An Examination of Race and Recurrent Substance Problems in the United States

Tannisha D. Bell

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(Abstract)

Several studies show that African-Americans are less likely than whites to use alcohol or drugs. However, if African-Americans use drugs then they are more likely to become heavy and persistent users. African-Americans are also more likely to have a current substance abuse disorder. There is not much in the literature to explain this phenomenon. The purpose of this study is to examine the alcohol and drug abuse, use and dependence of blacks and whites in order to explain the differences in the course of the substance disorder, using data from the National Comorbidity Survey. There are many variables thought to contribute to the racial difference, such as socio-economic status (measured by income and education), religion, insurance, employment status, and marital status. The data in this literature indicate that the aforementioned variables do not explain the racial difference in substance disorders. However, after performing interaction analyses, it is clear that the effects of treatment are different for blacks and whites. Treatment is more effective for whites, and it may even cause the substance disorder to become worse for blacks. Several studies indicate that this may be the result of cultural differences between the treatment staff and the clients.

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Chapter One:

Problem Statement

The purpose of this study is to examine the relationship between race and recurrent drug usage. More specifically, this thesis will examine the recurrent drug use patterns of whites and African-Americans. It will also examine factors that may explain the drug use patterns of blacks and whites.

America is in constant battle a the war against illegal and problematic substance use. The 1998 National Household Survey on Drug Abuse (NHSDA) shows that approximately 78 million Americans have used illegal drugs at some point in their lives. This number encompasses those involved in casual usage as well as those with severe abuse and dependency problems. While some studies cite a decline in overall drug use, the 1998 NHSDA shows that there are about 13.6 million current drug users in America (Mica, 1999). According to the same survey, in 1997 and 1998 approximately 4.1 million Americans met the diagnostic criteria for drug dependence (Mica, 1999).

Illegal drug use costs the United States billions of dollars each year, in addition to causing the deaths of thousands. Studies show that about 20,000 Americans die each year as a result of illegal substance abuse (Cunningham, 1999). According to the National Institute of Drug Abuse, alcohol abuse and alcoholism cost Americans approximately $150 billion dollars per year, while drug abuse and dependence costs

about $100 billion annually (Jeffords, 1998). The long-term effects of illegal substance abuse are damaging emotionally, financially, and physically.

Overall, the National Household Survey on Drug Abuse shows that the number of Americans using illegal drugs has dropped from 14.1% in 1979 to 6.1% in 1996 (Fenton, 1999). However, drug usage has not decreased for everyone. Drug use is on the rise for teenagers and African-Americans (Fenton, 1999). This presents yet another battle in the war against drugs.

Overall, research shows that African-Americans are less likely than whites to have a lifetime substance abuse disorder (Kandel, 1993). However, African-Americans who use drugs are more likely to have a recurrent substance abuse disorder. For example, a 1993 study by Denise Kandel suggests that blacks are less likely than whites to initiate the use of cocaine, but they are more likely to become heavy and persistent users (Kandel, 1993:65).

This study will examine various factors which may explain the severe and persistent substance abuse of African-Americans. Previous studies have examined the relationship between race and drug use. However, there is not much in the literature to answer the question, "why?" Why are substance abuse disorders more severe for African-Americans than for whites? Why are blacks less likely than whites to use drugs, but more likely to have a current disorder? Why is treatment less effective for African-Americans?

In order to answer these questions, this study will rely on data produced by the National Survey of Health and Stress in 1991. In this thesis the following factors are analyzed in order to explain persistent drug use among blacks and whites: health

insurance, quality of treatment services, type of treatment received, religion, and socio-economic factors, including education and income. By examining these factors and reviewing the existing literature, it is hoped to provide better insight to the research on race and drug use.

Chapter Two:

Literature Review

2.1 Initial Drug Use

If our society is to engage in a war on drugs, it is important to understand why people engage in illicit drug use. According to Alan Lishner, director of the National Institute of Drug Abuse, researchers have identified over 50 factors that may put someone at risk for drug use (Leshner, 1999). Though many researchers disagree on theories of initial drug use, there is general consensus that the factors responsible for beginning the non-medical use of drugs are often different from those that produce extended use (Carroll, 1996:39).

One of the main reasons for drug use is mood modification, or simply to feel better or different (Weil and Rosen, 1993). Some use drugs to temporarily achieve increased or decreased awareness (Carroll, 1996). Increased awareness allows for variations in thought processes, ideas and behaviors, allowing the impetus for progress, innovation, and social advancement (Weil et al., 1993:15). At the other end of the spectrum, decreased awareness is an effort to escape reality, to dull ones senses, and it is often used as a coping mechanism (Carroll, 1996:40).

Researchers have determined three basic interdependent influences of substance use and abuse: 1) predisposing influences (susceptibility), 2) enabling influences (facilitation), and 3) reinforcing influences (encouragement) (Carroll, 1996:42). The components of each influence are shown in Figure 1.1.

Figure 1.1 A Conceptual Model for Analyzing Determining Factors in the Use and Abuse of Psychoactive Drugs

Predisposing Influences (Susceptibility)	Enabling Influences (Facilitation)	Reinforcing Influences (Encouragement)
Attitudes about drugs and the "quick fix" Demographics and sociocultural influences	Availability of drugs	Mood modification, increased awareness and unawareness
Adolescence	Accessibility to drugs	Experience of pleasure
Myths about drugs	Ineffective legal deterrence	Drugs help to accomplish tasks
Personality and coping	Lack of social controls	Social and peer-group pressure
Unique psychological characteristics	Inability to say "no" to experimentation	Advertising and media programming about drug taking
Social changes and conflicts	Effects of addicting drugs; Withdrawal, depression, and mental impairment	Family dynamics
Heredity	Actions of the "enabler"	Influence of modeling
Family: psychological aspects	Family interference with treatment of drug abuser	

Adapted from Carroll, 1996:42.

In addition to these types of influences, there are certain demographic influences which may predispose the use and abuse of drugs. These factors include age, gender, marital status, race, and education (Carrol, 1996). Research shows that young people are more likely to use and abuse alcohol and drugs than older people, and men are more likely to use and abuse than women (Carrol, 1996). Single and divorced people tend to

drink more heavily than married people. Some research concludes that education lowers the likelihood of a person engaging in drug use (Carroll, 1996:42). However, according to a study by the National Comorbidity Survey, education increases the likelihood of a person using drugs illegally(Warner et al, 1995).

2.2 Recurrent Substance Abuse

Though rates of substance problems are higher for the young, most people who have such problems age out of them. Aging out of deviant behavior refers to the trend in which people reduce the rate of deviant or criminal behavior as they mature (Siegal and Senna, 1994). There are several factors which may explain why some people age out of substance abuse and others continue to use. Two reasons for recurrent drug usage are tolerance and addiction. Tolerance is when the body gradually adjusts to a certain amount of drugs (Stephen, 1992:12). When tolerance to a substance develops, the user must ingest more of the substance in order to produce a high (Stephen, 1992:12). High levels of tolerance may eventually lead to addiction. Addiction is the process in which the body becomes physiologically adjusted to the drug (Stephen, 1992). Substance abusers are able to recognize their addiction when their bodies give an adverse reaction to the absence of the substance. After becoming addicted, drug users often find it difficult to operate without the drug. Without the presence of the drug in the body, many substance abusers experience withdrawal (Stephen, 1992). Instead of going through withdrawal and ending the drug usage, many abusers continue to use drugs so that the body can remain functional.

Another reason that people continue to use drugs is because they do not recognize that they have a substance abuse disorder. Many substance abusers remain in a state of denial. Recognizing drug use as a problem and deciding to seek treatment depends on whether the user wants to claim or reclaim "moral standing" in a community of conventional others (Longshore and Grills, 1998: 278).

Labeling theorists explain recurrent drug use with the notion of primary and secondary deviance. Labeling theory argues that deviance is caused in part by the societal reaction to the deviant act (Hughes et al., 1999). In the labeling approach, the initial act of deviance is referred to as primary deviance, and is a simple violation of norms. The second level of deviance is determined by the societal reaction to the initial deviance. If an individual is publicly labeled as a deviant, this may become the person's master status. The person maybe ostracized and considered an outcast because of their deviant status (Shoemaker, 2000). After the person is so labeled they may, as a result engage in further deviance. This is referred to as secondary deviance. In the context of this research, substance abuse may continue due to the person being labeled a drug user. The drug user would develop an identity consistent with being a drug addict, and would follow a pattern of secondary deviance; that is, a "career" of deviance (Shoemaker, 2000).

