could predict DI groups (i.e., can DI groups be correctly classified) for student and patient samples. Discriminant analyses were performed using the combined sets of predictor variables--scores on the SPPA subscale domains, social skills (RSM, LS, SEPI, WLAS, and SAD), IPAT Anxiety, and DDP subscale domains--and selected subject covariates (sex, age, and ethnic background). Similar discriminant analyses were performed using each individual set of predictor variables. The predicted group membership was then compared with actual group membership to determine classification accuracy using the cluster and single-domain approaches. Separate analyses were performed for DUI, Intent, and Exposure DI

groups. When DUI groups were examined (i.e., abstinent, low user, moderate user, heavy user, and CD), both within group comparisons (student and patient) and between group comparisons (student DUI groups vs. CD patient group) were made. Only within group comparisons were made when either Intent or Exposure groups were considered. Separate analyses were also performed for male and female students and patients. It should be noted again that DI groups were derived separately for student and patient groups based upon their own distributions of DI scores. However, in reference to DUI groups only, all subjects in the patient sample were considered a CD group when compared with the student DUI groups.

The percentages of cases assigned correctly to DI groups on the basis of measures representing either individual measurement domains (SPPA, social skills, IPAT Anxiety, or DDP) or the cluster of domains and selected covariates are reported in Tables 36 and 37 for student and patient groups, respectively. Although results for the patient sample are included, they should be viewed with caution due to the relatively small number of subjects within this group.

Table 36

Prediction of Drug Use Index, Drug Intent, and Drug Exposure Groups in Adolescent Students by Predictor Variables, Using Discriminant Analyses in Percent Correctly Classified

		DUI						DI Group -- Students Intent				Exposure			
	N	A	L	M	H	CD	Total%	L	M	H	Total%	L	M	H	Total%
SPPA															
All	199	70	30	32	61	--	40	71	31	68	52	51	42	48	46
Female	107	80	37	31	42	--	38	74	34	50	50	59	51	50	53
Male	92	75	56	57	50	--	56	1	47	67	59	48	51	55	51
Social Skills															
All	199	60	41	39	61	--	46	71	31	68	52	59	39	56	49
Female	107	60	47	40	69	--	50	74	34	50	50	50	40	53	47
Male	92	75	63	41	64	--	54	71	47	67	59	56	40	60	49
Anxiety															
All	199	40	19	31	48	--	32	73	41	68	57	54	29	54	43
Female	107	60	23	38	58	--	40	71	48	73	61	56	30	63	48
Male	92	75	41	26	27	--	33	84	42	72	70	48	34	55	42
DDP															
All	199	60	30	14	63	--	33	63	29	59	46	61	15	56	39
Female	107	80	43	18	54	--	37	68	36	62	52	68	7	53	39
Male	92	25	48	16	73	--	39	52	33	78	48	52	32	60	43
All Measures Combined															
All	199	60	55	57	83	--	63	81	59	84	71	71	51	68	61
Female	107	80	63	67	73	--	68	84	76	77	79	71	51	63	61
Male	92	100	78	85	86	--	84	84	74	83	79	72	68	80	72

A = Abstinent L = Low M = Moderate H = Heavy CD = Chemically Dependent

Table 37

Prediction of Drug Use Index, Drug Intent, and Drug Exposure Groups in Adolescent Patients by Predictor Variables, Using Discriminant Analyses in Percent Correctly Classified

		DI Group -- Patients													
		DUI						Intent				Exposure			
	N	A	L	M	H	CD	Total%	L	M	H	Total%	L	M	H	Total%
SPPA															
All	67	--	63	57	40	--	55	57	53	46	52	55	44	64	54
Female	33	--	53	100	73	--	67	36	57	60	52	55	85	78	73
Male	34	--	63	57	40	--	55	59	63	78	65	89	70	83	81
Social Skills															
All	67	--	49	30	44	--	44	57	53	46	52	50	52	40	48
Female	33	--	53	67	67	--	61	36	57	60	52	55	46	56	52
Male	34	--	63	57	70	00	64	59	63	78	65	78	50	67	65
Anxiety															
All	67	--	45	0	48	--	39	43	33	63	48	60	44	25	43
Female	33	--	33	67	47	--	43	55	43	67	58	64	46	56	55
Male	34	--	56	43	60	--	55	41	50	44	44	67	40	42	48
DDP															
All	67	--	52	60	52	--	53	57	40	42	48	30	48	40	40
Female	33	--	40	67	67	--	55	64	72	47	58	37	46	22	36
Male	34	--	38	72	70	--	55	71	75	44	65	56	70	42	55
All Measures Combined															
All	67	--	78	70	80	--	77	75	67	50	64	70	70	80	73
Female	33	--	93	100	93	--	94	100	100	93	97	82	92	100	91
Male	34	--	100	100	100	--	100	100	100	100	100	100	100	100	100

A = Abstinent L = Low M = Moderate H = Heavy CD = Chemically Dependent

Comparisons of the total percentages of cases correctly classified for any of the three DI groups indicates that the combined-domain approach yielded consistently greater accuracy than the individual-domain approach. In predicting DUI groups, 63% of the students and 77% of the patients were correctly classified. When all subjects were compared

(i.e., DUI student groups and CD patient group) the predictability dropped to 58%. Inspection of the distribution indicated that incorrectly classified CD patients were most often classified as heavy users, abstainers as low users, low users as abstainers, moderate users as heavy, and heavy users as CD. When the sexes were considered separately, the percentages correctly classified were higher (77% for all male subjects and 64% for all female subjects). Among males, all of the abstainers were correctly classified and the CD group had the lowest proportion correctly classified (71%). Among females, 79% of the CD group was correctly classified, and only 50% of the low users were correctly classified--with, again, most of these misclassified females falling in the abstainer group.

The predictability of Intent groups was generally higher than DUI group predictability, with 71% of the students and 64% of the patients correctly classified using the combined measures approach. The distribution of percentages indicated that for students, low intent level students tended to be misclassified as moderate level, moderates as low level, and high as moderate level. The distribution in the patient sample was not as clear. For example, misclassified low, moderate, and high intent patient groups were equally represented among each of these

three Intent groups. When the sexes were considered separately, 79% of the male and female students were correctly classified, while all male patients and 97.5% of the female patients were correctly classified. These latter observations should be viewed with caution due to the fact that only 34 males and 33 females comprised the patient sample.

Exposure DI groups were, again, best predicted when all measures were considered, with 61% of the students and 73% of the patients were correctly classified into Exposure groups. Most misclassified low exposure students were indicated in the moderate group; moderates were in the low group; and high exposure misclassification equally represented in either low or moderate levels. As with the Intent groups, misclassified patients were equally distributed across exposure groups, except for the high level exposure patients who were all misclassified in the moderate level group. Among male students, 72% were correctly classified, compared to 61% of the females. In the patient sample, all males and 91% of the females were correctly classified.

Chapter V

DISCUSSION

The data in this study provided some support for the hypotheses that were advanced. Individual domains of self-concept/esteem, social skills, anxiety, and depression were associated with : 1) actual drug use (Drug Use Index score); 2) intent to use drugs in the future (Intent score); and 3) exposure to drugs (Exposure score). Various psychosocial variables were significantly related to adolescent drug involvement. Greater drug involvement (i.e., DUI, Intent, and Exposure scores) was significantly associated with increased levels of social avoidance and distress; lower general self-esteem and self-concept in several life areas; increased levels of anxiety and loneliness; and greater levels of depression. The results were generally consistent across these three drug involvement measures, although the Stopper drug involvement measure was not consistently related to the various measures.

Apparently, the level of an adolescent's drug use prior to his/her abstinence is not reflective of psychological or social well-being, as measured in this study. The overall consistency of the results across drug involvement was not unexpected, and may have been spuriously high due to the fact that drug use, intent to use, and exposure to drugs were all based on subject self-report. However, these findings are

consistent with results from other studies. For example, several tudies (e.g., Jessor & Jessor, 1977) have shown that adolescents who have drug using friends had an increased probability of exposure to settings where drugs are available and consumed. In addition, parental drinking and approval of drinking by teenagers has been linked to adolescent drug use/abuse (Clark, 1981). With respect to intentions to use drugs, it has been demonstrated that prior behavior (i.e., drug use), in addition to intention, serves as an important predictor of future drug use behavior (Bentler & Spechert, 1981).

Contrary to some research (e.g., Newcomb, Chou, Bentler, & Haba, 1988; Harford & Spiegler, 1983), no significant sex differences in drug involvement were found. But, a developmental age trend, which approached significance ($p < .05$), was observed, with younger students (i.e., sophomores) having lower Drug Use Index and Intent drug involvement scores than older students (i.e., juniors and seniors). This finding is consistent with results from other investigations (e.g., Maddahian, Newcomb, & Bentler, 1988; Harford & Spiegler, 1983) suggesting that older adolescents are more involved in drugs than younger adolescents.

