THE IMPACT OF PEER, SCHOOL, FAMILY, AND RELIGION FACTORS UPON ADOLESCENT DRUG USE

DISSERTATION

Presented to the Graduate Council of the University of North Texas in Partial Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Gregory A. Stanley, B.A., M.Div.

Denton, Texas

December, 1989

Stanley, Gregory A., The Impact of Peer, School, Family, and Religion Factors upon Adolescent Drug Use. Doctor of Philosophy (Sociology), December, 1989, 135 pp., 18 tables, 5 figures, bibliography, 190 titles.

The contribution of this research is in the area of adolescent decision making. The specific decision examined is the decision to use or not use drugs. Several factors were expected to have significant impacts on this crucial adolescent decision. These factors included peer, school, family, and religion influences.

The source of the data was a sample of ninth through twelfth grade students in a north Texas city. The students responded to a survey questionnaire in the spring semester of 1989. A total of 632 students responded to the questions about alcohol- and drug-related attitudes, beliefs, and behaviors.

Four major hypotheses were tested, and each one was supported by the research findings. In the first hypothesis, it was expected that family drug use factors would have a positive effect on adolescent drug use. Family factors included the following: parental use of alcohol, problems for family members due to parental drinking, and problems for the respondent due to parental drinking. Family factors had a statistically significant effect on alcohol use and any drug use.

According to the second hypothesis, school factors were expected to have a positive effect on adolescent drug use. School factors involved: grade average, course failure, and the TEAMS test failure. This index of school influences had a statistically significant effect on marijuana use and hard drug use.

In the third hypothesis, religion factors were expected to have a negative effect on adolescent drug use. The importance of religion and attendance at religious services combined to form an index of religion influences. The data revealed a statistically significant relationship with four different dependent variables (alcohol, marijuana, hard drugs, and any drug use).

The expectation of the fourth hypothesis was that peer factors would have a positive effect on adolescent drug use. Peer factors included the following: ridden with drug users, heavy drinking friends, and friends who use drugs. As expected, the findings indicated a statistically significant relationship with all four dependent variables.

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CHAPTER I

INTRODUCTION

Introductory Statements

The use of drugs among adolescents and young adults has become widespread during the last twenty-five years, and many have characterized the increase as epidemic in proportion (Robins, 1984). For example, in one recent national survey, 92% of high school seniors reported using alcohol some time in their life, whereas 54% reported marijuana use, and 40% reported using some other type of illicit or hard drug (Johnston, O'Malley, and Bachman, 1986). While it may not be too surprising that many teenagers have experimented at some time with various drugs, many problems and concerns begin to emerge when experimental use becomes regular use or even abuse. In the same study, 37% reported at least one instance of heavy drinking (five or more drinks) during the past two-week period. Also, 26% indicated marijuana use within the past month and 5% reported daily use.

Obviously, for many adolescents drug use is more than an experimental behavior or simply the result of curiosity. Many young people ingest various drug substances and this behavior becomes an important facet of their life-style. It

is critical to research the factors that lead to an adolescent's decision making process that includes the use of illicit drugs. Few theories are available to the researcher to address these issues. Data are only currently becoming available to study these issues empirically, and very little has been published as yet (Newcomb and Bentler, 1988). The purpose of this chapter is to set forth explicitly those questions which were at the heart of this dissertation.

Problem

There are many reasons for researching adolescent drug use issues. The potential for drug abuse to ruin individual lives and families and drain billions of dollars each year from the U.S. economy is a significant factor. Violence and corruption associated with drug trafficking erodes the nation's quality of life, and in this sense research about drug use is a prominent micro- and macro-societal issue. The subject of drug use and abuse is no longer an "us versus them" proposition. Drug use and misuse is clearly an international problem that requires combined efforts of all disciplines to contribute to the body of knowledge in order to increase understanding of the subject.

This was a study of several aspects of how adolescents make significant decisions. The dissertation was an examination of the intermediate factors which intervene between the culture and the adolescent's significant decisions. The study was an investigation of the specific

factors that intervene between the adolescent's culture and the decision making process. The specific focus was upon the adolescent's decision to use or not use drugs. What cultural, social factors influence this decision?

Statement of the Problem. The specific problem examined was what factors intervene between the adolescent's culture and the adolescent's decision to use or not use drugs? Several questions were investigated in this research. First, what are these factors that intervene between the culture and the decision making process? Second, what is the relative strength of these factors? Third, how do these factors, such as, the peer group, the family, religion, and the school, impact the young person?

Goals of the Research. These were the goals of this study: to study the intermediate factors which intervene between the culture and the adolescent's significant decisions. Another goal was to determine how these factors and processes interact to affect, for example, an adolescent's decision to use drugs. The final goal was to examine the relative strengths of these factors, and to make some substantive conclusions about the relationships that were studied. For example, can a profile be assembled of the adolescent who is most and least likely to use drugs? These were the major goals of the study.

Design of the Research

This was a study of young persons in the ninth through

twelfth grades. The sample was drawn from high school students in a north Texas city whose population is about 65,000. The students responded to a survey questionnaire in the spring semester of 1989. A copy of the questionnaire was included in the Appendix of this dissertation. There were 632 students who responded to the questions about alcohol- and drug-related attitudes, beliefs, and behaviors. Specific procedures of data collection and analysis are delineated in succeeding chapters.

Significance of the Study

Theoretical and practical contributions resulted from this research. A specific theory (social control theory) was used to guide the investigation of adolescent drug use. The social emphases of the theory were described, operationalized, and tested. For example, the adolescent peer group was expected to have a significant effect on the adolescent's behavior. According to the theory, the peer group is an important agent of the adolescent's social bonding, and thus was expected to impact adolescent decision making. The findings of the research confirmed this expected relationship between peer influences and decision making.

Studies in the area of adolescent decision making processes and drug use are especially important in light of the growing numbers of adolescents who use drugs in American society. Several groups are asking significant questions about adolescent drug use. Educational policy makers at the

local, state, and federal levels who are interested in the prevention of drug use by high school students need information about adolescent drug use. Counselors and student assistance personnel, whose task it is to work with students in the area of prevention and treatment of drug use, need information in order to develop therapies that are appropriate for the prevention and treatment of adolescent drug use. Parent-teacher groups need information about how adolescents make drug use related decisions, and these groups need the information in order to help families deal with drug problems and issues. Behavioral scientists who are interested in socialization, adolescence, and alcohol and other drug use and abuse, need more research and information in order to expand their knowledge base and modify their theories. For example, such factors as social control and socialization can become concepts to organize the explanations and predictions of human behavior.

The information described in this study resulted in useful theoretical contributions in the area of socialization and social control. Additionally, the delineation of several factors of decision making resulted in pragmatic information and applications.

Major Divisions of the Research Report

Chapter one indicates the problem with which this dissertation was concerned, that is, what are the intermediate factors which intervene between the culture and

the adolescent's significant decisions? This first chapter is an introduction to the dissertation as well as a concise indication of the scope and purpose of the research.

Chapter two includes a review of the current literature in the field of adolescent drug use decisions, factors, behaviors, and processes. The second chapter indicates what types of studies have been done as well as a presentation of a portion of the knowledge base that has been accumulated concerning the issues and considerations involved in adolescent decision making processes.

The theoretical considerations of this investigation are presented in the third chapter. Key concepts and major terms used in the study are defined and the hypotheses to be tested are delineated. Several factors are investigated with the aid of what is called a social control theoretical frame of reference.

Methodological considerations are presented in chapter four. The key to the fourth chapter is the presentation of those methods used in implementing the study as well as an explanation of statistical procedures to be used in the analysis of the data. Chapter four also includes a description of the strategies used in the collection of the data.

The findings of the research are outlined and discussed in chapter five. The results are discussed in

terms of the stated hypotheses, and the ability of the model to explain adolescent decision making processes.

The summary and conclusions are presented in chapter six. This last chapter also contains areas of further research which are suggested as a result of this study.

Summary

The issue of adolescent drug use is so complex, transcending so many disciplines, that presenting a comprehensive research document on the subject is a challenge. Some of these disciplines that cover various aspects of the subject of adolescent drug use are: history, law, law enforcement, pharmacology, political science, psychology, and sociology. If there is only one thing on which the leaders of all modern states agree, it is the proposition that certain substances which people enjoy ingesting or injecting are dangerous both to those who use them and to others. While medical and scientific authorities throughout the world do not agree as to which substances are unacceptable, these leaders do agree that a global and combined effort is needed to control and eradicate drug abuse and drug addiction. In this dissertation, research, analyses, and conclusions from a sociological perspective focused on the process in which adolescents make significant decisions.

CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter presents a thorough review of the literature relating to the subject of this study. The area most salient to this study is the adolescent's decision to use or not use alcohol and drugs. Therefore, this chapter first delineates an overview of the drug problem among adolescents. The next section reports on the literature that describes several important factors in understanding drug use. The chapter is an overview of drug use and is based upon what has been researched and the current status of drug use research.

The Drug Problem among Adolescents: An Overview

Historical Considerations. Drug use and abuse are not unique to the present era. For example, the Grecian oracles of Delphi used drugs, Homer's Cup of Helen induced sleep and provided freedom from care, and the mandrake root supplied hallucinogenic belladonna compounds (see Genesis 30:14-16). Many references can be found in ancient literature of the use of mushrooms, datura, hemp, marijuana, opium poppies, and others. Sometimes under the influence of these drugs many people experienced extreme terror or ecstasy. Witches'

beliefs that they could fly may have been drug induced, because many of the natural preparations used in "witches' brews" induced the sensation of dissociation from the body, such as, floating or flying. Sometimes the drug use led to attempts to regulate it legally. For example, problem drinking is addressed in the code of Hammaurabi (2240 B.C.) and is discussed as a problem of men with too much leisure time and lazy dispositions.

Drugs and Society. American society is frequently characterized as being drug-oriented, addictive, and dependent upon chemicals (Schaef, 1986). Drug abuse is recognized as a major national problem by politicians as well as people in the general population. A popular news media report is that of a "drug bust" which includes law enforcement personnel who arrest persons who possess and/or sell drugs. The U.S. Department of Education, during the Reagan administration, promoted drug-free schools and a drug-free workplace. In the 1980s it could be observed that the capability of the United States Armed Forces was seriously questioned relative to illegal drug use among military personnel. It is fashionable for entertainers, government officials, high ranking business persons, and others to confess to violations of drug laws. Such persons confess to being snorters, freebasers, alcoholics, addicts, recreational users, or multiple-drug abusers (Carroll, 1989).

Recent Trends. During the decades of the 1970s and the 1980s came a marked increase in alcohol consumption among teenagers and young adults. One writer noted as early as 1974 that "the switch is on. Youths are moving from a wide range of other drugs to the most devastating drug--the one most widely misused of all--alcohol" (Chafetz, 1974). Today, teenage and pre-teenage drinking is widespread. Alcohol is the most widely used drug among youth, and approximately 3 million people 14 to 17 years old have problems related to the use of alcohol (DHHS, 1983). One study indicated that of the 9 million Americans who are alcoholics, 3 million are under the age of eighteen years. The beginning average age of alcohol use in the United States is twelve years old (Gerew, 1988).

In 1986, more than 3,500 teenagers died in alcohol-related car accidents. A popular activity for youth includes riding around in cars and drinking. Nearly one out of every three teens reports riding with an adolescent driver who was drunk (Comerci, 1988).

Some recent national data demonstrate that by the time they reach the twelfth grade well over 90% of American students have used alcohol. More than 50% of ninth-graders have tried it, and so have 30% of eighth-graders and 10% of sixth-graders. Another interesting aspect can be seen in terms of heavy drinking among youths. The proportion of high school seniors who drink heavily (five or more drinks at

least once over a two-week period) was at 37% in 1986 (Alcohol, Drug Abuse, and Mental Health Administration, 1987). Another source (DHHS, 1983) indicates that six percent of American teenagers drink every day.

Teenagers who are defined as problem drinkers include those who have had difficulties with teachers or the police because of their drinking. Of these, only a few can be defined as chronically alcoholic. However, alcoholic teenagers differ from other adolescent drinkers in that they drink more often and consume greater quantities, often specifically to get drunk. They also are more likely to drink alone, to exhibit aggressive or destructive behavior, and to have severe emotional problems (Kornblum and Julian, 1989).

Scope of Chapter. This chapter examines the current research literature that relates to some of the factors that can be attributed to this situation of increased popularity of alcohol among youth? Such influences include the difficulty, expense, and danger of procuring other drugs; low legal drinking ages; and the manufacture and advertisement of products that are especially appealing to the young, such as sweet wine and alcoholic beverages that resemble milkshakes. Drinking among young people can also be construed as a rebellion against the adult world--an attempt to assert independence and copy adult behavior. Perhaps the extremely strict regulations against drinking only make it more

appealing and prohibition is extremely difficult in a society in which alcohol is widely used and relatively easy to obtain.

Reinforcing Factors. Youth seem to turn to alcohol for the same reasons that their parents do--to have a good time, to escape from the stress of everyday life, and to conform to normative social behavior. One researcher said it like this:

> Both their peer group and the adult society that they are being socialized to enter encourage and reward drinking behavior. Learning to drink for the adolescent is but present and anticipatory socialization... The major influences on whether or not an individual drinks are the principal agents of socialization in his life, his parents and his peers (Albrecht, 1973).

Parental Concern. Observable tension emerges as many parents express concern about the rapidly growing numbers of teenagers and pre-teenagers who smoke "crack" cocaine and peculiar looking cigarettes, and about kids who inhale substances on the way to school in order to get high.

Drugs and Work. Drug testing is found in the workplace, as well as in professional and amateur athletics. The report of John Matuzak's death in June of 1989 is one of many accounts of famous American athletes who are dying from drug overdoses and abuses. Matuzak died of an apparent

overdose of Darvocet, and traces of cocaine were found in his system.

Drug Affects. Such mood altering, mind changing, and behavior modifying chemicals include legal, illegal, or potentially harmful chemicals referred to as "drugs." These substances, by their chemical natures can change the way the body functions and the way people think, feel, and act.

The use of many of these powerful substances, as well as the less potent chemicals, can and do affect human beings. Drugs affect people without regard for sex, race, creed, educational level, or socioeconomic groups. In this sense, the drug problem is indeed a "people problem." This includes attitudes that promote immediate satisfaction of needs and low tolerance for pain and frustration. The scope also involves peer pressure, parental pressure, and the crucial influence of significant others.

Drugs and Suicide. An example of the need to look closely at the drug phenomenon can be seen in the question of the relationship between drug abuse and adolescent suicide. Of all life's transitions, perhaps none is more confusing and occasionally traumatic as adolescence. It is a period of intense change, rapid physical growth, intellectual development, and sexual maturity. Many adolescents turn to drugs to help ease the frustration and pain experienced in their daily lives. Many of those who turn to drugs, eventually take their own lives in order to end the pain.

While statistics show that as many as 27% of high school seniors are current illegal drug users, and 30% consume alcoholic beverages on a regular basis (Carroll, 1989), other statistics indicate that suicide is the second major cause of death for people between the ages of fifteen and nineteen, second only to accidents. Of the 400,000 adolescents who attempt suicide each year, 7,000 are successful (Lundberg and Lundberg, 1985). Several studies have shown that the rates of suicide and suicide attempts are five to twenty times higher among drug abusers than in the general population (Hendin, 1982). While the exact relationship between drug abuse and adolescent suicide is not known, the evidence suggests that a relationship between the two definitely exists.

Problems from Drugs. A partial listing of problems that result from drug misuse includes: physical and mental illnesses, drug addiction or dependency, adverse reactions and undesired side effects, premature and sudden deaths, disrupted family life, aggression, exploitation of others, vandalism and destructive behavior, impaired performance on the job or in the classroom, criminal activities, accidents and injuries, and imprisonment or institutionalization (Carroll, 1989). Such a list hints at the complex and comprehensive nature of the drug problem.

Predisposing Influences. The fact that the drug scene is constantly changing makes it a difficult phenomenon to

describe. Many factors influence drug taking: fads unique to certain groups, current public attitudes that accept or reject drug use, availability of new drugs, and the degree of youth rebellion or personal independence that is expressed through drug use.

One example of such influences is that of mass media messages that encourage drug experimentation. This influence may come through advertising and marketing practices, or by admired "youth heroes," whose influence affects the degree and extent of drug use. Newspapers, books, and magazines comprise the print media, while radio, television, movies and records make up the electronic media. Although 70% of the adult population are regular newspaper readers, television remains the most influential medium. Almost 86 million homes have at least one television, while 57% of those homes have more than one set. The average household in the United States spends 49 hours and 49 minutes per week watching television--more than seven hours per day. Obviously, advertising is a lucrative business, whose reason for existence is to stimulate demand for products. Advertising by pharmaceutical companies is a $25 billion industry (Wang, 1985).

Over-the-counter drugs are constantly advertised for the relief of whatever illness one may have (such as, sleeping pills, wake up pills, indigestion and headache pills, backaches, tension, constipation, etc.). Television,

radio, newspapers, and magazines are saturated with advertisements of over-the-counter drugs. Also, recently the Food and Drug Administration lifted a two-year ban on consumer advertising of prescription drugs, which spells an increase in advertisements (Witters, 1989). There is a very clear message from this billion dollar advertisement business: better living through chemistry.