2.3 Social Control Theory

Social control theory focuses on the sociological forces that can prevent people from participating in deviant behavior (Alston, et al., 1995: 31). Deviant behavior is defined as behavior which deviates from the average or societal norm (Carson and

Butcher, 1992). In this particular case, the use and abuse of illegal substances is deviant behavior. According to social control theory, people who engage in delinquency are free of intimate attachments, aspirations, and moral beliefs that bind them to a conventional and law-abiding way of life (Conklin, 1995: 218). Some of these intimate attachments come from family, peer groups, and religious beliefs. Attachments refer to the symbiotic linkage between a person and society (Alston et. al, 1995). According to control theory, people with weak attachments are assumed to be unconcerned about the wishes of others, and are, therefore, prone to deviate from social norms (Alston et. al, 1995).

Another component of control theory is the concept of social bonds. According to theorist Travis Hirschi, attachments to society come in the form of social bonds. Hirschi identifies four elements of the social bond: 1) attachment, 2) commitment, 3) involvement, and 4) beliefs (Alston et. al, 1995). Attachment is the process of being involved in social relationships with others (Shoemaker, 2000). The more attachments that a person has, the less likely they are to become deviant. Involvement involves participation in conventional activities such as religious organizations, social organizations, and career related activities. Spending more time involved in various activities allows less time for deviant behavior such as drug use. Commitment refers to the strength of the investments that people have made in conventional social ties and relationships (Shoemaker, 2000). People with strong levels of commitment in their lives are less likely to have substance abuse disorders, because of the losses that may occur as a result of their deviance. The last type of social bond is belief in conventional values and issues of morality (Shoemaker, 2000). People who hold beliefs that drug use is immoral and illegal, are less likely to indulge in illicit substance abuse.

2.4 Drug Use and Race

According to a 1998 report from the United States Justice Department, blacks make up about 13% of the general population and about 14% of drug users (Muharrar, 1999). Whites represent approximately 75% of the population and about 76% of drug users (Muharrar, 1999). One study of illicit drug usage found that whites reported the highest lifetime use, with 34% ever using, as opposed to 26.8% of African-Americans (Galaif and Newcomb, 1999). Even though studies show that overall drug use is declining, drug use among African-Americans is on the rise. According to the 1998 NHSDA, the percentage of blacks using drugs rose from 5.8% in 1993 to 8.2% in 1998 (Mica, 1999).

Statistics show that drug use varies greatly in regard to race. Research has shown that show there are several factors that may affect the initial drug use of blacks and whites. Young whites are more likely to initiate drug use due to experiencing a high level of conformity, low family pride and early alcohol use (Maddahian, et al., 1998). This study also found that African-Americans are less likely to use initially due to positive self-esteem and high levels of religiosity

African-Americans are less likely than whites to have a lifetime substance abuse disorder (Kandel, 1993). However, blacks who use drugs are more likely to suffer negative and severe consequences than non-blacks (Wallace, et al., 1998). One of the severest consequences is higher rates of persistent drug use. The proportions of those persisting in drug use were 1.3 times higher among blacks than whites in 1985, over 1.8

times higher in 1988, approximately 3.4 times higher in 1990 and 2.7 times higher in 1991 (Kandel, 1993: 65).

While African-Americans are less likely to use drugs, they are more likely to have a current substance abuse disorder. According to Denise Kandel, only 6% of whites who ever experimented with cocaine reported using the drug within the last 30 days prior to the 1991 household population survey, compared with 16 percent among blacks (Kandel, 1993: 65). African-Americans are less likely than whites to initiate the use of cocaine, but they are more likely to become heavy and persistent users (Kandel, 1993: 65). Drug usage is low for African-American teenagers, however, the chance of usage increases with age. According to the 1990 National Household Survey on Drug Abuse, 40% to 50% fewer blacks than whites report any lifetime experience with cocaine among those younger than 35, while 20% more blacks than whites report such experiences among those 35 and over (Kandel, 1991: 376).

2.5 Factors Affecting Substance Abuse Disorders of African-Americans

As previously indicated, blacks are less likely than whites to use drugs, but they are more likely to have a current lifetime substance abuse disorder (Kandel, 1991). Put another way, the course of substance abuse disorder is worse for blacks than for whites. There are many studies that recognize the severity of drug abuse in blacks. However, the studies do not explain why drug problems are more severe for African-Americans. The purpose of this research is to examine factors which may explain why the course of the disorder is more severe for blacks. This study will examine the effects of race and socio-

economic status (including education and income), race and religion, race and health insurance, and race and treatment services to explain the severity phenomenon among African-Americans.

2.6 Race and Socio-Economic Status (SES)

African-Americans generally have lower socio-economic status than their white counterparts. This may be an important factor in examining the course of substance abuse disorders in blacks. Some theorists suggest that SES should be taken into account when comparing the drug usage of blacks and whites (Barr, et al., 1993: 315). One group of researchers hypothesized that if blacks are becoming polarized into a relatively affluent middle class and a disadvantaged underclass, then SES will be more strongly related to alcohol consumption, alcohol related problems, and illicit drug use for blacks than whites (Barr et. al, 1993: 315). The findings of this study maybe explained by a 1987 theory by William Wilson. Wilson's theory implies that middle-class blacks will resemble middle-class whites in their rates of drinking and substance abuse (Barr et. al, 1993). Wilson argues that as middle-class blacks move into suburban neighborhoods, and professional lifestyles, their behavior and attitudes become similar to middle-class white males (Barr et. al, 1993: 315).   However, substance abuse rates of blacks will increase more rapidly as income and education decline (Barr et. al, 1993: 325).   Therefore, substance abuse by African-Americans increases if they are in the "underclass" (Barr et. al, 1993). The study conducted by Barr and associates shows that the most notable effects of socio-economic status on substance abuse are found when income is used as an

indicator of socio-economic status (Barr et. al, 1993). These studies suggest that socio-economic status is a definite indicator of the severity of drug abuse for blacks and whites.

2.7 Race and Religion

Historically, religion has always played a vital role in the lives and community of African-Americans. Approximately eight out of ten African-Americans feel that religious beliefs are very important, and 43.6% "almost always" seek spiritual comfort through religion (Chatters, et al., 1999:132). Overall, studies show that blacks display higher levels of religious involvement than do whites (Chatters et. al, 1999). Approximately 82% of blacks, as opposed to 55% of whites, say that religion is very important in their life (DeJulio, 1999). Some 86% of blacks versus 60% of whites believe that religion can answer all or most of today's problems (DeJulio, 1999: 132). The prevalence of religion in the African-American community may explain why blacks are less likely to initiate the use of drugs than whites. Those who have some type of bond to religion are less likely to deviate (in this case, use drugs) than those who do not carry a religious bond.

Although the church is instrumental in the African-American community it may also become a hindrance to drug users who need to seek professional treatment. Studies show that many black drug users are likely to solicit informal help from clergymen, instead of seeking a formal drug treatment program. One group of researchers assert that minorities who identify more strongly with their own culture may see drug dependence as a spiritual problem…not as a problem appropriate for professional treatment (Longshore

et al., 1998: 127). Clergy may provide a level of support. However, they may lack the adequate training needed to deal with substance abuse disorders.

2.8 African-Americans and Drug Treatment Programs

African-Americans are less likely than whites to seek treatment for substance abuse disorders again, perhaps because of religious factors. As mentioned above, and according to previous research, African-Americans with drug problems avoid formal sources of help, such as drug use treatment, and prefer informal sources instead (Longshore, et al. 1997: 755). African-Americans are also less likely than whites to admit that they need drug treatment (Longshore et. al, 1997). According to the National Institute on Drug Abuse, blacks represent 26.5% of all admissions into drug abuse treatment programs, whereas whites represent 49% of all admissions (Kandel, 1993: 64). The reluctance of African-Americans to enter treatment programs may be associated with several factors including: religious orientation, the dislike of existing treatment programs, general mistrust of treatment providers, and lack of health insurance (Longshore et. al, 1997).

Many Africans-Americans perceive drug treatment programs to be void of cultural sensitivity, and unaware of various problems that may plague black drug users. "More generally, many African-Americans view mainstream providers of social services, including drug-use treatment, as intrusive, punitive, and untrustworthy" (Longshore et. al 1997: 756). There is much speculation as to whether drug treatment programs and providers are adequately equipped to handle the needs of minority substance abusers. A

1988 study by Merrill Singer indicates that, "there is a widespread recognition that existing programs for the treatment of alcoholism and drug addiction are not sensitive to the cultural characteristics and socio-economic circumstances of special groups…" (Singer, 1988:3). There are only a few treatment programs that specifically address the social, cultural, and individual factors associated with the substance abuse of African-Americans (Rowe and Grills, 1993).

