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Roya Mavaddat

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Clifford L. Broman
Major professor

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ALCOHOL USE AMONG BLACKS AND WHITES: THE ROLE OF SOCIAL ISOLATION

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Roya Mavaddat

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ABSTRACT

ALCOHOL USE AMONG BLACKS AND WHITES: THE ROLE OF SOCIAL ISOLATION

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Roya Mavaddat

This paper illustrates the necessity of examining the role of social isolation in drinking patterns of blacks versus whites. Previous studies have explored social isolation in relationship to alcohol use; however, they have failed to examine the three dimensions of social isolation as it relates to alcohol use. Moreover, researchers have failed to examine the role of social isolation in alcohol use as it varies with race and socioeconomic status.

The present study employs a national survey, entitled Americans' Changing Lives. This survey was conducted in 1986 and includes a sample of 3,617 respondents. Blacks were sampled at twice the rates of whites and they constitute 30.2 percent of the respondents. When examining social isolation in relationship to alcohol use, we found that 1) frequency of attending meetings lessens alcohol use, and 2) frequency of visiting with friends can both contribute to and lessen alcohol use. When examining social isolation in relationship to race and socioeconomic status, we found that 1) blacks talk on the phone and visit with friends less frequently than whites, 2) the more educated talked on the phone, visited with

friends, and attended meetings more frequently than the less educated, and 3) the more educated blacks talked on the phone, visited with friends, and attended meetings more frequently than the less educated blacks. When examining alcohol use in relationship to social isolation and race, we found that frequency of visiting with friends and attending meetings predicted alcohol use among both whites and blacks.

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CHAPTER ONE

INTRODUCTION

The objective of this study is to examine the role of social isolation in the drinking pattern of blacks vs. whites. Examining the different patterns of drinking among blacks and whites is increasingly recognized as important (Herd 1989). Strategies for preventing alcohol-related problems among blacks can only be effective if their different drinking patterns are examined. The black population would benefit little if prevention programs are developed and implemented with the assumption that blacks have the same drinking patterns as whites. It is therefore necessary to know why the drinking patterns of the black population differ from the white population, and how social psychological influences such as social isolation may predict alcohol use in the black population.

Developing an explanation for drinking among blacks is critical since blacks more than whites suffer from the consequences of heavy drinking. Blacks exhibit the highest rates of drinking-related problems (medical, personal and social) (U.S. DHHS 1985; U.S. DHHS 1986; U.S. DHHS 1990; Herd 1989; Harper & Saifnoorian 1991). Although most black men start drinking heavily at a later age, they have more health problems and dependency due to drinking than white men (U.S. DHHS 1986; U.S. DHHS 1990).

Compared to whites, blacks have greater risk of mortality due to cirrhosis of the liver, esophageal cancer and other diseases (Herd 1989). One consequence of heavy drinking is greater risk of mortality from cirrhosis of the liver. A recent report shows that "... nonwhite males in the 25-34 year age bracket are 10 times more likely than whites to die of liver cirrhosis, and for all ages, the cirrhosis mortality rate for blacks is almost twice as high as the rate for whites" (Herd 1989).

Blacks experience the highest rate of social-consequence drinking problems (U.S. DHHS 1986). Blacks have high rates of homicides and adult unintentional injuries due to alcohol consumption (U.S. DHHS 1985). Heavy drinking among blacks tends to contribute to black family disruptions and problems such as gambling, sexual infidelity, loss of money, unstable work habits, family violence, neglect of parental responsibility, and damage to household property (Harper & Saifnoorian 1991).

Blacks are overrepresented in alcohol-specific treatment agencies around the country. In one study, blacks were overrepresented in the Alcohol Treatment Centers by about 40 percent (Herd 1989). In addition, they are more vulnerable to traffic accidents due to alcohol consumption (U.S. DHHS 1985). In a study of traffic fatalities, 69 percent of blacks compared to 45 percent of whites were found to be drinking; 50.6 percent of the blacks compared

with 26.5 percent of whites were found to have blood alcohol consumption above 0.15 percent (Herd 1989).

In sum, this proposed research is designed to provide information on the role of social isolation in drinking patterns of blacks versus whites. If social isolation is found to be more significant for drinking among blacks than among whites, then prevention programs aimed at blacks have to be designed in aiding blacks to establish ties in the society.

The data which will be used to conduct this research has a significant number of blacks so that social isolation can be examined in relation to drinking behavior of blacks versus whites. Only the black population as a minority group is examined since the data does not include an adequate number of other minority groups such as the Hispanics or American Indians.

In the following section, I will review the literature concerning black-white differences in health behavior, in general, and alcohol use, in particular. I will also review the literature on social isolation as it relates to health, mental health and alcohol use.

RELEVANT LITERATURE

Black-white health behavior differential

Individual health practices can be traced back to surrounding social structures and the location of the individuals within them. The most influential of these structures are the various systems of stratification, such as those based on social and economic class, race and ethnicity. When unequal distribution of resources or opportunities exist in the system, individuals face different life conditions. In this section, I will review studies which examine the patterns of black vs. white differences in health behavior, in general.

Studies show that blacks have higher rates of risky health behavior than whites (Berkman & Breslow 1983; U.S. DHHS 1985; Schoeborn 1986; Jaynes & Williams 1989; Williams 1990). Berkman & Breslow (1983) in Health and Ways of Living established a relationship between socioeconomic status (SES) and poor health practices. They argued that people in the lower SES have higher morbidity and mortality rates. They also noted that lower SES people practice certain unhealthy behaviors, such as smoking and overeating (Berkman & Breslow 1983:134). Berkman & Breslow also found that black men and women are much more likely to engage in high-risk health practices than other groups (Berkman &

Breslow 1983:101). In a follow up study, the "Alameda 7", seven healthy habits, smoking, drinking, sleeping 7-8 hours a night, exercising, maintaining desirable weight, avoiding snacks, and eating breakfast were examined (Schoenborn 1986). Blacks scored the highest on the unhealthy behavior scale. Only 7 percent of black men and 4 percent of black women reported six or seven good health habits, whereas 13 percent of white men and 12 percent of white women reported six or seven good health habits. Almost half of the blacks reported three or fewer good habits (Schoenborn 1986:578). Consequently, blacks have higher mortality rates than whites and other racial and ethnic groups (Berkman & Breslow 1983:143).

The high risk health behavior among blacks is reflected in the higher rates of substance abuse, cigarette smoking, homicide and alcohol use (U.S. DHHS 1985; Jaynes & Williams 1989). The National Health Survey found that in 1985, within the age group of 20 and older, 41 percent of blacks versus 32 percent of whites smoked tobacco (Jaynes & Williams 1989). Moreover, reports point out that blacks are less likely to attempt to quit or do so successfully. They also tend to smoke cigarettes high in tar content (U.S. DHHS 1985:140). The consequence of tobacco use is morbidity and mortality. The mortality rate per 100,000 people for lung cancer is 95 for black males and 70 for white males. Risk of cardiovascular mortality is also associated with tobacco

use (U.S. DHHS 1985).

Blacks have a higher rate of drug-use and tend to take the more dangerous routes to drug administration (U.S. DHHS 1985; Jaynes & Williams 1989). Blacks, more than whites, use marijuana, cocaine, heroin and illicit methadone. Secretary's task force report suggests a relationship between drug use, mortality, positive toxicology and homicide. "Between 1982 and 1984, cocaine-related deaths among Blacks tripled, while they doubled among whites" (U.S. DHHS 1985:136). The drug problem is even more serious now because of its association with AIDS. Studies point out that blacks with AIDS are usually infected through IV drug abuse. This has special consequences for black children. Of the reported AIDS among children under the age of 15, 50% of the children were blacks (Jaynes & Williams 1989:420). Drug injection places blacks at higher risks of HIV infection.

Secretary's task force report argues that drug use is a factor in the high rate of homicide amongst blacks. Black men, women, and children all have rates of death from homicide that far exceeds whites. "In 1983, blacks accounted for 43 percent of homicide victims, although blacks represent only 11.5 percent of the population" (U.S. DHHS 1986:160). The victims of these homicides are blacks since almost 95 percent of all homicides are intraracial. The leading cause of death for black males of ages 15 to 44

is homicide (Jaynes & Williams 1989).

The trend of the black and white health behavior differential points to further gaps in the future. Health education campaigns have been most useful for higher-SES persons, regardless of the targeted behavior (Williams 1990). Since blacks are disproportionately represented in the low income group, they may not benefit as much as whites from health education campaigns. Over the years, as information about health risks has disseminated, higher-SES persons have taken advantage of the information and have initiated action, while lower SES persons have continued with their health practices. For example, in the 1940s there was no difference between higher and lower SES groups and cigarette smoking. But now, those in the lower social strata smoke more heavily (Williams 1990). One can argue that at this point, awareness on health hazards of cigarette smoking is known throughout the society. Thus, a possible explanation for the problem is powerlessness on the part of the disadvantaged group to take action. Disadvantaged groups face stresses due to structural conditions and cigarettes might be their best means to cope.

Black vs. white drinking behavior patterns

Drinking among blacks has a historical background that sets it apart from drinking among whites. In the early nineteenth century, blacks strongly supported the American temperance movement. The American Temperance Union declared:

> ...being mercifully redeemed from human slavery, we do pledge ourselves never to be brought into the slaver of the bottle, therefore, we will not drink the drunkard's drink: whiskey, gin, beer, nor rum nor anything that makes drunk come (Herd 1989:3).