Current Use. In spite of these issues, such as underreporting of drug use, ambiguous laws, regulations, restrictions, and prohibitions, the American experience with psychoactive drugs is at high and increasing proportions. For example, national studies concerning alcohol drinking among adolescents indicate that alcohol is presently the most widely used and abused drug among American youths (Johnston, Bachman, and O'Malley, 1986). A little more than 92% of high school seniors have at least tried alcohol once; almost 86% of the surveyed students used alcohol within the past 12-month period, and just under 66% drank alcohol within the last thirty days. One senior in twenty reports taking a drink each day. Also, some studies found that 30% of the students reported being drunk at least six times a year, and just over 5% admitted to having difficulties with authority figures, friends, and drinking and driving (Carroll, 1989). Another matter of concern is that apparently children are trying alcohol at a younger age. More than half of all high

school students actually began using alcohol before entering the tenth grade (Sperling, 1985).

Cross-cultural Comparisons. In terms of historical standards or in comparison with other societies, statistics represent high levels of psychoactive drug use and abuse among the young people of America. For example, among high school seniors, the rates of illicit drug use remain higher than in any other industrialized nation in the world (Carroll, 1989). It is interesting to note that in the 1980s a slight decline and stabilization occurred in the use of illegal drugs, but the future will have to tell if this is a temporary or permanent trend. Crucial to the future drug scenario is that of the role of parents who were drug users themselves during the 1960s and 1970s. Are they going to approve, encourage, or tolerate the use of marijuana, cocaine, alcohol, or some other drug in their own children? Another key issue is the organized, national efforts to reduce the supply and demand of drugs, especially the illegal ones.

Recent Changes in Drug Use Issues. One researcher who addresses the macroscopic nature of drugs in American society is Erich Goode. He indicates how the world of drug use has changed drastically in the last half of the 1980s. Some of the notable examples include: the connection between intravenous drug use and AIDS; the use of crack; mandatory drug testing; the decline in new recruits to narcotic use and

addiction in the United States; the growing internationalization of drug smuggling into the United States; the appearance of and growth in the use of "designer" drugs (such as, ecstasy and fentanyl); the divergence of lower- and middle-class patterns of drug use; the irrelevance of the distinction between physical addiction and psychological and behavioral dependence; the massive rise in cocaine abuse and dependence; the growing awareness in the study of drug use of controlled narcotics use; and the growing "hard line" toward illegal drug use, or what Goode calls "zero tolerance" (Goode, 1989).

Goode contends that the key to the change in the drug scene in America has to do with the "moral panic" in the United States. Anyone can see the daily television and newspaper spots that advise the public not to take drugs. For example, in 1988, a New York Times/CBS poll reported that 16% of the respondents questioned said that drugs were the most important issue facing the nation today--and no other concern was ranked as highly. Also in 1988, President Reagan stated at the graduating ceremony of the Coast Guard Academy that drugs are "the foremost concern in our country." While all of this attention and focus on drug use as the central social problem has taken place in a period during which the actual use of drugs has declined. As a matter of fact, the central thesis of Goode's book, Drugs in American Society, is that conventional anti-drug thinking cannot hope to

understand the reality of the drug world. Herein lies a significant contribution from Goode: like a number of other activities, taking illicit drugs to get high entails a certain risk. He asserts that no one seriously doubts the dangers of illicit drug use, but that it is crucial to understand the place of drugs in the context of the many other problems that American society faces. Specifically, most people who take illegal mood-altering drugs are not harmed by that use. A minority (maybe one out of ten) of the users of a number of illicit drugs end up taking their drug of choice so frequently and in such a quantity that they threaten or destroy what previously was valued--school, an education, a job, a career, relationships, money, and property. Therefore, the key to causality is not the particular drug one uses, but the characteristics of the user of the drug.

What is helpful about Goode's contribution is that he represents something of an alternative to the hysterical views noted above. He does not say that drugs are harmless and that drugs never hurt anyone. Rather, he encourages consideration of the following aspects of drug use: evidence counts; myths about drugs and drug use abound; numbers count; proportions count; frequency of use counts; the "slippery slope" argument is fallacious (the idea of progression to dangerous levels of use); the user makes a difference; drug use is a risk-taking activity; the legal-illegal boundary is

artificial; media attention to drugs and the extent of drug use bear an extremely loose relation to one another; the relationship between objective harm and public concern is also extremely loose; not all of the accompaniments of use are a direct result of drugs themselves; most people who use drugs experience no harm whatsoever with a given episode of use, and most users are not seriously harmed by drug use; almost everything in the world of drug use is a matter of degree; and most people who use drugs weigh pleasure against pain--and usually, pleasure comes out on top (Goode, 1989). These points are helpful in the quest to track down the causal connections entailed in drug use. This approach is noteworthy because the issue of drug use and abuse requires understanding.

Reasons for Drug Use. The above examples of the ancient nature of drug use and abuse lead to the question of why do people experiment with drugs? Is it because they are bored, in pain, frustrated, unable to enjoy life, or alienated? Do they turn to drugs in order to find peace, togetherness, or euphoria? People continue to take drugs for other than medicinal reasons because of a variety of reasons. First, they are searching for pleasure. Drugs may make them feel better. Second, drugs may relieve stress or tension, or provide temporary escape. Third, peer pressure is strong, especially for young people. The use of drugs has become a "rite of passage" in some parts of our society. Maybe it is

part of the thrill of risk taking. Fourth, from an early age people are socialized into using drugs. For example, the media tell people that drugs are part of the technology that can make life a little bit better. A 1979 study reported that by the age of eighteen, the average American has seen 180,000 television commercials, many of which give the impression that pleasure and relief are to be found in sources outside oneself (Witters, 1989). Fifth, in some cases the drugs may enhance religious or mystical experiences. While these are just a few of the answers to why people use drugs (more will be discussed later in the dissertation), one point remains clear. Drug use is of universal concern in American society. It is also true that most persons encounter, even depend on, many persons who are drug users or abusers, such as, pilots, bus drivers, partners at work, or someone else who is trusted or loved (Witters, 1989).

Drugs and Politics. In The War on Drugs, James A. Inciardi wrote to provide an examination of the nature of American drug policy against the backgrounds of social and cultural change. He offers a discussion of drug abuse evolution in the United States. Drug abuse in America is best traced back to the use of opium based patent medicines readily available in the late 1700s. These medicines were actually unpatented. In other words, there were no regulations governing the medicine industry. Because of a

strong belief in the ability of opium to be a "cure all," it was the major component of most of the medicines. It actually had no therapeutic effect on the illness but would certainly give the sufferer relief from his or her pain. It only provided an illusion of healing. This abuse of drugs continued through the 1800s as other opium based drugs such as heroin and morphine were introduced. Heroin was actually believed to be a cure for the addiction to cocaine. The first anti-drug legislation was passed in the early 1900s. This legislation labeled drug abuse as deviant. Society began to stage an unsuccessful war on drugs. This war was basically unsuccessful because of ignorance and misinformation. As society attacked one drug, another would appear to take its place. The 1960s saw an infusion of drug abuse into all levels of society. Up to this point, drug abuse had been found predominantly in the "fringes" of society. Now, white middle class America had a drug problem. Drug abuse is still rampant in the 1980s despite legislative efforts to stop the supply and demand (Inciardi, 1986).

Despite major efforts to stop drug abuse in American society, the results have been unsuccessful. According to recent reports, federal funds spent on enforcing drug laws have not yet had a significant effect on curtailing illicit drug consumption patterns (Witters, 1989). For example, two years after the death of basketball star Len Bias helped touch off a national crusade against drug abuse, the nation's

drug problem is as pervasive as ever, and short-term prospects for improvement are bleak. Illegal drug use in the United States is rising, fueled by growing supplies and persistent demand, according to law enforcement officials. Cocaine is a huge problem. Consumption has doubled since 1982, and despite last year's record seizure of thirty tons, cocaine imports are rising. Some 5.2 million Americans now use cocaine. The price per kilo in Miami is about $19,000, which is down from $50,000 three years ago. Heroin use shows no decline. An estimated 500,000 Americans are addicts. Hospital admissions related to a potent form of cheap Mexican heroin known as "black tar" or "tootsie roll" are increasing. The marijuana picture is a bit more encouraging. Use declined and prices rose slightly in the last three years. However, supplies remain plentiful, and an estimated 10% of Americans over age twelve are marijuana users (Witters, 1989).

Important Factors in Understanding Drug Use

Understanding Drug Use. Given this problem of drugs in American society, what are some of the important factors in understanding drug use? This section now examines the literature that is salient to such factors. Most social and behavioral scientists are in agreement when it comes to the rejection of the idea of one single explanation for drug use and drug taking behavior. Several predisposing factors contribute to the illicit drug use, even though the use may

have some immediate benefit or positive consequence. What has served to puzzle and confuse researchers continues to be the drug taking behavior that recurs despite several negative consequences to society as well as the individual. However, many people contend that the influences that are responsible for the beginning of illicit drug use are perhaps very different from those that result in extended use (Cohen, 1985). It will be helpful to look at some of these factors because each individual uses drug substances for a unique set of reasons. One way to study these factors is to use variables to create indexes of several factors, and then observe how these factors affect drug use directly. The interaction of these factors also needs to be observed. One person may use a drug, and such use is culturally determined through patterns related to rituals. Someone else may use the drug due to compulsion that is tied to physical addiction as well as psychological difficulties. Another person may use drugs as a result of several factors that interact to result in another specific drug use pattern.

Possible Motivations. When researchers try to understand why people use drugs they list dozens of motivations for use. Such lists include: genetic abnormalities, physical addiction, mental health problems, and many more (Corry and Cimbolic, 1985). It is important to remember that no one factor by itself can predict that someone will become a compulsive user. The key idea is that

the number of risk factors can help in this prediction: the greater the number, the greater the likelihood of dependence.

Psychological factors. 1. Researchers contend that the primary reason people seek out and take psychoactive drugs is to change their conscious experience (Weil and Rosen, 1985). This is what is commonly called "mood modification," and it refers to the alteration of one's consciousness in terms of thinking, feeling, or behaving. It may also be accompanied by increased feelings of euphoria, lightness, self-transcendence, concentration, and energy (Weil and Rosen, 1985).

2. Another significant psychological factor, which also has biological implications, has to do with the use of drugs in search of pleasure and relief of pain for the user, who finds himself or herself in a difficult environment. For example, some drugs temporarily escalate one's awareness, and therefore, as a form of psychic stimulation this permits a wider range of thought processes, ideas and behaviors. The result of these changed or altered perceptions include motivation for progress, innovation, and social advancement (Carroll, 1989).

3. A psychological (or social psychological) factor that may have social connotations needs to be mentioned also. Many other researchers and theorists see drug use and abuse as possessing deeper social origins and motivations. Such an approach refers to the human experience of being alienated

from a society which persistently attempts to beat down one's individuality and nonconformity (Carroll, 1985). In this sense, then, drug use is a response of adjusting to a variety of environmental challenges. When this leads to decreased awareness it represents an escape from reality, and as such, drug use becomes convenient for changing one's behavior and mood.

4. Behavioral reinforcement has been shown to be a psychological factor in which positive reinforcement of drugs can lead to primary psychological dependence no matter what the initial motivation may have been for starting the drug use (Corry and Cimbolic, 1985). The key issue here is that the drug use is reinforced in ways other than the high experience--such as, positive peer approval, positive family approval, or greater sense of confidence; there may also be the result of drug use becoming a routine or habitual part of one's life.

5. Anxiety reduction is another psychological influence that is related to the fact that present society is fast-paced and stress-laden. Perhaps this society is no more stressful than ancient hunting and gathering societies, yet Americans report in huge numbers that they are "uptight" due to having lives that are so complex. Anxiety does indeed make a person tight, such as muscles become tense, rigid, and painful. Also the autonomic nervous system quickens the heart rate, digestive rate, and even the breathing rate

(Corry and Cimbolic, 1985). Here we can find an interesting interaction between the somatic experience and the psychological nervousness, which increases the anxiety: each reinforces and intensifies the other. Herein lies the dilemma: Americans tend to cope with anxiety by using drugs (especially alcohol and tranquilizers), or by getting physically ill so they can stay in bed and make the world go away for a while. Apparently, the number one remedy for stress has become self-medication in the form of alcohol.

6. Boredom is considered by many psychologists and psychiatrists to usurp strength and vitality and leads to depression, and many Americans suffer from a chronic sense of boredom. For example, some people become bored with their everyday existence: relationships, work, material possessions, and even recreation. They become frustrated and in pain as they seek to understand the meaning of life. Many people have apparently discovered that drugs ease the pain of boredom or anxiety. This may happen through the calming of the stomach, and the loosening of the lower back and other muscles. Certain drugs may also create a sense of euphoria as the person tunes in to what is in the immediate environment and becomes awestruck at the simple beauty of the world, and thus the "peak experience" releases one from the grips of boredom.

7. The final psychological factor to be discussed is that of poor self-esteem and lack of autonomy. Poor self-

concept, as well as lack of autonomy, is one risk factor that helps predict drug use. There is an interesting interplay here in that lack of autonomy is often a correlate of low self-esteem because some people do not feel good enough about themselves to risk doing what they really want to do. Specifically, they may rely so much on others for approval that their lives become controlled by others, and thus, if drug use is normative behavior in order to be accepted by a group, then the person who lacks autonomy may choose drug use as a means of approval.

Socialization and cultural factors. 1. Culture and history are important factors to consider. Drug use is not a new phenomenon in the United States. Native Americans indicated the use of numerous psychoactive drugs, and the first European settlers used alcohol and other substances. Psychoactive chemicals have been a part of human history and cultural experience, and thus there exists a cultural proscription for drug use. The attempt to alter consciousness has been, and still is, an important cultural and religious experience, and may be necessary to mental evolution. The use of psychoactive drugs is actually well documented in early history (such as Homer's Odyssey, the Old Testament, and the ancient Egyptians). It is believed by some anthropologists that alcohol was probably known and used by the earliest humans, the Stone Age people of the Neolithic era (Witters, 1989). Perhaps Native American Indians used

over two hundred psychoactive plants. The key point is that nearly all classifications of mood-altering drugs have been used during recorded history. If these drugs were considered to be a gift from God (or gods), then the drugs were sacred, and perhaps also served as a vehicle for learning the myths of the tribe. Essentially, these drugs played a key role in the "socialization processes of the many cultures that used them because they created a common frame of reference for members of the culture" (Corry and Cimbolic, 1985).

2. The widespread use of drugs in America is also influenced by socially defined attitudes, values, and behavioral norms in terms of the perceptions and usefulness of drugs. Specifically, in America one cannot find a widely held and consistent agreement on the acceptability or unacceptability of drug use. One area in which this can be seen has to do with the perception of who is using the drugs. For example, prior to 1960, it was thought that most of the illegal use of drugs was occurring among criminals, the urban poor, and nonwhites. Such groups were thought to be dangerous and threatening to the social and moral order. However, when drug use spread to the white, middle and upper class youths in the early 1960s, there came a public outcry to define appropriate drug use to include marijuana use. Thus, apparently the public definition of which drugs are appropriate depends on the type of person who uses drugs (Scarpitti and Datesman, 1980). All this leads to the

discussion of "what is appropriate or responsible drug use?" Indeed, even drug experts disagree on whether psychoactive drugs can be "used" beneficially by an unsupervised lay person, or if such use should be called abuse (Corry and Cimbolic, 1985).

Erich Goode indicates that the precise effects of a drug depends in large part on the social circumstances surrounding use because how drugs are used is influenced by a host of social and psychological factors. By this, he means that the effects of drug use, both immediate and long-range, are a consequence of an interplay among the substance that is taken, the individual who takes it, and both the immediate drug-taking setting and the broader sociocultural context of use. According to Goode, to assume that a drug and it alone determines what will happen to someone who takes it--always and under all circumstances--is fallacious. It is a perfect example of what the philosopher Alfred North Whatehead called the "fallacy of misplaced concreteness" and what Karl Marx called "fetishism." By the mid- 1980s came a resurgence of the antidrug propaganda in the United States. "Just say no" and "Don't even try it" are some of the warnings that are heard. Such organizations as College Challenge, World Youth Against Drug Abuse, the Just Say No Club, PRIDE, STOPP, Responsible Adolescents Can Help, and Youth to Youth have emerged to denounce the drug menace (Goode, 1989).

3. Many sociologists contend that drug users have adopted a deviant role as a function of labeling. This deviant role is one that is clearly outside the expected normative behavior patterns. Such labeling of children or young people may result in a self-fulfilling prophecy as the person acts out the label. In this context the drug user who is labeled an abuser may take on this deviant role. The point is that labelling may reinforce a behavior that would otherwise stop of its own accord.

4. Another important factor has to do with the coming of age rituals and peer group pressures that are prominent social and cultural features. For example, one may consider the ritualist behavior of various groups that use drugs collectively. Specifically, young people tend to use drugs in this manner, which may represent a rite whereby youth begin to break with parental control in an attempt to develop autonomy in their lives (DuTait, 1977). In this sense, then, drug taking has become a rite of passage for young people. As a matter of fact, NIDA (National Institute on Drug Abuse) pointed out in 1972 that young drug users typically show a pattern of intense experimentation, and then gradually taper off to almost complete abstinence. This involves a total time of about eighteen months. Apparently, the large majority of the young people are not harmed by this drug experience, and perhaps develop more varied responses to life as a result (Jaffee and Clark, 1974).