Research shows that African-Americans have also expressed disdain at the types of treatment available and due to this they may seek informal support from family, friends, or clergymen. While social support is needed, it may be an inadequate source of treatment. Social support promotes help-seeking in general (Cohen and Wills 1985), but, in light of relevant African-American cultural values (for example, communalism and extended family ties), African-Americans may prefer to seek help from informal sources and may find such help sufficient to obviate the need for formal treatment (Longshore et. al, 1997: 757).

Blacks are also more likely to seek emergency room care for a substance abuse disorder. Though there are health-care professionals who are knowledgeable about substance abuse, the emergency room does not provide adequate long-term treatment. Blacks are more 7.5 times as likely to go to the emergency room for help, and 3.5 times as likely as whites to die of a drug overdose (Marks, 1999:3). According to Kandel, in 1989, 58% of cocaine-related emergency-room episodes involved blacks, as opposed to 25% involving whites (Kandel, 1993: 63).

2.9 Race and Health Insurance

Another factor influencing African-Americans' use of drug treatment programs is the lack of health insurance. Studies show that in the United States, drug treatment is only available for 52 percent of people in immediate need of treatment (McCaffrey, 1998). Statistics from the National Health Interview Survey show that 21.3 percent of African-Americans are without health insurance, as opposed to 14.4 percent of whites (National Center for Health Statistics, 1995). Private programs provide participants with the most effective form of treatment, but private programs are mostly utilized by, and more accessible to, whites than blacks. "Whites may seek care from private physicians and may be under-represented in government-financed programs" (Kandel, 1991:388). In addition to the lack of health insurance, African-Americans have lower socio-economic status, which would prevent them from gaining access to private treatment programs.

2.10 The Present Study

The purpose of this study is to examine why the substance abuse disorders of African-Americans are more severe than the disorders of whites. Blacks begin with the advantage of being less likely to use illicit substances. However, if African-Americans use drugs then the course of their disorder is worse than it is for whites. This study will examine the following variables in an attempt to explain this occurrence: socio-economic status (income and education), insurance, treatment, religion, employment, and marital status.

Chapter Three:

Methodology

3.1 The Data

This research was conducted through the use of secondary data. The data used in this study were obtained from the National Comorbidity Survey, also known as the NCS. The NCS is a nationwide survey of the United States population, ages 15-24. The survey is designed to produce data on the prevalence, risk factors, and consequences of psychiatric disorders. The NCS is based on a stratified, multi-stage area probability sample of the non-institutionalized civilian population in the 48 coterminous states, with a supplemental sample of students living in campus group housing. The survey was administered by staff of the Survey Research Center at the University of Michigan. There are a total of 8,098 respondents with a total response rate of 82.4%. The sex and race percentages are comparable to those in the United States National Health Interview Survey. Therefore, the percentages in the race and sex portion of the survey are comparable to that of the general population. The main findings of the study were presented in Kessler et al. (1994).

The NCS used a two-phase sample design to conduct this survey. In the first phase, the diagnostic interview (Part I) was given to all 8,098 respondents. In the second part of the survey, a risk factor interview (Part II) was given to a probability sample of 5,877 respondents. These respondents consist of: a) all Part I respondents ages 15-24, 2) all older Part I respondents who were positive on initial questions in one or more diagnostic sections of the UM-CIDI (possible cases), and 3) a one-in-six random sub-

sample of all remaining Part I respondents. With the exception of a few cases, all of the Part I and II surveys were administered in the same interview session.

In Part II of the interview, the respondents were questioned about their life history. These questions include family background, marital events and experiences, social relations in adulthood, stressful events, and traumatic experiences. All respondents with a lifetime history of any NCS disorder are included in this sub-sample. This includes those who are identified as having lifetime substance abuse disorders.

3.2 Measurement

Dependent Variables. There are six dependent variables used throughout this study: alcohol use, drug use, alcohol abuse, drug abuse, alcohol dependence, and drug dependence. Alcohol and drug use are measured by asking the respondent if they have ever used alcohol or drugs in their life. This question requires a yes or no response. Alcohol and drug abuse are measured by the criterion set forth in the DSM-III-R, a publication of the American Psychiatric Association. The DSM-III-R diagnoses included in the core National Cormorbidity Study (NCS) include major depression, mania, dysthymia, panic disorder, agoraphobia, social phobia, simple phobia, generalized anxiety disorder, alcohol abuse, alcohol dependence, drug abuse, drug dependence, antisocial personality disorder, and non-affective psychosis (Kessler et al., 1994). Twelve-month diagnoses of substance use disorders were made in the sub-sample of respondents who qualified for the lifetime diagnosis and who reported at least one DSM-

III-R symptom in the 12 months prior to the interview (Kessler et al., 1994:9). Alcohol and drug dependence are also measured by the DSM-III-R.

In the NCS, respondents were asked to identify their lifetime and non-medical use of several categories of illicit drugs: tranquilizers, sedatives, amphetamines, analgesics, inhalants, cocaine, marijuana, hashish, hallucinogens, and heroin (Warner et al., 1995). Lifetime drug use was defined as having tried at least one of the drugs above at least one time. In the NCS, drug dependence is defined according to the definitions and criteria of the DSM-III-R (Warner et al., 1995). The NCS questions used to create this diagnosis are based on the standardized Composite International Diagnostic Interview (CIDI) that mimics a psychiatric interview and yields a diagnosis consistent with the DSM-III-R. Coding for all dependent variables is detailed in Appendix A.

Independent Variables. There are ten independent variables used throughout this study. The variables are race, socio-economic status (income and education), insurance variables, religion variables, treatment variables, and social control variables. Coding for all independent variables is detailed in Appendix A.

Race. Race is one of the primary independent variables in this study. Race is separated into four categories: black, white, Hispanic, and other. In this study, the focus is on differences between blacks and whites. However, findings on differences between whites and others, and whites and Hispanics will also be presented.

Income and Education. The variable of education is measured by four categories. Respondents were asked to identify their level of education from 0-11 years, 12 years, 13-15 years and 16 or more years. The variable income is measured by a variety of categories. The 26 categories range form "no income" to "income of $150,00 and over."

Insurance. There are three variables measuring insurance. The first variable is whether or not the respondent has overall health insurance. The second variable is if the respondent has hospitalization coverage for drug, alcohol, and mental health services. The third variable for insurance establishes if the respondent's insurance includes outpatient coverage for drug, alcohol, and mental health services.

Religion. There are three religion variables identified: the importance of religion, evangelical orientation, and public and private religious behavior. Importance of religion was measured by asking the respondent whether they consider religion to be very important or somewhat important.

The variable evangelical orientation is measured by whether the respondent considers him/herself to be "born again" (if they had a turning point in their life when they committed themselves to Jesus Christ). It is also measured by the respondent encouraging others to believe in Jesus and to accept Him as their savior. The last measure of evangelical orientation is asking the respondent to agree or disagree with the following question: "The Bible is the actual Word of God and is to be taken literally, word for word." The small number on non-Christian respondents were coded as "no" or "disagree" on the above variables.

The last component of the religion variables is public and private religious behavior. This was measured by the following questions: 1) how often do you attend religious services---more than once a week, about once a week, 1 to 3 times a month, less than once a month or never? 2) When you have problems or difficulties in your family, work, or personal life, how often do you seek spiritual comfort---almost always, often, sometimes, rarely, or never? and 3) When you have decisions to make in your daily life, how often do you ask yourself what God would want you to do---almost always, often, sometimes, rarely, or never?

Treatment. Another variable used in this study is psychiatric or substance treatment of the respondents. Treatment is divided into two categories, type of treatment, and the conditions of treatment. The types of treatment include professional treatment, specialty treatment, and substance abuse treatment. Professional treatment includes seeking the services of a psychiatrist or a psychologist. Specialty treatment entails getting treatment for a disorder, but not specifically for substance abuse. Substance abuse treatment involves getting treatment for a specific alcohol or drug disorder.

Respondents were asked to identify conditions of treatment by identifying the following factors which applied to their situation: 1) Currently in treatment, 2) I got well enough that I did not need treatment any more, 3) My health insurance would not cover any more treatment, 4) The treatment was not helping, 5) It (treatment) was too expensive, 6) I was scared of being put into the hospital against my will, 7) There was a language problem, and 8) I wanted to solve the problem on my own.