Unusually low rates of alcohol consumption existed among blacks since abstinence was the means of support for emancipation and equality. Even after the civil war and emancipation of slaves, temperance was supported through the black churches and organizations such as the Women's Christian Temperance Union. The 1880 U.S. mortality statistics showed that alcoholism rate was 2.5 for the whites and 0.7 for blacks per 1,000 deaths (U.S. DHHS 1986:77). By the early 20th century, blacks withdrew their support from the temperance movement partly due to the racism of the southern prohibition. This coincided with major demographic changes in the black population. Blacks in large numbers moved to urban cities of the north, such as New York, Detroit, Chicago and Cleveland. There, they became involved with illegal liquor traffic, night life and heavy drinking (U.S. DHHS 1986). Despite the involvement of

blacks with heavy drinking since their migration to the cities, some still argue that anti-alcohol attitudes exist in the black population.

Researchers suggest that the norm among blacks is the restricted use of alcohol and general acceptance of abstaining. Borker (1980) found that lower and working San Francisco blacks from fundamentalist backgrounds have hostile attitudes towards alcohol use. Anthropological studies have also pointed to the negative attitudes of blacks toward drunkenness (Borker 1980; Sterne and Pittman 1972).

Despite these historical forces, today blacks and whites have comparable rates of drinking (Cahalan et al., 1969; Cahalan 1970; U.S. DHHS 1986; Herd 1990). However, they differ in their drinking patterns (Caetano 1984; U.S. DHHS 1986; Herd 1990). This difference is found in sociodemographics of blacks, such as socioeconomic status and age.

Studies show that there is a positive relationship between socioeconomic status of white men and drinking. However, for blacks the opposite seems to be true (Herd 1990). Herd found that "...very high income blacks (i,e. $30,001 or more per year) have substantially lower rates of heavier drinking than white men at this income level (28% vs 49%), and black men with more modest incomes (i.e. in the $5,000-15,000 income brackets) are considerably more likely

to be heavier drinkers than are their white counterparts (42-45% vs 28-31%)" (Herd 1990:226).

Caetano (1984) found that older black men and younger white men drink heavily. This conclusion is similar to the one reported by the National Health study which documents that drinking is more prevalent among black men over the age of thirty (U.S. DHHS 1985:131). Herd (1986) documents a review of literature which "...reported that most surveys of black youth showed that they were less likely to use alcohol or to experience problems related to drinking" (U.S. DHHS 1986:110). Moreover, a nationwide survey of senior high school students found that black boys and girls either abstained or used alcohol less than whites (U.S. DHHS 1986).

In another study, Herd (1989) found heavy drinking among white men in the 18-to-29 age category with a decline in successive age groups. She also found high abstention rates among black men between 18 and 29, with an increase for those in their thirties. Studies that examine the drinking patterns of adolescents have found high rates of abstention among black adolescents and young adults (Welte & Barnes 1987).

Explanations for differences in the drinking pattern of blacks vs whites: Problems with previous research

Very few studies have explored the etiological factors involved in drinking among blacks (U.S. DHHS 1986; Harper & Saifnoorian). This is due to the failure to focus systematically on blacks. Since 1950's, regular nationwide surveys of drinking patterns and problems have been conducted in the U.S. Small number of blacks with skewed geographic distribution have been represented in these surveys, making it impossible to study heterogeneous subgroups of the black population. Moreover, most of these surveys have been limited in that they do not explore sociological or social psychological variables that might prove to be important in drinking among blacks.

Studies have either failed to provide an explanation or have provided inadequate explanations for drinking among blacks. In the 1964-65 national survey of drinking patterns, 200 blacks were interviewed. Using this survey, Cahalan et al (1969) examined drinking pattern of blacks versus whites. Since sociodemographics of blacks, their income and age, was not examined, the researchers concluded that the drinking patterns of blacks and whites were similar (Cahalan et al. 1969); thus, no explanation was provided.

In a 1967 re-interview with a sub-sample from the 1964 national survey, only the social consequences of drinking problems were examined. The study concluded that blacks and

those of Caribbean and Latin ancestry showed the highest rates of problem drinking (Cahalan 1970). The study was limited in that it only examined consequences of drinking. Therefore, in this study also, differences in drinking patterns and the etiological factors involved were not examined.

Another study had only about 100 blacks combining two national samples (the data from 1967 with a new sample from 1969). This study attempted to provide explanation for the high rates of problem consequences from alcohol use among the black population. It attributed the problem to poverty and the geographic location of blacks in the city (Cahalan and Room 1974). Although this study provided explanation for the high rates of problem consequences due to alcohol use, it failed to explain the etiological factors involved in alcohol use among blacks.

Only few studies have attempted to explore the etiological issues involved in drinking among blacks vs. whites (Harper & Saifnoorian 1991; Neff 1991). One study points out that blacks drink for more personal reasons. For instance, Neff (1991) examined individual motives for drinking among blacks and whites. He found that black males scored higher than white males on drinking motive based on personal reasons. On the other hand, black males scored lower than white males on drinking motives based on social reasons. Personal motive was measured with items such as "I

drink because it helps me to relax". Social motive was measured with items such as "drinking because people I know drink".

Previous literature has only minimally explored important issues involved in drinking among blacks vs. whites. A handful of studies have explored the etiological factors involved in drinking among blacks. However, their explanations are inadequate. Research is needed to explore variables that can play a significant role in drinking among blacks. For example, as will be reviewed next, social isolation plays an important role in physical health, mental health and drinking behavior of individuals. However, researchers have failed to examine social isolation in relationship to drinking behavior as it varies with race.

Alienation

The review of literature so far has highlighted our lack of understanding about the processes involved in drinking among blacks. The question of why blacks drink has yet to be answered. The alienation literature can shed light as to why drinking behavior of blacks differs from whites by explaining how an individual's position in the society can impact the individual's belief about self and society (Dohrenwend & Dohrenwend 1970; Williams 1990; Kohn 1976; Pearlin et al 1981).

Alienation is one of the pathways through which the effects of social stratification on health practices are mediated. Karl Marx identified alienation as one of the consequences of capitalism. In The Economic and Philosophical Manuscripts of 1844, Marx developed the concept of alienation. In capitalist society, Marx argued, the private ownership of the means of production and the division of labor give rise to alienation (Marx 1963). This alienation hinders the realization of human potential. Marx distinguished between objective alienation and self-alienation. Objective alienation is the relation of man and the product to his labor, regardless of what he feels or experiences. Self-alienation is the attitude of man to other people, society and the self (Marx 1964). Self-alienation represents the feelings, experiences and attitudes of the person and hence his or her subjective reactions which are socially conditioned. If a person becomes self-alienated, then he or she is alienated from other people, society and its institutions and his or her own ego (Marx 1964).

It is self-alienation, the personal standpoint of the alienated, which is important to our study. It is within this personal standpoint of the alienated, that Seeman provides the five classical dimensions of alienation: powerlessness, meaninglessness, normlessness, isolation, and self-estrangement (Seeman 1975). In this study, I will

examine one of these dimensions of alienation, that of social isolation. Social isolation has been chosen because it is the variable which can explain black vs. white drinking behavior.

Social isolation is a specific dimension of alienation. Studies show that social isolation plays an important role in health, mental health and health behavior (Faris 1934; Hughes & Gove 1981; Berkman & Syme 1979; Seeman 1975; House et al 1982; Seeman & Anderson 1983; Seeman et al 1988). Social isolation "... refers to the existence or quantity of social ties or relationships, which may in turn be distinguished as to type (e.g. marital, kin/nonkin) and frequency of contact" (House et al 1988:302). As Seeman explains it, social isolation/integration is the individual's sense of attachment to friends, relatives and neighbors in a microcommunity (Seeman 1983). House et al (1988) note that social isolation does not explain the structure or the functional content of social ties. However, in the literature, social isolation is sometimes used interchangeably with variables that explain the structure and the functional content of relationships. Social network explains the structure of relationships, whereas social support refers to the functional content of relationships. These three variables must be distinguished theoretically.

In this study, social isolation is selected as the

variable which influences drinking behavior. This is because as House et al (1988) suggest, social isolation is "...particularly deleterious to health, while variations in levels of social relationships and supports above a moderate threshold are less consequential" (House et al 1988:299).

Social isolation and health

In the classical sociology literature, Durkheim argued for the relationship between social isolation and well-being (Durkheim 1951). He noted that the more socially isolated have higher rates of mortality and morbidity than the more socially integrated. Durkheim stated that "Suicide varies inversely with the degree of integration of the social groups of which the individual forms a part" (Durkheim 1951:209). He defined isolation as the degree in which the person's ties to groups and collectivities is weakened. Durkheim argued that when isolation occurs, there is the potential for what he called "egoistic suicide". He explained further that "The more weakened the groups to which he belongs, the less he depends on them, the more he consequently depends only on himself and recognizes no other rules of conduct than what are founded on private interest" (Durkheim 1951:209). But if the individual is integrated within the society, he or she becomes united with the common

cause and consequently does not feel personal troubles so deeply. Durkheim adds that this integration also serves as a form of constraint or control on individual behavior.