The relationship of psychological and social domains to empirically derived DUI, Intent, and Exposure levels in both adolescent students and

adolescent patients diagnosed as having a chemical dependency was of primary concern in this study. Examination of the relationships yielded generally patterns unrelated with the literature, although the domains measured were relatively complex. For example, an increase in self-concept/esteem (characterized principally by heightened levels of job competence, behavioral conduct, and self-worth) was observed as Drug Use Index levels decreased from heavy/CD to abstinent/low. Similar patterns were found with respect to both Intent and Exposure (high to low) drug involvement levels.

Approximately 13 of the 20 variables used to evaluate adolescent drug involvement in this study were related to drug involvement levels. This list included: four depression domains (mood/affect, self-worth, energy/interest, and suicidal ideation); five self-concept/esteem domains (physical appearance, job competence, behavioral conduct, self-worth, and athletic competence); anxiety (covert and overt); and three of the social skills factors (Social Avoidance and Distress, Loneliness Scale, and Revised Self-Monitoring). Generally speaking, greater drug involvement was associated with decreased levels of psychological and social well-being with respect to these variables. In contrast to heavy/chemically dependent level adolescents, abstinent/low drug users tended to: 1) be less depressed (i.e., a more positive mood and general self-worth, more

energy, and fewer thoughts of suicide); 2) have a more positive self-concept/esteem (i.e., felt better about the way he/she looks, felt more competent in the work place and on the athletic field, were better behaved, and had a more positive self-esteem); 3) be less anxious; and 4) be more adept in social interactions (i.e., decreased levels of social avoidance and distress, and loneliness). An exception to these observations occurred in one social skills domain--self-monitoring ability. CD subjects consistently scored higher on the RSM Scale than all other student Drug Use Index groups, indicating that this group may have been better at monitoring their expressive behaviors than were abstinent, low, moderate and heavy user student groups. This result may have tapped a possible treatment effect in which programs designed to help CD adolescents are providing teens with an increased self-awareness of behaviors through the teaching of social skills (i.e., self-monitoring).

The single best predictor of DI in the student sample was the Social Avoidance and Distress Scale. This 28-item, true/false, instrument accounted for 26%, 30%, and 37% of the variance in Drug Use Index, Intent, and Exposure DI scores respectively. The one scale item most indicative of DI level was the statement, "I often want to get away from people," answered in the affirmative by students more involved in drugs. Their feeling may be reflective of a conscious or unconscious desire by a

student high in SAD to avoid situations placing him/her at the center of social attention, which might result in this person becoming a relatively isolated status within his/her social world. This interpretation is consistent with the results from two additional social skills assessed in this study--loneliness and assertiveness. Heavy DUI user students reported significantly greater levels of loneliness (i.e., scored higher on the LS) than did abstinent, low, or moderate user groups. Similarly, abstinent and low user students tended to be more assertive (i.e., scored higher on the WLAS) than heavy user students. These results are consonant with previous research (e.g., Geist & Borechi, 1982) linking SAD scores with various personality tendencies and social skills. For example, it has been demonstrated that individuals scoring low on SAD (i.e., reporting less social avoidance and distress) tend to control situations, rather than be controlled (Geist & Borecki, 1982). Assertive persons have also been shown to exhibit this same tendency--to control as opposed to being controlled (Averett & McManes, 1977).

In addition, Geist and Hamrick (1983) have shown that individuals high in SAD have a low need for affiliation, which they conclude is likely to affect their self-confidence in interpersonal interaction and ultimately their general level of self-confidence due to such a social skills deficit. It should be noted that the students in the heavy drug user

group were significantly higher in SAD compared to the CD patient group. However, the CD group was significantly higher in SAD compared to the low user student group. Thus, one might argue that another possible CD treatment effect was observed because of this apparent decrease in SAD among adolescents receiving treatment for their drug abuse problem. Adolescents receiving drug treatment are provided opportunities to interact with peers and adults in a number of controlled settings (i.e., A.A. meetings in the community and individual and group psychotherapy sessions). Perhaps these opportunities to be involved with others in a sober, safe environment aid these adolescents in gaining self-confidence and control over social fears without the need to use drugs.

One should not interpret the previous statement to suggest that the possible treatment effects would continue once these adolescents leave their formal treatment environments. The social challenges are considerably greater outside most treatment programs in general (i.e, outpatient or halfway house), and especially for inpatient programs where interpersonal interactions/situations are often very controlled and limited in focus. An adolescent leaving such an atmosphere is often returned to an environment which presents the recovering drug user with a variety of challenges and decisions, including such questions as: How

do I deal with my old drug using" friends"?; Do I want to make new friends that don't use drugs?; How do I go about making new friends?; Who can I go to if I need help?; and Can I handle life without using drugs? One might expect greater levels of anxiety and distress from adolescents moving away from relatively safe treatment atmospheres, even though they have been prepared for such a move.

If adolescents use drugs to "get high" and to facilitate goal attainment normally achieved by active inter/intrapersonal relationships and participation in productive (often stressful) endeavors (i.e., being a good student, having a job, involvement in extracurricular school activities, etc.), then psychosocial dysfunction may be expressed in some form of developmental delay. Baumrind and Moselle (1985) propose that the prolonged use of drugs during the adolescent years seriously retards normal development, resulting in: 1) escapism--a chronic substitution of a drug "high" for negative emotions (i.e., stressful life events); 2) egocentrism--an inability to take the perspective of others (one component of self-monitoring); 3) external locus-of-control--a tendency to deny responsibility for achievement-outcomes, success of personal relationships, or the person one is becoming (i.e., drug abuser); 4) self-derogation--a general lack of self-worth; and 5) alienation and estrangement--a final by product of drug abuse and resulting

consequences associated with drug abuse (i.e., escapism, egocentrism, external locus-of-control, and self-derogation).

Thus, the drug abusing adolescent fails to achieve the crucial recognition that sustained "drug-free" effort is required to alter social systems effectively, and to create new healthy social relationships. It is through extended interactions with others (adults and peers),f and practice with an array of different roles (i.e., student, athlete, worker, boy/girl friend, etc.) that we learn about ourselves and others. Obviously, extensive use/abuse of psychoactive substances will seriously impair a person's ability and/or desire to be a participant in establishing healthy, drug-free roles and interpersonal relationships. If drug use is related to the experience of stressful life events (i.e., social anxieties), one might expect that a major reason for using drugs would be to reduce the discomfort of the stress (i.e., reduce negative affect). When an adolescent opts for a chemical solution to interpersonal and intrapersonal problems, he/she fails to obtain skills necessary to achieve stable and meaningful inter/intrapersonal relationships. It has been observed that drugs "provide an all-too-convenient mechanism to enable adolescents to avoid stage-appropriate uncomfortable disequilibrating experiences, and to escape psychological (social) and physical pain" (Baumrind & Moselle, 1985, p. 58).

In contrast to students, patients in different DI groups (i.e., low, moderate, heavy DUI) were similar in their self-reported levels of self-concept/esteem, social skills, anxiety, and depression domains. This finding might be attributable to the homogeneous clinical group of adolescents. Variability in drug involvement scores were limited, which may acount for these nonsignificant results across the patient sample.

These data suggest that specific psychosocial variables are differentially associated with varying levels of drug involvement. These findings lend support to potentially identifying "peer clusters" (Oetting & Beauvais, 1987) in which drug involvement is either reinforced or shunned by its members. Although the peer cluster theory was not directly assessed in this study, the data are consistent with its emphasis on shared psychological and social forces.

Limitations of the Study

Several limitations of this study probably affect the power and precision of the results. First of all, one must consider the relatively small number of adolescents in both the student and the patient sample. Although the initial populations from which subjects were selected from were fairly large and representative, obtaining parental consent posed a serious problem--eliminating approximately 34% of the student and 35% of the patient samples. The subjects used may have been a biased group

in that (for students) only those adolescents sufficiently motivated to have their parent/guardian sign a consent form and return this signed form back to school were allowed to participate. For most of the adolescent patients to be included, a representative from their treatment facility (usually a counselor) was responsible for contacting parents/guardian for consent. In many of these cases, consent was either never obtained or was obtained too late for a youth to participate (i.e., he or she was discharged prior to testing). Therefore, the representativeness of the samples may be questioned.

A second limitation involves the methodology used in this investigation. The research design was cross-sectional and only examined a small segment of the adolescent life--span over a single time period. Thus, the results were limited in that no cause-effect statements could be made.