Employment and Marital Status. The last two control variables are employment and marital status. Employment was divided into three categories for this study. The categories are; employed as a homemaker, employed as a worker, and employed as a student. Marital status is divided into three categories in which the respondents are identified as married, never married, or as separated, widowed, or divorced.

3.3 Form of the Analysis

All data in the study were analyzed using logistic regression. The level of significance in all of the analyses is at the .05 level (p. $\leq$ .05). The first five tables include all respondents from the sample in the analysis. Tables 6 through 15 include only those respondents with lifetime disorders. The first six tables are separated into alcohol and drug use, abuse and dependence, with and without controls for income and education. In all of the regression analyses, whites are the comparison category.

Demographic Characteristics of the Sample. Table 1 presents the demographic characteristics of the entire sample. The entire sample is representative of the Unites States Population. In this survey, a weight was used to adjust the data to approximate the national population distributions of the cross-classification of age, sex, race/ethnicity, marital status, education, living arrangements, region, and urbanicty as defined by the 1989 U.S. National Health Interview Survey (NHIS) (Kessler et al., 1994).

In Part I of the survey there were 8,098 respondents. In Part II the sample is reduced to 5,877 respondents. This study relies on the data in part II of the survey. The

figures in Table 1 show that the sample is mixed racially. Whites represent 75.6% of all respondents, blacks represent 11.6%, Hispanics represent 9.4% and 3.4% fall into the "other" category.

This sample is also diverse in the education levels of respondents. The majority of respondents (35%) claim to have 12 years of education, 23.2% have 13-15 years, 21.6% have 0-11 years, and 20.2% have 16 or more years of education. Another relevant variable is the marital status of the respondents. Most of the respondents are married (54.0%), while 32.2% have never been married and only 13.8% have been separated, widowed, or divorced. These categorical breakdowns are comparable to the demographic characteristics of the United States. Also, note that demographic characteristics are similar for both parts of the survey. The respondents are representative of the US population in all areas. It is also representative in the age, urbanicity, sex and regional location of the respondents.

Table 1. Demographic Characteristics of the Sample

		US Population(NHIS)	NCS Part I Weighted	NCS Part II Unweighted
Sex	Male	49.1%	49.5%	50.3%
	Female	50.9	50.5	49.7
Race	White	75.0%	75.3%	75.6%
	Black	11.9	11.5	11.6
	Hispanic	8.6	9.7	9.4
	Other	4.5	3.5	3.4
Education	0-11	22.5%	22.3%	21.6%
	12	36.8	37.4	35.0
	13-15	21.2	21.7	23.2
	16+	19.5	18.6	20.2
Marital Status	Married	59.8%	56.9%	54.0%
	Sep/Wid/Div	10.1	12.5	13.8
	Never Married	30.1	30.5	32.2
Region	North East	20.0%	20.2%	20.7%
	Mid West	24.6	23.8	24.1
	South	33.7	36.4	35.3
	West	21.7	19.6	19.9
Age	15-24	25.5%	24.7%	24.8%
	25-34	30.8	30.1	30.6
	35-44	25.9	27.2	27.6
	45+	17.8	18.0	17.0
Urbanicity	Metropolitan	71.2%	45.1%	46.3%
	Urban	8.1	33.2	32.4
	Rural	20.7	21.6	21.3
Total		(65244)	(8098)	(5877)

Chapter 4:

Analysis and Findings

In this chapter, findings from the data analyses, are presented. In the first part of the analysis, various analyses are presented showing the racial differences in lifetime and 12-month alcohol and drug use, abuse, and dependence, with controls for income and education. In the second part, control variables for insurance, religion, treatment, employment and marital status are added to the analysis.

4.1 Overall Alcohol and Drug Use, Abuse, and Dependence

Figures in Tables 2-5 show logistic regressions based on the entire sample of those surveyed. In all of these tables, the odds ratio is shown only for race variables. The information in table 2 shows the logistic regressions of alcohol use, abuse, and dependence on race, with and without controls for income and education. The data show that African-Americans are less likely than whites to **use alcohol**. These findings are significant with and without the controls. The data in table 2 show that blacks are also less likely than whites to have **alcohol abuse** (with or without dependence), and **alcohol dependence** with odds ratios of .296 and .350, respectively. All of the above-mentioned findings are significant at the .05 level.

Table 3 is similar to table 2, but it shows the regressions of drug use, abuse and dependence. As expected, the findings show that whites are more likely than the other racial groups to **use drugs**, with and without the controls for income and education. The odds-ratio for blacks having **drug abuse** (with or without dependence) without controls is

.451, and with these controls the odds-ratio is .402. The odds ratio for blacks having **drug dependence** without controls is .540, and with these controls it is .446.   All findings are significant at the .05 level.

4.2 Alcohol and Drug Use, Abuse and Dependence in the Past 12-months

The analysis in Table 4 shows alcohol abuse and dependence in the past 12-months by race, with and without controls for education and income in the past 12-months. In relation to alcohol abuse, the odds ratio for blacks without controls is not significant. However, the same odds-ratio with controls is significant at the .05 level. This finding shows that blacks are less likely than whites to have **abused alcohol** in the past 12 months. The second part of the table illustrates that blacks are less likely than whites to have **alcohol dependence** in the past 12 months. Both of the findings (with and without controls) are significant.

The data in Table 5 illustrate the logistic regression of past 12-month drug abuse and dependence by race, with and without controls for education and income. In relation to **drug abuse**, none of the odds-ratios in relation to race were found to be significant. For **drug dependence**, only one of the odds-ratios for blacks is significant. With controls, blacks are less likely than whites to have drug dependence in the past 12-months. The odds ratio for blacks is .600.

Table 2. Logistic regressions of alcohol use, abuse, and dependence on race, without controls, and with controls for income and education (odds-ratios shown only for race variables).

Alcohol Use

	Odds Ratio Without Controls	Odds Ratio With Controls
Race		
White	1.000	1.000
Black	.635*	.696*
Hispanic	.550*	.742*
Other	.198*	.183*
df	3	9
Model X^2	116.889	252.536
Pseudo R^2	.034	.072

Alcohol Abuse with or without Dependence

	Odds Ratio Without Controls	Odds Ratio With Controls
Race		
White	1.000	1.000
Black	.296*	.264*
Hispanic	.822*	.759*
Other	.500*	.466*
df	3	9
Model X^2	154.320	218.838
Pseudo R^2	.029	.041

Alcohol Dependence

	Odds Ratio Without Controls	Odds Ratio With Controls
Race		
White	1.000	1.000
Black	.350*	.308*
Hispanic	1.000	.867
Other	.586*	.552*
df	3	9
Model X^2	76.963	125.283
Pseudo R^2	.017	.028

* $p. <= .05$

Table 3. Logistic regressions of drug use, abuse, and dependence on race, without controls, and with controls for income and education (odds-ratios shown only for race variables).

Drug Use

	Odds Ratio Without Controls	Odds Ratio With Controls
Race		
White	1.000	1.000
Black	.635*	.604*
Hispanic	.716*	.783*
Other	.371*	.324*
df	3	9
Model X^2	106.269	287.540
Pseudo R^2	.017	.047

Drug Abuse with or without Dependence

	Odds Ratio Without Controls	Odds Ratio With Controls
Race		
White	1.000	1.000
Black	.451*	.402*
Hispanic	.830	.765*
Other	.602*	.536*
df	3	9
Model X^2	41.238	76.428
Pseudo R^2	.010	.019

Drug Dependence

	Odds Ratio Without Controls	Odds Ratio With Controls
Race		
White	1.000	1.000
Black	.540*	.446*
Hispanic	.862	.705*
Other	.531*	.468*
df	3	9
Model X^2	21.445	79.555
Pseudo R^2	.006	.024

* p. $\leq$ .05

Table 4. Past 12-month alcohol abuse and dependence by race, with and without controls for education and income.

Alcohol Abuse

	Odds Ratio Without Controls		Odds Ratio With Controls
Race			
White	1.000		1.000
Black	.635		.532*
Hispanic	.649		.544*
Other	.434		.395
df	3		9
Model X^2	8.012		29.060
Pseudo R^2	.005		.017

Alcohol Dependence

	Odds Ratio Without Controls		Odds Ratio With Controls
Race			
White	1.000		1.000
Black	.390*		.323*
Hispanic	1.243		1.019
Other	.602		.547*
df	3		9
Model X^2	38.306		100.392
Pseudo R^2	.012		.031

* $p. \leq .05$

Table 5. Past 12-month drug abuse and dependence by race, with and without controls for education and income.