Faris was one of the first to empirically establish the relationship between social isolation and mental illness. Faris (1934) defined social isolation as "any form of isolation that cuts the person off from intimate social relation for an extended period of time"; Faris argued that social isolation contributes to mental disorder (Faris 1934:157). When the person is isolated for a long period of time, he or she feels secluded. The feeling of seclusion, in turn, leads to eccentric behavior on the part of the individual. This eccentric behavior is a form of "indifference to communication". When the person does not desire to communicate with others, he or she will have nothing to preserve the order of his or her mental life. Faris cited a study where through friendships, the patients' schizophrenic behavior faded and the recovery rate increased (Faris 1934).

Kohn and Clausen (1955) empirically tested Faris's theory. They compared a sample of schizophrenics and manic depressives with a control group. They found a "...significantly larger proportion of both the schizophrenics and the manic depressives than the control [to] have been isolates or partial-isolates" (Hughes & Gove 1981:51).

Pearlin and Johnson (1977) measured isolation as a)length of time in the neighborhood, b) having close friends nearby, c) belonging to voluntary associations. They found an association between mental health and isolation. The unmarried, who were the most isolated, were also more depressed than the married.

Following Durkheim and others, sociologists and epidemiologists have examined the relationship between mortality, morbidity and social integration or lack of it. These scholars have, especially, examined the role of marriage as a form of integration and its relationship to mortality and morbidity (Kitigawa & Hauser 1973; Gove 1972, 1973).

The more recent studies have centered on prospective studies of community populations (Berkman & Syme 1979; House et al 1982; Blazer 1982; Schoenbach et al 1986). Berkman & Syme (1979) in a nine year follow-up study of Alameda county residents, reported data based on information collected by the Human Population Laboratory. In this data, there was information on four sources of social ties: a)marriage, b) contacts with close friends and relatives, c)church membership, and d)informal and formal group associations. In each instance of the four sources of social ties, they found that the more isolated people had higher age-adjusted relative risks of dying. In addition, they found that out of the four sources of social ties, marriage and contact

with close friends and relatives (the more intimate ties) were the stronger predictors of mortality and morbidity rates (Berkman & Syme 1979).

House et al (1982) replicated and extended the Alameda county study based on a cohort of 1322 men and 1432 women. The data was based on the Tecumseh (Michigan) Community Health Study. House et al examined three major sources of social ties : a)intimate social relationships, such as marital status, visits with friends and relatives b)formal organization involvements outside of work, such as attending church, and c)active leisure pursuits involving social contact, such as attending classes or events such as movies and sporting events. Consistent with Berkman & Syme, House et al (1982) found an association of social ties with mortality. However, House et al found a more significant association of social ties with mortality among males. They also found formally organized relationships and activities (e.g. meetings, classes, lectures) to be a more significant predictor of mortality than visiting friends, relatives and neighbors (House et al 1982).

Blazer (1982) in a smaller cohort of 331 men and women in Durham County, North Carolina examined the association between social relationships and mortality among the elderly population. He used a broader set of measurements for social relationships and support. Three types of social relationships were examined: a)roles and available

attachments, b)frequency of social interactions, c)perception of social support. He found all the three types of social relationships as significant in determining mortality (Blazer 1982).

Studies have also established a relationship between social isolation and preventive health behavior (Berkman and Breslow 1983; Coburn and Pope 1979; Langlie 1977; Umberson 1987). Berkman and Breslow (1983), in the first large scale study of preventive health behavior, showed a relationship between a social network index and an index of health practices. Coburn and Pope (1974) argued that relationships with others is important for preventive health behavior. For instance, an individual who is involved with others, will be exposed to social norms that support various preventive health behavior. Thus, increasing the probability that the individual himself or herself will take a preventive action. Langlie (1977) found that people who reported more frequent interactions with non-kin were more likely to engage in some type of preventive health behavior. Further, her analyses suggested that the socially isolated were more likely to engage in behavior with the potential for health damage, such as not using seat belts and smoking.

Umberson found that the married have the lowest rates of negative health behaviors, and the divorced, the highest rates (Umberson 1987). Umberson (1987) identified two pathways by which family ties affect health behavior. The

direct path to social control is exercised when family members tell or remind the individual to participate in good health behavior. Direct social control is also exercised in form of sanctions when family members threaten to sanction the behavior, such as leaving the individual if the unhealthy behavior continues. Direct physical intervention can also occur when family members administer prescribed health treatments (Umberson 1987). Indirect social control occurs when people internalize norms of responsibility toward family members and control their own health behaviors as a result.

Social isolation and alcohol use

The literature on social isolation provides evidence that involvement in social relationships has physical health benefits. Researchers are exploring the possible pathways, in which social relationships may affect health outcomes. Health behavior, such as alcohol use represents one such pathway.

Studies have shown that social relationships play a significant role in drinking behavior (Gove 1973; Hughes & Gove 1981; Cooper et al 1990). Social support, social network and social isolation are discussed in the literature under the umbrella of social relationships. As argued before, social support, social network and social isolation

have to be distinguished both theoretically and empirically. Most studies on social relationships and alcohol use fail to do that. Alternatively, some studies have discussed only one dimension of social isolation without examining others. Researchers, for instance, have explored frequency of attending meetings, programs, clubs or organizations in relationship to alcohol use; however, other dimensions have been left unexamined. Conceptually, there is a need to explore other dimensions of social isolation that may figure in the explanation of alcohol use. Moreover, the significance of social isolation on alcohol use is implied since some researchers have examined only the effect of living alone on alcohol use; this is a variable not widely conceptualized as an indicator of social isolation.

Hughes & Gove (1981) conceptualize living alone as an indicator of social isolation. They examined living alone in relationship to alcohol problems and number of drinks taken in a month. In all three categories of never married, divorced/separated, and widowed, they found that those who lived alone had more alcohol problems and a higher number of drinks per month than those who lived with someone. Therefore, Hughes & Gove (1981) conclude that social isolation is a predictor of both frequency of drinking and alcohol problems. They make this conclusion by examining living alone in relationship to alcohol use. The problem with this conclusion is that living alone is not

conceptualized as an indicator of social isolation, in the literature. Research is needed to systematically explore the relationship of the three dimensions of social isolation to alcohol use.

A dimension of social isolation that has been explored in relationship to alcohol use is the frequency of attending meetings, programs, clubs and organizations. Ames & Janes (1987) found that the frequency of attending meetings, programs, clubs, and organizations was an important factor in differentiating heavy drinkers from moderate drinkers. The moderate drinkers attended meetings, programs, clubs and organizations more frequently than the heavy drinkers. Ames & Janes (1987) establish a relationship between frequency of attending meetings, programs, etc. and quantity of drinking; however, they ignore the other two aspects of social isolation, frequency of visiting with friends and talking on the phone.

No one has yet explored the other two dimensions of social isolation, frequency of talking on the phone and visiting with friends in relationship to alcohol use. Social isolation is an important predictor of alcohol use because a highly isolated person is argued to lack a sense of meaning, obligation and commitment that can prevent alcohol use (Umberson 1987). Therefore, it is important to depict the dimensions of social isolation that predict alcohol use.

Researchers provide different explanations for how social relationships can predict alcohol use. Some argue that social relationships can create a set of constraints or controls on individual behavior, specifically drinking (Hughes & Gove 1981). Hughes & Gove (1981) also suggest that those who live with someone will have others intervening before the problem reaches a critical point.

Others view social ties as a buffer against stress (Cooper et al 1990). They suggest that social ties provide the individual with ties that can aid in his or her dealing with stress. If these ties do not exist, drinking instead is used as the coping mechanism. Studies suggest that people drink to reduce anxiety or stress (Sadava et al 1978; Pearlin 1981; Neff & Husaini 1982; Linsky 1985; Cooper et al 1990;). Rate of alcoholism among Irish men in nineteenth-and early-twentieth century was found to be high because of the tension and frustration that was caused by a social structure that denied young men the opportunity for sexual or status fulfillment (Linsky 1985). Sadava et al (1978) have found that stress leads to problem-prone patterns of alcohol and drug use (Sadava et al 1978). Cooper et al (1990) found that people are more likely to drink when presented with stress-producing stimuli.

The distress-alcohol relationship is reduced when moderated by coping behavior such as social ties (Cooper et al 1990). The literature shows that a person who is in

distress will attempt to reduce this distress (Pearlin 1981). If the individual is socially isolated, he or she might attempt to deal with the distress by drinking. Seeman et al. also found that "the individual's sense of powerlessness was associated significantly with drinking frequency, with drinking quantity ...and drinking problems..." (Seeman et al. 1988:186). The sense of powerlessness is related to distress. People who feel that they have little control over the environment, or that they cannot solve their problems are more distressed than others (Wheaton 1980, Pearlin et al 1981). Markowitz (1984) examined the perceived characteristics of a job and employee alcoholism. He found perceived job responsibility and organization powerlessness (personal power in the organizational hierarchy, participation in decision making, job autonomy and job responsibility) to be a factor in alcoholism among employees (Markowitz 1984).

The literature just reviewed shows that a significant relationship between social isolation, physical health, mental health exists. The relationship between social isolation and alcohol use needs to be further explored, since not all the three dimensions of social isolation are examined by researchers. Moreover, researchers have failed to examine the role of social isolation in drinking behavior as it varies with race.