Suggestions for Future Research

Making causal statements from the present data is not possible. Thus, the use of prospective longitudinal research would seem to be an obvious solution to this shortcoming. Indeed, research tracking drug involvement and potential risk factors (i.e., self-concept/esteem, social skills, anxiety, and depression) every year or two during childhood through age 18 would provide valuable information. Such data should

increase the power to differentiate between a multitude of prevention and intervention strategies, thus facilitating informed decisions as to which strategies are most effective at a given developmental stage. Engaging in such research is, of course, both time-consuming and expensive but the procedure provides the most conclusive means from which to establish cause-effect relationships. The development of appropriate and effective prevention/intervention strategies are dependent upon the establishment of causal linkages between drug involvement and its consequences over time (e.g., Newcomb & Bentler, 1988).

It has been suggested that the focus of drug prevention and intervention efforts should be changed from knowledge based dissemination programs (i.e., facts on drug effects, prevalence statistics, etc.) to social skills, and psychological and environmental concerns (Perry & Murray, 1985). Thus, prevention/intervention research should examine the relationships between, for example, drug use and health-enhancing behaviors which might function as effective alternatives to drug use. The question to be probed in this research focus might be: which health-enhancing behaviors are the best deterrents to drug use/abuse? The public message, "Just say no to drugs" is, by itself, not enough to deter most kids from getting involved in the use of drugs.

Clearly, empirically finding effective skills and/or behaviors that individuals can use as alternatives to drug use will help to provide effective interventions in regard to adolescent drug abuse and its associated problems.

Conclusions

When the patient and student groups were compared, patients were: 1) more involved with drugs (i.e., had greater DUI and Exposure scores); 2) less confident in their school work and had a lower self-esteem; 3) more lonely; 4) more anxious (i.e., had greater levels of both general and social anxiety); and 5) more depressed with regard to several domains (i.e., mood/affect, self-worth, and suicidal ideation). In contrast to these findings, patients when compared with students reported greater levels of self-monitoring ability--indicating a possible treatment effect. Although self-concept/esteem, social skills, anxiety, and depression are certainly not the only contributing factors to the multiply-determined behavior of drug use (e.g., Newcomb, Maddahian, & Bentler, 1986), they do represent important possibilities for further research. Therefore, the results from this study have important implications for prevention and intervention strategies for adolescents.

Greater consideration must be given to drug prevention efforts that go beyond the traditional education model emphasizing consequences of

drug use. Children need to learn important life-skills that teach them to value themselves and others and how to relate to others in positive responsible ways. Identifying possible "drug-risk factors" (i.e., social anxiety) in children or adolescents will aid parents, teachers, and counselors in developing effective strategies to specific deficits these youths may have. Effective drug prevention may involve a reliance on teaching basic social competencies that allow individuals to cope with inner experiences and with life situations involving other people.

The single best predictor of drug involvement (for the student sample) was the Social Avoidance and Distress Scale (Watson & Friend, 1969). This measure accounted for 25% of the variance in drug use index scores. This finding has special implications for developing effective drug interventions. This measure could be used as part of a screening assessment for identifying "at-risk" adolescents. These data suggest that socially anxious, lonely, and depressed youth are indeed more involved in the use of drugs. Thus, effective intervention will entail the facilitation of new modes of social participation and internal feelings of self-worth.

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APPENDIX A

Drug Involvement Questionnaire

1. Subject No. _____

2. Age _____

3. Date of Birth _____

4. Year in School Soph _____ Junior _____ Senior _____

5. Sex Male _____ Female _____

6. Ethnic Background
   - Black, Afro-American _____
   - White _____
   - Mexican American, Chicano _____
   - Oriental, Asian American _____
   - Hispanic, Other Latin American _____
   - American Indian _____
   - Other _____

7. Father's Occupation _____

8. Mother's Occupation _____

9. Have you ever been admitted to a drug treatment center? Yes _____ No _____

If yes,
A: How many times (including present treatment)
B: Were past treatments AA based programs
C: Source of referral (for past admission[s])
   1) parents(s)/guardian _____
   2) court appointed _____
   3) self _____
D: Total days spent in past treatment(s)
   1) one to 7 days _____
   2) 8 to 14 days _____
   3) 15 to 21 days _____
   4) 22 to 28 days _____
   5) 1 month to 3 months _____
   6) 3 months to 6 months _____
   7) over 6 months _____
E: Source of referral (for most recent admission)
   1) Parent(s)/Guardian _____
   2) Court appointed _____
   3) Self _____
F: Total days spent in current treament program
   1) one to 7 days _____
   2) 8 to 14 days _____
   3) 15 to 21 days _____
   4) 22 to 28 days _____
   5) Other _____

SUDEQ

Please check (X) one answer for each question

Code Number _____

**** CIGARETTES ****

1. Have you ever smoked a cigarette?

never	
once or twice	
3 to 10 times	
11 to 20 times	
21 times or more	

2. Do you have a friend who smokes?

yes	
no	
don't know	

3. Do you have a brother/sister who smokes?

yes	
no	
don't know	

4. Do your parents smoke cigarettes?

yes	
no	
don't know	

5. Do you think you will smoke cigarettes within the next year?

yes	
no	
don't know	

**** BEER ****

1. Have you ever drunk beer?

never	
once or twice	
3 to 10 times	
11 to 20 times	
21 times or more	

2. Do you have a friend who drinks beer?

yes	
no	
don't know	

3. Do you have a brother/sister who drinks beer?

yes	
no	
don't know	

4. Do your parents drink beer?

yes	
no	
don't know	

5. Do you think you will drink beer within the next year?

yes	
no	
don't know	

**** WINE ****

1. Have you ever drunk wine?

never	
once or twice	
3 to 10 times	
11 to 20 times	
21 times or more	

2. Do you have a friend who drinks wine?

yes	
no	
don't know	

3. Do you have a brother/sister who drinks wine?

yes	
no	
don't know	

4. Do your parents drink wine?

yes	
no	
don't know	

5. Do you think you will drink wine within the next year?

yes	
no	
don't know	

**** LIQUOR **** (whiskey, gin, rum, vodka, etc.)

1. Have you ever drunk liquor?

never	
once or twice	
3 to 10 times	
11 to 20 times	
21 times or more	

2. Do you have a friend who drinks liquor?

yes	
no	
don't know	

3. Do you have a brother/sister who drinks liquor?

yes	
no	
don't know	

4. Do your parents drink liquor?

yes	
no	
don't know	

5. Do you think you will drink liquor within the next year?

yes	
no	
don't know	

**** MARIJUANA **** (hash, pot, weed, grass)

1. Have you ever smoked marijuana?

never	
once or twice	
3 to 10 times	
11 to 20 times	
21 times or more	

2. Do you have a friend who smokes marijuana?

yes	
no	
don't know	

3. Do you have a brother/sister who smokes marijuana?

yes	
no	
don't know	

4. Do your parents smoke marijuana?

yes	
no	
don't know	

5. Do you think you will smoke marijuana within the next year?

yes	
no	
don't know	

**** PSYCHEDELIC DRUGS **** (LSD, mescaline, peyote, etc.)

1. Have you ever used psychedelic drugs?

never	
once or twice	
3 to 10 times	
11 to 20 times	
21 times or more	

2. Do you have a friend who uses psychedelic drugs?

yes	
no	
don't know	

3. Do you have a brother/sister who uses psychedelic drugs?

yes	
no	
don't know	

4. Do your parents use psychedelic drugs?

yes	
no	
don't know	

5. Do you think you will use psychedelic drugs within the next year?

yes	
no	
don't know	

****** INHALANTS ******
(glue, gas, etc.)

1. Have you ever used inhalants?

never _____
once or twice _____
3 to 10 times _____
11 to 20 times _____
21 times or more _____

2. Do you have a friend who uses inhalants?

yes _____
no _____
don't know _____

3. Do you have a brother/sister who uses inhalants?

yes _____
no _____
don't know _____

4. Do your parents use inhalants?

yes _____
no _____
don't know _____

5. Do you think you will use inhalants within the next year?

yes _____
no _____
don't know _____

****** AMPHETAMINES ******
(speed, bennies, dexies, uppers)

1. Have you ever used amphetamines?

never _____
once or twice _____
3 to 10 times _____
11 to 20 times _____
21 times or more _____

2. Do you have a friend who uses amphetamines?

yes _____
no _____
don't know _____

3. Do you have a brother/sister who uses amphetamines?

yes _____
no _____
don't know _____

4. Do your parents use amphetamines?

yes _____
no _____
don't know _____

5. Do you think you will use amphetamines within the next year?

yes _____
no _____
don't know _____

****** BARBITURATES/SEDATIVES ******
(downers, sleeping pills, reds, yellows, rainbows, etc.)

1. Have you ever used barbiturates/ sedatives?

never _____
once or twice _____
3 to 10 times _____
11 to 20 times _____
21 times or more _____