	Drug Abuse		
	Odds Ratio Without Controls		Odds Ratio With Controls
Race			
White	1.000		1.000
Black	.406		.357
Hispanic	.423		.368
Other	1.331		1.237
df	3		9
Model X^2	6.417		21.061
Pseudo R^2	.009		.028

	Drug Dependence		
	Odds Ratio Without Controls		Odds Ratio With Controls
Race			
White	1.000		1.000
Black	.821		.600*
Hispanic	1.377		.917
Other	.087*		.073*
df	3		9
Model X^2	15.510		86.631
Pseudo R^2	.008		.047

*p. $\leq$ .05

4.3 12-month Substance Abuse Disorders

Unlike tables 2 through 5, which showed the odds ratios for all respondents in the survey, tables 6 through 15 only show the odds ratios for only those respondents with

lifetime disorders. Table 6 shows the logistic regressions of 12-month alcohol disorders with and without controls for income and education. Part one of this table shows that the odds ratio for **12-month alcohol abuse** for blacks, without controls, is 1.969. With controls, the odds ratio is 1.870. These findings are significant at the .05 level. These results show that African-Americans with lifetime disorders are more likely than whites with the same disorders to have **12-month alcohol abuse**. The findings for race and **12-month alcohol dependence** are not significant.

Table 7 presents the logistic regressions of 12-month drug disorders with and without controls for income and education. The findings for race and **12-month drug abuse** are not statistically significant. The second part of the table shows that among those respondents with lifetime **drug dependence** (without controls), African-Americans are twice as likely as whites to have **drug dependence** within the last twelve months. The odds ratio for blacks without controls is 1.996, blacks with controls the odds ratio is 2.177. Both of these findings are significant at the .05 level.

In sum, Tables 6 and 7 show that among respondents with lifetime disorders blacks do not have an advantage over whites in relation to substance abuse and dependence. In contrast to the earlier findings, African-Americans are the same or even worse than whites with 12-month alcohol and drug abuse and dependence.

Table 6. Logistic regressions of 12-month alcohol disorders with and without controls for income and education (odds-ratios shown only for race variables); respondents with lifetime disorders only.

	12-month Alcohol Abuse among Respondents with Lifetime Alcohol Abuse	
	Odds Ratio Without Controls	Odds Ratio With Controls
Race		
White	1.000	1.000
Black	1.969*	1.870*
Hispanic	.740	.659
Other	.749	.659
df	3	9
Model X^2	6.869	14.848
Pseudo R^2	.007	.016

	12-month Alcohol Dependence among Respondents with Lifetime Alcohol Dependence	
	Odds Ratio Without Controls	Odds Ratio With Controls
Race		
White	1.000	1.000
Black	1.109	1.076
Hispanic	1.557*	1.456
Other	.985	.858
df	3	9
Model X^2	5.203	28.593
Pseudo R^2	.006	.033

*p. $\leq$ .05

Table 7. Logistic regressions of 12-month drug disorders with and without controls for income and education (odds-ratios shown only for race variables); respondents with lifetime disorders only.

12-month Drug Abuse among Respondents with Lifetime Drug Abuse

	Odds Ratio Without Controls	Odds Ratio With Controls
Race		
White	1.000	1.000
Black	.834	.937
Hispanic	.481	.449
Other	2.314	2.009
df	3	9
Model X^2	3.847	18.177
Pseudo R^2	.010	.048

12-month Drug Dependence among Respondents with Lifetime Drug Dependence

	Odds Ratio Without Controls	Odds Ratio With Controls
Race		
White	1.000	1.000
Black	1.996*	2.177*
Hispanic	2.265*	1.713
Other	.104	.082*
df	3	9
Model X^2	19.429	56.493
Pseudo R^2	.043	.121

*$p. <\!/= .05$

4.4 Controls for Insurance

Table 8 presents the logistic regressions of 12-month alcohol disorders with controls for insurance variables. There are three kinds of insurance variables; having any health insurance, having coverage for hospitalization, and having coverage for outpatient care. The odds ratio associated with being Black and having health insurance is 1.972, for

12-month alcohol abuse. For **12-month alcohol abuse**, being black with hospital coverage the odds ratio is 2.021. For those with outpatient coverage, the odds ratio is 2.016. All of these findings are significant at the .05 level. The findings for **12-month alcohol dependence** and race controlling for insurance variables produced no change in patterns of findings. The race difference is not explained when controlling for insurance.

Table 8. Logistic regressions of 12-month alcohol disorders with controls for income, education, and insurance variables (odds-ratios shown only for race variables); respondents with lifetime disorders only.

	12-month Alcohol Abuse among Respondents with Lifetime Alcohol Abuse		
	Controls include Health Insurance Overall	Controls include Hospitalization Coverage for Drug, Alcohol, and Mental Health Services	Controls include Outpatient Coverage for Drug, Alcohol, and Mental Health Services
Race			
White	1.000	1.000	1.000
Black	1.972*	2.021 *	2.016*
Hispanic	.713	.748	.746
Other	.769	.748	.762
df	10	13	13
Model X^2	9.738	10.684	10.185
Pseudo R^2	.015	.016	.015

	12-month Alcohol Dependence among Respondents with Lifetime Alcohol Dependence		
	Controls include Health Insurance Overall	Controls include Hospitalization Coverage for Drug, Alcohol, and Mental Health Services	Controls include Outpatient Coverage for Drug, Alcohol, and Mental Health Services
Race			
White	1.000	1.000	1.000
Black	1.086	1.120	1.097
Hispanic	1.362	1.401	1.376
Other	.627	.635	.647
df	10	13	13
Model X^2	23.755	27.023	28.529
Pseudo R^2	.037	.043	.045

*p. </= .05

Table 9 is similar to the previous table, but the findings show the 12-month drug abuse and dependence for race with controls for insurance. None of the findings for **12-month drug abuse** is statistically significant. However, the results for **12-month drug dependence** did produce significant findings. African-Americans with health insurance (overall) are more likely than whites to experience drug dependence within the past twelve months. The odds ratio for this finding is 2.259. For being black and having hospitalization coverage, the odds ratio is 2.854, while the odds ratio for outpatient coverage is 2.802. Once again, these findings are significant at the .05 level, however, they do not explain the race differences in drug abuse and dependence.

4.5 The Effects of Religion

The data in Tables 10 and 11 present the logistic regressions of 12-month alcohol and drug disorders for race with controls for religion variables. The first part of Table 10, shows **12-month alcohol abuse** controlling for "the importance of religion," African-Americans have a statistically significant odds ratio of 2.369. The odds ratio for race, controlling for evangelical orientation and **12-month alcohol abuse** is 2.487 and when controlling for public and private religious behavior, the ratio is 2.338. All of these findings are significant at the .05 level. The findings for **12-month alcohol dependence** are not statistically significant. Controlling for the religion variables does not explain the pattern of findings and does not explain the impact of race on alcohol abuse and dependence.

Table 9. Logistic regressions of 12-month drug disorders with controls for income, education, and insurance variables (odds-ratios shown only for race variables); respondents with lifetime disorders only.

	12-month Drug Abuse among Respondents with Lifetime Drug Abuse		
	Controls include Health Insurance Overall	Controls include Hospitalization Coverage for Drug, Alcohol, and Mental Health Services	Controls include Outpatient Coverage for Drug, Alcohol, and Mental Health Services
Race			
White	1.000	1.000	1.000
Black	1.122	.990	1.067
Hispanic	.482	.523	.525
Other	2.780	2.983	3.126
df	10	13	13
Model X^2	16.833	25.706	21.278
Pseudo R^2	.062	.095	.079

	12-month Drug Dependence among Respondents with Lifetime Drug Dependence		
	Controls include Health Insurance Overall	Controls include Hospitalization Coverage for Drug, Alcohol, and Mental Health Services	Controls include Outpatient Coverage for Drug, Alcohol, and Mental Health Services
Race			
White	1.000	1.000	1.000
Black	2.259*	2.854 *	2.802*
Hispanic	1.414	1.476	1.491
Other	.131	.134	.140
df	10	13	13
Model X^2	30.158	32.539	33.499
Pseudo R^2	.091	.099	.102

*p. $\leq$ .05

Table 10. Logistic regressions of 12-month alcohol disorders with controls for religion variables (odds-ratios shown only for race variables); respondents with lifetime disorders only.