5. Religious or sacramental use is also a factor that needs to be considered. Some religious organizations use drugs as part of their worship, although the drugs may be used symbolically rather than to actually induce altered states of consciousness. For example, Jewish people often drink as part of their religious heritage. The same is true of many Catholic and Protestant churches which use wine as a symbol of Jesus, and wine is used in communion rites. The North American Native Church, a Christian group, uses psilocybin during its communion experience to induce an altered state of consciousness. This drug causes a person to break out of preconceived ways of viewing the environment (Corry and Cimbolic, 1985).

6. Culture and family are also important factors to consider. The family is the setting for the beginning of many behavior patterns, such as drug use. If the family is taken to be a part of a larger group, that is a part of a culture, then the group's cultural norms are often adopted by all family members. Examples of cultural traditions for particular regions include French and Italian families who use wine, Middle Eastern and Chinese families who use tobacco, and Scandinavian families who use whiskey. The way in which this is different from American culture is that the latter is always changing, which means that most Americans do not have strong nationwide traditions as are found in distinct racial and ethnic groupings. The key point here is

that "the norm in the United States is 'not' to have a solid, unalterable tradition about drug use" (Corry and Cimbolic, 1985). Perhaps more important than the specific drugs used are the patterns that may be prescribed by cultural traditions, such as drinking alcohol versus getting drunk from drinking too much alcohol.

"Modeling" is the term used to describe the relationship between parental drug-taking behavior and that of their children. Charles Carroll (1989) reports that while an adolescent's first use of legal alcohol, cigarettes, and illegal marijuana is mainly a social phenomenon including the heavy peer group influence, research demonstrates a strong relationship between parent-child interaction and the use of other illegal drugs. The implication is that more serious drug involvement is predominantly a family affair, but not necessarily based on parental modeling.

It is estimated that 28 million Americans have at least one alcoholic parent. To put this in perspective, one of every eight Americans is a child of an alcoholic (Cermak, 1989). Researchers now look at these statistics more closely because according to the National Association for Children of Alcoholics a child reared in an alcoholic family incurs some kind of physical, emotional, and spiritual damage (Bowden and Gravitz, 1985). There is no typical alcoholic family, though the alcoholic family may have unhealthy degrees of dysfunctions. The effects of these dysfunctions are related

to the amount of emotional and physical damage done to the child. The more dysfunctional, the greater the damage (Kritsberg, 1985).

It is important to understand this emotional damage suffered by children because childhood is the foundation upon which the rest of a person's life is built. There are four basic stages through which a child must pass and each must build on the other in order to provide a strong foundation for adulthood. These include: learning to trust; developing the sense of one's self as an individual; developing an initiative and a sense of mastery; and preparing for the final separation from the parents (Cermak, 1989).

Claudia Black, in It Will Never Happen to Me, provides a helpful discussion on the norms or rules that tend to govern the alcoholic family. Black indicates there are three key rules: don't talk; don't trust; and don't feel. The children in the family learn at a very young age that their emotional and physical survival depends on learning and following these rules (Black, 1986). It is important to look at these rules of childhood as a part of the socialization process because these childhood rules often become the laws of adulthood.

7. Social development patterns are closely linked to drug use. Based on the age at which an adolescent starts regular alcohol consumption, predictions can be made about his or her sexuality, academic performance, lying, cheating,

fighting and marijuana use. The same holds true of marijuana use. This represents a point of departure toward less conventional behavior, greater susceptibility to peer influence, increased delinquency, and lower school achievement (Witters, 1989).

From these observations about social patterns, Blum and Richards (1979) have noted several characteristics that drug abusers have in common. First, their drug use usually follows clear-cut developmental steps and sequences. Use of one of the legal drugs, such as alcohol, almost always precedes use of illegal drugs. Second, the dysfunctional attributes of drug use usually appear to precede rather than to derive from drug use. Thus, the "amotivational syndrome" often attributed to a person's heavy marijuana use was probably part of that person's personality before he or she started using the drug. Third, immaturity and maladjustment usually precede the use of marijuana and of other illicit drugs. Fourth, those who will try illicit drugs usually have a history of poor school performance. Fifth, delinquent and deviant activities usually precede involvement with illicit drugs. Sixth, a constellation of values and attitudes that facilitate the development of deviant behavior exists before the person tries illicit drugs. Seventh, there is a process of anticipatory socialization during which youngsters who are going to try drugs first develop attitudes favorable to the use of legal and illegal drugs. A social setting favorable

to drug use usually reinforces and increases individual predisposition to use. Eighth, drug behaviors and drug-related attitudes of peers are usually among the most potent predictors of subsequent drug involvement. Ninth, parents' behaviors, attitudes, and closeness to their children usually have varying influence at different stages of their children's involvement in drugs. Tenth, highly deviant children start using drugs at a younger age than less deviant children. Eleventh, the older one is when one starts using drugs, the less the involvement and the greater the probability of stopping drug use. The period of greatest risk of initiation into illicit drug use is usually over by the mid-20s. Twelfth, the structure of the family unit has been altered. For example, more than half of all women in the United States work outside the home now, largely for economic reasons. How this affects the quantity and quality of child care and nurturing is difficult to assess. Also, increasing numbers of children are being raised in single-parent households due to separation and divorce. All of these factors, along with an increasingly mobile United States population, contribute to the lack of a feeling of self-worth in many people. Thirteenth, another major factor thought to be involved in drug dependence is a feeling of powerlessness due to discrimination based on race, sex, social standing, or other attributes. Groups subject to discrimination have a disproportionately high rate of

unemployment and below average income. Children who grow up in poverty is a well documented social problem in America. The adults these children have as role models are unemployed and also powerless. There are higher rates of delinquency and drug addiction in such settings (Witters, 1989). All of these factors help one to see that illegal drug use offers the individual both benefits and disadvantages.

8. At the macroscopic level of society, one can see the evolution of social structure and the proliferation of subcultures. In contrast to industrial and post-industrial societies, preindustrial societies did not recognize as many separate and distinct periods of development for human beings. Childhood, for example, was not recognized in Europe until the Middle Ages (Aries, 1962). The idea of adolescence first began in industrial societies. Its acceptance as a stage of development has been relatively recent. The use of the word "adolescence" appeared only rarely outside of scientific literature prior to the twentieth century (Kett, 1973). It is helpful to look more closely at some of the various aspects of adolescent subculture.

One of the important aspects of the adolescent period is the fact that adolescents prefer to be in each other's company. Thus, younger or older generation members are perceived as "outsiders." The key to this is the inextricable linkage between bonds of friendship and group identity. Another feature of the period of adolescence is

that youth culture also displays a strong preference for autonomy. For example, rock music may be characterized by themes that either challenge or shun traditional values. Youth who are in the middle and late adolescent period have more of an interest in change than older adults. Adolescents have less vested interest in conforming to conventional standards while older adults find that conformity had either become a habit or is rewarding in and of itself. Also, for youths, the conformity tends to thwart their spontaneity towards life. The significance of looking at the adolescent subculture is that while both old and young people experience a society that is authoritarian and demanding, the extent and pressure to conform is more strongly felt and perceived as a threat by the young. Instead of dealing directly with the threat, some young people turn to drugs as an expression of rebellion or as a means of adjusting to society (Witters, 1989).

Another interesting consideration concerning the adolescent subculture has to do with whether or not many middle-class adolescents raised in an affluent society are motivated by the same type of economic-security goals that drive their parents. For example, the adolescents question the values of the compulsive work ethic and the treadmill existence. Many may go along with the system because it will get them where they want to go, their hearts are often not in

it (Witters, 1989). One result of this lack of internal commitment may be unconsciously expressed by drug use.

After having examined several aspects of adolescent subcultures, one can now consider the use of drugs within the peer group setting. The peer groups permit experimentation with many aspects of life that would not be tolerated if adults were present, such as, sex and drugs. Some research indicates that illicit drug use results from peer group influence (Matchett, 1975 and MacDonald, et al, 1973). Other research studies indicate that it is acquaintances, not friends, who first introduce the adolescent to drugs (Blum, 1974). Whatever is accurate, it is commonly thought that whenever drug use becomes more consistent and eventually habitual, it usually occurs in the peer group setting in the company of "significant others" (Witters, 1989). If it is true that most families do not advocate the use of illicit psychoactive drugs, then unsupervised fun-loving peers would be the logical stimulus for such illicit activity. This discussion leads to the question of why adolescents are attracted to peer groups.

There are many reasons why adolescents are attracted to peer groups, not the least of which has to do with the focus on problem solving which characterizes this type group. Several developmental factors are involved. First, the adolescent is undergoing a period of extensive physical and psychological growth. For example, anatomical growth

plus hormonal change, and disproportionate body parts may result in heightened feelings of self-consciousness and insecurity. Second, the early period of adolescence may be a time of insecurity and high anxiety, especially with regard to the shift from the secure family environment to coping with raw reality outside the home. For example, moving from the family setting to the peer group is when the adolescent is suddenly faced with an extensive renegotiation of his or her identity. Thus, new roles have to be scripted and performed. Third, the potential for such psychological conflict is heightened by the in-between status of not being a child anymore yet not quite a full adult. In the teen years, status confusion heightens as the adolescent is expected to remain within the authority structure of the family, but also begins to experience an open-ended form of autonomy with peers. Fourth, the adolescent may have the feeling of being deprived of some basic need. As far back as 1963, Erikson describes adolescence as the final period in which to establish "a dominant positive ego identity." The adolescent comes to the realization that a future life plan has to be constructed and that such endeavors as career goals, self-image, and future success are within grasp. The point is that stress is increased in mid to late adolescence.

What are some of these basic needs of the adolescent that are not fulfilled? They need to feel powerful in that they can affect the world around them. They need to

identify, to know who they are and with whom they belong; acceptance from their parents; unconditional regard that allows them to experiment and make mistakes. They need consistency in order to believe that the world is predictable, to feel worthwhile, and to give and receive affection. Therefore, for the adolescent, the peer group is viewed as essential for resolving the physiological, psychological, and maturational problems confronting them (Witters,, 1989). After having considered the difficult and complex nature of adolescence, it is not difficult to imagine how drugs offer the possibility of suspending reality, as well as to offer fun and excitement.

Physiological factors. 1. Some researchers have presented evidence that genetics plays a role in why some people become dependent on alcohol (Stabenau and Hesselbrock, 1983). Such information includes a comparison of family members of alcoholics and family members of nonalcoholic patients and the determination that family pedigree does indeed predict alcoholism. Other studies along these lines involve research on identical twins reared apart indicating that the twin children of alcoholics developed alcoholism even though raised by non-drinking foster parents (Schuckit, 1981). Although it is not clear exactly how genetics plays a role in other drug use patterns, perhaps it does contribute to the development of such patterns.

2. Physical addiction may result if certain drugs are used frequently enough, and this is without regard to whether or not the person's mental status is healthy or unhealthy. The issue is that if the drug is taken often enough, a biochemical reaction and neurological adaptation occurs so that the person must continue using the drug or experience withdrawal symptoms. Such symptoms are painful and are relieved when the drug is readministered, in which case, the drug is the immediate reinforcer.

E. M. Jellinek (1960) was one of the first to research and describe the disease concept of alcoholism, and he identified one type of alcoholic (among five) who suffers from physiological pain, and who gains relief from the pain through the use of alcohol. Other drugs have similar effects (Corry and Cimbolic, 1985).

3. Anhedonia refers to the inability to experience joy. This phenomenon appears to be associated with depression and abnormal brain chemistry, notably with low levels of three neurotransmitters: norepinephrine, dopamine, and serotonin (Belson, 1983). These chemicals (neurotransmitters) dispersed throughout the nervous system, especially the brain, are vital for the transmission of neurological signals. Other research also indicates that drugs such as alcohol may suppress the brain's ability to produce normal levels of endorphins (opiate-like

neurotransmitters in the brain), and results in joylessness unless a person is drinking alcohol (Belson, 1983).

Profiles of the User and Nonuser. After having discussed several of the factors that contribute to an adolescent's use of drugs, it will be helpful to examine a potential profile of the child who is least likely to use drugs. One such profile has been assembled by L.A.W. Publications (1985), and it offers ten characteristics of the profile of the one who is least likely to use drugs. One, the child comes from a strong family. Two, the child's family has a clearly stated policy toward drug use. Three, the child has strong religious convictions. Four, the child is an independent thinker, not easily swayed by peer pressure. Five, parents know the child's friends and the friends' parents. Six, the child often invites friends into the house and their behavior is open, not secretive. Seven, the child is busy, productive and pursues many interests. Eight, the child has a good secure feeling of self. Nine, parents are comfortable with their own use of alcohol, drugs and pills, and set a good example in using these and are comfortable in discussing their use. Ten, parents set a good example in handling crisis situations (L.A.W. Publications, 1985). These are the positive characteristics or profile for the young people who are least likely to use drugs. What about the child who may be using drugs? What symptoms might be observed?

Some of the symptoms of possible drug use will be noted in order to display a profile of possible indicators that a young person is using drugs. It is important to note that a child should display more than merely one of the symptoms that follow when experimenting with drugs: One, abrupt change in behavior, such as, from very active to passive, loss of interest in previously pursued activities such as sports or hobbies; Two, diminished drive and ambition. Three, moodiness; Four, shortened attention span; Five, impaired communication such as slurred speech, jumbled thinking; Six, significant change in quality of school work; Seven, deteriorating judgement and loss of short-term memory; Eight, distinct lessening of family closeness and warmth; Nine, sudden carelessness of appearance; Ten, inappropriate over-reaction to even mild criticism; Eleven, secretiveness about one's whereabouts and personal possessions; Twelve, friends who avoid introduction or appearance in the child's home; Thirteen, secretiveness and/or desperation for money; Fourteen, rapid weight loss or appetite loss; Fifteen, "drifting off" beyond normal daydreaming; and Sixteen, extreme behavioral changes such as hallucination, violence, unconsciousness, all of which could indicate a dangerous situation is close at hand (L.A.W. Publications, 1985). Therefore this negative profile can also be instructive for one's observations of adolescent behavior that may be related to drug use.

Summary

Chapter II is a review of the literature that relates to the subject of adolescent drug use. The review began by addressing the drug problem among adolescents. This overview demonstrated the diverse nature of the drug problem in America, as well as the many changes in the drug scene, and finally, the numerous efforts to control the drug problem. From the literature on the important factors that influence the use of drugs one can see that this is a complex issue. No single factor is adequate to explain the entire social phenomena related to drugs in American society. When these factors are divided into basic categories of determinants, it is not necessary to view such divisions as separate or discrete influences in the use of psychoactive drugs. It is more accurate to consider these factors as interdependent, interconnected, and even perhaps supplementary. This section concluded with a look at profiles of the adolescent user and nonuser.

CHAPTER III

THEORETICAL BACKGROUND

Introduction

The purpose of this chapter is to delineate the theoretical frame of reference which served to guide this research. Key concepts and basic terms that are used in the study are defined and the major hypothetical propositions which were tested are presented.

Theoretical Frame of Reference

Given this complex and multi-faceted problem of drug use in America, how do young people decide to use drugs? Is it possible to predict which factors in young persons' environments will predispose them to engage in drug using behaviors? Many studies, etiological in nature, have attempted to explain the essential antecedents of drug use among teenagers. Many important theories have been developed and tested. Such theories have been summarized recently by Chassin (1984), Jessor (1986), Jones and Battjes (1985), Kandel (1980, 1986), Labouvie (1986), Lettieri (1985), Long and Scherl (1984), Sadava (1987), and Zucker and Gomberg (1986). Many of these theories have progressed from being rather vague and diffuse to being clear, concise, and well

refined (Newcomb and Bentler, 1988). The foci of such theories have usually been on family and peer influences (for example, Brook, Whiteman, and Gordon, 1985); Clayton and Lacey, 1982; Fawzy, Coombs, and Gerber, 1983; Fisher, MacKinnon, Anglin, and Thompson, 1987). Other theories have focused on numerous types of risk factors (for example, Bry, 1983): Bry, McKeon, and Pandina, 1982; Coombs, Wellisch, and Fawzy, 1985; Newcomb, Maddahian, Skager, and Bentler, 1987). Deviance, problem behavior, or lack of social conformity have been other foci for some of the theories (for example, Akers, 1984; Donovan and Jessor, 1985; Huba and Bentler, 1983; Jessor and Jessor, 1977, 1978). Other theories have focused on low self-esteem, depression, or psychological distress (such as, Aneshensel and Huba, 1983; Kaplan, 1975, 1984, 1985) and stressful life change events (such as, Castro, Maddahian, Newcomb, and Bentler, 1987; Newcomb and Harlow, 1986; Newcomb, Huba, and Bentler, 1986). In the recent past, theories have attempted to grapple with these diverse processes by proposing more complex frameworks that can integrate biological, psychological, and social factors (for example, Huba, Wingard, and Bentler, 1980; Sada, 1987; Zucker and Gomber, 1986). Other theories have sought to investigate a broad range of deviant behaviors among the young, such as the structured strain perspective (Cloward and Ohlin, 1960), subcultural socialization (Cohen, 1955; Miller, 1958), control theories (Briar and Piliavin, 1965; Hirschi, 1969;

Polk and Halferty, 1966), containment theories (Reckless, 1967; Voss, 1969), social learning (Akers, Krohn, Lanza-Kaduce, and Radosevich, 1979), and an integrated control-strain model (Elliot, Huizinga, and Ageton, 1985). This investigation will utilize one of the above mentioned theoretical orientations. It is helpful to explore in greater detail the many concepts and applications of the theory that guides this research, which is called control theory.