Social isolation and race, and socioeconomic status

Previous literature has examined the relationship between social network, social support, race and socioeconomic status. However, it has failed to examine social isolation in relationship to race and socioeconomic status. As mentioned before, social isolation has to be distinguished both theoretically and empirically from social support and social network.

Here, we will review the literature on the following relationships: a) socioeconomic status and social support, b) socioeconomic status and social network, c) race, social support and social network. Our assumption is that reviewing the literature on social network and social support constructs will enable us to form our hypothesis about the relationship between social isolation, race, and socioeconomic status.

Overall studies point out that lower socioeconomic status people have limited access to social support (Dohrenwend & Dohrenwend 1970, Fisher 1982, Berkman & Breslow 1983, Williams 1990). Studies also show that spouses of those in the lower social strata are less emotionally supportive of each other than those in the higher social strata (Dohrenwend & Dohrenwend 1970). For example, spouses are less willing to listen to each other's problems. Berkman & Breslow (1983) found that the lower

socioeconomic groups have less stable marriages. They also have less contact with friends and relatives and have limited access to social support (Williams 1990). Fisher (1982) found that the lower SES people have less secure practical support than those in the higher SES status. For example, those in the lower SES status were less likely to find someone to pick up their mail, water the plants while they were away, and help around the house, such as paint, and do repairs, etc (Fisher 1982).

Studies also show that people in the lower social strata have less access to social networks. Berkman & Breslow (1983) examined the relationship between social networks and socioeconomic status. They divided social networks into four components: marital status (unmarried/married), contact with friends and relatives (few/many), church membership (member/nonmember), and group membership (nonmember/member). Of the four components of the social network index, only in contact with friends and relatives did those in the lower levels of socioeconomic status compare favorably with those in the higher levels of socioeconomic status (Berkman & Breslow 1983). In regards to the other components of social network index, lower socioeconomic people had lower scores than those at the higher levels of socioeconomic status. Fisher found that the more educated individuals have larger networks than the less educated ones. For example, the more educated people

have wider geographic range of ties. They are also able to name more friends than the less educated (Fisher 1982).

Although the relationship between race, social support and social network has not been examined as extensively as socioeconomic status in relationship to support and network, studies have shown that blacks have less access to social support and network than whites (Fisher 1982, Berkman & Breslow 1983). Berkman & Breslow (1983) found that overall whites scored higher on the social network index than blacks. Whites were more likely to belong to nonchurch groups and be married. Blacks were more likely to be church members. Berkman & Breslow (1983) found that whites are more likely to belong to nonchurch groups. On the other hand, Dohrenwend & Dohrenwend found that blacks are "...more likely to belong to organizations, and to participate more actively in organizations to which they belong than their class counterparts among whites" (Dohrenwend & Dohrenwend 1970:122). However, Dohrenwend & Dohrenwend (1970) argue that although blacks are more likely to belong to organizations, this area of advantage is not sufficient to counterbalance the other disadvantages of insufficient social support and network. Fisher (1982) also found blacks to be at risk of having marginal or inadequate support. She found blacks to have smaller and less supportive and more culturally encapsulated networks than whites.

As reviewed, studies indicate that those at the lower

levels of social strata and blacks have less access to social support and social network than those at the higher levels of social strata and whites. No one has yet explored the three measures of social isolation in relationship to socioeconomic status and race.

HYPOTHESES

H1: The more isolated the individual, the more likely that the individual will use alcohol, the higher the frequency of alcohol intake, and the greater the quantity of alcohol intake.

As discussed earlier, researchers fail to examine the three dimensions of social isolation in relationship to alcohol use. The three dimensions of social isolation are frequency of talking on the phone, frequency of visiting with friends, relatives and neighbors, and frequency of attending meetings, programs, clubs or organizations. Umberson (1987) argues that "future research should identify and weigh the importance of various sources of social contact ..." (Umberson 1987:316). Thus, in chapter three we will attempt to do just that.

H2: Blacks will be more socially isolated than whites.

H2a: Lower socioeconomic status individuals will be more isolated than the higher socioeconomic status individuals.

H2b: Lower socioeconomic status blacks will be more isolated than the higher socioeconomic status blacks.

The literature shows that blacks and lower SES persons score lower on social support and network than whites and higher SES persons (Dohrenwend & Dohrenwend 1970; Fisher 1982; Williams 1990). Thus, in chapter four, we will examine race and socioeconomic status in relationship to social isolation.

H3: Isolation is more significant for ever use alcohol, frequency and quantity of alcohol use among blacks than among whites.

In regards to the difference in the pattern of drinking among blacks and whites, few studies imply that social integration encourages whites to drink while social isolation causes blacks to drink. For example, blacks have an increase in alcohol use after the age of thirty. This, as Herd (1989) argues indicates that blacks start drinking heavier due to the problems they face after age thirty. In the white population, however, heavier drinking occurs during the adolescent period. Drinking during adolescent period usually implies social drinking. Thus, in the white population, drinking arises in social contexts, indicating

social drinking. On the other hand, in the black population, drinking occurs after age thirty which is associated with drinking due to problems. For example, problems such as frustrations resulting from racism, job problems, financial responsibility, attempt to fulfill psychological needs, and escape from unpleasant mood has been cited as factors that explain the drinking pattern of blacks (Harper & Saifnoorian 1981). I argue that one such problem is social isolation.

CHAPTER TWO

DATA AND METHODS

The purpose of this chapter is to describe the data and measures to be used in this study. Further, strategies of analysis will be discussed.

The data

The research proposed here demands the use of a data set that has 1) a large sample of blacks, 2) detailed social psychological variables and 3) alcohol use measures. Most national surveys have inadequate black sample sizes. J. Jackson has accurately described a sentiment shared by other researchers. She points: "1) The major interpretive generalizations about black health were made from nonrepresentative and usually small samples; 2) most of the quality studies of health status among blacks were confined to small geographic locations and were concerned primarily with hypertension or cancer" (Neighbors 1986:779). Thus, inadequate black sample sizes are a problem when black health is examined.

On the other hand, datasets that have enough black representation are limited in that they do not provide adequate social psychological variables and alcohol use measures. In the 1950's, a regular nationwide surveys of

drinking patterns and problems were conducted in U.S. However, as Welte notes the first major national survey of drinking patterns in U.S. black population was done only recently, in 1984.

The data for this study come from a national survey conducted in 1986 (House 1986). The survey is entitled Americans' Changing Lives conducted by the Survey Research Center of the University of Michigan. The survey included a sample of 3,617 respondents, aged 25 and older with a response rate of 76 percent. Only under 1% of all respondents had missing data on most questions. Most responses were internally and logically consistent. The survey was collected using face-to-face interviews with multistage stratified area probability sampling of persons living in noninstitutionalized housing in the continental U.S.

This data focuses especially on differences between blacks and whites. Blacks were sampled at twice the rates of whites and they constitute 30.2 percent of the respondents. This study also covers a wide range of sociological, psychological, mental, and physical health items.

The oversampling of blacks can be corrected by a weighting procedure. We ran the important analyses with the weighting procedure in effect, and the results were, in substance, virtually identical to those presented throughout

the chapters. Table 1 shows some of the descriptive characteristics of the important variables.

Table 1

Descriptive Characteristics of the Sample

	N	%
Age		
Under 40	1073	29.8
40-55	692	19.2
56-64	641	17.6
65 and over	1211	33.4
Education		
Less than high school	1349	37.3
High school graduate	1054	29.1
Three years of college	714	19.8
Four or more years of college	500	13.8
Family Income		
$0-9,999	1057	29.3
$10,000-14,999	470	13.0
$15,000-19,999	345	9.5
$20,000-24,999	281	7.8
$25,000-39,999	616	17.0
40,000-79,9999	450	12.5
80,000 or more	88	2.4
Race		
White	2323	64.2
Black	1174	32.5
Other	120	3.3

Variables

The dependent variables are ever use alcohol, frequency of alcohol intake and quantity of alcohol intake.

Alcohol use, frequency of alcohol intake and quantity of alcohol intake will be measured through self-report. As Seeman et al., 1988 state "...there is growing and substantial evidence that self-reports in a variety of domains are considerably more reliable and valid than is commonly supposed" (Seeman et al., 1988). To measure alcohol use, we will follow the widely used frequency and quantity variable of Cahalan et al. (1969). Previous research indicates that frequency and quantity are separate and independent dimensions. For example, Apao and Damen (1982) found that external locus of control to predict frequency but not quantity of alcohol use. Moreover, Seeman et al., 1988 estimated that correlation between frequency and quantity of alcohol intake is .22. Therefore, they conclude that the two variables are reasonably independent. Thus, we will examine each dimension separately. We added another measure of alcohol use to ascertain whether the respondent drinks or not.

The first variable is **Ever use alcohol**. This variable ascertains whether the respondent ever drinks alcohol. The question is "Do you ever drink beer, wine, or liquor?" The response is either yes or no.

Frequency of alcohol intake is measured by asking the

respondents: "During the last month, on how many days did you drink beer, wine or liquor?" The response ranges from one day to 31 days.