12-month Alcohol Abuse among Respondents with Lifetime Alcohol Abuse

	Controls include Importance of Religion	Controls include Evangelical Orientation Private	Controls include Public and Religious Behavior
Race			
White	1.000	1.000	1.000
Black	2.369*	2.487 *	2.338*
Hispanic	.833	.715	.791
Other	.799	.797	.844
df	11	12	12
Model X^2	28.450	34.520	23.030
Pseudo R^2	.043	.052	.035

12-month Alcohol Dependence among Respondents with Lifetime Alcohol Dependence

	Controls include Importance of Religion	Controls include Evangelical Orientation	Controls include Public and Private Religious Behavior
Race			
White	1.000	1.000	1.000
Black	1.401	1.254	1.347
Hispanic	1.488	1.337	1.464
Other	.745	.760	.795
df	11	12	12
Model X^2	46.083	58.935	39.088
Pseudo R^2	.072	.092	.061

*p. </= .05

Controlling for religion variables does not substantively explain the impact of race on 12-month drug abuse or 12-month drug dependence. The odds ratio for African-Americans when controlling for the importance of religion, is 2.480. When controlling for evangelical orientation the odds ratio is 2.439, and controlling for religious behavior it

is 2.614. These findings are all statistically significant at the .05 level. In sum,

controlling for religion variables does not change the pattern of findings or explain the

race difference in 12-month drug abuse and dependence.

Table 11. Logistic regressions of 12-month drug disorders with controls for religion variables (odds-ratios shown only for race variables); respondents with lifetime disorders only.

	12-month Drug Abuse among Respondents with Lifetime Drug Abuse		
	Controls include Importance of Religion	Controls include Evangelical Orientation	Controls include Public and Private Religious Behavior
Race			
White	1.000	1.000	1.000
Black	1.370	1.285	1.403
Hispanic	.508	.460	.538
Other	2.579	2.776	2.749
df	11	12	12
Model X^2	20.610	15.769	19.376
Pseudo R^2	.076	.059	.071

	12-month Drug Dependence among Respondents with Lifetime Drug Dependence		
	Controls include Importance of Religion	Controls include Evangelical Orientation	Controls include Public and Private Religious Behavior
Race			
White	1.000	1.000	1.000
Black	2.480*	2.439*	2.614*
Hispanic	1.475	1.438	1.551
Other	.165	.181	.173
df	11	12	12
Model X^2	38.731	29.753	48.254
Pseudo R^2	.115	.092	.142

*p. $\leq$ .05

4.6 Analyzing the Treatment Variables

The analysis in Tables 12 and 13 present the logistic regressions of 12-month

alcohol and drug disorders for race controlling for treatment. The treatment variable is

divided into two categories, the type of treatment and the conditions of treatment. The

first component of Table 12 addresses **12-month alcohol abuse**. The odds ratio for

being African-American and controlling for the type of treatment is 1.838. When

controlling for the conditions of the treatment and being black the odds ratio is 1.965.

The second component of the table**, 12-month alcohol dependence**, produced no

significant findings for race variables.

The first component of Table 13 addresses the **12-month drug abuse** of

respondents. There are no significant results in this portion of the table. However, the

second component, which examines the **12-month drug dependence** of respondents, has

two significant results. When being black and controlling for the type of treatment, the

odds ratio is 2.459. When controlling for the conditions of treatment, the odds ratio is

2.677.

However, the findings in tables 12 and 13 show that controlling for treatment

variables does not change the patterns of findings or explain the racial difference in 12-

month alcohol and drug abuse and dependence.

Table 12. Logistic regressions of 12-month alcohol disorders with controls for treatment variables (odds-ratio shown only for race variables); respondents with lifetime disorders only.

12-month Alcohol Abuse among Respondents with Lifetime Alcohol Abuse

	Controls include Type of Treatment	Controls include Conditions of Treatment
Race		
White	1.000	1.000
Black	1.838*	1.965*
Hispanic	.677	.709
Other	.707	.760
df	12	17
Model X^2	29.791	15.552
Pseudo R^2	.044	.023

12-month Alcohol Dependence among Respondents with Lifetime Alcohol Dependence

	Controls include Type of Treatment	Controls include Conditions of Treatment
Race		
White	1.000	1.000
Black	1.109	1.170
Hispanic	1.402	1.537
Other	.663	.762
df	12	17
Model X^2	28.283	36.813
Pseudo R^2	.034	.058

*p. $<$/= .05

Table 13. Logistic regressions of 12-month drug disorders with controls for treatment variables (odds-ratio shown only for race variables); respondents with lifetime disorders only.

12-month Drug Abuse among Respondents with Lifetime Drug Abuse

	Controls include Type of Treatment	Controls include Conditions of Treatment
Race		
White	1.000	1.000
Black	1.003	1.097
Hispanic	.448	.513
Other	1.903	2.356
df	12	17
Model X^2	22.863	17.157
Pseudo R^2	.084	.064

12-month Drug Dependence among Respondents with Lifetime Drug Dependence

	Controls include Type of Treatment	Controls include Conditions of Treatment
Race		
White	1.000	1.000
Black	2.459*	2.677*
Hispanic	1.429	1.479
Other	.138	.148
df	12	17
Model X^2	30.831	52.893
Pseudo R^2	.093	.156

*$p. <\!/= .05$

4.7 The Effects of Employment and Marital Status

In Tables 14 and 15 the logistic regression for race is controlled for employment and marital status. In Table 14, being black and controlling for employment, the odds ratio is 2.130. The odds ratio of being black and controlling for marital status is 2.074.

This is also significant at the .05 level. The second module of Table 14 examines the **12-month alcohol dependence** of respondents. None of the findings in this section are significant.

Table 14. Logistic regressions of 12-month alcohol disorders with controls for employment and marriage variables (odds-ratio shown only for race variables); respondents with lifetime disorders only.

	12-month Alcohol Abuse among Respondents with Lifetime Alcohol Abuse	
	Controls include Employment Status	Controls include Marital Status
Race		
White	1.000	1.000
Black	2.130*	2.074*
Hispanic	.725	.661
Other	.700	.794
df	12	11
Model X^2	22.907	24.400
Pseudo R^2	.034	.036

	12-month Alcohol Dependence among Respondents with Lifetime Alcohol Dependence	
	Controls include Employment Status	Controls include Marital Status
Race		
White	1.000	1.000
Black	1.130	.970
Hispanic	1.396	1.214
Other	.544	.810
df	12	11
Model X^2	52.843	72.696
Pseudo R^2	.082	.111

*p. </= .05

Table 15. Logistic regressions of 12-month drug disorders with controls for employment and marriage variables (odds-ratio shown only for race variables); respondents with lifetime disorders only.

	12-month Drug Abuse among Respondents with Lifetime Drug Abuse	
	Controls include Employment Status	Controls include Marital Status
Race		
White	1.000	1.000
Black	1.249	.989
Hispanic	.508	.393
Other	2.153	2.959
df	12	11
Model X^2	23.095	26.729
Pseudo R^2	.085	.098

	12-month Drug Dependence among Respondents with Lifetime Drug Dependence	
	Controls include Employment Status	Controls include Marital Status
Race		
White	1.000	1.000
Black	2.261*	2.005
Hispanic	1.175	1.214
Other	.089	.141
df	12	11
Model X^2	49.635	42.641
Pseudo R^2	.146	.126

*p. </= .05

Table 15 is similar to table 14, but it examines the 12-month drug abuse and dependence of respondents. In the first section of this table (12-month drug abuse), there are no statistically significant results. In the second part of the table there is only one statistically significant finding. The odds ratio for being blacks and controlling for employment is 2.261. The odds ratio for race when controlling for marital status is not significant.

In sum, the findings in Tables 14 and 15 do not change the patterns of findings or explain the racial differences. When controlling for employment status, the race difference is not substantively explained. In addition, marital status does not explain the impact of race on 12-month alcohol and drug abuse and dependence.

4.8 Interaction Analysis

The findings just presented do not provide an explanation for the racial differences in recurrent drug use. However, after performing interaction analyses (shown in Appendix B) to examine the effects of the control variables separated for blacks and whites some differences were found.

Insurance Variables. The findings of the interaction analysis show that the effects of having insurance are not different for blacks and whites. There were no differences found in the effects of having total and partial hospitalization coverage. Finally, there are no racial differences in the effects for those respondents who "don't know" if they have hospitalization coverage. While some differences may be found in the analysis, the effects are not consistent in any one area.

Religion. The analysis of the effects of religion on alcohol and drug use, abuse, and dependence produced some differences in affects between blacks and whites. There are very small differences among those identified as very religious with respect to alcohol abuse, alcohol dependence and drug dependence. There are also small racial differences

in the alcohol abuse of those who proselytize, claim to be born again, and those who seek spiritual comfort. Even though there are some small differences in this analysis, there are no consistent patterns showing that religion is better for either blacks or whites.