The theoretical frame of reference which underlies this research is referred to as control theory. This dissertation focuses on the social contexts of control theory. It is a relatively new focus of attention to look at social or social psychological control factors. For example, family factors were prominent in the late nineteenth and early twentieth century explanations of delinquency, yet they were not carefully researched or were of secondary importance to the psychoanalytic interpretation of delinquency as an "individual" problem.

The key general assumption of control theories is that human beings, young or old, must be held in check, or somehow controlled, if criminal or negative tendencies are to be repressed (Shoemaker, 1984). Another related assumption of this theoretical framework is that delinquency is to be anticipated, considering all of the pressures and inducements toward delinquency to which most young people are exposed.

Therefore, to control theorists, the explanation of delinquency is based not on the question of "why did he do it?" but, instead, "why did he not do it?" Essentially, this perspective assumes that the tendency to commit delinquent acts is virtually universal. If the delinquent behavior is to be expected, the focus of explanation is to be most helpful in searching for missing factors in delinquents that separate them from non-delinquents.

Basically, there are two general types of control systems. They are: personal and social. Personal control systems focus on individualistic factors, especially psychological factors. Some of these factors include psychoanalytic concepts and the notion of self-concept or self-esteem. Social control variables, on the other hand, involve attachments to basic social institutions, such as families, schools, and religious practices. This dissertation focuses on the social control variables.

Specifically, in this theoretical approach the followed is emphasized: weakened social control factors contribute to decision making among adolescents through the socialization process and current social situations. Defective control systems affect the learning of social norms and the implementation of norms in terms of appropriate behavior. Obviously, it is possible that the weakened personal and social controls may be interconnected, but this

is not a necessary component of control theory. It is helpful to narrow the scope in terms of its usefulness for this research.

The specific assumption of social control theory is essentially that the social bonds and attachments are a stronger protection against delinquency than are personality or individual characteristics. That is, the social bond, rather than internal, psychological factors, is central to the control of human behavior. The social bond means the connection between the individual and the society, and this is usually mediated through social institutions. This social bond includes four components: attachment, commitment, involvement, and belief. Hirschi suggested that these four elements of the social bond generally vary together. He maintains that the four are also positively associated with each other. No single element is theoretically more important than another. It is necessary to look at these elements because they collectively explain the social control theory.

1. Attachment. This refers to the psychological and emotional connection a person feels toward other persons or groups and the extent to which one cares about their opinions and feelings. Hirschi conceptualized attachment as the social counterpart to the psychoanalytic concept of superego or conscience.

2. Commitment. Shoemaker (1984) describes this as the result of a cost-benefit approach to delinquency. Commitment pertains to the investments accumulated in terms of conformity to traditional or conventional rules. These rules may include time, money, effort, and status. Such investments are contrasted with perceived costs or losses of investments associated with non-conformity. Therefore, in this sense commitment is seen as a rational aspect of the social bond.

3. Involvement. Participation in legitimate and conventional activity is the idea behind involvement. This would include activities in the school, such as, extra-curricular events (school plays, clubs, organizations, and athletic events).

4. Belief. This term involves the acceptance of a conventional value system. For the purposes of control theory, it is thought that a weakening of conventional beliefs, for whatever the reason, increases the chances of delinquency or nonconforming behavior.

These concepts and assumptions of attachment, commitment, involvement, and belief allow an investigation from a sociological point of view the subject of adolescent decision making processes. This research will involve the mediation of the above four concepts through socialization agents or processes, such as, religion, family, school, peer associations, and the school. Specifically, the focus will

be on the extent to which social bonds to these institutions are associated with adolescent decision making.

Religion and adolescent decision making. Since the 1930s, there has been research into the relationship between religious variables and delinquency. These early studies produced conflicting results. Some delinquents were found to be less active in religious behavior than non-delinquents, and other studies found delinquents to be more involved with religion than non-delinquents. Jensen and Rojek (1980) even found no relationship between religious variables and delinquent behavior. Nevertheless, most of the recent research indicates that there is an association between the two variables, but it still is not known how religion's effect on adolescent decisions compares to competing secular factors.

Family factors. As early as the nineteenth century Child-Saving Movement, one can see the emphasis on the family as a major variable in the discussion of conforming versus nonconforming behavior. In popular literature the breakdown of the family has been one of the most persistent explanations for delinquent behavior. The same is true in scientific literature. Many theorists in sociology and psychology incorporate family interaction as an essential component to understanding human behavior. Such an approach has usually involved both the structure of the family and the nature of the relationships occurring within the family. The

first of these, the structure of the family, includes the broken home, such as, a home where one or both natural parents are permanently absent because of events such as death, divorce, or desertion. The second of these, the quality of family relationships looks at such factors as parental conflicts, parent-child relationships, and discipline and supervision patterns. Both of these factors, family structure and family dynamics, are important within the framework of social control theory. Family structure has been researched extensively and the implications are that there are significant associations between broken homes and delinquent acts among adolescents, but the nature and extent of such associations are not clear (Haskell and Yablonsky, 1982; Rosen and Neilson, 1978; Shoemaker, 1985). The family relationships factors are usually measured in terms of interaction, affection, supervision, and discipline between parents and children. The research on this factor, the family dynamics, indicates considerable more evidence of a correlation between relationships and delinquency among adolescents (Glueck, 1950; Nye, 1958; Hirschi, 1969; Haskell and Yablonsky, 1982).

The association between familial drinking patterns and alcoholism has been found to hold true for some groups. For example, in ethnic groups where drinking habits are established by cultural custom, alcohol abuse is rare. However, in groups with ambivalent attitudes toward alcohol,

including American Protestants and Natie Americans, alcoholism rates are high. Also, drinkers from groups in which alcohol is seldom used are most likely to encounter problems (Chafetz, 1972). Generally, when children grow up with routine, comfortable, intrafamilial exposure to alcohol, they are very unlikely to become excessive drinkers when they become adults. One author noted that "the power of the group to inspire moderation of consumption is perhaps the most consistent finding in the study of addictive behavior" (Peele, 1987).

The number of school age teenagers who drink is increasing and the reasons for this are complex. One researcher, George Globbetti, a professor of Sociology at the University of Alabama, points out that a large portion of teens that drink do so because they had parents who drink (North, 1980). Perhaps this is a form of rebellion against the parents by the teenager. Usually the parents disapprove strongly of the young person's drinking, and the teen usually keeps his or her drinking a secret.

School experiences. Attachment and commitment to school represent a major element of the social control theory. Adolescents spend approximately forty hours per week at school, and this constitutes a large amount of time for adolescent behavior. The concepts of achievement, participation, and involvement in school activities have been associated with delinquency for many years (Shoemaker, 1985).

This research looks at such school experiences and how they are associated with delinquency, and in what way they are associated with other institutional variables, namely family relationships. The investigation examines the relative weight of both of these variables.

The theoretical frame of reference for this dissertation is social control theory. The key idea of a social bond to conventional activities and values can be tested in terms of its ability to predict adolescent behavior. This research looks at the effect of the social control variables on a specific adolescent decision, to use or not use drugs, in the context of the social control variables. This is the theory that this dissertation is testing.

The result of this research helps in the development of a model of the key factors in why adolescents use drugs. This investigation helps to understand the question of how adolescents decide to use drugs. If it is correct to assume that drug use has become normative in American culture, then it will be helpful to understand some of the groups that mediate that use on the basis of attachments, commitments, involvements, and beliefs.

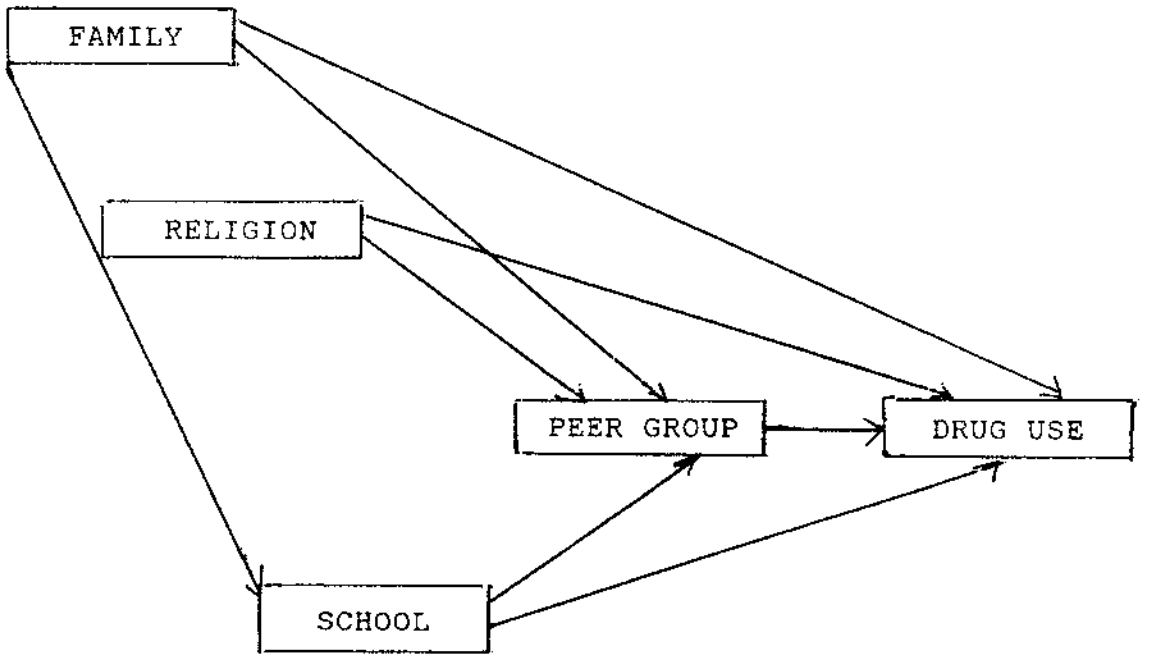
If adolescent drug use is mediated through the adolescent's peer group, then it is necessary to look at some of the groups that serve to validate or invalidate such use. The other groups that provide such counter pressure, or

pressure not to use drugs, include the family, school, and religion. It is within the peer group that the adolescent gains the access, knowledge, and authentication to use drugs. The adolescent's peer group serves as the crucial, determining factor in the youth's decision to use drugs. In this sense, drug use among adolescents is a conforming behavior in that the youth subculture proscribes drug use as normative, and therefore, deterrents or counter-pressures serve to prohibit the adolescent from making the decision to use drugs.

Theoretical Model and Hypotheses

A model can be constructed to show a diagrammatic explanation of the adolescent decision making process:

Figure 1. Theoretical Model of Drug Use



Hypotheses. The following are hypotheses which are drawn from social control theory and are tested in this research. In addition to these four major hypotheses that are tested, several other relationships will be examined. For example, adolescents with family drug use problems will be more likely to have school problems and choose peer groups that use drugs. Adolescents with school problems are more likely to choose peers who use drugs. Another relationship that is examined in the analysis is the relationship between adolescents who score high on the religion index and the likelihood that these adolescents are less likely to choose peers who use drugs. The following are the major hypotheses of the dissertation:

Hypothesis One. There is a positive relationship between family drug use factors and the adolescent's use of drugs. This means that it is anticipated that drug users will score higher than nonusers on the family drug use index. The null hypothesis is: there is no relationship between family drug use and the adolescent's use of drugs.

Hypothesis Two. There is a positive relationship between school problems and the adolescent's use of drugs. This means that it is anticipated that drug users will score higher than nonusers on the school problems index. The null hypothesis is: there is no relationship between school problem factors and the adolescent's use of drugs.

Hypothesis Three. There is a negative relationship between religious participation and the adolescent's use of drugs. This means that it is anticipated that drug users will score lower than nonusers on the religious participation index. The null hypothesis is: there is no relationship between religious participation factors and the adolescent's use of drugs.

Hypothesis Four. There is a positive relationship between peer drug use factors and the adolescent's use of drugs. This means that it will be anticipated that drug users will score higher than nonusers on the peer drug use index. The null hypothesis is: there is no relationship between peer drug use factors and the adolescent's use of drugs.

Summary

Chapter Three is a description of the theoretical frame of reference which is the guide for the research presented in this dissertation. Social control theory is delineated in terms of key concepts and major emphases. A brief review of the types of theories used in recent research in the field of adolescent drug use was presented. The general causal model for the research is also set forth in one section of the chapter. The chapter concludes with a statement of the four major hypotheses that were examined in the dissertation.

CHAPTER IV

METHODOLOGY

Introduction

The general purpose of this research, as has been noted above, is to investigate several aspects of how adolescents make significant decisions. This chapter is a description of the methods used to test certain major hypotheses relevant to the stated purpose of the study.

The variables used in the research will also be operationalized. First, the operationalization of the dependent variable for the sample will be described, and then the independent variables will be operationalized.

The Sample

Since the major interest of this research was to investigate the adolescent decision making process, it was determined to limit the units of analysis to young persons who were in the ninth through twelfth grades. The sample for this dissertation will have as its units of analysis high school students in a north Texas city whose population is about 65,000. Specifically, the study utilized survey generated data, collected during the spring semester of 1989, from the above mentioned high school sample to address the major questions of this study, which were developed from the

theoretical framework of social control theory. These questions include: first, what are the factors that intervene between the culture and the decision making process? Second, what is the relative strength of these factors? Third, how do these factors, such as, the peer group, the family, religion, and the school, impact the young person?

Techniques of Data Collection

A cluster sample of high school students was drawn in the following manner. From a list of all the class rolls at this high school, every third class was selected to be given the questionnaire. The first class on the list of classes was selected, then the fourth class, then the seventh class, and this pattern followed until the list was exhausted. A nonprobability sample resulted from this technique, and this was the sample used in the study. This resulted in 632 students selected to respond to questions about alcohol- and drug-related attitudes, beliefs, and behaviors. Respondents completed the survey in their classroom under the supervision of several volunteers and teachers who were trained to administer the questionnaire. As can be seen from several tables presented later in the dissertation, all students did not respond to all questions. However, for all the questions or variables used in this study, the response rate was usually about 598 out of a possible 632 responses (or 95%). The questionnaire is included in the appendix of the

dissertation. The data were collected during the spring of 1989, using a self report questionnaire survey technique. The project was undertaken by the Institute for the Study of the Family and Addictive Disorders, the University of North Texas, at the request of the school district that was the source of the data.

This particular school district was located in a medium sized metropolitan community with an approximate population of 65,000 people. At the beginning of the 1988-1989 school year, the school district had a total high school (grades nine through twelve) enrollment of 2,426 students in three schools. A cluster sampling technique was used to choose classes from each grade level.

The self report questionnaire was developed and refined by a multidisciplinary research team. The use of self report instruments in survey research studying adolescent behavior has been shown to be a reliable measure by other studies (Whitehead and Smart, 1972; Smart and Jarvis, 1981; and Dibasio, 1986). The questionnaire was administered by trained volunteers during one day of the spring semester of 1989. The anonymous responses were recorded by the respondents (students) on an NCS General Purpose optical scanner sheet. At the University of North Texas the scanner sheets were manually checked for problem areas including observable patterns or marks on the bubble sheets. These answer sheets were then read optically into a

data file on the University of North Texas mainframe computer. The "Statistical Package for the Social Sciences" (SPSS-X) data definition program was developed and the data were then checked for inappropriate responses and cleaned. The SPSS-X procedures were utilized in all the data analyses.

Techniques of Data Analysis

Four hypothetical propositions were listed in Chapter Three which emerged from the theoretical framework which guided this research. For each of the factors to be examined, multiple covariation tests and correlation coefficient significance tests were used to analyze the data according to the relative strengths of the factors. A path analysis was utilized to determine the path coefficients of the variables as diagrammed in the general causal model.

Development of the Indexes. The study utilized the construction of four independent variables (indexes) and one dependent variable (index). These indexes were used to operationalize the hypotheses in the most efficient use of the development of the general research model. The dependent variable, Drug use, measured the lifetime prevalence of whether or not an adolescent had used the drugs in question. This index (dependent variable) was created by an SPSS-X compute command in which a "yes" response to the dependent variable was assigned if the student had indicated any use of any of the drugs surveyed. In the high school sample the following drugs were surveyed: alcohol, marijuana, inhalants,

hallucinogens, "uppers," "downers," cocaine, designer drugs, crack, heroin, hashish "dust" (PCP), and illegal use of over-the-counter-drugs. Therefore, this dependent variable measures the total nonuse of the drugs surveyed in the high school sample as a response of "no," which means that the student had not used any of the drugs surveyed. The model will be examined separately in order to look at the use or nonuse of alcohol, marijuana, hard drugs, and a factor that includes all these chemicals.