To measure **quantity of alcohol intake**, respondents are asked "On days that you drink, how many cans of beer, glasses of wine, or drinks of liquor do you usually have?" The response ranges from one to 20 drinks in the last month.

Social isolation is measured using three variables. The first variable **talk on the phone** is measured by asking the respondent: "In a typical week, about how many times do you talk on the telephone with friends, neighbors or relatives? Would you say more than once a day, once a day, 2 or 3 times a week, about once a week, less than once a week, or never?" The responses are categorized so that more than once a day is coded as one and never is coded as six.

The second variable **visit with friends** is measured by asking the respondents: " How often do you get together with friends, neighbors or relatives and do things like go out together or visit in each other's homes? Would you say more than once a week, once a week, 2 or 3 times a month, about once a month, less than once a month, or never?" The responses are categorized so that more than once a week is coded as one and never is coded as six.

The third variable **attending meetings** is measured by asking: "How often do you attend meetings or programs of

groups, clubs or organizations that you belong to? Would you say more than once a week, once a week, 2 or 3 times a month, about once a month, less than once a month, or never?" The responses are categorized so that more than once a week is coded as one and never is coded as six.

In this study, the three variables used for social isolation, follow House's survey entitled American's Changing Lives (the survey used for our analysis). House indicates that frequency of talking on the phone and visiting with friends is an indicator of informal social integration, while attending meetings is an indicator of formal social integration (House 1986). Although, we will use talking on the phone as an indicator of social integration, our expectation is that talking on the phone will not provide a strong measurement for social integration.

Other studies have used similar measurements of social isolation. For example, Seeman et al (1988) used similar questions to measure social isolation. They asked the respondents about their relationships with their friends, neighbors and relatives. Pearlin and Johnson (1977) used a measure of isolation with a scale combining 1) length of time in the neighborhood 2) having close friends nearby, and 3)belonging to voluntary associations. In table 2, we provide descriptive characteristics of the dependent and the independent variables.

Table 2

Descriptive Characteristics of dependent and independent variables

Ever use alcohol		
Yes	2106	58.2
No	1506	41.6
Days drank last month (frequency of alcohol intake)		
5 days or less	1252	59.8
6-10 days	289	8.0
11-15 days	146	4.0
16-20 days	100	2.7
21-25 days	63	1.7
26-31 days	243	6.7
Drinks per day (quantity of alcohol intake)		
1	685	18.9
2	516	14.3
3	307	8.5
4-10	226	6.3
10-20	37	.9
Isolation		
Frequency talk on phone		
More than once a day	1258	34.8
Once a day	625	17.3
2 or 3 times a week	1025	28.4
About once a week	322	8.9
Less than once a week	213	5.9
Never or no phone	169	4.7

Table 2 continued

Frequency visit with friends		
More than once a week	1062	29.4
Once a week	914	25.3
2 or 3 times a month	585	16.2
About once a month	502	13.9
Less than once a month	375	10.4
Never	176	4.9
Frequency attend meetings, programs		
More than once a week	451	12.5
Once a week	380	10.5
2 or 3 times a month	396	10.9
About once a month	528	14.6
Less than once a month	377	10.4
Never	1481	40.9

Socioeconomic status will be based on two indicators: education and income. Education will be based on the following question: "What is the highest grade of school or year of college you have completed?" The answers range from 0 to 17.

Household income will be based on the question. "If we include the income from all these sources, and add all of your (and your spouse's earning, what would your total income before taxes for the last 12 months add up to? Just give me the letter from the list on this page?"; the choices range from less than $5,000 to $80,000+.

Race will be dummy variable contrasting blacks (coded as 1) and whites (coded as 0).

Other variables. Age will be the respondent's age in years. Sex will be a dummy variable contrasting males (1)

and females (0). Employment status will be measured by asking respondents, if they are employed or not. Marital status is categorized so that the married is the excluded category. Separated, divorced, widowed and never married are the other categories. Marital status is included as a control variable because previous research shows that among young adults, married people were less likely to be problem drinkers than unmarried ones (Horwitz & White 1991). Gove (1973) also found that the state of being unmarried is related to activities that can cause death (eg. smoking and drinking). Umberson found that the married have the lowest rates of negative health behaviors, and the divorced, the highest rates (Umberson 1987). Other sociodemograhpic factors were chosen as control variables because previous research has shown many of these factors to have significant relationships with alcohol use.

Table 3 lists and describes the coding for each of the variables included in the analysis.

Table 3

Summary of variables used in the regression analyses

Variable	Measurement
Demographic factors	
Age	Years
Sex	Female/male
Race	Black/white
Education	Years
Family income	Dollars
Employment status	Yes/no
Marital status	Widowed, divorced, separated, never married, married
Social isolation	
Frequency talk on phone with friends, relatives and neighbors	more than once a day/once a day/ day/2 or 3 times a week/about and once a week/or never
Frequency visit with friends relatives and neighbors	more than once a week/once a week/2 or 3 times a month/ about once a month/less than once a month/never
Frequency attend meetings, programs, clubs or organizations	more than once a week/once a week/2 or 3 times a month/about once a month/less than once a month/never
Alcohol use	
Ever use alcohol	Yes/no
Frequency of alcohol intake	1 to 31 days
Quantity of alcohol intake	1 to 20 drinks in the last month

Table 4 illustrates the major demographic difference in the subsamples of blacks and whites.

Table 4

Control, dependent and independent variables by race

	Black		White	
	N	%	N	%
Age				
Under 40	367	31.3	644	27.7
40-55	251	21.4	418	18
56-64	205	17.5	419	18
65 and over	351	29.9	842	36.2
Education				
Less than high school	603	51.4	699	30.1
High school graduate	283	24.1	744	32
Three years of college	198	16.9	492	21.2
Four or more years of college	90	7.7	388	16.7
Family Income				
Less than $5,000	312	26.6	165	7.8
$5,000-9,999	237	20.2	306	13.2
$10,999-14,999	155	13.2	295	12.7
$15,000-19,999	90	7.7	244	10.5
$20,000-24,999	64	5.5	206	8.9
$25,000-29,999	62	5.3	196	8.4
$30,000-39,999	69	5.9	275	11.8
$40,000-59,000	68	5.8	256	11.0
$60,000-79,999	17	1.4	93	4.0
$80,000+	10	.9	77	3.3
Ever use alcohol				
Yes	580	49.4	1461	62.9
No	591	50.3	860	37.0

Table 4 continued

	Black		White	
	N	%	N	%
Days drank last month (frequency of alcohol intake)				
5 days or less	355	30.2	848	36.5
6-10 days	88	7.5	196	8.4
11-15 days	56	4.8	185	8.0
16-20 days	16	1.4	47	2.0
21-25 days	57	4.9	180	7.7
26-31 days				
Drinks per day (quantity of alcohol intake)				
1	148	12.6	528	22.7
2	136	11.6	360	15.5
3	98	8.3	199	8.6
4-10	71	6.0	144	6.2
11-20	13	1.1	13	.6
Isolation				
Frequency talk on phone				
More than once a day	378	32.3	845	36.4
Once a day	174	14.8	439	18.9
2 or 3 times a week	329	28.0	661	28.5
About once a week	114	9.7	195	8.4
Less than once a week	90	7.7	112	4.8
Never or no phone	86	7.3	69	3.0
Frequency visit with friends				
More than once a week	148	12.6	281	12.1
Once a week	136	11.6	230	9.9
2 or 3 times a month	98	8.3	264	11.4
About once a month	71	6.0	356	15.3
Less than once a month	13	1.1	268	11.5
Never	493	42.0	923	39.7

Table 5 illustrates the mean difference of control, dependent and independent variables by race.

Table 5

Mean differences of control, dependent and independent variables by race

	Black	White
Age	52.59	54.61
Education	10.39	12.04
Family income	3.31	4.93
Ever use alcohol (prop)	.5	.63
Frequency of drinking	7.685	8.776
Quantity of drinking	2.766	2.232
Frequency of talk phone	2.677	2.352
Frequency visit friends	2.972	2.493
Frequency attend meeting	4.158	4.236

Table 6 represents the correlation coefficients for the control, dependent and independent variables.

Table 6

Correlation Coefficients of control, dependent and independent variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Age	1														
2. Sex(male=1)	-.10**	1													
3. Education	-.373**	.053**	1												
4. Income	-.30**	.20**	.53**	1											
5. Employment status	-.54**	.22**	.342**	.424**	1										
6. Widowed	.66**	-.17**	-.216**	-.154**	-.4**	1									
7. Divorced	-.187**	-.04	-.014	.058	.165**	-.51**	1								
8. Never married	-.42**	.21**	.217**	.083*	.195**	-.391**	-.593**	1							
9. Race(black=1)	.054**	.052**	.228**	.294**	.008	-.136**	.04	.084*	1						
10. Ever use alcohol	.267**	-.196**	-.294**	-.318**	-.24**	--	--	--	-.13**	1					
11. Frequency of alcohol intake	.037	.257**	.056*	-.318**	.026	.023	-.028	.008	.05**	--	1				
12. Quantity of alcohol intake	-.192**	.223**	-.146**	.106**	.072**	-.193	.125**	.047	-.113**	--	.151**	1			
13. Frequency of talking on phone	-.01	.205**	-.178**	-.10**	.019	-.143**	.087*	.041	-.108**	.028	.035	.120**	1		
14. Frequency of visiting with friends	.076**	.032	-.135**	-.073**	-.015	.001	.057	-.063	-.149**	.088**	-.051*	-.004	.291**	1	
15. Frequency of attending meetings	-.03	.018	-.183**	-.138**	-.044**	-.075*	.03	.038	.294**	-.047**	.056*	.122**	.178**	.181**	1

* p<.01 ** p<.05

-- correlation coefficients cannot be computed

STRATEGY OF ANALYSIS AND ORGANIZATION OF FINDINGS

The report of the findings will be as follow: In chapter three, we will examine the relationship between social isolation and alcohol use. We propose that frequency of talking on the phone, visiting with friends, relatives, neighbors and attending meetings, programs, etc. are negatively related to ever use alcohol, frequency of alcohol intake and quantity of alcohol intake. In this chapter, we will examine these hypotheses by first using correlation coefficients to examine the nature of the relationship between social isolation and alcohol use. Then, we will use the ordinary least squares regression to test for a significant relationship between alcohol intake and isolation.