2. Do you have a friend who uses barbiturates/sedatives?

yes _____
no _____
don't know _____

3. Do you have a brother/sister who uses barbiturates/sedatives?

yes _____
no _____
don't know _____

4. Do your parents use barbiturates/ sedatives?

yes _____
no _____
don't know _____

5. Do you think you will use barbiturates/sedatives within the next year?

yes _____
no _____
don't know _____

****** HEROIN ******

1. Have you ever used heroin?

never _____
once or twice _____
3 to 10 times _____
11 to 20 times _____
21 times or more _____

2. Do you have a friend who uses heroin?

yes _____
no _____
don't know _____

3. Do you have a brother/sister who uses heroin?

yes _____
no _____
don't know _____

4. Do your parents use heroin?

yes _____
no _____
don't know _____

5. Do you think you will use heroin within the next year?

yes _____
no _____
don't know _____

****** COCAINE ******
(crack)

1. Have you ever used cocaine?

never _____
once or twice _____
3 to 10 times _____
11 to 20 times _____
21 times or more _____

2. Do you have a friend who uses cocaine?

yes _____
no _____
don't know _____

3. Do you have a brother/sister who uses cocaine?

yes _____
no _____
don't know _____

4. Do your parents use cocaine?

yes _____
no _____
don't know _____

5. Do you think you will use cocaine within the next year?

yes _____
no _____
don't know _____

APPENDIX B

What I Am Like

SAMPLE SENTENCE

	Really True for Me	Sort of True for Me				Sort of True for Me	Really True for Me
a)	☐	☐	Some teenagers like to go to movies in their spare time	**BUT**	Other teenagers would rather go to sports events.	☐	☐
1.	☐	☐	Some teenagers feel that they are just as smart as others their age	**BUT**	Other teenagers aren't so sure and wonder if they are as smart.	☐	☐
2.	☐	☐	Some teenagers find it hard to make friends	**BUT**	For other teenagers it's pretty easy.	☐	☐
3.	☐	☐	Some teenagers do very well at all kinds of sports	**BUT**	Other teenagers don't feel that they are very good when it comes to sports.	☐	☐
4.	☐	☐	Some teenagers are *not* happy with the way they look	**BUT**	Other teenagers *are* happy with the way they look.	☐	☐
5.	☐	☐	Some teenagers feel that they are ready to do well at a part-time job	**BUT**	Other teenagers feel that they are not quite ready to handle a part-time job.	☐	☐
6.	☐	☐	Some teenagers feel that if they are romantically interested in someone, that person will like them back	**BUT**	Other teenagers worry that when they like someone romantically, that person *won't* like them back.	☐	☐
7.	☐	☐	Some teenagers usually do the right thing	**BUT**	Other teenagers often don't do what they know is right.	☐	☐
8.	☐	☐	Some teenagers are able to make really close friends	**BUT**	Other teenagers find it hard to make really close friends.	☐	☐
9.	☐	☐	Some teenagers are often disappointed with themselves	**BUT**	Other teenagers are pretty pleased with themselves.	☐	☐
10.	☐	☐	Some teenagers are pretty slow in finishing their school work	**BUT**	Other teenagers can do their school work more quickly.	☐	☐
11.	☐	☐	Some teenagers have a lot of friends	**BUT**	Other teenagers don't have very many friends.	☐	☐
12.	☐	☐	Some teenagers think they could do well at just about any new athletic activity	**BUT**	Other teenagers are afraid they might not do well at a new athletic activity.	☐	☐

	Really True for Me	Sort of True for Me				Sort of True for Me	Really True for Me
1.	☐	☐	Some teenagers wish their body was different	**BUT**	Other teenagers like their body the way it is.	☐	☐
4.	☐	☐	Some teenagers feel that they *don't* have enough skills to do well at a job	**BUT**	Other teenagers feel that they *do* have enough skills to do a job well.	☐	☐
5.	☐	☐	Some teenagers are *not* dating the people they are really attracted to	**BUT**	Other teenagers *are* dating those people they are attracted to.	☐	☐
6.	☐	☐	Some teenagers often get in trouble for the things they do	**BUT**	Other teenagers usually *don't* do things that get them in trouble	☐	☐
17.	☐	☐	Some teenagers do have a close friend they can share secrets with	**BUT**	Other teenagers do not have a really close friend they can share secrets with	☐	☐
18.	☐	☐	Some teenagers don't like the way they are leading their life	**BUT**	Other teenagers do like the way they are leading their life.	☐	☐
19.	☐	☐	Some teenagers do very well at their classwork	**BUT**	Other teenagers don't do very well at their classwork.	☐	☐
20.	☐	☐	Some teenagers are very hard to like	**BUT**	Other teenagers are really easy to like.	☐	☐
21.	☐	☐	Some teenagers feel that they are better than others their age at sports	**BUT**	Other teenagers don't feel they can play as well.	☐	☐
22.	☐	☐	Some teenagers wish their physical appearance was different	**BUT**	Other teenagers like their physical appearance the way it is.	☐	☐
23.	☐	☐	Some teenagers feel they are old enough to get and keep a paying job	**BUT**	Other teenagers do not feel they are old enough, yet, to really handle a job well	☐	☐
24.	☐	☐	Some teenagers feel that people their age will be romantically attracted to them	**BUT**	Other teenagers worry about whether people their age will be attracted to them.	☐	☐
25.	☐	☐	Some teenagers feel really good about the way they act	**BUT**	Other teenagers *don't* feel that good about the way they often act	☐	☐
26.	☐	☐	Some teenagers wish they had a really close friend to share things with	**BUT**	Other teenagers *do* have a close friend to share things with.	☐	☐
27.	☐	☐	Some teenagers are happy with themselves most of the time	**BUT**	Other teenagers are often not happy with themselves.	☐	☐
28.	☐	☐	Some teenagers have trouble figuring out the answers in school	**BUT**	Other teenagers almost always can figure out the answers.	☐	☐

	Really True for Me	Sort of True for Me				Sort of True for Me	Really True for Me
29.	☐	☐	Some teenagers are popular with others their age	**BUT**	Other teenagers are not very popular.	☐	☐
30.	☐	☐	Some teenagers don't do well at new outdoor games	**BUT**	Other teenagers are good at new games right away.	☐	☐
31.	☐	☐	Some teenagers think that they are good looking	**BUT**	Other teenagers think that they are not very good looking.	☐	☐
32.	☐	☐	Some teenagers feel like they could do better at work they do for pay	**BUT**	Other teenagers feel that they are doing really well at work they do for pay.	☐	☐
33.	☐	☐	Some teenagers feel that they are fun and interesting on a date	**BUT**	Other teenagers wonder about how fun and interesting they are on a date.	☐	☐
34.	☐	☐	Some teenagers do things they know they shouldn't do	**BUT**	Other teenagers hardly ever do things they know they shouldn't do.	☐	☐
35.	☐	☐	Some teenagers find it hard to make friends they can really trust	**BUT**	Other teenagers are able to make close friends they can really trust.	☐	☐
36.	☐	☐	Some teenagers like the kind of person they are	**BUT**	Other teenagers often wish they were someone else.	☐	☐
37.	☐	☐	Some teenagers feel that they are pretty intelligent	**BUT**	Other teenagers question whether they are intelligent.	☐	☐
38.	☐	☐	Some teenagers feel that they are socially accepted	**BUT**	Other teenagers wished that more people their age accepted them.	☐	☐
39.	☐	☐	Some teenagers do not feel that they are very athletic	**BUT**	Other teenagers feel that they *are* very athletic.	☐	☐
40.	☐	☐	Some teenagers really like their looks	**BUT**	Other teenagers wish they looked different.	☐	☐
41.	☐	☐	Some teenagers feel that they are really able to handle the work on a paying job	**BUT**	Other teenagers wonder if they are really doing as good a job at work as they should be doing	☐	☐
42.	☐	☐	Some teenagers usually *don't* go out with the people they would really like to date	**BUT**	Other teenagers *do* go out with the people they really want to date.	☐	☐
43.	☐	☐	Some teenagers usually act the way they know they are supposed to	**BUT**	Other teenagers often don't act the way they are supposed to.	☐	☐
44.	☐	☐	Some teenagers don't have a friend that is close enough to share really personal thoughts with	**BUT**	Other teenagers do have a close friend that they can share personal thoughts and feelings with.	☐	☐
45.	☐	☐	Some teenagers are very happy being the way they are	**BUT**	Other teenagers wish they were different	☐	☐

APPENDIX C

Social Avoidance and Distress Scale

This is a questionnaire to find out how you feel about different social situations. Reach each statement carefully and if you believe this statement, answer Yes by blackening in the space under the letter A. If you do not believe this statement, answer No by blackening in the space under the letter B. There are no right or wrong answers on this questionnaire.