The four major independent variables (indexes) were created through the use of factor analysis procedures. Such construction was guided by the model that was developed out of the theoretical orientation of the research. Four composite variables were created for the sample and these indexes were used to examine four main areas of interest. First, family drug use factors that are related to adolescent drug use were considered. This included parental and family attitudes toward drug use, and also drug use among family members (FAMILY FACTOR). Second, school factors that were thought to be related to adolescent drug use were examined. These factors related to the adolescent's grade average, TEAMS test, and course failure in school (SCHOOL FACTOR). Third, religious participation factors that were thought to be related to adolescent drug use were considered. These factors included the adolescent's report of the importance of religion to himself or herself and the

frequency of attendance at religious services (RELIGION FACTOR). Fourth, peer factors that were thought to be related to adolescent drug use were also indexed. An example of the peer factor was the number of drug and alcohol using friends (PEER FACTOR). Chapter Five describes in detail the ways in which the indexes were created and operationalized. Tables are presented in order to delineate which questions or variables were used to assemble the indexes.

As can be seen in the theoretical model that guides this research, all these above stated predictor factors will have a significant effect upon the adolescent's decision to use or not use drugs. From this general theoretical model of adolescent drug use emerged four hypotheses which were tested in the study. The hypotheses are stated in Chapter Three of this dissertation.

After the data were cleaned and the indexes were created, the hypotheses were tested using regression analyses procedures and F-ratio tests of significance. Multiple regression procedures were also used in developing the path models presented in Chapter V. Several assumptions are necessary in order to utilize multiple regression analysis. The variables are related to the dependent variable in a simple linear fashion. The effects of the variables can be additive. All variables can be interpreted as at least interval level. Multicollinearity is low. The dependent variable is normally distributed within the category of

independent variables. The variance in the dependent variable is equal across categories of independent variables (homoscedasticity). The error terms are uncorrelated with each other and with independent variables. The multiple regression analysis used in the study included all these stated assumptions.

- Summary

This chapter contains the sample design, the methods of data collection, and the strategy for analysis of the data. Using the technique of cluster sampling, 632 students responded to the questionnaire. Next, a description of the development and operationalization of the four independent variables and the dependent variable was delineated. Finally, a brief description of the statistical techniques used in the analyses of the data was presented.

CHAPTER V

FINDINGS AND INTERPRETATIONS

Introduction

The theoretical frame of reference for this study is based upon the idea that social control factors of socialization affect significant decisions of adolescents. This is a study of the relationships among family factors, school factors, peer factors, religion factors, and how these variables interact to affect an adolescent's decision to use or not use alcohol, marijuana, and hard drugs.

Adolescence may be viewed as a specific stage of life which entails certain behavioral expectations and privileges. Young people do not enter this stage, nor do they perform during this stage without numerous, significant social influences. To a greater or lesser degree these adolescents are conditioned for the roles they play during this stage of youth. The question of the significance of peer factor influence as an intervening variable in significant decision making processes is at the heart of this research. The theoretical position taken is set forth in the following statement: adolescents are influenced by family, school, and religion factors, but the most significant influence is the peer factor. In essence,

the peer factor is the intervening variable, or the social filter through which these other factors are mediated.

Four hypotheses were constructed to test the above theoretical assumptions. The significance level for the hypotheses was set at .05. These hypotheses were stated in Chapter Three.

This chapter is designed as a report on the findings of the research and is divided into three parts. The first section contains a description of the development of the indexes that were used in this research. The second section includes: a report on the testing of the above hypotheses, regression and correlation findings to determine the strengths of the associations of the factors, results of the hypotheses tests, and a report on the path analysis findings that indicates the usefulness of the general theoretical model that was used in the investigation. The third section is a summary of the findings and interpretations of the research.

Development of the Indexes

Development of the Indexes. The methodology chapter (Chapter Five) contained several indexes that had been created in order to investigate the relationships among independent, intervening and dependent variables used in the study. As mentioned earlier, these indexes were created using SPSS-X Factor Analysis procedures. These analyses will follow and be discussed in detail.

The factor analysis procedure was used in order to create several indexes. This technique was used in order to measure some abstract concepts, such as family, peer, school, and religion influences on human behavior. The factor analysis began by including several individual variables that were thought to have theoretical relevance in the study. These variables comprised the factor analysis that utilized a principal component analysis and a varimax rotation of the factor matrix. The principal component analysis of the variables is a mathematical procedure the computer performed in order to look for clusters of variables. The varimax rotation of the factor matrix was used in order to transform the initial matrix into something more easily interpreted. This particular type of rotation minimized the number of variables with high loadings on a factor. Tables 1-4 show the results of the factor analysis of all individual variables that loaded at .5000 or greater on one of the four factors. After the tables are presented a discussion of the findings will follow.

Table 1

Peer Factor--Rotated Factor Matrix Loadings

N = 598

VARIABLES	LOADING
RIDDEN WITH USERS	.73616
HEAVY DRINKING FRIENDS	.71174
FRIENDS USE DRUGS	.68988

Table 2

School Factor--Rotated Factor Matrix Loadings

N = 598

VARIABLES	LOADING
FAILED COURSES	.79442
GRADE AVERAGE	.73896
FAILED TEAMS TEST	.52927

Table 3

Family Factor--Rotated Factor Matrix Loadings

N = 598

VARIABLES	LOADINGS
PARENTS' DRINKING CAUSES PROBLEMS FOR OTHERS IN FAMILY	.86377
PARENTS USE ALCOHOL	.84918
PARENTS' DRINKING CAUSES PROBLEMS FOR ME	.80379

Table 4

Religion Factor--Rotated Factor Matrix Loadings

N = 598

VARIABLES	LOADINGS
IMPORTANCE OF RELIGION	.83810
ATTENDANCE AT RELIGIOUS SERVICES	.82582

These tables indicate that the variables loaded strongly on four factors. This means that the variables were adequately suited for a four factor model, which has been

utilized. The Kaiser-Meyer-Olkin (KMO) test compares the magnitudes of observed correlation coefficients to partial correlation coefficients. KMO results are interpreted in the following manner:

.90 + = marvelous

.80-.89 = meritorious

.70-.79 = middling

.60-.69 = mediocre

.50-.59 = miserable

< .50 = unacceptable factor analysis

The SPSS-X generated KMO for the factor analysis was a value of .75637, which was considered a "middling" value, and thus an acceptable score. The Bartlett Test of Sphericity was a value of 2129.1628 at a level of significance that is less than .0000. This means that this particular varimax rotation procedure was adequate for the analysis that was performed.

Table 5 is a list of the specific variables that were used for each factor. The appendix of this dissertation contains the questions that were used in the survey research. These questions were used as the original variables in the research. In the following table both the original variable name (or question number) and the variable labels are given.

Table 5

Variable Labels and Their Location in the Questionnaire

VARIABLE LABELS	QUESTION NUMBER
PEER FACTOR	
RIDDEN WITH USERS	31
HEAVY DRINKING FRIENDS	23
FRIENDS USE DRUGS	27
SCHOOL FACTOR	
FAILED COURSES	17
GRADE AVERAGE	4
FAILED TEAMS TEST	15
FAMILY FACTOR	
PARENTS' DRINKING CAUSES PROBLEMS FOR OTHERS IN FAMILY	22
PARENTS USE ALCOHOL	21
PARENTS' DRINKING CAUSES PROBLEMS FOR ME	73
RELIGION FACTOR	
IMPORTANCE OF RELIGION	82
ATTENDANCE AT RELIGIOUS SERVICES	83

These variables, which became factor loadings, were used in the construction of indexes. The four factors, peer, family, school, and religion, were created through a series

of compute statements through SPSS-X (for example, PEER = SUM (RIDDEN WITH USERS + HEAVY DRINKING FRIENDS + FRIENDS USE DRUGS).

Table 6 includes all the variables analyzed in the study, as well as information about the created indexes and the dependent variables. Frequencies, means, standard deviations, and measures of skewness and kurtosis describe relevant information about the variables included in the research.

Table 6

FREQUENCIES, MEANS, STANDARD DEVIATIONS, AND MEASURES OF SKEWNESS AND KURTOSIS FOR VARIABLES USED IN THE ANALYSIS*

GRADE AVERAGE (VAR04)

A:	167	(28%)
B:	240	(40%)
C:	145	(24%)
D:	32	(5%)
F:	14	(2%)
N =	598	
MEAN	2.140	
STANDARD DEVIATION	.963	
SKEWNESS	.708	
KURTOSIS	.284	

FAILED TEAMS TEST (VAR15)

NEVER:	528	(88%)
YES, IN LAST TWO YEARS:	56	(9%)
YES, TWO-PLUS YEARS AGO:	13	(2%)
N =	598	
MEAN	1.142	
STANDARD DEVIATION	.419	

Table 6 (Continued)

SKEWNESS	3.206
KURTOSIS	10.797

FAILED COURSES (VAR17)

NO:	442	(74%)
YES:	154	(26%)
N =	598	
MEAN		.273
STANDARD DEVIATION		.502
SKEWNESS		2.757
KURTOSIS		16.616

PARENTS USE ALCOHOL (VAR21)

NEVER:	172	(29%)
OCCASIONALLY:	330	(55%)
OFTEN:	95	(16%)
N =	598	
MEAN		1.875
STANDARD DEVIATION		.662
SKEWNESS		.177
KURTOSIS		-.605

PARENTS' DRINKING CAUSES PROBLEMS FOR SOMEONE IN FAMILY (VAR22)

THEY DON'T DRINK:	128	(21%)
NEVER:	384	(64%)
OCCASIONALLY:	64	(11%)
OFTEN:	21	(4%)
N =	598	
MEAN		.970
STANDARD DEVIATION		.699
SKEWNESS		.957
KURTOSIS		2.705

HEAVY DRINKING FRIENDS (VAR23)

NONE:	194	(32%)
A FEW:	285	(48%)
MANY:	119	(20%)
N =	598	
MEAN		1.875
STANDARD DEVIATION		.713
SKEWNESS		.187
KURTOSIS		-1.023

Table 6 (Continued)

FRIENDS USE DRUGS (VAR27)

NONE:	357	(60%)
FEW:	179	(30%)
MANY:	60	(10%)
N =	598	
MEAN		1.510
STANDARD DEVIATION		.687
SKEWNESS		1.054
KURTOSIS		.084

RIDDEN WITH USERS (VAR31)

NEVER:	315	(53%)
OCCASIONALLY:	219	(37%)
OFTEN:	64	(11%)
N =	598	
MEAN		1.580
STANDARD DEVIATION		.677
SKEWNESS		.746
KURTOSIS		-.579

PARENTS' DRINKING CAUSES ME PROBLEMS (VAR73)

THEY DON'T DRINK:	225	(38%)
YES:	332	(56%)
NO:	41	(7%)
N =	598	
MEAN		.692
STANDARD DEVIATION		.592
SKEWNESS		.216
KURTOSIS		-.614

IMPORTANCE OF RELIGION (VAR82)

NOT IMPORTANT:	77	(13%)
SOMEWHAT IMPORTANT:	232	(39%)
VERY IMPORTANT:	288	(48%)
N =	598	
MEAN		2.356
STANDARD DEVIATION		.701
SKEWNESS		-.592
KURTOSIS		-.762

Table 6 (Continued)

ATTEND RELIGIOUS SERVICES (VAR83)

NEVER:	97	(16%)
OCCASIONALLY:	234	(39%)
OFTEN:	266	(45%)
N =	598	
MEAN		2.286
STANDARD DEVIATION		.730
SKEWNESS		-.475
KURTOSIS		-.961

THE FOLLOWING WERE THE USE OR DEPENDENT VARIABLES

ALCOHOL USE (VAR38)

NO:	76	(13%)
YES:	522	(87%)
N =	598	
MEAN		1.132
STANDARD DEVIATION		.353
SKEWNESS		2.744
KURTOSIS		9.016

MARIJUANA USE (VAR44)

NO:	405	(68%)
YES:	193	(32%)
N =	598	
MEAN		1.677
STANDARD DEVIATION		.468
SKEWNESS		-.760
KURTOSIS		-1.427

HARDRUGS

NO:	454	(76%)
YES:	144	(24%)
N =	598	
MEAN		.560
STANDARD DEVIATION		1.250
SKEWNESS		2.579
KURTOSIS		6.247

Table 6 (Continued)

DRUGUSER OR THE USE OF ANY DRUGS

NO: 70 (12%)
YES: 528 (88%)
N = 598

MEAN	.883
STANDARD DEVIATION	.322
SKEWNESS	-2.388
KURTOSIS	3.716

---

* THE RESPONSE CATEGORIES ARE INCLUDED IN THE APPENDIX. NOTE THAT SOME OF THE VARIABLES WERE RECODED IN ORDER TO HAVE CONSISTENTLY CODED INDEXES.

Tables 6 and 7 have several descriptive statistics for the variables analyzed in the study, as well as the four factors or indexes that were created. From these two tables it can be seen that the variables in the study, including the created indexes, do not meet the assumptions of normality (as assumed in regression analysis. That is, most of the variables (including the indexes) include means, standard deviations, measures of skewness and kurtosis which describe something other than a normal distribution of responses. For example, the variable "Druguser" had a mean of .883, and this was for a dichotomous variable. This means that most responses tended to indicate a "yes" response to drug use. The distribution for the same variable shows that the responses tended to be skewed to the right (-2.388), and the distribution of the curve was more peaked (kurtosis = 3.716) than a normal curve. This lack of normal distribution was a

pattern observed for most of the variables and indexes. Fortunately, because regression analysis is a robust procedure, the failure to meet the normality assumption does not prevent further analysis.

Table 7

Descriptive Statistics for Indexes

FACTOR NAME	MEAN	S.D.	MIN.	MAX.	RANGE
PEER FACTOR	4.963	1.639	3.00	9.00	6.00
SCHOOL FACTOR	3.556	1.456	2.00	12.00	10.00
FAMILY FACTOR	3.541	1.688	1.00	8.00	7.00
RELIGION FACTOR	4.643	1.261	2.00	6.00	4.00

Note that for all four of these factors or indexes a lower score means that the presence of the variable is relatively less of the variable. A higher score signifies a relatively greater presence of the variable.

Statistical Analysis

The Testing of the Hypotheses. Correlation and regression analyses procedures were used in order to test the hypotheses (stated in Chapter Four). After these tests, Pearson Product Moment Correlation Coefficient statistical procedures were used to determine the strength of associations among the independent, intervening, and

dependent variables. Findings are presented in Table 8.

Table 8

Correlation Matrix

Independent Variables by Dependent (use) Variables*

N = 598

	DEPENDENT VARIABLES			
INDEP. VARIABLES	ALCOHOL	MARIJUANA	HARDRUGS	DRUGS
PEER	.2807	.4953	.4370	.2661
SCHOOL	.0919	.2473	.2231	.0940
FAMILY	.2355	.1665	.1187	.2370
RELIGION	-.1880	-.3148	-.2359	-.1859

* All correlations were statistically significant at $p \leq .05$.

As can be seen in Table 8, all four indexes (or independent variables in the study) had statistically significant relationships with the four drug use variables (alcohol use, marijuana use, hard drug use, and any of these drugs). These analyses were expanded to include the use of the F-ratio statistical test in order to make a decision about the acceptance or rejection of each hypothesis.

Hypothesis One. It was hypothesized that a positive relationship exists between family drug use factors and the

adolescent's use of drugs. As can be seen in Table 9, the results of the F-ratio test lead to the rejection of the null hypothesis when alcohol use was the dependent variable. The null hypothesis was also rejected when the dependent variable was any drug use (that is, alcohol, marijuana, and hard drugs). However, the F-ratio test results did not lead to a rejection of the null hypothesis when either marijuana use or hard drug use was the dependent variable. This means that hypothesis one was supported by the research findings when alcohol use or any drug use was the dependent variable. However, when marijuana use or hard drug use was the dependent variable, the research hypothesis was not supported by the findings.

Table 9

Research Hypothesis One

INDEPENDENT VARIABLE = FAMILY FACTOR	
DEPENDENT VARIABLES	SIGNIFICANCE OF F
ALCOHOL USE	.0001
MARIJUANA USE	.8716
HARD DRUG USE	.6120
ANY DRUG USE	.0001

Hypothesis Two. It was hypothesized that there exists a positive relationship between school problems and the adolescent's use of drugs. As can be seen in Table 10, the results of the F-ratio test do not lead to the rejection of the null hypothesis when alcohol use is the dependent variable. The null hypothesis is also not rejected when any drug use is the dependent variable. However, when either marijuana use or hard drug use is the dependent variable, the F-ratio test results in the rejection of the null hypothesis. This means that hypothesis two was not supported by the research findings when alcohol use or any drug use was the dependent variable. When marijuana use or hard drug use was the dependent variable, hypothesis two was supported.

Table 10

Research Hypothesis Two

INDEPENDENT VARIABLE = SCHOOL FACTOR

DEPENDENT VARIABLES	SIGNIFICANCE OF F
ALCOHOL USE	.8938
MARIJUANA USE	.0011
HARD DRUG USE	.0024
ANY DRUG USE	.7863

Hypothesis Three. It was hypothesized that a negative relationship exists between religious participation and the adolescent's use of drugs. As can be seen from Table 11, the F-ratio test results lead to the rejection of the null hypothesis for each of the four dependent (drug use) variables. This means that hypothesis three was supported by the research findings for all four dependent variables.