In chapter four, we will examine the relationship between social isolation, race and socioeconomic status. Here, we propose that blacks are more isolated than whites. In addition, lower socioeconomic groups are more isolated than upper socioeconomic groups. Here again, we will use correlation coefficient and ordinary least squares regression.

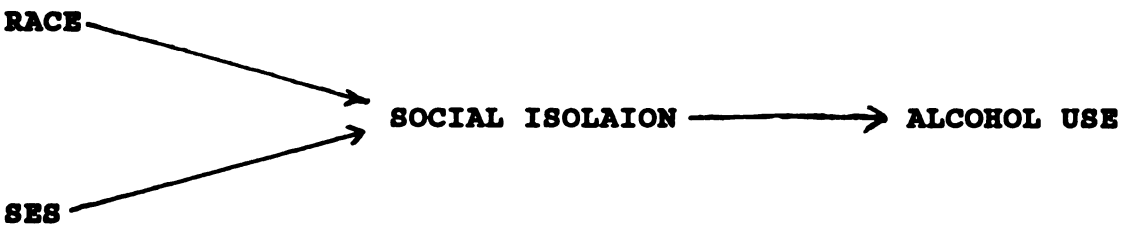
In chapter five, the major aim will be to examine the interaction between social isolation, race, SES and alcohol use. Here, the hypothesis is that frequency of visiting

with friends, relatives and neighbors will predict alcohol use among whites, while frequency of attending meetings, programs, etc. will predict alcohol use among blacks. Since we have previously examined the nature of the relationship between the above variables, we will only use ordinary least squares regression to test for significant relationships.

The general conceptual framework that guides this study is that race and SES are determinants of alcohol use. Social isolation is viewed as the intervening variable of the association between race, SES and alcohol use.

Figure 1

Causal model



CHAPTER THREE

Research findings: social isolation and alcohol use

The major aim of this chapter is to examine the effect of social isolation on alcohol use. As mentioned in the review of the literature, no one has yet explored the three dimensions of social isolation, frequency of a) talking on the phone, b) visiting with friends, neighbors and relatives and c) attending meetings, programs, etc. in relationship to alcohol use. Therefore, it is important to depict the dimensions of social isolation that predict alcohol use.

Thus, in this chapter, we will investigate nine detailed hypotheses. The first three hypotheses propose that frequency of talking on the phone, visiting with friends, neighbors and relatives and attending meetings, programs, etc. are negatively related to ever use alcohol. Here, we are interested to see if those who are highly isolated, are more likely to drink. The next three hypotheses propose that frequency of talking on the phone, visiting with friends, neighbors and relatives and attending meetings, programs, etc. are negatively related to frequency of alcohol intake. Here, we want to know if those who are highly isolated tend to drink more frequently. The last three hypotheses propose that talking on the phone, visiting with friends, neighbors and relatives and attending

meetings, programs, etc. are negatively related to quantity of alcohol intake. Finally, we are interested to see if those who are highly isolated drink greater quantities of alcohol.

This chapter is divided into two sections. The first section investigates the first three hypotheses. It examines the relationship between social isolation and ever use alcohol. The second section investigates the last six hypotheses. It examines the relationship between social isolation, and frequency and quantity of alcohol intake, respectively.

I. Social isolation and ever use alcohol

Descriptive analysis

In this section, we will examine three detailed hypotheses: 1) H1a: The higher the frequency of talking on the phone (low isolation), the less likely that the individual will drink.

2) H1b: The higher the frequency of visiting with friends, neighbors and relatives (low isolation), the less likely that the individual will drink.

3) H1c: The higher the frequency of attending meetings, programs, etc. (low isolation), the less likely that the individual will drink.

To examine these hypotheses, a descriptive overview of the nature of the relationship between social isolation and

ever use alcohol is presented here. First, the correlation coefficient is used as a method to examine the nature of the relationship between social isolation and ever use alcohol. The correlation coefficient indicates whether the variables move in the same or opposite direction; it also informs us about the degree of linear association.

Second, the relationship between social isolation and ever use alcohol is examined using one-way analyses of variance (COEFFICIENTS). Such an analysis will indicate whether there is a statistically significant difference in ever use alcohol between those who are scored as having high levels of social isolation vs. those scored as having low levels of social isolation. More importantly, it will indicate whether a nonlinear relationship between the variables exists.

Third, the relationship between social isolation and ever use alcohol is examined using regression analysis. The conceptual framework outlined for this relationship is based on the assumption that several factors simultaneously affect the dependent variable, in this case ever use alcohol. Multiple regression is a method used for measuring the effects of several factors concurrently. The multiple regression coefficient measures the amount of increase or decrease in the dependent variable for a one-unit difference in the independent variable, controlling for the other variables entered in the regression model.

Table 7 illustrates the results of the correlation coefficient between ever use alcohol and the three measures of social isolation. The correlation coefficient is informative because it indicates whether social isolation and ever use alcohol are positively or negatively correlated.

As indicated by the coefficients in Table 7, frequency of visiting with friends, neighbors and relatives (H1b) and attending meetings, programs, etc. (H1c) have a statistically significant relationship with ever use alcohol. As was expected, people who attend meetings, programs, etc. more frequently (low isolation) are less likely to drink. However, contrary to our expectations, frequency of visiting with friends, neighbors and relatives and ever use alcohol were found to be positively correlated. People who visit friends frequently are more likely to drink. This was contrary to the hypothesis (H1b), that those who visit friends more frequently are less likely to drink.

As shown, the correlation coefficient can determine whether two variables are positively or negatively correlated. The correlation coefficient can also determine the degree of linear association. As seen in Table 7, both frequency of attending meetings, programs, etc. (-.047) and frequency of visiting with friends, neighbors and relatives (.09) have a somewhat weak but a statistically significant

relationship to ever use alcohol.

TABLE 7

Correlation coefficient

Did you ever drink alcohol? (ever use alcohol) Ever use alcohol and isolation	
Frequency talk on phone	.028
Frequency visit friends	.088**
Frequency attend meetings, programs, clubs or organizations	-.047**

*p<.05 **p<.01

At the next stage of analysis, one-way analyses of variance (ANOVAs) were computed. One-way ANOVAs were computed comparing alcohol use for the high and low categories of social isolation. Analyses of variance is used here to test whether the percentage of those who drink differs between those who are highly isolated and the ones who are not highly isolated.

To compute the ANOVAs, respondents were divided into high and low categories of social isolation on each measure of social isolation. Frequency of talking on phone was divided into two categories. Those who talk on the phone once a day were coded as less isolated and those who talk on the phone less than once a week or about once a week or never as more isolated. Frequency of visiting with friends, neighbors and relatives was also divided into two

categories. Those who visit with friends more than once a week were coded as less isolated and those who visit friends less than once a month or never are coded as highly isolated. Frequency of attending meetings, programs, etc. was divided into two categories. Those who attend meetings, programs, clubs and organizations more than once a week or once a week were coded as less isolated and those who never attend meetings were coded as highly isolated.

Since those who are highly isolated are coded as zero and those who are less isolated are coded as one, the numbers in the table represent the percentage of people who drink. Table 8 indicates that those who talk less frequently on the phone (high isolation), are more likely to drink (59%). Although the results are not statistically significant, they are consistent with the direction that was predicted. It was predicted that those who talk less frequently on the phone (highly isolated) are more likely to drink.

Table 8 also presents the result for frequency of visiting with friends, neighbors and relatives in relationship to ever use alcohol. Contrary to the hypothesis (H1b), percentage of those who drink was found to be higher for those who visit friends more frequently. Sixty one percent of those scored as having low isolation drink versus forty nine percent of those scored as having high isolation.

As seen in Table 8, the percentage of those who drink is higher for those who attend meetings less frequently (high isolation). This result is consistent with hypothesis (H1c). The probability is .013 and since this is less than .05, it can be concluded that the observed difference between those who are scored as having low isolation (based on their attendance of meetings) vs. those scored as having high isolation is significant and that the population means are therefore different. This result is consistent with the correlation coefficient results. Those who attend meetings more frequently (low isolation) are less likely to drink.