EXAMPLE

1. I like school dances

PRACTICE ANSWER SHEET

	A	B
1.	(T)	(F)

When you have answered all 28 statements keep your answer sheet with this questionnaire turn it over face down and wait for further instructions.

==========

SAADS

==========

1. I feel relaxed even in unfamiliar social situations.
2. I try to avoid situations which force me to be very sociable.
3. It is easy for me to relax when I am with strangers.
4. I have no particular desire to avoid people.
5. I often find social occasions upsetting.
6. I usually feel calm and comfortable at social occasions.
7. I am usually at ease when talking to someone of the opposite sex.
8. I try to avoid talking to people unless I know them well.
9. If the chance comes to meet new people, I often take it.
10. I often feel nervous or tense in casual get-togethers in which both sexes are present.
11. I am usually nervous with people unless I know them well.
12. I usually feel relaxed when I am with a group of people.

13. I often want to get away from people.
14. I usually feel uncomfortable when I am in a group of people I don't know.
15. I usually feel relaxed when I meet someone for the first time.
16. Being introduced to people makes me tense and nervous.
17. Even though a room is full of strangers, I may enter it anyway.
18. I would avoid walking up and joining a large group of people.
19. When my superiors want to talk with me, I talk willingly.
20. I often feel on edge when I am with a group of people.
21. I tend to withdraw from people.
22. I don't mind talking to people at parties or social gatherings.
23. I am seldom at ease in a large group of people.
24. I often think up excuses in order to avoid social engagements.
25. I sometimes take the responsibility for introducing people to each other.
26. I try to avoid formal social occasions.
27. I usually go to whatever social engagements I have.
28. I find it easy to relax with other people.

APPENDIX D

Self-Efficacy For Peer Interaction Scale

HOW EASY IS IT FOR YOU TO ____?

All of the following questions ask how easy is it for you to do things. Read/listen to each question carefully and decide how easy is it for you to do what is asked in the question. Then mark your answer sheet by coloring in one of the circles under the letter that corresponds to your answer.

If it is very hard (HARD!) for you to do something, color in the circle under the letter A; If it is just hard (hard) for you to do something, color in the circle under the letter B; if it is just easy (easy) for you to do something, color in the circle under the letter C; if it is really easy (EASY!) for you to do something, color in the circle under the letter D.

==========

HOW EASY IS IT FOR YOU TO _____?

==========

1. Some kids want to play a game. Asking them if you can play is _____ for you.
2. Some kids are arguing about how to play a game. Telling them the rules is _____ for you.
3. Some kids are teasing your friend. Telling them to stop is _____ for you.
4. You want to start a game. Asking other kids to play the game is _____ for you.
5. A kid tries to take your turn during a game. Telling the kid it's your turn is ____ for you.
6. Some kids are going to lunch. Asking if you can sit with them is _____ for you.
7. A kid cuts in front of you in line. Telling the kid not to cut in is _____ for you.
8. A kid wants to do something that will get you into trouble. Asking the kid to do something else is _____ for you.
9. Some kids are making fun of someone in your classroom. Telling them to stop is _____ for you.
10. Some kids need more people to be on their teams. Asking to be on a team is ____ for you.
11. You have to carry some things home after school. Asking another kid to help you is _____ for you.
12. A kid always wants to be first when you play a game. Telling the kid you are going first is _____ for you.
13. Your class is going on a trip and everyone needs a partner. Asking someone to be your partner is _____ for you.

14. A kid does not like your friend. Telling the kid to be nice to your friend is ____ for you.

15. Some kids are deciding what game to play. Telling them about a game you like is _____ for you.

16. You are having fun playing a game but the other kids want to stop. Asking them to finish playing is ____ for you.

17. You are working on a project. Asking another kid to help is ____ for you.

18. Some kids are using your play area. Asking them to move is ____ for you.

19. Some kids are deciding what to do after school. Telling them what you want to do is _____ for you.

20. A group of kids wants to play a game that you don't like. Asking them to play a game you like is ____ for you.

21. Some kids are planning a party. Asking them to invite your friend is ____ for you.

22. A kid is yelling at you. Telling the kid to stop is ____ for you.

APPENDIX E

AS

This is a questionnaire to find out how you feel about different situations. Read each question carefully and if you believe this question is <u>true</u> for you, blacken in the space under the letter A. If you believe the questions to be <u>false</u> for you, blacken in the space under the letter B. There are no right or wrong answers on this questionnaire.

<u>EXAMPLE</u>

1) Do you tend to let others make decisions for you?

PRACTICE ANSWER SHEET

1)	A	B
	(T)	(F)

AS

---

1. Do you protest out loud when someone pushes in front of you in line?
2. Do you avoid complaining about the poor service in a restaurant or elsewhere?
3. Are you inclined to be overapologetic?
4. Would you be very reluctant to change a garment bought a few days previously which you discover to be faulty?
5. If a friend unjustifiably criticizes you do you express your resentment there and then?
6. Do you usually try to avoid "bossy" people?
7. If you arrived late at a meeting would you rather stand than go to a front seat which could attract the atention of those in the room?
8. Are you able to express a different view point than that of a domineering person?
9. If a salesman has gone to considerable trouble to show you some merchandise which is not quite suitable do you have difficulty in saying "no"?
10. Do you generally express what you feel?
11. If you heard that one of your friends was spreading false rumors about you, would you hesitate to confront him/her about it?
12. Would you have difficulty asking for money?
13. Do you find it difficult to begin a conversation with a stranger?

14. Are you able openly to express love and affection?

15. If you do not like the food that has been served to you at a restaurant would you complain about it to the waiter?

16. Are you careful to avoid hurting other people's feelings?

17. If you were at a lecture and the speaker made a statement that you considered not to be true, would you question it?

18. If an older and respected person made a statement with which you strongly disagreed, would you express your own point of view?

19. Do you usually keep quiet "for the sake of peace"?

20. If a friend makes what you consider to be an unreasonable request are you able to refuse?

21. If after leaving a shop you notice that you have been given short change, do you go back and point out the error?

22. If a policeman told you not to enter a place which you are in fact fully entitled to enter would you argue with him?

23. If a close and respected relative were annoying you, would you smother your feelings rather than express your annoyance?

24. Do you find it easier to show anger towards people of your own sex than to members of the opposite sex?

25. Is it difficult for you to compliment and praise others?

26. Do you have a close friend to talk to with whom you can discuss virtually anything?

27. Do you admire people who justifiably strike back when they have been wronged?

28. Do you usually keep your opinions to yourself?

APPENDIX F

LS

QUESTIONS ABOUT ME

This is a questionnaire to find out how you feel about some things. To help me know how you feel, there are 24 questions that you need to answer. Each question can be answered by indicating how much this question is like you. That is, how well the questions describes you. Answer each question by deciding how true this question is for you. Is this statement always true of you, true most of the time, true sometimes, hardly ever true, or not true at all. Let's practice with two questions before we use the answer sheet.

1. I like roller skating.

   If this stement is always true of you, blacken in the circle under the letter A

   If this statement is true most of the time, blacken in the circle under the letter B

   If this statement is true sometimes, blacken in the circle under the letter C

   If this statement is hardly ever true, blacken in the circle under the letter D

   If this statement is never true, blacken in the circle under the letter E

Now let's answer question two.

2. I like school.

   Again, choose one of the five answers that describes how you like school.

PRACTICE ANSWER SHEET

	A	B	C	D	E
1.	○	○	○	○	○
2.	○	○	○	○	○

Now we are ready to answer the 24 questions. Remember to answer each question by thinking about how true this question is about you and then use one of the five answers to tell how true the question is about you.

LS

1. It's easy for me to make new friends at school.
2. I like to read.
3. I have nobody to talk to.
4. I'm good at working with other children.
5. I watch TV a lot.
6. It's hard for me to make friends.
7. I like school.
8. I have lots of friends.
9. I feel alone.
10. I can find a friend when I need one.
11. I play sports a lot.
12. It's hard to get other kids to like me.
13. I like science.
14. I don't have anyone to play with.
15. I like music.
16. I get along with other kids.
17. I feel left out of things.
18. There's nobody I can go to when I need help.
19. I like to paint and draw.
20. I don't get along with other children.
21. I'm lonely.
22. I am well-liked by the kids in my class.
23. I like playing board games a lot.
24. I don't have any friends.

APPENDIX G

This is a questionnaire that asks you to decide if certain statements are true about you. Reach each statement carefully and decide if this statement is true of you by blackening in the space under the letter A. If you decide the statement is false, blacken in the space under the letter B. There are no right or wrong answers on this questionnaire.