Table 11

Research Hypothesis Three

INDEPENDENT VARIABLE = RELIGION FACTOR	
DEPENDENT VARIABLES	SIGNIFICANCE OF F
ALCOHOL USE	.0181
MARIJUANA USE	.0000
HARD DRUG USE	.0019
ANY DRUG USE	.0177

Hypothesis Four. It was hypothesized that a positive relationship exists between peer drug use factors and the adolescent's use of drugs. As can be seen in Table 12, the results of the F-ratio test lead to the rejection of the null hypothesis for each of the four dependent (drug use) variables. This means that hypothesis four was supported by the research findings for all four dependent variables.

Table 12

Research Hypothesis Four

INDEPENDENT VARIABLE = PEER FACTOR	
DEPENDENT VARIABLES	SIGNIFICANCE OF F
ALCOHOL USE	.0000
MARIJUANA USE	.0000
HARD DRUG USE	.0000
ANY DRUG USE	.0000

Path Analysis. The path analysis used in the research is described in this section of the chapter. In the past, sociologists have tried not to use the term "causation" (Blalock, 1979). However, in the 1970s causal modelling came into greater use. A causal model is an attempt to use correlations in order to study causation. The correlations (Pearson's coefficient correlations--r or R) assume interval level data and have upper limits of +1 and lower limits of -1. The model also has a linear regression line, it assumes a certain linear (straight line) relationship between the independent variable and the dependent variable. When the value of r (bivariate regression) or R (multivariate regression) is 1.0, then the predictor (independent) variable is the same as the actual occurrence (dependent variable). Therefore, the path analysis model used in this study was

used to examine a statistical relationship, and nothing causal is implied. This means that the causal model utilized is based on correlations. The temporal sequence was given by the theoretical frame of reference, and not by the statistics. In this particular study, the social control theory was used to describe the following temporal sequence for the variables used in the research: family factors, religion factors, school factors, peer factors, and drug use factors.

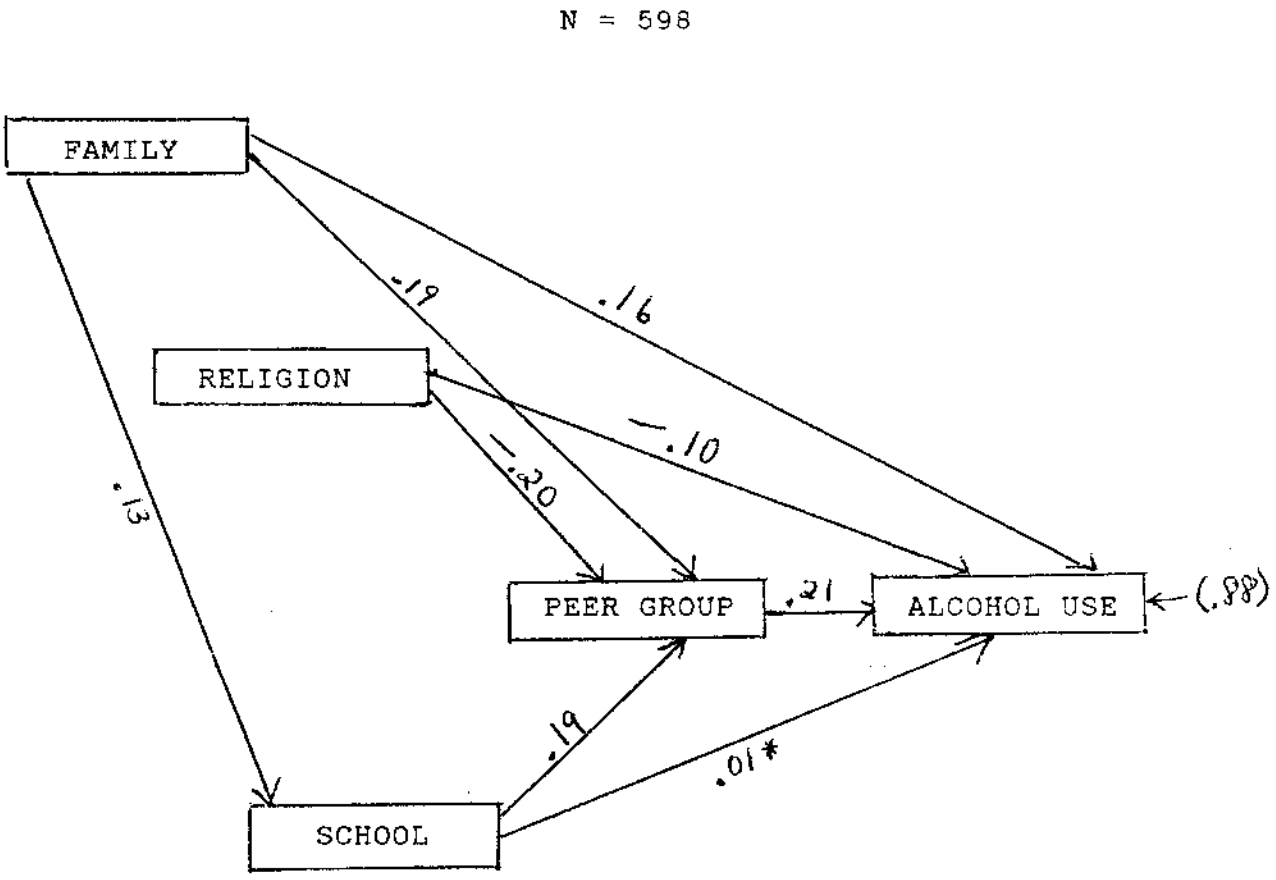
The general causal model was tested for each of the four dependent variables, that is, alcohol use, marijuana use, hard drug use, and any drug use. For each of the models, the variables were put into the multiple regression equation with reference to the theoretical orientation. In order to execute this regression analysis, the variables were actually entered into the equation in the reverse order of their predicted temporal sequence. This means that the variables were entered in the following order: peer factors, school factors, religion factors, and family factors. This exact order of entry was also used for the partial regression procedures for the determination of the path models. The following figures (2, 3, 4, and 5) show the path models for the variables in the study, and the tables (13-16) show the respective bivariate decomposition tables for the variables contained in the model.

Alcohol Use. As can be seen in Figure 2, the following path coefficients were determined. These path values or coefficients were taken from the standardized Beta weights. The dependent variable in Figure 2 was alcohol use. As shown in the figure, the strongest path was between peer factors and alcohol use (.21). The direct path between religion factors and alcohol use (-.20) was next in relative strength. The path between family factors and peer factors was the same value as the path between school factors and peer factors (.19). The other paths were determined to have the following values: family factors and alcohol use (.16), family factors and school factors (.13), and religion factors and alcohol use (-.10). The only beta or path coefficient that was not statistically significant was the path between school factors and alcohol use (.01).

Insert Figure 2 here

The following decomposition table shows not only the direct effects of variables in the model, but also the indirect effects. Table 13 is a decomposition table for the bivariate covariation which includes alcohol use as the dependent variable. The table shows that the strongest predictor for alcohol use was the family factor. The total effect of the family factor was .23, which includes a direct effect of .16 and an indirect effect of .07. The peer factor

FIGURE 2. Theoretical Model of Alcohol Use



* BETA NOT STATISTICALLY SIGNIFICANT AT $p \leq .05$

R = .34 R SQUARE = .12

was second in strength of effect on alcohol use with a direct effect of .21, and no indirect effect was observed. The religion factor was the third best predictor of alcohol use with a total effect of -.16 (-.10 was direct and -.06 was indirect). The school factor was the weakest predictor with

a total effect of .05 (.01 was direct and .04 was indirect). As can be seen from the decomposition table, the betas from the indirect paths increase the model's predictive strength. That is, three of the four indexes increased the prediction of change in the dependent variable by the following percentages: family (7%), religion (6%), and school (4%).

Insert Table 13 here

Marijuana Use. As can be seen in Figure 3, several path coefficients were determined for the model in which marijuana use was the dependent variable. The strongest direct path in the model was between peer factors and marijuana use (.42). Between the religion and peer factors a path of -.20 also had significant strength. Two other paths, from family to peer factors and from school to peer factors, had a path coefficient of .19. The path between religion and marijuana use was -.18, and the only other statistically significant beta was found in the path between family and school factors (.13) and the path between school factors and marijuana use (.12). One direct path was not statistically significant, and that was the path between family factors and marijuana use (.01).

Table 13

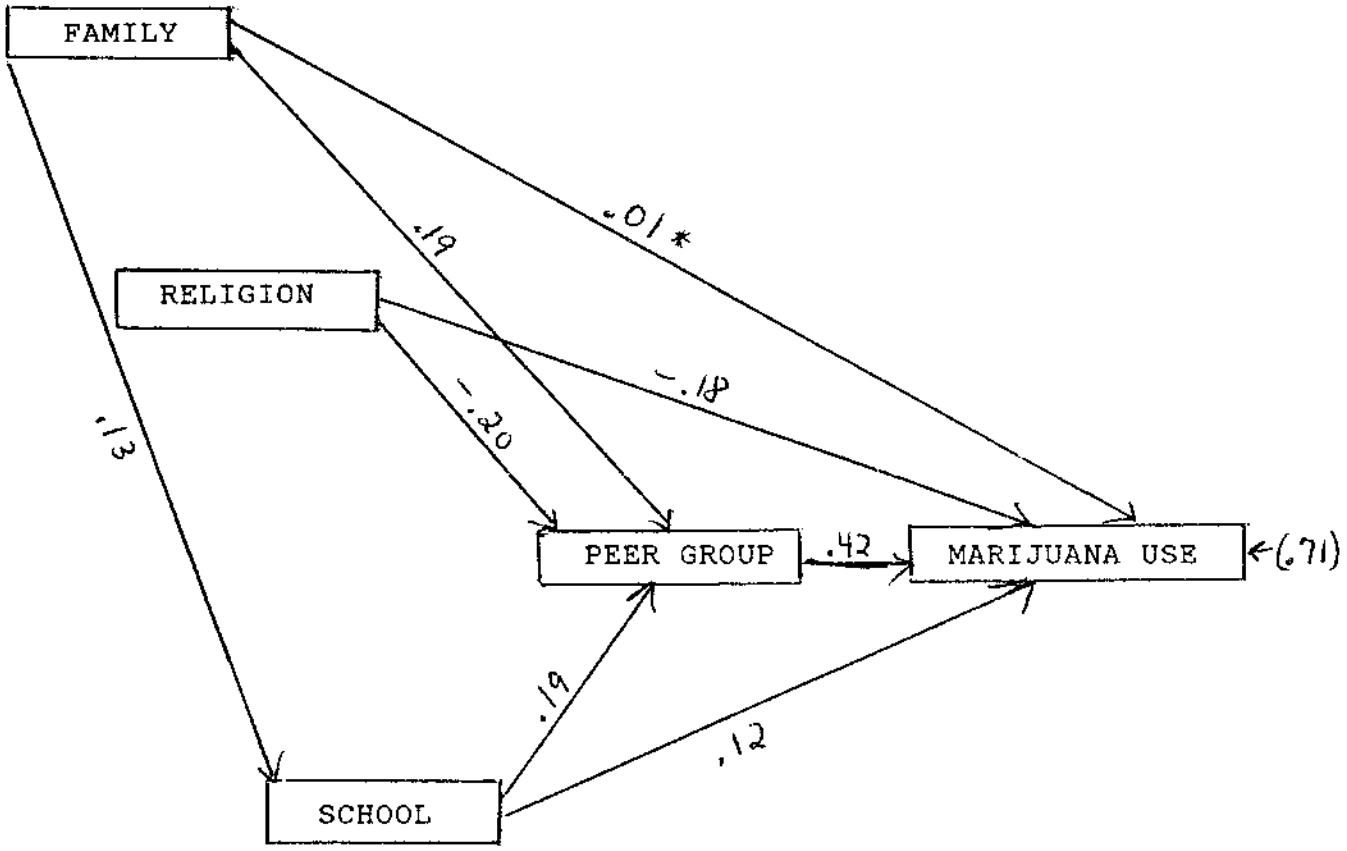
Decomposition of Bivariate Covariation: Alcohol Use

BIVARIATE RELATIONSHIP	TOTAL COVARIANCE	CAUSAL			NONCAUSAL
		DIRECT	INDIRECT	TOTAL	
SCHOOL BY					
FAMILY	.13	.13	none	.13	.00
PEER BY					
FAMILY	.26	.19	.06	.25	.01
PEER BY					
RELIGION	-.27	-.20	none	-.20	-.07
PEER BY					
SCHOOL	.24	.19	none	.19	.05
ALCOHOL BY					
PEER	.28	.21	none	.21	.07
ALCOHOL BY					
SCHOOL	.09	.01	.04	.05	.04
ALCOHOL BY					
FAMILY	.24	.16	.07	.23	.01
ALCOHOL BY					
RELIGION	-.19	-.10	-.06	-.16	-.03

R = .34 R SQUARE = .12

Figure 3. Theoretical Model of Marijuana Use

N = 598



* BETA NOT STATISTICALLY SIGNIFICANT AT $p \leq .05$

R = .54 R SQUARE = .29

Table 14 is a decomposition table that shows not only the direct effect of variables in the model, but also the indirect effects. Table 14 is a decomposition table for the bivariate covariation which includes marijuana use as the dependent variable. The table shows that the strongest predictor for marijuana use was the peer factor. The total effect of the peer factor was .42, and this was with no observed indirect effect. The religion factor was second in relative strength of effect (-.34) on marijuana use with a direct effect of -.18 and an indirect effect of -.16. The school factor was the third best predictor of marijuana use with a total effect of .25 (.12 was direct and .13 was indirect). The family factor was the weakest predictor with a total effect of .09 (.01 was direct and .08 was indirect). As can be seen from the decomposition table, the betas from the indirect paths increase the model's predictive strength. Specifically, three of the four indexes increased the prediction of change in the dependent variable by the following percentages: religion (16%), school (13%), and family (8%).

Insert Table 14 here

Hard Drug Use. As can be seen in Figure 4, the following path coefficients were determined for the model in which hard drug use was the dependent variable. These path

Table 14

Decomposition of Bivariate Covariation: Marijuana Use

BIVARIATE RELATIONSHIP	TOTAL COVARIANCE	CAUSAL DIRECT	CAUSAL INDIRECT	CAUSAL TOTAL	NONCAUSAL
SCHOOL BY FAMILY	.13	.13	none	.13	.00
PEER BY FAMILY	.26	.19	.06	.25	.01
PEER BY RELIGION	-.27	-.20	none	-.20	-.07
PEER BY SCHOOL	.24	.19	none	.19	.05
MARIJUANA BY PEER	.50	.42	none	.42	.08
MARIJUANA BY SCHOOL	.25	.12	.13	.25	.00
MARIJUANA BY FAMILY	.17	.01	.08	.09	.08
MARIJUANA BY RELIGION	-.32	-.18	-.16	-.34	_ _

R = .54 R SQUARE = .29

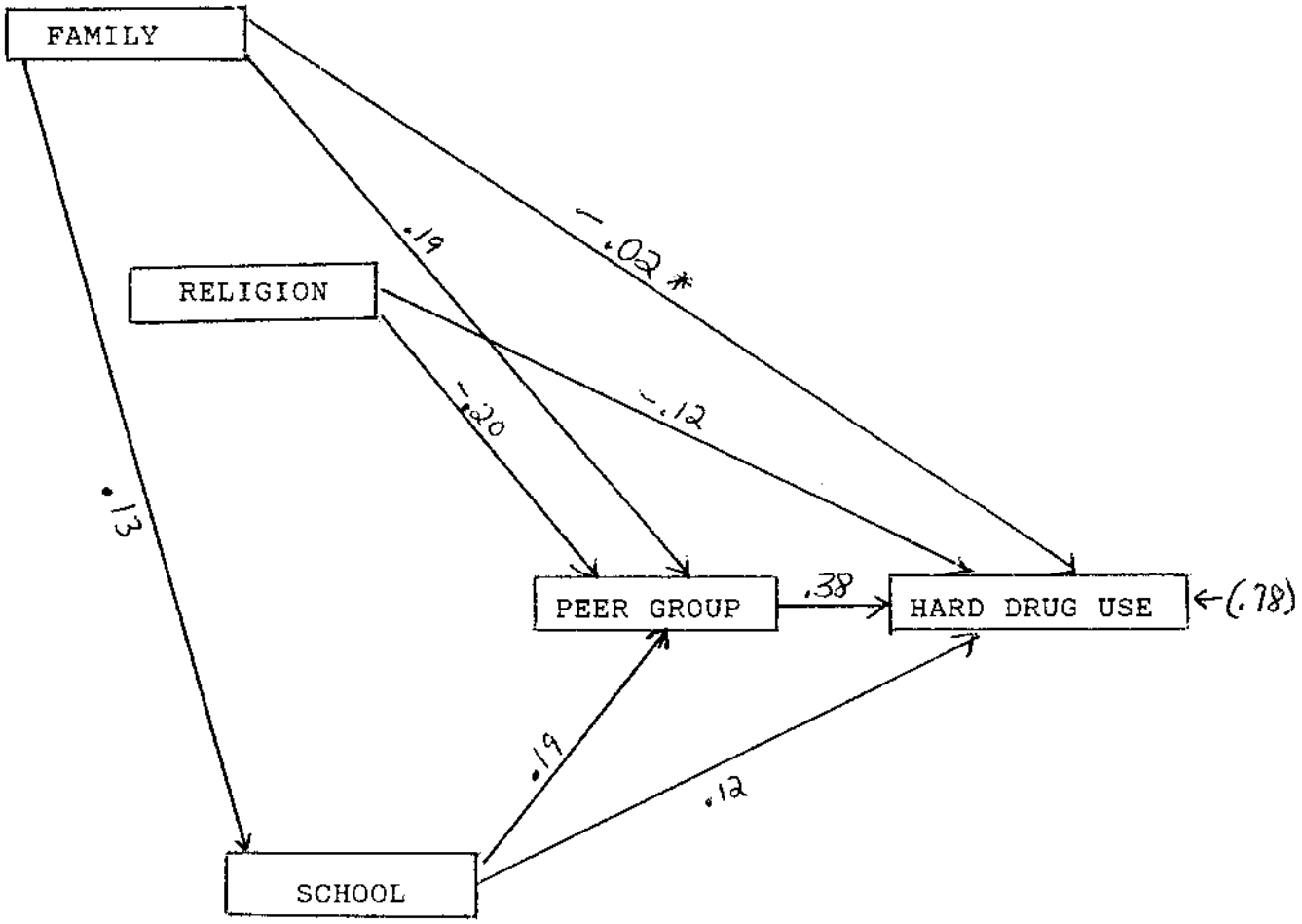
values or coefficients were taken from the standardized beta weights. As shown in the figure, the strongest path was between peer factors and hard drug use (.38). The path between religion factors and peer factors was second in strength with a value of -.20. Two paths, family to peer factors and school to peer factors, had equal betas (.19). The path between family and school factors was .13. The path between religion factors and hard drug use (-.12) was equal in strength to the path between school factors and hard drug use (.12). The only beta or path coefficient that was not statistically significant was the path between family factors and hard drug use (-.02).