TABLE 8

Percentage of those who drink by frequency of talk on phone, visit friends and attend meetings

	Mean	Number of observations	F	Sig of F
Frequency talk on phone				
Low isolation**	55%	703	2.321	.128
High isolation	59%	1256		
Total		1959		
Frequency visit friends, neighbors and relatives				
Low isolation	61%	1061	18.214	.000
High isolation	49%	550		
Total		1611		
Frequency attend meetings, programs, clubs or organizations				
Low isolation	51%	831	6.202	.013
High isolation	56%	1478		
Total		2308		

** Low social isolation is coded as 1 while high isolation is coded as 0

Summary of descriptive analysis

Out of the three measures of social isolation, only frequency of attending meetings, programs, etc. has a negative and significant relationship with ever use alcohol. Those who attend meetings, programs, etc. frequently (low isolation) are less likely to drink. Talking on the phone

also had a negative relationship with social isolation but the results were not significant.

Multiple Regression analysis

We now move from zero-order results to a more extensive multivariate analysis of this issue. Since the dependent variable is dichotomous (drink=1, not drink=0), logistic regression was used for analysis. The relationship between social isolation and ever use alcohol was also examined using ordinary least squares regression. Here, we chose to present ordinary least squares regression results. We found similar results when comparing logistic regression with ordinary least squares regression. Research has shown that regression analysis with a dichotomous dependent variable yields similar results to logistic analysis when the dependent variable is almost exactly divided between the two categories (Gillipsie 1977). Therefore, ordinary least squares is presented here for simple interpretation by the reader.

Table 9 shows the results when all the control and independent variables are entered in the regression model predicting ever use alcohol. Consistent with prior literature, sociodemographic variables such as sex, age, education and family income have a significant relationship with ever use alcohol. Furthermore, consistent with prior literature, divorced, separated and never married are more

likely to drink than the married (the excluded category). Table 9 presents further analysis which tests for a significant relationship between ever use alcohol and the three measurements of social isolation.

As shown in Table 9, frequency of visiting with friends, neighbors and relatives (B=.062, p<.01) and attending meetings (B=-.101, p<.01) predicted ever use alcohol. As expected, hypothesis (H1c) was supported. After all sociodemographic variables were controlled, attending meetings did significantly predict ever use alcohol. In other words, people who attend meetings more frequently (low isolation) are less likely to drink. The regression model results, in regards to attending meetings, were consistent with both the COEFFICIENTS and the correlation coefficient results.

Contrary to hypothesis (H1b), those who visit friends, neighbors and relatives frequently were found more likely to drink. Support was not found for hypothesis (H1a). The expectation was that those who talk on the phone frequently (low isolation) are less likely to drink.

TABLE 9

Regression of isolation on ever use alcohol

Predictors	Unstandardized Regression Coefficient
	Predicting ever use alcohol
Age	-.13**
Sex (male=1)	.152**
Education	.128**
Race (black=1)	-.054**
Family income	.204**
Employment status (working=1)	.203
Widowed	.047*
Divorced	.077**
Separated	.076**
Never married	.051**
Frequency talk on phone	.014
Frequency visit friends	.062**
Frequency attend meetings	-.101**
(Constant)	.257
	N=3185
	R squared=.196

*p<.05 **p<.01

Note: married is the excluded category

It was found that people who visit friends, neighbors and relatives more frequently are more likely to drink. One explanation for this finding is that frequency of visiting with friends, neighbors and relatives is a form of social integration that can actually contribute to alcohol use. In the literature, it is argued that some people drink for social reasons. In other words, they drink when they are with their friends. A more extensive discussion of the

interpretation is provided in the second section of this chapter.

II. Social isolation: frequency and quantity of alcohol intake

Our stated hypothesis was that social isolation is positively related to frequency and quantity of alcohol intake. In other words, those who are more isolated will drink more frequently and in greater quantities. Since the social isolation variable consists of three measurements, the second set of hypotheses will be: 1) H2a: The higher the frequency of talking on the phone (low isolation), the lower the frequency of alcohol intake; 2) H2b: The higher the frequency of visiting with friends (low isolation), the lower the frequency of alcohol intake; 3) H2c: The higher the frequency of attending meetings (low isolation), the lower the frequency of alcohol intake.

We also want to test the relationship between social isolation and quantity of alcohol intake. 1) H3a: The higher the frequency of talking on the phone (low isolation), the lower the quantity of alcohol intake; 2) H3b: The higher the frequency of visiting with friends, neighbors and relatives (low isolation), the lower the quantity of alcohol intake; 3) H3c: The higher the frequency

of attending meetings, programs, etc. (low isolation), the lower the quantity of alcohol intake. These hypotheses can be tested by examining the correlation coefficient, the analysis of variance and multiple regression.

Descriptive analysis

As expected, table 10 shows that those who talk on the phone more frequently drink less frequently (H2a) (although not significant) and lower quantities ($p<.01$) (H3a). Also as was expected, those who attend meetings, programs, etc. more frequently also drink less frequently (H2c) and lower quantities.

Frequency of visiting with friends, neighbors and relatives has a significant relationship with frequency of alcohol intake, but again not in the direction that was expected. The results indicate that those who visit friends frequently drink more frequently and in greater quantities.

TABLE 10
Correlation coefficient

	Frequency of alcohol intake	Quantity of alcohol intake
Frequency talk on phone	-.035	-.120**
Frequency visit friends	.051*	.004
Frequency attend meetings, programs, clubs or organizations	-.056*	-.122**

*p<.05 **p<.01

Table 11 shows the result of one-way COEFFICIENTS

analysis for frequency of alcohol intake in relationship to talking on the phone. The numbers in the table represent the mean value of number of days that the respondent consumed alcohol in the last month. Note, that in this analysis, we again divided the isolation variable into two categories of low vs. high isolation. The coding follows the same as was described in section one.

The mean value of alcohol frequency is found to be higher for those who talk less frequently on the phone (8.91 vs. 8.02). Although the results are not statistically significant, they are consistent with the direction that was predicted. It was predicted that those who talk less frequently on the phone will drink more frequently.

In table 11, the mean frequency of alcohol intake is also compared for the two groups who visit friends, neighbors and relatives frequently versus those who don't. As seen in table 11, the mean value of alcohol frequency is higher for those who visit friends more frequently. The results are not statistically significant; the results are also inconsistent with the direction that was expected.

As seen in table 11, the mean value of alcohol frequency is higher (8.71) for those who attend meetings less frequently. This result is consistent with our hypotheses (H2c). Thus, those who attend meetings frequently tend to drink less frequently.

TABLE 11

Days drank last month (frequency of alcohol intake), number of observations and significance results

	Mean	Number of observations	F	Sig of F
Frequency talk on phone				
Low isolation	8.02*	731	2.045	.153
High isolation	8.91	382		
Total		1113		
Frequency visit friends, neighbors and relatives				
Low isolation	9.46*	639	2.357	.125
High isolation	8.31	270		
Total		909		
Frequency attend meetings, programs, clubs or organizations				
Low isolation	7.23*	419	6.155	.013
High isolation	8.71	824		
Total		1243		

* Number of days drank last month

In table 12, COEFFICIENTS tables are presented again. Here, the numbers represent the quantity of alcohol used per day. In table 12, the mean quantity of alcohol intake is compared in relationship to talking on the phone. The mean value of alcohol quantity was found to be higher for those who talk less frequently on the phone, with a significance of .000. In other words, those who talk less frequently on

the phone consume greater quantities of alcohol. In table 12, the result for the frequency of visiting with friends is not significant. Moreover, the mean values of the quantity of alcohol intake for the two groups are equal.

As seen in table 12, those who attend meetings, programs, etc. less frequently drink greater quantities. Note that once again, the pattern of the negative relationship is confirmed. Consistent with our hypothesis H3c, those who attend meetings frequently tend to drink lower quantities.

TABLE 12

Drinks per day (quantity of alcohol intake), number of observations and significance results

	Mean	Number of observations	F	Sig of F
Frequency talk on phone				
Low isolation	2.28*	601	24.76	.000
High isolation	3.10	322		
Total		923		
Frequency visit friends, neighbors and relatives				
Low isolation	2.53*	551	.000	.986
High isolation	2.53	212		
Total		763		
Frequency attend meetings, programs, clubs or organizations				
Low isolation	2.04*	347	21.053	.000
High isolation	2.73	677		
Total		1024		

* Number of days drank last month

Summary of descriptive analysis

The results from the correlation coefficients and ANOVAs indicate that frequency of attending meetings, programs, etc. has a negative relationship with both frequency and quantity of alcohol intake. In other words, those who attend meetings frequently (thus, are less

isolated) drink less frequently and in lower quantities. Only the correlation coefficient result for the relationship between frequency of visiting with friends and frequency of alcohol consumption was significant. However, it was not in the direction that was expected. The results indicated that those who visit friends frequently drink more frequently.

Multiple regression analysis

It is also important that we examine the relationship between social isolation and frequency and quantity of alcohol intake with control variables. Table 13 shows the results when all the control and independent variables are entered in the regression model predicting alcohol intake. Consistent with prior literature, sociodemographic variables such as sex, age, education and family income have a significant relationship with frequency of alcohol intake. In regards to quantity of alcohol intake, family income did not predict alcohol intake.

Consistent with prior literature, being divorced predicted both frequency and quantity of alcohol intake. Being separated and never married had an impact only on the frequency of alcohol intake. Also, consistent with prior literature, being widowed did not predict alcohol intake. The widowed population is older and deviant behavior such as substance abuse declines with age.