RSM

---

1. I find it hard to imitate the behavior of other people.
2. At parties and social gatherings, I do not attempt to do or say things that others will like.
3. I can only argue for ideas which I already believe.
4. I can make impromptu speeches even on topics about which I have almost no information.
5. I guess I put on a show to impress or entertain others.
6. I would probably make a good actor.
7. In a group of people I am rarely the center of attention.
8. In different situations and with different people, I often act like very different persons.
9. I am not particularly good at making other people like me.
10. I'm not always the person I appear to be.
11. I would not change my opinions (or the way I do things) in order to please someone or win their favor.
12. I have considered being an entertainer.
13. I have never been good at games like charades or improvisational acting.
14. I have trouble changing my behavior to suit different people and different situations.
15. At a party I let others keep the jokes and stories going.
16. I feel a bit awkward in public and do not show up quite as well as I should.
17. I can look anyone in the eye and tell a lie with a straight face (if for a right end).
18. I may deceive people by being friendly when I really dislike them.

APPENDIX H

1. My interests, in people and ways to have fun, seem to change quite fast.
[a] true, [b] in between, [c] false. ☐a ☐b ☐c

2. Even if people think poorly of me I still go on feeling O.K. about myself.
[a] true, [b] in between, [c] false. ☐a ☐b ☐c

3. I like to be sure that what I'm saying is right, before I join in on an argument.
[a] yes, [b] in between, [c] no. ☐a ☐b ☐c

4. I am inclined to let my feelings of jealousy influence my actions.
[a] sometimes, [b] seldom, [c] never. ☐a ☐b ☐c

5. If I had my life to live over again I'd:
[a] plan very differently, [b] in between, [c] want it the same. ☐a ☐b ☐c

6. I admire my parents in all important matters.
[a] yes, [b] in between, [c] no. ☐a ☐b ☐c

7. It's hard for me to take "no" for an answer, even when I know what I'm asking is impossible.
[a] true, [b] in between, [c] false. ☐a ☐b ☐c

8. I wonder about the honesty of people who are more friendly than I'd expect them to be.
[a] true, [b] in between, [c] false. ☐a ☐b ☐c

9. In getting the children to obey them, my parents (or guardians) were:
[a] usually very reasonable, [b] in between, [c] often unreasonable. ☐a ☐b ☐c

10. I need my friends more than they seem to need me.
[a] rarely, [b] sometimes, [c] often. ☐a ☐b ☐c

11. I feel sure I could "pull myself together" to deal with an emergency if I had to.
[a] true, [b] in between, [c] false. ☐a ☐b ☐c

12. As a child I was afraid of the dark.
[a] often, [b] sometimes, [c] never. ☐a ☐b ☐c

13. People sometimes tell me that when I get excited, it shows in my voice and manner too obviously. [a] yes, [b] uncertain, [c] no. ☐a ☐b ☐c

14. If people take advantage of my friendliness I:
[a] soon forget and forgive, [b] in between, [c] resent it and hold it against them. ☐a ☐b ☐c

15. I get upset when people criticize me even if they really mean to help me.
[a] often, [b] sometimes, [c] never. ☐a ☐b ☐c

16. Often I get angry with people too quickly.
[a] true, [b] in between, [c] false. ☐a ☐b ☐c

17. I feel restless as if I want something but don't know what.
[a] hardly ever, [b] sometimes, [c] often. ☐a ☐b ☐c

18. I sometimes doubt whether people I'm talking to are really interested in what I'm saying.
[a] true, [b] uncertain, [c] false. ☐a ☐b ☐c

19. I'm hardly ever bothered by such things as tense muscles, upset stomach, or pains in my chest.
[a] true, [b] in between, [c] false. ☐a ☐b ☐c

20. In discussions with some people, I get so annoyed I can hardly trust myself to speak.
[a] sometimes, [b] rarely, [c] never. ☐a ☐b ☐c

B

21. I use up more energy than most people in getting things done because I get tense and nervous. [a] true, [b] uncertain, [c] false. ☐a ☐b

22. I make a point of not being absent-minded or forgetful of details. [a] true, [b] uncertain, [c] false. ☐a ☐b

23. No matter how difficult and unpleasant the snags and stumbling blocks are, I always stick to my original plan or intentions. [a] yes, [b] in between, [c] no. ☐a ☐b

24. I get over-excited and "rattled" in upsetting situations. [a] yes, [b] in between, [c] no. ☐a ☐b

25. I sometimes have vivid, true-to-life dreams that disturb my sleep. [a] yes, [b] in between, [c] no. ☐a ☐b

26. I always have enough energy to deal with problems when I'm faced with them. [a] yes, [b] in between, [c] no. ☐a ☐b

27. I have a habit of counting things, such as steps, or bricks in a wall, for no particular purpose. [a] true, [b] uncertain, [c] false. ☐a ☐b

28. Most people are a little odd mentally, but they don't like to admit it. [a] true, [b] uncertain, [c] false. ☐a ☐b

29. If I make an embarrassing social mistake I can soon forget it. [a] yes, [b] in between, [c] no. ☐a ☐b

30. I feel grouchy and just don't want to see people. [a] almost never, [b] sometimes, [c] very often. ☐a ☐b

31. I can almost feel tears come to my eyes when things go wrong. [a] never, [b] very rarely, [c] sometimes. ☐a ☐b

32. Even in the middle of social groups I sometimes feel lonely and worthless. [a] true, [b] in between, [c] false. ☐a ☐b

33. I wake in the night and have trouble sleeping again because I'm worrying about things. [a] often, [b] sometimes, [c] almost never. ☐a ☐b

34. My spirits usually stay high no matter how many troubles I seem to have. [a] true, [b] in between, [c] false. ☐a ☐b

35. I sometimes get feelings of guilt or regret over unimportant, small matters. [a] yes, [b] in between, [c] no. ☐a ☐b

36. My nerves get on edge so that certain sounds, such as a screechy hinge, are unbearable and give me the shivers. [a] often, [b] sometimes, [c] never. ☐a ☐b

37. Even if something upsets me a lot, I usually calm down again quite quickly. [a] true, [b] uncertain, [c] false. ☐a ☐b

38. I seem to tremble or perspire when I think of a difficult task ahead. [a] yes, [b] in between, [c] no. ☐a ☐b

39. I usually fall asleep quickly, in just a few minutes, when I go to bed. [a] yes, [b] in between, [c] no. ☐a ☐b

40. I sometimes get tense and confused as I think over things I'm concerned about. [a] true, [b] uncertain, [c] false. ☐a ☐b

STOP HERE. BE SURE YOU HAVE ANSWERED EVERY QUESTION.

APPENDIX I

WHAT'S TRUE FOR ME

	Really True for Me	Sort of True for Me				Sort of True for Me	Really True for Me
			SAMPLE				
(a)	☐	☐	Some kids would rather go to a movie in their spare time.	**BUT**	Other kids would rather watch a sports event.	☐	☐
1.	☐	☐	Some kids are *unhappy* a lot of the time	**BUT**	Other kids are pretty *happy* a lot of the time	☐	☐
2.	☐	☐	Some kids *don't* blame themselves for things that go wrong	**BUT**	Other kids *do* blame themselves for things that go wrong	☐	☐
3.	☐	☐	Some kids wish they were *different*	**BUT**	Other kids *like* the way they are	☐	☐
4.	☐	☐	Some kids *don't* have a lot of energy to do things children their age like to do	**BUT**	Other kids *do* seem to have enough energy to do things children their age like to do	☐	☐
5.	☐	☐	Some kids don't really care if they live or die	**BUT**	Other kids do care if they live or die	☐	☐
6.	☐	☐	Some kids are usually pretty *cheerful* about things in their life	**BUT**	Other kids are often *sad* about things in their life	☐	☐
7.	☐	☐	Some kids often feel like it's their *fault* when *something bad* happens	**BUT**	Other kids *don't* often feel like it's their fault when something bad happens	☐	☐
8.	☐	☐	Some kids think the way they do things is is *fine*	**BUT**	Other kids do *not* think the way they do things is fine	☐	☐
9.	☐	☐	Some kids find it easy to get up in the morning because they have the energy to do what they have to do	**BUT**	Other kids find it hard to get up because they do not have the energy to do what they have to do	☐	☐
10.	☐	☐	Some kids hardly ever think about committing suicide	**BUT**	Other kids do think about committing suicide	☐	☐
11.	☐	☐	Some kids feel kind of "down" and *depressed* a lot of the time	**BUT**	Other kids feel "up" and *happy* most of the time	☐	☐
12.	☐	☐	Some kids usually *don't* think it's their own fault when things go wrong	**BUT**	Other kids think that when things go wrong it usually *is* their own *fault*	☐	☐
13.	☐	☐	Some kids *don't like* the way they are leading their life	**BUT**	Other kids *do* like the way they are leading their life	☐	☐