Insert Figure 4 here

Table 15 is a decomposition table that shows not only the direct effects of variables in the model, but also the indirect effects. Table 15 is for the bivariate covariation which includes hard drug use as the dependent variable. The table shows that the strongest predictor for hard drug use was the peer factor. The total effect of the peer factor was .38, and this was with no observed indirect effect. The religion and school factors were next in strength of effect on hard drug use. The school factor had a direct effect of .12 and an indirect effect of .12. The religion factor had a direct effect of -.12 and an indirect effect of -.12. The

Figure 4. Theoretical Model of Hard Drug Use

N = 598



* BETA NOT STATISTICALLY SIGNIFICANT AT $p \leq .05$

R = .47 R SQUARE = .22

family factor was the weakest predictor with a total effect of .05 (-.02 was direct and .07 was indirect). As can be seen from the decomposition table, the betas from the indirect paths increase the model's predictive strength. That is, two of the indexes (school and religion factors) each increased the prediction of change in the dependent variable by 12%.

Insert Table 15 here

Any Drug Use. As can be seen in Figure 5, the following path coefficients were determined for the model in which any drug use was the dependent variable. These path coefficients were taken from the standardized beta weights. As shown in the figure, the strongest paths were between religion factors and peer factors (-.20) and peer factors and drug use (.20). The path between family factors and peer factors was the same value as the path between school factors and peer factors (.19). The other paths were determined to have the following values: family factors and drug use (.17), family factors and school factors (.13), and religion factors and drug use (-.10). The only beta or path coefficient that was not statistically significant was the path between school factors and drug use (.01).

Table 15

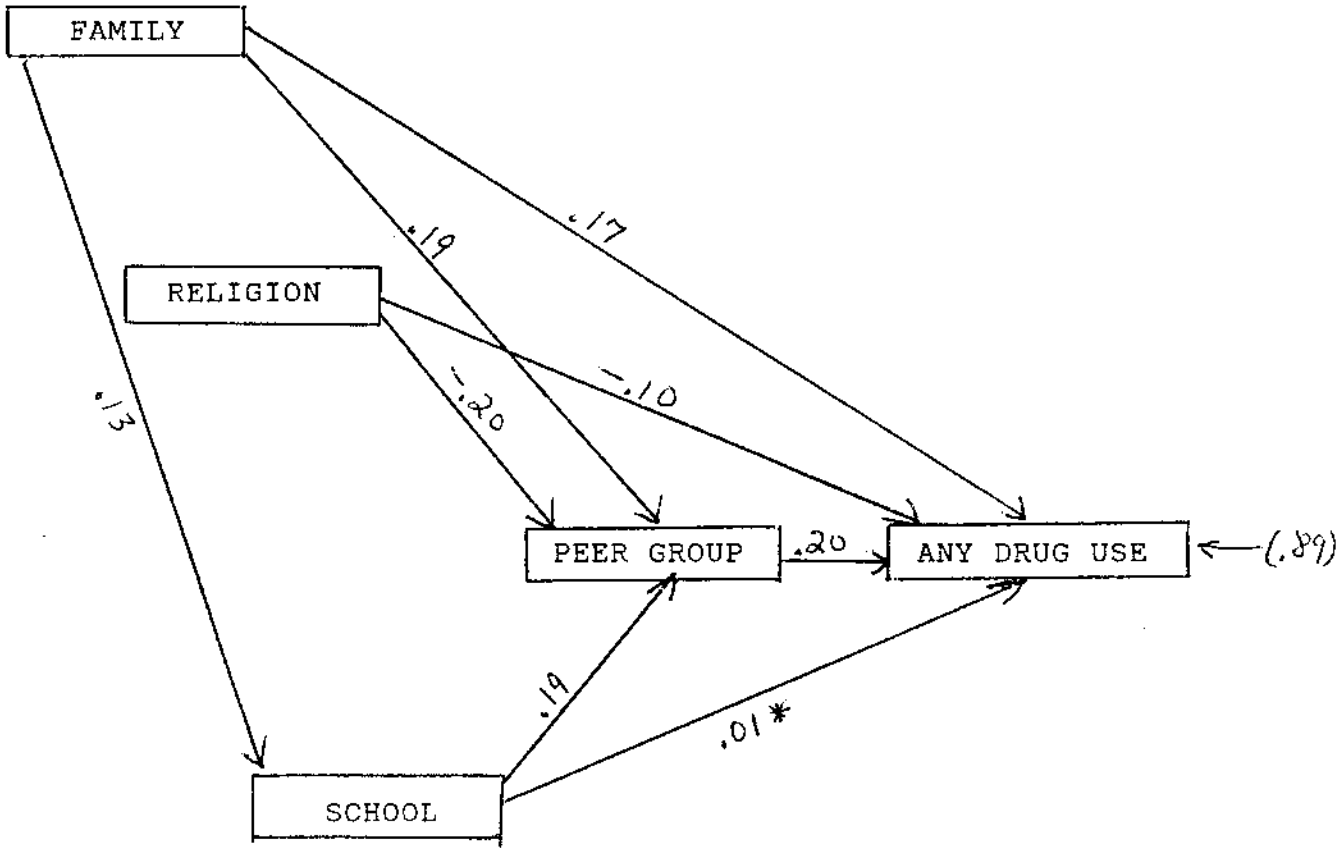
Decomposition of Bivariate Covariation: Hard Drug Use

BIVARIATE RELATIONSHIP	TOTAL COVARIANCE	CAUSAL DIRECT	CAUSAL INDIRECT	CAUSAL TOTAL	NONCAUSAL
SCHOOL BY FAMILY	.13	.13	none	.13	.00
PEER BY FAMILY	.26	.19	.06	.25	.01
PEER BY RELIGION	-.27	-.20	none	-.20	-.07
PEER BY SCHOOL	.24	.19	none	.19	.05
HARD DRUGS BY PEER	.44	.38	none	.38	.06
HARD DRUGS BY SCHOOL	.22	.12	.12	.24	_ _
HARD DRUGS BY FAMILY	.12	-.02	.07	.05	.07
HARD DRUGS BY RELIGION	-.24	-.12	-.12	-.24	.00

R = .47 R SQUARE = .22

Figure 5. Theoretical Model of any Drug Use

N = 698



* BETA NOT STATISTICALLY SIGNIFICANT AT $p \leq .05$

R = .33 R SQUARE = .11

Table 16 is a decomposition table that shows not only the direct effects of variables in the model, but also the indirect effects. The table is for the bivariate covariation which includes any drug use as the dependent variable. The table shows that the strongest predictor for drug use was the family factor. The total effect of the family factor was .24, which includes a direct effect of .17 and an indirect effect of .07. The peer factor was second in relative strength of effect on drug use with a direct effect of .20, and no indirect effect was observed. The religion factor was the third best predictor of drug use with a total effect of -.16 (-.10 was direct and -.06 was indirect). The school factor was the weakest predictor with a total effect of .05 (.01 was direct and .04 was indirect). As can be seen in the decomposition table, the betas from the indirect paths increase the model's predictive strength. That is, three of the four indexes increased the prediction of change in the dependent variable by the following percentages: family (7%), religion (6%), and school (4%).

Insert Table 16 here

Multiple R and R Square. In the models used in this research, the R Square values were in essence the percentage of variation in the dependent variables that were explained by combinations of independent variables. Specifically, the

Table 16

Decomposition of Bivariate Covariation: Any Drug Use

BIVARIATE RELATIONSHIP	TOTAL COVARIANCE	CAUSAL DIRECT	CAUSAL INDIRECT	CAUSAL TOTAL	NONCAUSAL
SCHOOL BY FAMILY	.13	.13	none	.13	.00
PEER BY FAMILY	.26	.19	.06	.25	.01
PEER BY RELIGION	-.27	-.20	none	-.20	-.07
PEER BY SCHOOL	.24	.19	none	.19	.05
DRUG USE BY PEER	.44	.38	none	.38	.06
DRUG USE BY SCHOOL	.22	.12	.12	.24	_ _
DRUG USE BY FAMILY	.12	-.02	.07	.05	.07
DRUG USE BY RELIGION	-.24	-.12	-.12	-.24	.00

R = .33 R SQUARE = .11

model that explained the most variation was the model in which marijuana use was the dependent variable (see Figure 3 above). The Multiple R for the marijuana use model was .54, while the R Square was .29. This means that 29% of the variation in the dependent variable was explained by the combination of the four factors used in the model. The model with hard drug use as the dependent variable (see Figure 4 above) had a Multiple R of .47 and an R Square of .22 (22% explained variation). Two of the models, one with alcohol use as the dependent variable and the other with drug use as the dependent variable, had similar results. The alcohol use model (see Figure 2 above) had a Multiple R of .34 and an R Square of .12. The drug use model (see Figure 5 above) had a Multiple R of .33 and an R Square of .11. The final chapter of the dissertation has more comments on the substantive implications of these findings.

Summary

This chapter was a report on the findings of the research and was divided into three parts. The first part of the chapter contained a descriptive analysis of the population that was studied in this research. The second part of the chapter was a report of the hypotheses testing. All the indexes that were used in the study were described in this section. Several figures and tables were included in the chapter in order to demonstrate the relationships among the variables used in the research. The chapter also

included the results of the expected findings for the hypothesized relationships. The chapter concluded with a comparison of the relative strengths of the four models used in the research.

CHAPTER VI

SUMMARY AND CONCLUSIONS

Introduction

The final chapter describes what has been done in this research, and how several theoretical and practical conclusions can be drawn from the research. The first section in this chapter contains a summary of the research presented in this dissertation. This section summarizes the description of the problem, research procedures, and findings. Next is a section that includes several conclusions that were drawn from this research. Part one of the chapter is a summary of the entire research report, and part two is a statement of several substantive conclusions that were drawn from the research findings.

Summary

Progressing through the period of adolescence is by no means a simple process. Adolescence is a complex time in a person's life in which influences, processes, and behaviors are multifaceted. This period is a time of growth, change, experimentation, separation, learning, competition, and testing. In other words, the socialization process, at the point of adolescence, is complex and difficult to predict or understand.

One factor that compounds the problem of understanding adolescence is the evolution of adolescent subcultures in contemporary society. Unlike industrial and post-industrial societies, pre-industrial societies did not recognize as many distinct and separate periods of development. For example, childhood was not recognized in Europe until the Middle Ages (Witters, 1989). The idea of adolescence began to develop in industrial societies, and its acceptance as a stage of development has been relatively recent.

The proliferation of adolescent subcultures has resulted in inadequate social structures for coping with the problems that accompany such growth and development. As a matter of fact, American society still lacks meaningful alternatives for a large portion of its youth. Specifically, while adolescents have an awareness of the problems of society, they are routinely excluded from meaningful roles in shaping society. The adolescent period needs to be examined more closely in order to discover what are some of the complex factors and influences.

Research is needed in this vast area of human behavior in order to understand, explain, predict, facilitate, and if needed, to intervene in the process of adolescence. One area that can be researched is the process in which adolescents make significant decisions. Since adolescence is a separate and distinct stage of development in a person's life, then what are the factors that influence decision making

processes? How do these factors interact with each other, and what are the relative strengths of these factors?

Such questions as these were at the heart of the research presented in this dissertation. This was a study about how adolescents make decisions. A specific and significant decision was examined. That is, what factors influence the adolescent's decision to use or not use drugs. Several factors make this particular decision a significant one as the decade of the 1980s draws to a close.

The dissertation included much evidence as to the timeliness of researching adolescent drug use. Presently, drug use is recognized almost universally as a major issue for American society. Drug use is an issue with wide and serious consequences for individuals, families, schools, organizations, governments, countries, and ultimately for the entire human race. For young people, in particular, much is at risk in terms of drug use behavior and outcomes. The significance of research into adolescent drug use is obvious: information is needed concerning a topic with macrosocial, as well as microsocial, ramifications and implications. This dissertation does not investigate how all people use all kinds of drugs. A specific population was studied, and this means certain populations such as the hardened, serious drug offenders were not researched.

As was demonstrated in the dissertation, many disciplines are presently researching the topic of drug use.

Such a multidisciplinary approach to understanding the drug phenomenon is appropriate due to the complex and illusive nature of the subject. For example, there are several facets involved in understanding drug use: physiological, psychological, and spiritual. Much information was presented in order to demonstrate a variety of influences on drug use.

Several perspectives, such as the psychological, biological, physiological, and political science were enumerated as potential approaches for studying adolescent drug use. The approach that underlies this dissertation is the sociological perspective. It is important to note this narrowing of the research parameters in order to study the subject with as much depth as possible. In other words, this is not a study of all the factors and influences that contribute to the adolescent's decision to use drugs. This is a sociological approach to understanding the problem. Furthermore, this dissertation used a specific type of sociological theory in order to guide the research. That is, the theory used in this research is called social control theory. Control theories include both psychodynamic and social aspects of human behavior. This dissertation does not research, or discount, the psychodynamic aspects of understanding human behavior. Clearly, these factors are important, relevant, and researchable. However, the focus of this research was limited to the social factors. For example, social control theory assumes that human behavior is

influenced significantly by the extent to which persons are bonded to significant social groups. Stated otherwise, weakened social control factors contribute to decision making among adolescents through the socialization process and current social situations. Defective control systems affect the learning of social norms and the implementation of norms in terms of appropriate behavior. It is possible, obviously, that the weakened personal and social controls are interconnected, but such is not a necessary component of control theory.

In this research, it was assumed by social control theory that the social bonds and attachments are significant predictors of human behavior. The social bond means the connection between the individual and society, which is usually mediated through social institutions.

After the theoretical orientation was delineated, four major hypotheses were formalized as a necessary component of the research design. Each of the four hypotheses contained one aspect (independent variable) or social institution that was predicted to influence adolescent decisions about drug use. These four factors emerged from the construction of four indexes, which served to cluster or simplify several variables. Peer, school, family, and religion factors were used in order to investigate how social institutions affected the adolescent's decision to use or not use drugs. After

reporting on these theoretical orientations, the next step was to turn to empirical considerations in order to actually study the problem.

The focus on empirical considerations led to the decision to limit the units of analysis to young persons who were in the ninth through twelfth grades. A sample was drawn for the dissertation, and it had as its units of analysis high school students in a north Texas city. The study utilized survey generated data which were collected during the spring semester of 1989. This sample was used to address the major questions of the study. These questions were: What are the factors that intervene between the culture and the decision making process? What is the relative strength of these factors? How do these factors (such as, peer, family, school, and religion) impact the young person? All of these factors (also called variables) were carefully described. The dependent variable in the study, adolescent drug use, was actually isolated into four separate, but related, variables. First, alcohol use was used as a dependent variable in the general causal model. Marijuana use was also treated as a separate dependent variable, and observations were made. Hard drugs were also treated as a dependent variable, and this included such drugs as cocaine, LSD, amphetamines, crack, and heroin. A fourth dependent variable was called "Drug Use", and this was operationalized as a combination of one, two, or all three of the other

dependent variables. This led to the anticipation of differing effects of the factors on various drug substances. After the data were collected, they were analyzed and interpreted with a variety of statistical procedures that were explained in detail. Several findings were made as a result of the research.