Types of Treatment. The interaction analysis for the types of treatment produced interesting results. This analysis shows that treatment is more effective for whites than for African-Americans. Treatment reduces drug abuse for whites, but for blacks, it does not have an effect, or it may even worsen the drug abuse. The next step is to find out why the type of treatment has such different effects in regard to race.

Conditions of Treatment. When analyzing the effects of the conditions of treatment on race, there are not any significant findings. The number of black respondents in this portion of the sample was too small to conduct a proper analysis.

Marital Status. The effects of marital status on race produced some interesting data. There are some racial differences in the effects of marriage. The analysis shows that marriage is not as protective for blacks as it is for whites. Among whites, being married is consistently protective of alcohol and drug disorders, as compared to never being married. However, this is not true for African-Americans. For whites, being married decreases the chance of alcohol and drug abuse, and drug dependence, but not for alcohol dependence.

Employment Status. There are no consistent findings that employment status has

different implications for whites and blacks. However, employment does seem to be

more protective for whites in relation to alcohol dependence. Otherwise, the results are

inconclusive.

Chapter Five:

Conclusions

This study has analyzed several variables in an attempt to explain race and recurrent drug use. However, most of the variables (insurance, religion, and socio-economic status) fail to explain the racial differences in alcohol and drug use, abuse and dependence. However, this does not mean that it is impossible to know why African-Americans are more likely than whites to have recurrent substance abuse disorders. This means that there is a need for additional research in this area.

It is not surprising that insurance, religion, and socio-economic status did not explain the relationship between race and recurrent drug use. However, the interaction analysis for the types of treatment produced very valuable results. The analysis shows that treatment is more effective for whites than blacks. This is consistent with the findings in a 1999 evaluation of a drug court treatment program. The evaluation found that among those enrolled, 76.9% of whites are successfully completing the program, as opposed to approximately 38% of blacks (Shoemaker, 1999).

The results of this study and of other research imply that there are some factors within the actual treatment program that are more beneficial to the white participants. There are several possible explanations that may explain this phenomenon. A 1988 study by Manuel Singer argues that there is a widespread recognition that existing programs for the treatment of alcoholism and drug addiction are not sensitive to the cultural characteristics and socio-economic circumstances of special groups (Singer, 1998:3).

According to Singer's research, there are six cultural barriers to the Hispanic utilization of conventional treatment programs:

1. the exclusionary effect of Anglo middle-class provider bias;

2. the reinforcement of stigmatization through the use of labels and treatment approaches;

3. the confusion caused by language differences and socio-cultural distance between clients and provider;

4 . the anti-therapeutic intrusion of culturally determined stereotypes;

5. the discrepancy between patient's expectations and experience in treatment;

6. the inequality of services and care offered to most Hispanic clients (Singer, 1988: 3).

Singer's 1988 study was focused on Hispanic substance abuse; however, the same barriers may apply to other minorities, particularly African-Americans in alcohol and/or drug treatment programs.

In addition to Singer's research on minorities and drug treatment programs, some treatment specialists and researchers recommend an Africentric approach to drug treatment. The Africentric approach involves intervention in ways that affirm the heritage, rights, and responsibilities of African-Americans and using interaction styles, symbols and values shared by members of that group (Longshore et at., 1998: 320). In

this type of treatment, first the client is shown a video, then participates in a counseling session. The video and the counseling approach the dependence as an individual affliction and as community unrest rooted in cultural and power disparities between African-Americans and dominant White institutions (Longshore et al., 1998:320). The treatment providers also structure the discussion of drug use and recovery in a context that acknowledges the totality of life experiences faced by African-Americans (for example, racial prejudice, and low job opportunity).

Another tactic is to present drug-use alternatives with particular meanings to blacks. These alternatives include personal rituals, cultural traditions, and spiritual well-being (Longshore et al., 1998: 322). This type of treatment program is thought to encourage African-Americans to seek treatment for substance abuse disorders and also to encourage them to stay in the program and produce a positive outcome.

Despite all of the research and analyses in this study, there is not a tangible explanation of the relationship between race and recurrent substance abuse. One possible explanation is the presence of structural racism and injustice toward minorities in this society. Merton's theory of anomie provides a suitable explanation for this phenomenon. Anomie refers to inconsistencies between societal conditions and individual opportunities for growth, productivity, and fulfillment within society (Shoemaker, 2000: 92). According to Merton there are five adaptations to anomie; conformity, innovation, ritualism, retreatism, and rebellion. The first level, conformity, involves accepting the goals and means set forth by society. Innovation involves the acceptance of goals, but rejection of the means to obtain the goals (Shoemaker, 2000). Ritualism is the result of rejecting goals, but the means are accepted, and retreatism is the rejection of both goals

and means. Rebellion involves not only rejecting goals and means, but also substituting them with a new set of goals and means (Shoemaker, 2000: 95).

In the United States, white Americans often buy into the notion of the American dream. Therefore, they are more likely to conform to the goals and means of society in order to achieve the American dream. So when whites reject the goals and means of society by using, abusing, or becoming dependent on drugs, they are more likely to stop the drug use in order to rejoin society. The costs are greater for whites who use drugs and the rewards are greater if they stop the drug use.

Due to structural racism and past injustices, the American dream seems unattainable to many African-Americans. Therefore, African-Americans may strive to meet the goals and means set by their own sub-culture, as opposed to those set by the majority (whites) in society. When African-Americans become retreatists and engage in substance use, abuse, and dependence, the costs are lower and the rewards for stopping are also lower than they are for whites, since Blacks become disenfranchised with the so-called American dream. This is one factor that may explain the recurrent and severe substance abuse disorders of African-Americans.

In researching race and recurrent drug use, it is apparent that the variables of socio-economic status, treatment, employment, religion, and marital status are not enough to adequately explain the situation of African-Americans and recurrent drug use. Researchers in this area must explore more structural issues such as racism and the composition of drug treatment programs. This is not a problem that will go away if we ignore it, it will only worsen. Drug treatment programs will not be able to function at full

potential until they are able to accommodate and successfully treat all types of clients, regardless of their race.

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Appendix A. Description of Variables

I. Dependent Variables

A. Alcohol Use:

- Ever used alcohol in lifetime = 1
- Never used alcohol in lifetime = 0

B. Drug Use (use of drugs means non-medical use of tranquilizers, sedatives, amphetamines, analgesics, inhalants, cocaine, marijuana, hashish, hallucinogens or heroin):

- Ever used drugs in lifetime = 1
- Never used drugs in lifetime = 0

C. Alcohol Abuse Lifetime:

- Met DSM-III-R criteria for alcohol abuse lifetime = 1
- Did not meet DSM-III-R criteria for alcohol abuse lifetime = 0

D. Alcohol Dependence Lifetime:

- Met DSM-III-R criteria for alcohol dependence lifetime = 1
- Did not meet DSM-III-R criteria for alcohol dependence lifetime = 0

E. Drug Abuse Lifetime:

- Met DSM-III-R criteria for drug abuse lifetime = 1
- Did not meet DSM-III-R criteria for drug abuse lifetime = 0

F. Drug Dependence Lifetime:

- Met DSM-III-R criteria for drug dependence lifetime = 1
- Did not meet DSM-III-R criteria for drug dependence lifetime = 0

G. Alcohol Abuse in Past 12-Months:

- Met DSM-III-R criteria for alcohol abuse in the 12 months prior to the interview = 1
- Did not meet DSM-III-R criteria for alcohol abuse in the 12 months prior to the interview = 0

H. Alcohol Dependence in Past 12-Months:

- Met DSM-III-R criteria for alcohol dependence in the 12 months prior to the interview = 1
- Did not meet DSM-III-R criteria for alcohol dependence in the 12 months prior to the interview = 0

I. Drug Abuse in the Past 12-Months:

- Met DSM-III-R criteria for drug abuse in the 12-months prior to the interview = 1
- Did not meet DSM-III-R criteria for drug abuse in the 12 months prior to the interview = 0

J. Drug Dependence in the Past 12-Months:

- Met DSM-III-R criteria for drug dependence in the 12-months prior to the interview = 1
- Did not meet DSM-III-R criteria for drug dependence in the 12-months prior to the interview = 0

II. **Independent Variables** (All independent variables are categorical. Categories were converted into dummy variables for the regression analysis. An asterisk (*) indicates the comparison category.)