	Really True for Me	Sort of True for Me				Sort of True for Me	Really True for Me
14.	☐	☐	Some kids are full of energy and feel wide awake most of the day	**BUT**	Other kids don't have much energy and feel tired a lot	☐	☐
15.	☐	☐	Some kids hardly ever have thoughts about killing themselves	**BUT**	Other kids often have thoughts about killing themselves	☐	☐
16.	☐	☐	Some kids feel pretty *happy* about most of the things that happen to them	**BUT**	Other kids often feel *sad* about a lot of the things that happen to them	☐	☐
17.	☐	☐	Some kids blame *themselves* and *feel mad* when they do something wrong	**BUT**	Other kids *don't* feel mad or blame themselves when they do something wrong	☐	☐
18.	☐	☐	Some kids are *happy* with themselves most of the time	**BUT**	Other kids are often *not* happy with themselves	☐	☐
19.	☐	☐	Some kids *don't* have the energy to do the things they are supposed to do	**BUT**	Other kids really do feel like doing the things they have to do each day	☐	☐
20.	☐	☐	Some kids want to commit suicide	**BUT**	Other kids do not want to commit suicide	☐	☐
21.	☐	☐	Some kids *don't* feel happy very often	**BUT**	Other kids *do* feel happy pretty often	☐	☐
22.	☐	☐	Some kids think that when things don't work out for them it's their own *fault*	**BUT**	Other kids *don't* think it's their fault when things don't work out	☐	☐
23.	☐	☐	Some kids *like* the kind of person they are	**BUT**	Other kids often wish they were someone else	☐	☐
24.	☐	☐	Some kids have lots of *energy* to do things during the day	**BUT**	Other kids *don't* have much energy to do things during the day	☐	☐
25.	☐	☐	Some kids spend long periods of time thinking about killing themselves	**BUT**	Other kids hardly ever spend any time thinking about killing themselves	☐	☐
26.	☐	☐	Some kids feel *happy* about things in their life	**BUT**	Other kids feel *sad* about how their life is going	☐	☐
27.	☐	☐	Some kids don't blame themselves when they have problems	**BUT**	Other kids *do* blame themselves when they have problems	☐	☐
28.	☐	☐	Some kids *don't* feel pleased with themselves very often	**BUT**	Other kids are usually pretty *pleased* with themselves	☐	☐
29.	☐	☐	Some kids *often* just don't have the energy to do much of anything	**BUT**	Other kids usually do have the energy to do lots of things	☐	☐
30.	☐	☐	Some kids have lots of reasons to want to live	**BUT**	Other kids don't have many reasons to want to live	☐	☐

APPENDIX J

University of Nebraska at Omaha

College of Arts and Sciences
Department of Psychology
Omaha, Nebraska 68182-0274
(402) 554-2592

PARENTAL/GUARDIAN LETTER
FOR STUDENT POPULATION

Dear Parent(s):

Your child has been identified as meeting the selection criteria for participation in a research project on adolescent self-esteem, social skills, and drug use/non-use. The selection criteria are that your child must be in grades ten through twelve and never having been admitted to inpatient treatment for a chemical dependency problem. This research project will be conducted by Earl H. Faulkner, graduate student in the Department of Psychology, University of Nebraska at Omaha. The research project has been approved by the principal of the school attended by your child, and the Institutional Review Board of the University of Nebraska.

The study in which your child is invited to participate is concerned with the relationship between a child's social adjustment and social competence (self-esteem) and his/her use or non-use of drugs such as alcohol, cigarettes, marijuana and cocaine. To assess the relationship, each of the students involved will complete a series of nine short rating scales/questionnaires. These instruments measure the youth's level of social skills, social competence (self-esteem), self-monitoring, depression, anxiety, and substance use/non-use. Each of these rating scales will be completed by your child during two physical education class periods. All information collected will be confidential. Your child can not be identified in this study. Your son/daughter will be assigned a number so that he/she will remain anonymous.

The data collected in this study will be compared to similar data collected among chemically dependent adolescents receiving or having received inpatient drug treatment. This comparison will permit me to examine the differences between different drug using groups of adolescents (abstinent, low-moderate user, heavy user and chemically dependent) and their responses to questionnaires assessing social competence, social skills, self-monitoring, anxiety and depression. The findings from this comparison study may be reported later in a professional journal.

Insofar as I can determine, there are no risks involved in this study. All questions on the rating scales have been reviewed by school administrative staff and the Review Committee of the Institutional Review Board of the University of Nebraska. Your cooperation in permitting your child to participate in this study is very important. I need all of the identified students to participate in the study so that the results of the study will have meaning. Please complete the attached permission form as soon as possible and

send it with your son/daughter to be turned in to his/her teacher. In order to ascertain that all parents have received this request, I would appreciate receiving a reply even if you do not want your child to participate.

If you have any questions regarding this research project, please call Earl H. Faulkner at one of the following numbers. Thank you.

Sincerely,

Earl H. Faulkner
Graduate Student
Office 559-5034
Home 493-4208

Tom Harvey
Principal, North High School
554-6500

APPENDIX K

University of Nebraska at Omaha

College of Arts and Sciences
Department of Psychology
Omaha, Nebraska 68182-0274
(402) 554-2592

PARENTAL/GUARDIAN CONSENT FORM FOR STUDENT POPULATION

Invitation to Participate

Your child is invited to participate in a study of self-esteem, social skill, self-monitoring, anxiety, depression and substance use behavior of adolescent students-grades ten through twelve. Your child was selected for this study because he/she is in grade ten through twelve and has never been admitted to an inpatient chemical dependency treatment facility.

Purpose of the Study

The purpose of this study is to learn more about the relationship between an adolescent's self-esteem, social skill, self-monitoring, anxiety, depression and his/her drug use or non-use of drugs.

Explanation of Procedures

Each youth will be asked to complete a series of nine rating scales/questionnaires. Students will be assigned a number to ensure anonymity.

Withdrawal from the Study

Participation in the study is voluntary. Your decision whether or not to allow your child to participate will not affect your present or future relationship with the University of Nebraska at Omaha. If you decide to permit your child to participate, you are free to withdraw your consent and to discontinue participation at any time.

Potential Risks and Discomforts

The questionnaires used in this study are not designed to cause your child any risks or discomforts. Your son/daughter may, however, feel uncomfortable or uneasy answering questions about his/her drug use. Your child will be ensured that his/her answers will be kept completely confidential to minimize his/her possible discomfort.

Offer to Answer to Questions

If you have any questions about his study, please contact Earl H. Faulkner, 559-5034 or 493-4208. If you have any additional questions concerning the rights of research subjects you may contact the University of Nebraska Institutional Review Board (IRB), telephone (402) 559-6463.

YOU ARE MAKING A DECISION WHETHER OR NOT TO ALLOW YOUR CHILD TO PARTICIPATE. YOUR SIGNATURE INDICATES THAT, HAVING READ THE INFORMATION PROVIDED ABOVE, YOU HAVE DECIDED TO PERMIT YOUR CHILD TO PARTICIPATE. YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM TO KEEP.

Parents who permit their child to participate will receive a report on the findings of the study.

Signature of Parent/Guardian _____ Date _____

Earl H. Faulkner
Investigator
559-5034 - Office
493-4208 - Home

Dr. Joseph C. LaVoie
Advisor
Office 554-2398

APPENDIX L

University of Nebraska at Omaha

College of Arts and Sciences
Department of Psychology
Omaha, Nebraska 68182-0274
(402) 554-2592

YOUTH ASSENT FORM FOR STUDENT POPULATION

Invitation to Participate

You are invited to participate in a study about the use of such drugs as alcohol, cigarettes, marijuana, and cocaine by teenagers. In addition to questions concerning your use of drugs, you will be asked to answer some questions about how you feel about yourself and how easy or difficult it is for you to talk and be with others. You were chosen to participate in this study because you are in grades ten through twelve and have never been admitted to a drug treatment facility.

Purpose of Study

The purpose of this study is to learn more about the relationship between a teenager's use or non-use of drugs and how that person feels about himself or herself.

Explanation of Procedures

You will be asked to complete a series of nine questionnaires. It will take two class periods (about 90 minutes) to answer all of the questionnaires. **YOUR NAME WILL NOT APPEAR ON ANY OF THE ANSWER SHEETS.** You will be assigned a number so that I can keep all the answer sheets together. No one will know how you answered the questions. Your school will be given some information from some of these questions, but **NO INFORMATION WILL BE GIVEN ABOUT YOUR ANSWERS.**

Withdrawal From Study

You do not have to take part in this study if you do not want to. If you decide to answer the questions, and then later you want to stop, that will be okay.

Potential Risks and Discomforts

The questionnaires are not designed to cause you any risks or discomforts. You may, however, feel uncomfortable answering questions about your drug use. Let me again ensure you that your name will not be on any of the questionnaires so that you do not need to worry about being identified.