Evidence was found which supported Hypothesis One in two of the models, but the hypothesis was not supported in the other two models. Specifically, the correlation coefficient for the relationship between family factors and drug use was significant at or below the .0001 level in each case when the dependent variable was either alcohol use or any drug use. Hypothesis One was not supported for each of the models in which the dependent variable was marijuana use or hard drug use.

For Hypothesis Two, half of the models supported the hypothesis, and half did not result in what was expected. It was expected, according to Hypothesis Two, that a positive relationship existed between school problems and adolescent drug use. As it turned out, this positive relationship was supported when the dependent variable was either marijuana use or hard drug use. When the dependent variable was either alcohol use or any drug use, the expected positive relationship was not supported.

The data associated with Hypothesis Three produced a correlation coefficient significant at or below the .05

level. Hypothesis Three stated that a negative relationship existed between religion and adolescent drug use. The hypothesis was supported for all four models in which the dependent variables were alcohol use, marijuana use, hard drug use, and any drug use.

The findings related to Hypothesis Four also supported the expected outcomes, and this was the case regardless of the dependent variable. Alcohol use, marijuana use, hard drug use, and any drug use were all found to have a statistically significant relationship to religion factors. Each dependent variable resulted in F-ratio results that were significant at or below the .0000 level. Table 17 is a summary that shows which hypotheses were supported and which were not supported.

Table 17

Which Hypotheses were Supported?

		USE VARIABLES			
HYPOTHESES		ALC.	MJ.	HARDRUGS	ANY DRUG
ONE:	FAMILY	YES	NO	NO	YES
TWO:	SCHOOL	NO	YES	YES	NO
THREE:	RELIGION	YES	YES	YES	YES
FOUR:	PEER	YES	YES	YES	YES

The statistical analysis also set forth four path models in order to investigate how each of the four factors effected (both directly and indirectly) the four dependent (use) variables. The model that had the most predictive strength was the one in which marijuana use was the dependent variable. This model explained 29% of the variation in the dependent variable (marijuana use). This means that almost a third of the variation in the dependent variable was explained by the combination of the four factors in the model. Next in predictive strength was the model for which hard drug use was the dependent variable. This model resulted in 22% of the variation explained in the dependent variable (hard drugs). For two of the models, alcohol use and any drug use, similar results were found. When alcohol use was the dependent variable, 12% of the variation was explained. The amount of variation explained in the model which used any drug use as the dependent variable was 11%. Table 18 is a summary of the relative strengths of the models which varied on the basis of the particular dependent variable used.

Table 18

Relative Strengths of the Models*

DEPENDENT VARIABLES	EXPLAINED VARIATION
MARIJUANA USE	29%
HARD DRUG USE	22%
ALCOHOL USE	12%
ANY DRUG USE	11%

* BASED ON R SQUARE VALUES.

Conclusions

The findings associated with this study lead to several substantive and theoretical conclusions. These conclusions are based upon the research that has been presented in this dissertation. The many limitations of the study were described in preceding chapters, and the following conclusions were drawn with these limits in mind.

1. Adolescent decision making is a complex process which involves several factors. The findings in this research show how four separate influences (family, school, peer, and religion) impact the adolescent. The research shows how each of these influences has both direct and indirect effects on the decision making process. This is important to note because the broadest possible scope is required if adolescent processes are to be understood. Many

groups are interested in not only understanding these dynamics, but also in occasionally intervening in the processes. For example, parents and educators need information about factors that influence several decisions by adolescents. If this research expands the knowledge base about adolescent drug use, then it also broadens the understanding of other significant decisions (such as, suicide, crime, rebellion, and various addictions). Therefore, a significant finding in this research is that several factors interact to influence adolescent decision making.

2. The influence that made an adolescent most likely to use alcohol was a family that had drug and alcohol problems. Having peers with drug and alcohol problems was the second strongest influence that made an adolescent more likely to use alcohol. As a matter of fact, the family influence was stronger only because it influenced the adolescent in a direct way, as well as in an indirect way. It appears that the adolescent's peer group serves as a sort of social filter through which a decision to use alcohol is made. The factor that makes an adolescent less likely to use alcohol is the influence of religion. Adolescents who report positive experiences of religion are less likely to use alcohol. Therefore, the research showed three significant influences on the adolescent's decision to use or not use alcohol. Much more research is needed here because the

scientific literature repeatedly shows the significant issues and consequences that arise from alcohol use in American society.

3. The adolescent who was most likely to use marijuana was influenced in a slightly different way than the alcohol user. That is, the adolescent who was most likely to use marijuana was the one who chose a peer group that used drugs or alcohol. As a matter of fact, the influence of peers was stronger than any of the other three factors even though the peer factor had no indirect effect on marijuana use.

The second influence, in terms of relative strength, was the influence of religion (as operationalized in this research). The adolescent who reported a higher preference for religion was much less likely to use marijuana. Once again, a significant portion of the influence of religion was derived indirectly through the peer influence. That is, the stronger the influence of religion, the less likely the adolescent chose a peer group that used drugs, and therefore the less likely the adolescent used marijuana.

School problems also make an adolescent more likely to use marijuana. Interestingly, school problems had a significant direct effect on marijuana use, but a slightly stronger indirect effect through the peer group. In other words, adolescents with school problems chose peers with drug

and alcohol problems, and the result was an increased likelihood of marijuana use.

4. The adolescent who was most likely to use hard drugs (such as, cocaine, heroin, LSD, crack, and PCP) was the adolescent who chose a peer group that used drugs or alcohol. School problems and religion influence the adolescent's decision to use hard drugs in similar strengths. The peer factor also serves as a significant indirect way in which both school problems and religion influence the adolescent. School problems for the adolescent make it more likely, and the influence of religion makes it less likely that the adolescent will use hard drugs.

5. The prediction for whether or not an adolescent ever used any drugs (such as, alcohol, marijuana, or hard drugs) was similar to the findings related to adolescent alcohol use. The family influence is the strongest predictor of adolescent drug use because it effects the decision to use directly, and it also has a significant effect through the peer group. Peer influences are next in relative strength. The more likely an adolescent has drug using friends, the more likely the adolescent will use drugs himself. Finally, the influence of religion is also relatively strong due to direct effects on drug use, but also because of the effect that religion has through the peer group. That is, adolescents who are least influenced by religion are more

likely to choose peers who use drugs, and are therefore more likely to use drugs.

6. The final conclusion of the dissertation is relative to the importance of adolescent peer groups. The data suggest that the peer group is a key mediating factor in the adolescent's decision to use or not use drugs. In each of the four models used in this research, the peer influence had the strongest direct effect on adolescent drug use. Furthermore, in all four models for adolescent drug use, the influences that had significant effects on adolescent drug use, each had increased effects that were mediated through the peer group.

The adolescent peer group is where something very important is happening for the young person. It is with peers that significant social bonding occurs. The data suggest that this social bond that is experienced with peers is the best predictor of adolescent decision making. This information has some very important implications. For example, it implies that the socialization process for adolescents has a key dependence upon the adolescent peer group. The data do not indicate that other agents of socialization are unimportant. As a matter of fact, the research indicated that agents, such as family, school, and religion are indeed significant in the decision making process. Furthermore, these other factors have increased influence due to influencing behavior indirectly through the

peer group. The key point is this: the adolescent peer group is the forum for social bonding that results in the best prediction of adolescent decision making.

As with all the above conclusions, this final conclusion is based upon one study, whose limitations were clearly defined in the dissertation. What this research indicates is that the peer group is a key agent in the socialization maze through which an adolescent progresses. For those who desire to understand how adolescents make decisions, how to intervene in adolescent processes, how to rehabilitate adolescents, how to re-socialize adolescents, then the adolescent peer group is a significant factor for consideration. These data suggest that parents, counselors, educators, and interventionists must give the investigation of peer group facilitation a very high priority. To recognize, understand, and facilitate positive peer group experiences for adolescents has the likelihood of resulting in positive decision making skills. In summary, this research suggests that when it comes to adolescent decision making, the final word comes from the adolescent peer group.

APPENDIX

QUESTIONNAIRE

1. In the past five years, my family has moved:
   a. None b. once c. twice
   d. Three times e. four or more times
2. Which description best matches where you live?
   a. A house my family owns b. A house my family rents c. An apartment d. A mobile home
   e. a room or motel
3. Which of the following describes you best?
   a. Black
   b. White
   c. Oriental or Asian American
   d. Mexican American or Chicano
   e. Other
4. What grade average best describes your work last year?
   a. A b. B c. C d. D e. F
5. Are you currently employed?
   a. No b. Part-time c. Full-time d. Was, but not now
6. Do you participate in extra curricular activities (such as sports, drama, music, etc.)?
   a. Yes b. No c. Have previously, but do not now
7. Have you ever seriously considered leaving school before graduation?
   a. Yes b. No
8. Is a high school education valuable to you?
   a. Yes b. No
9. Are you one or more years older than your classmates in the same grade?
   a. Yes b. No
10. Do you live in a single-parent home?
    a. Yes b. No
11. Do you participate in the free lunch program?
    a. Yes b. No
12. Is English the language spoken in your home?
    a. Yes b. No
13. Have you had two or more discipline referrals at school within the last two semesters?
    a. Yes b. No
14. Have you been retained (kept back) one or more grades?
    a. Yes b. No
15. Have you failed the TEAMS test?
    a. Never b. Yes, within the last 2 years
    c. Yes, more than 2 years ago

16. Have you ever been pregnant? (Females only, males mark c.)
    a. Yes b. No c. I am a male

17. Have you failed two or more courses during any given semester within the last two years?
    a. Yes b. No
18. What is the highest education your father completed?
    a. Did not complete high school
    b. Completed high school
    c. Went to college but did not finish
    d. Finished college
    e. Graduate school (masters or doctors degree)
19. What is the highest education your mother completed?
    a. Did not complete high school
    b. Completed high school
    c. Went to college but did not finish
    d. Finished college
    e. Graduate school (masters or doctors)
20. Do you think alcohol is a drug?
    a. Yes b. No
21. One or both of my parents use alcohol.
    a. Never b. Occasionally c. Often
22. My parents' drinking causes problems for someone in my home, other than myself.
    a. Never b. Occasionally c. Often
    d. They do not drink
23. How many of your friends drink alcohol heavily?
    a. None b. A few c. Many
24. My parents approve of my drinking alcohol.
    a. Yes b. No c. On certain occasions
25. I use tobacco (cigarettes, chewing tobacco, snuff).
    a. Never b. Occasionally c. Often
26. One or both of my parents use tobacco.
    a. Never b. Occasionally c. Often
27. How many of your close friends use drugs (other than alcohol and/or tobacco) more than 2 times a week?
    a. None b. Few c. Many
28. Is it safe (physically, mentally) to smoke marijuana?
    a. Yes b. No
29. I have used alcohol or other drugs before, or during school.
    a. Never b. Occasionally c. Often
30. One or both of my parents use drugs (other than alcohol and/or tobacco).
    a. Never b. Occasionally c. Often

31. Within the last 6 months I have ridden with someone other than my parents who has been using alcohol or other drugs.
    parents who has been using alcohol or other drugs.
    a. Never b. Occasionally c. Often
32. I have driven after using alcohol or other drugs.
    a. Never b. Occasionally c. Often

33. Drugs (other than alcohol) are easy to buy at school.
    a. Yes b. No
34. Drug education at my school is:
    a. Adequate b. Inadequate c. Don't know
35. I think my school should provide counseling for someone with a personal problem.
    a. Yes b. No
36. I think my school should provide counseling for someone with alcohol and/or drug problems.
    a. Yes b. No
37. Have you ever been in treatment for drug or alcohol abuse?
    a. Yes b. No
38. Have you ever drunk alcohol (beer, wine, etc.)?
    a. Yes b. No
39. Have you drunk alcohol in the last twelve months?
    a. Yes b. No
40. Have you drunk alcohol in the last 30 days?
    a. Yes b. No
41. How often do you currently drink alcohol?
    a. Do not use
    b. Have tried once
    c. Once a month
    d. Once a week
    e. Several times weekly
42. At what age did you first begin to use alcohol?
    a. Never
    b. 9 or younger
    c. 10, 11, 12
    d. 13, 14, 15
    e. 16 or older
43. At what age did you first begin to use tobacco?
    a. Never
    b. 9 or younger
    c. 10, 11, 12
    d. 13, 14, 15
    e. 16 or older
44. Have you ever smoked marijuana?
    a. Yes b. No
45. Have you smoked marijuana in the last twelve months?
    a. Yes b. No
46. Have you smoked marijuana in the last 30 days?
    a. Yes b. No
47. How often do you currently use marijuana?
    a. Never
    b. Have tried once
    c. Once a month
    d. Once a week
    e. Several times weekly

48. At what age did you first begin to use marijuana?
    a. Never
    b. 9 or younger
    c. 10, 11, 12
    d. 13, 14, 15
    e. 16 or older

Have you ever used any of the following drugs?

49. Hallucinogens (LSD)? a. Yes b. No
50. "Downers" (tranquilizers, Valium, Quaaludes, etc.)?
    a. Yes b. No
51. Inhalants (glue, paint, aerosols)? a. Yes b. No
52. Cocaine? a. Yes b. No
53. "Uppers" (Amphetamines, speed, crank)?
    a. Yes b. No
54. Crack? a. Yes b. No
55. Have you ever used Over-The-Counter drugs to get high?
    a. Yes b. No
56. How often do you use hallucinogens (LSD)?
    a. Never b. Occasionally c. Often
57. How often do you use "Downers" (tranquilizers, Valium, Quaaludes, etc.)?
    a. Never b. Occasionally c. Often
58. How often do you use inhalants (glue, paint, aerosols)?
    a. Never b. Occasionally c. Often
59. At what age did you first begin to use inhalants?
    a. Never
    b. 9 or younger
    c. 10, 11, 12
    d. 13, 14, 15
    e. 16 or older
60. How often do you use cocaine?
    a. Never b. Occasionally c. Often
61. How often do you use "uppers" (Amphetamines, speed, crank)?
    a. Never b. Occasionally c. Often
62. How often do you use crack?
    a. Never b. Occasionally c. Often
63. How often do you use Over-The-Counter drugs to get high?
    a. Never b. Occasionally c. Often
64. I feel depressed.
    a. Rarely b. Occasionally c. Always
65. I have problems sleeping.
    a. Rarely b. Occasionally c. Often
66. I feel angry.
    a. Rarely b. Occasionally c. Often
67. I feel lonely.
    a. Rarely b. Occasionally c. Often
68. I miss a lot of school.
    a. Yes b. No

69. I am regularly late to class.
    a. Rarely b. Occasionally c. Often
70. I feel unhappy with life.
    a. Rarely b. Occasionally c. Often
71. I feel loved by my family.
    a. Rarely b. Occasionally c. Often
72. I have (choose only one):
    a. Never had thoughts of suicide
    b. Had thoughts of suicide
    c. Planned suicide at least once
    d. Attempted suicide at least once
    e. Attempted suicide more than once
73. I have problems because of my parents' drinking alcohol?
    a. Yes b. No c. They do not drink
74. I feel accepted by my family.
    a. Never b. Occasionally c. Often
75. I currently have more trouble with depression than I have had in the past.
    a. No b. Occasionally c. Often
76. In the past I have taken an overdose of drugs either accidentally or on purpose.
    a. Never b. Once c. More than once
77. I throw up or take laxatives to control my weight.
    a. Never b. Rarely c. Occasionally
    d. Often
78. (For female students) I have terminated at least one pregnancy. (For male students) I have had a girlfriend who has terminated at least one pregnancy.
    a. Yes b. No
79. I have been in trouble with the law (choose only one).
    a. Never
    b. Once for minor offenses
    c. More than once for minor offenses
    d. At least once for more serious offenses like assault or drug/alcohol possession
    e. For offenses serious enough to require detention
80. Learning how to feel good about myself should be a more important part of my school education.
    a. Yes b. No c. Undecided
81. Where would you go or take a friend if you or they needed help with an alcohol or drug problem (choose only one)?
    a. Parents
    b. Minister or Youth Director in a church
    c. Teacher, coach, other school personnel
    d. Counseling service, doctor, hospital
    e. A confidential counselor at school (if available)
82. How important is religion to you?
    a. Not important b. Somewhat important
    c. Very Important

83. How often do you attend religious services?
    a. Never b. Occasionally c. Often
84. How often does your family eat an evening meal together?
    a. Never b. Occasionally c. Often
85. I have considered suicide:
    a. Never
    b. Within the last week
    c. Within the last month
    d. Within the last year
    e. More than one year ago
86. Did you have the health education course in the Denton schools in Grades 9 through 12?
    a. Yes b. No
87. If you answered Yes to the last question, then which one of the following topics was most helpful?
    a. First Aid/CPR
    b. Decision Making Skills/Improving My Self Concept
    c. Prevention of Sexually Transmitted Diseases
    d. Preventing Conception
    e. I Feel I Get Enough of This Information from My Family
88. If you have taken the health education course in the Denton schools, plan to take the course, or have taken it at another school, which of the following would you like to have more help with or information about?
    a. Drug Abuse Awareness
    b. Prevention of Sexually Transmitted Diseases
    c. Physical Growing and Development Topics Related to My Personal Health
    d. Information on How to Live a Happier Life Both Personally and with My Family (Improved Mental Health)
    e. I Feel I Get Enough of This Information at Home from My Family

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