A. Race:

- White*
- Black
- Hispanic
- Other

B. Gender:

- Male*
- Female

C. Education:

- 0 - 11 years
- 12 years
- 13 - 15 years
- 16+ years*

D. Family Income (in dollars) Per Year:

- 0 - 19,000
- 20,000 - 34,000
- 35,000 - 69,000
- 70,000+ *

E. Marital Status:

- Married or cohabiting*
- Separated, divorced, or widowed
- Never Married

F. Employment Status:

- Employed*
- Keeping house
- Student
- Retired, disabled, and other

G. Insurance:

- Covered by health insurance
- Not covered by health insurance*

H. Hospitalization Insurance Coverage for Drugs, Alcohol, and Mental Illness:

- All hospitalization coverage
- Partial coverage
- Do not know coverage
- No coverage*

I. Outpatient Insurance Coverage for drugs, Alcohol, and Mental Illness:

- All outpatient services coverage
- Partial coverage
- Do not know coverage
- No coverage*

J. Importance of Religion:

- Very important
- Somewhat important
- Not very or not at all important*

K. Evangelical Orientation (three categories):

- "Born again"
  "Not born again"*

- Encourage others to believe
  Do not encourage others*

- Believes that the Bible is the word of God
  Does not believe the Bible is the word of God*

L. Public and Private Religious Behavior (three categories):

- Attend services one a month or more
  Attend less than once a month*

- Seeks spiritual help for problems at least sometimes
  Seeks spiritual help rarely or never*

- Consults God for help with decisions at least sometimes
  Consults God rarely or never*

M. Type of Treatment:

- Professional only (physician, social worker, etc.)
- Specialty care only (psychiatrist, psychologist)
- Substance disorder specialist
- No treatment*

N. Conditions of Treatment During the Past Year:

- In treatment
- Got well, quit treatment
- No insurance, quit treatment
- Treatment did not help, quit
- Treatment too expensive, quit
- Feared hospitalization, quit
- Treatment too much trouble, quit
- Decided to treat self, quit professional treatment
- No Treatment*

Appendix B. Interaction Analyses

	Blacks	**Whites**
Alcohol Abuse		
Health Insurance	.849	1.009
Alcohol Dependence		
Health Insurance	.359	.787
Drug Abuse		
Health Insurance	.356	3.414*
Drug Dependence		
Health Insurance	.600	.675
Alcohol Abuse		
All Hosp	1.723	1.201
Part Hosp	.963	.978
DK Hosp	1.448	1.031
Alcohol Dependence		
All Hosp	.199	.984
Part Hosp	.331	.706
DK Hosp	.482	1.026
Drug Abuse		
All Hosp	6.152	1.184
Part Hosp	.134	3.997*
DK Hosp	**	6.537*
Drug Dependence		
All Hosp	.771	.634
Part Hosp	.743	.690
DK Hosp	4.378	.869
Alcohol Abuse		
AllOutp	.673	1.583
PartOutp	.831	1.014
DKOutp	.141	1.266

	Blacks	Whites
Alcohol Dependence		
AllOutp	.155	1.271
PartOutp	.321	.741
DKOutp	.616	1.091
Drug Abuse		
AllOutp	8.169	.438
PartOutp	.686	.857
DKOutp	**	1.701
Drug Dependence		
AllOutp	.431	.714
PartOutp	.478	.648
DKOutp	2.071	.744
Alcohol Abuse		
RelVery	.894	.319*
RelSomew	2.147	.902
Alcohol Dependence		
RelVery	1.894	.397*
RelSomew	3.523	1.026
Drug Abuse		
RelVery	**	.335*
RelSomew	**	.718
Drug Dependence		
RelVery	.610	.387*
RelSomew	2.651	.656
Alcohol Abuse		
Bornagin	.083*	.843
Prostize	.133	.433*
Bible	5.266	1.390

	Blacks	White
Alcohol Dependence		
Bornagin	.270	.364*
Prostize	.990	.765
Bible	1.498	1.579*
Drug Abuse		
Bornagin	**	1.358
Prostize	**	.588
Bible	.243	1.056
Drug Dependence		
Bornagin	.639	.789
Prostize	.242	.731
Bible	4.600	1.034
Alcohol Abuse		
Attend	.074*	.908
Spircomf	6.622	.548*
AskGod	.631	.948
Alcohol Dependence		
Attend	.576	.675*
Spircomf	.227	.730
AskGod	.253	.887
Drug Abuse		
Attend	.357	1.058
Spircomf	2.757	.759
AskGod	.147	.541
Drug Dependence		
Attend	.132	.375*
Spircomf	.486	.909
AskGod	2.846	.694
Alcohol Abuse		
Profonly	**	.845
Specty	1.854	.610
Subs	3.470	.175*

	Blacks	**Whites**
Alcohol Dependence		
Profonly	1.098	.912
Specty	1.915	.714
Subs	.308	.996
Drug Abuse		
Profonly	**	.400
Specty	3.320	.273*
Subs	5.158	.210*
Drug Dependence		
Profonly	.258	.929
Specty	.182	1.533
Subs	.362	1.703
Alcohol Abuse		
Intreatm	2.205	.453
Insurno		1.207
Gotwell	**	2.066
Nothelpd	**	.332
Tooexp	**	2.033
Fearhosp	**	1.182
Orgprob	**	.150
Selfalon	**	1.016
Alcohol Dependence		
Intreatm	**	1.451
Insurno	**	.206*
Gotwell	**	2.201
Nothelpd	**	3.771
Tooexp	**	.796
Fearhosp	**	2.087
Orgprob	**	1.019
Selfalon	**	6.858

	Blacks	Whites
Drug Abuse		
Intreatm	**	.281
Insurno	.256	1.830
Gotwell	**	.005
Nothelpd	.702	3.368
Tooexp	**	3.521
Fearhosp	**	.003
Orgprob	**	3.386
Selfalon	**	.102
Drug Dependence		
Intreatm	.186	2.590*
Insurno	.278	.105*
Gotwell	**	.432
Nothelpd	**	7.376
Tooexp	**	.506
Fearhosp	**	.489
Orgprob	**	8.507
Selfalon	**	7.988*
Alcohol Abuse		
Marswd	.406	1.626
Marnev	.238	2.615*
Alcohol Dependence		
Marswd	1.107	1.277
Marnev	8.730	3.583*
Drug Abuse		
Marswd	1.226	.818
Marnev	.451	4.363*
Drug Dependence		
Marswd	**	1.232
Marnev	.398	3.021*

	Blacks	**Whites**
Alcohol Abuse		
Emph	**	.564
Empst	**	3.353*
Empoth	2.107	.818
Alcohol Dependence		
Emph	.763	.492*
Empst	1.231	3.655
Empoth	.619	1.309*
Drug Abuse		
Emph	**	.184
Empst	1.618	2.927*
Empoth	**	.239
Drug Dependence		
Emph	**	1.265
Empst	**	1.229*
Empoth	4.310	2.992*

*p. </= .05

** Low precision estimate

Tannisha D. Bell

Home Address

200 Houndschase Lane
Apt. F
Blacksburg, VA 24060
(540) 951-1377
 email: tbell@vt.edu

Business Address

 560 McBryde Hall
 Sociology Dept.
 Virginia Tech
 Blacksburg, VA 24060
 phone: (540) 231-8971
 fax: (540) 231-3380

Education

Master of Science, Sociology, Expected May 13, 2000
Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, VA
Thesis: An Examination of Race and Recurrent Substance Problems in the United
States (defended on April 17, 2000).
Advisor: Dr. Donald J. Shoemaker

Bachelor of Arts, Political Science; Double Major Sociology, May 1998
Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, VA
(Earned 100% of living expenses last two years)

Honors/Affiliations

Alpha Kappa Delta, Sociology Honor Society
Black Graduate Student Organization
Delta Sigma Theta Sorority Incorporated, Community Service Organization

Research Interests

Deviant behavior
Criminology
Juvenile delinquency
Substance Abuse Disorders

Related Experience

Graduate Assistant, College of Arts and Sciences Cultural Diversity Committee
Virginia Tech, Blacksburg, VA May 1999 – present

- Dissemination of Information
- Coordination of departmental mentoring programs

- Clerical processing of grant applications
- Assist in program evaluations, gathering data, statistics, quantitative/qualitative analysis
- Maintenance of CDC website
- Collection of data
- Data Analysis

Research Assistant, Dr. Donald J. Shoemaker, Department of Sociology, Virginia Tech, Blacksburg, VA, April 1999-September 1999

- Collection of data
- Data Analysis
- Conducted interviews
- Devised codebook

Graduate Teaching Assistant, Department of Sociology, Virginia Tech, Blacksburg, VA, August 1998 – May 1999

- Assisted undergraduate students during office hours
- Devised exams
- Graded assignments
- Proctored exams