Potential Benefits

You probably will not experience any direct benefits from being a participant in this study. However, you may be helping us to better understand and help teenagers who have a drug problem. In addition, you will be given a description of the results of this study when it is done so that you can see how this study was conducted and what it means.

Offer to Answer Questions

If you have any questions, please ask them now. When you have completed all of the questionnaires, you can ask other questions that you might have. At that time, I will give you some more information about what the study means.

If you have any additional questions concerning the rights of research subjects you may contact the University of Nebraska Institutional Review Board (IRB), telephone (402) 559-6463.

YOU ARE VOLUNTARILY MAKING A DECISION WHETHER OR NOT TO PARTICIPATE IN THIS RESEARCH PROJECT. YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TO PARTICIPATE, HAVING READ AND UNDERSTOOD THE INFORMATION PROVIDED ABOVE. YOUR SIGNATURE ALSO INDICATES THAT YOU HAVE HAD AN ADEQUATE OPPORTUNITY TO DISCUSS THIS STUDY WITH THE INVESTIGATOR AND YOU HAVE HAD ALL YOUR QUESTIONS ANSWERED TO YOUR SATISFACTION. YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM TO KEEP.

_____ _____

Your Name Date

_____ _____

Signature of Investigator Date

Earl H. Faulkner
Investigator
Office 559-5034
Home 493-4208

Dr. Joseph C. LaVoie
Advisor
Office 554-2398

APPENDIX M

University of Nebraska at Omaha

College of Arts and Sciences
Department of Psychology
Omaha, Nebraska 68182-0274
(402) 554-2592

PARENTAL LETTER FOR TREATMENT POPULATIONS

Dear Parent(s):

Your child has been identified as meeting the selection criteria for participation in a research project on adolescent self-esteem, social skill and drug use/non-use. The selection criteria are that you child must be in grades ten through twelve and have either completed inpatient treatment or is currently admitted to a drug treatment facility. The research project has been approved by (the relevant administrator of the treatment facility) and the Institutional Review Board of the University of Nebraska.

The study in which your child is invited to participate is concerned with the relationship between a child's social adjustment and social competence (self-esteem) and his/her use or non-use of drugs such as alcohol, cigarettes, marijuana and cocaine. To assess the relationship, each of the students involved will complete a series of nine short rating scales/questionnaires. These instruments measure the youth's level of social skill, social competence (self-esteem), self-monitoring, depression, anxiety, and substance use/non-use. Each of these rating scales will be completed by your child. All information collected will be confidential. Your child can not be identified in this study. Your son/daughter will be assigned a number so that he/she will remain anonymous.

The data collected in this study will be compared to similar data collected from students who do not use drugs and students who admit to using drugs. This comparison will permit me to examine the differences between different drug using groups of adolescents (abstinent, low-moderate user, heavy user and chemically dependent) and their responses to questionnaires assessing social competence, social skills, self-monitoring, anxiety and depression. The findings from this comparison study may be reported later in a professional journal.

Insofar as I can determine, there are no risks involved in this study. All questions on the rating scales have been reviewed by staff of the treatment facility and the Institutional Review Board of the University of Nebraska. Your cooperation in permitting your child to participate in this study is very important. I need all of the identified students to participate in the study so that the results of this study will have meaning. Please complete the attached permission form at the facility. In order to ascertain that all parents have received this request, I would appreciate receiving a reply even if you do not want your child to participate.

If you have any questions regarding this research project, please call Earl H. Faulkner at one of the following numbers. Thank you.

Sincerely,

Earl H. Faulkner
Graduate Student

Office 559-5034
Home 493-4208

APPENDIX N

University of Nebraska at Omaha

College of Arts and Sciences
Department of Psychology
Omaha, Nebraska 68182-0274
(402) 554-2592

PARENTAL/GUARDIAN CONSENT FORM FOR TREATMENT POPULATIONS

Invitation to Participate

Your child is invited to participate in a study of self-esteem, social skill, self-monitoring, anxiety, depression and substance use behavior of adolescent students-grades ten through twelve. Your child was selected for this study because he/she is in grade ten through twelve and has either completed inpatient treatment for chemical dependency or is currently admitted to a drug treatment facility.

Purpose of the Study

The purpose of this study is to learn more about the relationship between an adolescent's self-esteem, social skill, self-monitoring, anxiety, depression and his/her drug use or non-use of drugs.

Explanation of Procedures

Each youth will be asked to complete a series of nine rating scales/questionnaires. Students will be assigned a number to ensure anonymity.

Withdrawal from the Study

Participation in the study is voluntary. Your decision whether or not to allow your child to participate will not affect your present or future relationship with the University of Nebraska at Omaha. If you decide to permit your child to participate, you are free to withdraw your consent and to discontinue participation at any time.

Potential Risks and Discomforts

The questionnaires used in this study are not designed to cause your child any risks or discomforts. Your son/daughter may, however, feel uncomfortable or uneasy answering questions about his/her drug use. Your child will be ensured that his/her answers will be kept completely confidential to minimize his/her possible discomfort.

Offer to Answer to Questions

If you have any questions about his study, please contact Earl H. Faulkner, 559-5034 or 493-4208. If you have any additional questions concerning the rights of research subjects you may contact the University of Nebraska Institutional Review Board (IRB), telephone (402) 559-6463.

YOU ARE MAKING A DECISION WHETHER OR NOT TO ALLOW YOUR CHILD TO PARTICIPATE. YOUR SIGNATURE INDICATES THAT, HAVING READ THE INFORMATION PROVIDED ABOVE, YOU HAVE DECIDED TO PERMIT YOUR CHILD TO PARTICIPATE. YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM TO KEEP.

Parents who permit their child to participate will receive a report on the findings of the study.

_____ _____

Signature of Parent/Guardian Date

Earl H. Faulkner
559-5034 - Office
493-4208 - Home

APPENDIX O

University of Nebraska at Omaha

College of Arts and Sciences
Department of Psychology
Omaha, Nebraska 68182-0274
(402) 554-2592

YOUTH ASSENT FORM FOR TREATMENT POPULATION

Invitation to Participate

You are invited to participate in a study about the use of such drugs as alcohol, cigarettes, marijuana, and cocaine by teenagers. In addition to questions concerning your use of drugs, you will be asked to answer some questions about how you feel about yourself and how easy or difficult it is for you to talk and be with others. You were chosen to participate in this study because you are in grades ten through twelve and currently admitted to a drug treatment facility.

Purpose of Study

The purpose of this study is to learn more about the relationship between a teenager's use or non-use of drugs and how that person feels about himself or herself.

Explanation of Procedures

You will be asked to complete a series of nine questionnaires to be answered at two different times. Once during your first week of treatment and the second time after completing inpatient treatment. Each time you answer these questionnaires it will take about 90 minutes. **YOUR NAME WILL NOT APPEAR ON ANY OF THE ANSWER SHEETS.** You will be assigned a number so that I can keep all the answer sheets together. No one will know how you answered the questions. The treatment facility will be given some information from some of these questions, but **NO INFORMATION WILL BE GIVEN ABOUT YOUR ANSWERS.**

Withdrawal From Study

You do not have to take part in this study if you do not want to. If you decide to answer the questions, and then later you want to stop, that will be okay.

Potential Risks and Discomforts

The questionnaires are not designed to cause you any risks or discomforts. You may, however, feel uncomfortable answering questions about your drug use. Let me again ensure you that your name will not be on any of the questionnaires so that you do not need to worry about being identified.

Potential Benefits

You probably will not experience any direct benefits from being a participant in this study. However, you may be helping us to better understand and help teenagers who have a drug problem. In addition, you will be given a description of the results of this study when it is done so that you can see how this study was conducted and what it means.

Offer to Answer Questions

If you have any questions, please ask them now. When you have completed all of the questionnaires, you can ask other questions that you might have. At that time, I will give you some more information about what the study means.

If you have any additional questions concerning the rights of research subjects you may contact the University of Nebraska Institutional Review Board (IRB), telephone (402) 559-6463.

YOU ARE VOLUNTARILY MAKING A DECISION WHETHER OR NOT TO PARTICIPATE IN THIS RESEARCH PROJECT. YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TO PARTICIPATE, HAVING READ AND UNDERSTOOD THE INFORMATION PROVIDED ABOVE. YOUR SIGNATURE ALSO INDICATES THAT YOU HAVE HAD AN ADEQUATE OPPORTUNITY TO DISCUSS THIS STUDY WITH THE INVESTIGATOR AND YOU HAVE HAD ALL YOUR QUESTIONS ANSWERED TO YOUR SATISFACTION. YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM TO KEEP.

_____ _____

Your Name Date

_____ _____

Signature of Investigator Date

Earl H. Faulkner
Investigator
Office 559-5034
Home 493-4208

Dr. Joseph C. LaVoie
Advisor
Office 554-2398