When we did a one way analysis, we discovered that

frequency of visiting friends had a quadratic significant trend with frequency of alcohol use. Thus, we used orthogonal polynomials in the regression analysis instead of the original values of the continuous independent variables.

As seen in table 13, frequency of visiting with friends, neighbors and relatives (both the linear and the quadratic trend) predicted frequency of alcohol intake. Quantity of alcohol intake did not have a significant relationship with frequency of visiting with friends. The quadratic significant trend shows a positive relationship between frequency of visiting with friends and frequency of alcohol intake. The results show that people who visit friends frequently, drink more frequently. On the other hand, the linear significant trend shows a negative relationship between frequency of visiting friends and frequency of alcohol intake. The linear significant trend supports our hypothesis that those who are most isolated will drink more frequently. Thus, the results show that those who are most isolated drink most frequently and those that are least isolated also drink more frequently.

TABLE 13

Regression of frequency and quantity of alcohol intake on isolation

Predictors	Unstandardized Regression Coefficients	
	Predicting frequency of alcohol intake	Predicting quantity of alcohol intake
Age	.10 **	.002**
Sex (male=1)	.267**	.245**
Education	.059*	-.151**
Race (black=1)	.003	.046
Family income	.130**	-.033
Employment status (working=1)	-.043	-.050
Widowed	.021	.002
Divorced	.077**	.072**
Separated	.062*	.049
Never married	.068**	-.006
Frequency talk on phone	.009	-.005
Frequency visit friends (linear)	-.059*	.033
Frequency visit friends (quadratic)	.065*	---
Frequency attend meetings	-.109**	-.056*
(Constant)	-2.989	4.643
	N=1855	N=1575
	R squared=.105	R squared=.138

*p<.05 **p<.01

Frequency of attending meetings predicted both the frequency (H2c) and the quantity of alcohol intake (H3c), as was expected. People who attend meetings frequently, drink less frequently and in lower quantities.

Frequency of visiting with friends, neighbors and relatives was found to actually contribute to alcohol use,

especially frequency of drinking. Again, this can be explained if the mechanisms in which social isolation contributes to alcohol use are explored. Having a sense of meaning, obligation and constraint are important since they create a commitment to norms for conventional behavior. Thus, the individual who is less isolated will be more committed to norms provided by others than someone who is highly isolated. If one's peer group use alcohol, then being less isolated can actually contribute to alcohol use since the individual is committed to follow norms provided by others.

Frequency of talking on the phone did not have a significant relationship with either frequency or quantity of attending meetings. Possible explanations can be found if we explore how social isolation affects the inclination to drink. Being socially integrated creates a sense of meaning and also contributes to formation of a set of important obligations and constraints. Thus the individual who is socially isolated lacks meaning, obligations and constraints in his or her life. The sense of meaning, obligation and constraint that arise from social relationships inhibit negative health behavior such as alcohol use. Intuitively, argument can be made that talking on the phone does not contribute to the individual's sense of meaning, obligation and constraint to a level which is necessary to inhibit negative health behavior. To further

examine talking on the phone, we can explore the individual's perception of their conversations on the phone. Perhaps this will be a better measurement of social relationship that can contribute to the individual's sense of meaning. Thus, we can examine two other variables in relationship to alcohol use. One variable asked the respondents how many friends they can call on for advise; the other variable asked the respondents how willing their friends were to listen to them. In both cases, we found no significant relationship between the variables and any of the alcohol use measures.

Conclusion

What our results show is that frequency of attending meetings, programs, clubs or organizations predict ever use alcohol, frequency and quantity of alcohol intake. Those who attend meetings, programs, etc. are less likely to drink, drink less frequently and in lower quantities. One way to interpret these results is to argue that attending meetings, programs, etc. creates a sense of meaning, obligation and constraint that inhibit negative health behavior such as alcohol use. This interpretation is argued by Umberson who found that social relationships can provide the individual with a sense of meaning, obligation and constraint. In turn this sense of meaning, obligation and constraint can impact the individual's health behavior

(Umberson 1987).

Our other results show that frequency of visiting with friends, neighbors and relatives predicts ever use alcohol and frequency of alcohol intake but not quantity of alcohol intake. Our results also showed that those who visit friends least frequently drink most frequently. On the other hand, the results show that those who visit friends most frequently are more likely to drink and drink more frequently. This result was not in the direction that we had initially hypothesized. As was interpreted previously, those who frequently visit friends can drink more frequently because of the norms set by the environment in which they meet their friends. Environments in which friends, neighbors and relatives meet each other are usually characterized by pleasure seeking. Since, in the literature, pleasure seeking is found as a motive for alcohol use, it can be easily noted that visiting with friends, neighbors and relatives can actually contribute to alcohol use.

In this chapter, we were not able to make a strong case for the relationship between frequency of talking on the phone, ever use alcohol, frequency and quantity of alcohol intake. When we examined the relationship without the control variables, we found some significant results, as was expected. However, we found that the introduction of control variables did explain away the relationship. Thus,

we proceeded to discover what is important about talking on the phone in relationship to alcohol use. We found that talking on the phone should contribute to the individual's sense of meaning, obligation and constraint. We hypothesized that perhaps the individual's perception of his or her conversation on the phone is a better measurement of social integration or lack of social isolation. People can talk on the phone frequently and still feel that they don't have friends that listen to them. Thus, we examined two variables in relationship to alcohol use. One variable asked the respondents how many friends they can call on for advice; the other variable asked the respondents how willing their friends were to listen to them. In both cases, again, we found no significant relationship.

Our study has established that social isolation, especially attending meetings, programs, etc., is a consequential determinant of alcohol use. From our study, it is not clear what exactly it is about attending meetings, programs, etc. that affects alcohol use and how these effects occur. Umberson (1987) has suggested that direct and indirect forms of social control are possible mechanisms in which social relationships influence health behavior. These should be key issues for future research. Our study has also established that frequency of visiting with friends and attending meetings, programs, etc. are important aspects of social isolation that affect alcohol use. Future

research can identify other dimensions of social isolation that might affect alcohol use.

Future research can also take account of macro social determinants of social isolation. For example, one's position in the social stratification system affects ones level of social isolation. Socioeconomic inequality and discrimination can affect one's quantity of social relationships. One can argue that attending meetings, programs, clubs or organizations becomes a luxury for someone who is marginalized in the society either due to poverty or discrimination. Thus, in the next chapter, we will consider some of the important macro social determinants of social isolation. We will specifically examine socioeconomic status and race as two important determinants of one's level of social isolation.

CHAPTER FOUR

Research findings: social isolation, race and socioeconomic status

In this chapter, we will examine the relationship between social isolation, race and socioeconomic status. As mentioned in the review of literature, the three dimensions of social isolation have not been examined in relationship to socioeconomic status and race. Thus in this chapter, based on previous literature, we will investigate the following hypotheses:

H1: Blacks are more isolated than whites. The detailed hypotheses to be tested are H1a: blacks are less likely to talk on the phone, H1b: blacks are less likely to visit with friends H1c: blacks are less likely to attend meetings, programs, etc.

H2: Low Socioeconomic status persons are more isolated than high socioeconomic status persons. The detailed hypotheses are: H2a: The more education or income the individual has, the more likely he or she is to talk on the phone, H2b: the more likely he or she is to visit with friends, and H2c: the more likely he or she is to attend meetings, programs, etc.

H3: Low socioeconomic status blacks are more isolated than the high socioeconomic status blacks.

Bivariate analysis

The correlation coefficient, one-way analyses of variance (ANOVAs) were used to test the hypotheses. The social isolation variable consists of three measures: a) frequency of talking on the phone with friends, neighbors, or relatives, b) frequency of visiting with friends, neighbors or relatives and c) frequency of attending meetings, or programs of groups, clubs or organizations. Here, social isolation is coded so that the most isolated are coded as 1 and the least isolated are coded as 6. We did this so that with the COEFFICIENTS results, those who engage in most social activities (less isolated) have higher mean scores than the more isolated.

Race is coded as a dichotomy (1=blacks, 0=whites). There are several ways to measure socioeconomic status (SES). Some researchers use a single indicator like education, income, or occupational status. Other researchers use a weighted composite of two or more indicators. Some researchers have concluded that the most stable measure of SES and the best SES predictor of health status or behavior is education. Income is also found to be an important SES predictor of health status. Thus, in the analysis here, family income and respondent's education is entered as separate indicators of class. The education variable ranges from zero years of schooling to seventeen years of schooling. The income variable ranges from less

than $5,000 to more than $80,000.

Table 14 illustrates the results of the correlation coefficient between race, education, income and social isolation. The correlation coefficient results indicate whether race, education and income are positively or negatively correlated with social isolation.

As results indicate, blacks are less likely to talk on the phone (-.108**) and visit with friends (-.149**); however, although not significant, they are more likely to attend meetings, programs, etc. This supports the H1a and the H1b hypotheses. Also found was that the less educated and those with less income are less likely to talk on the phone, visit with friends and attend meetings, programs, clubs and organizations. These results are consistent with the H2a, H2b, H2c hypotheses. Thus, we can conclude that low SES persons are more isolated than the higher SES persons.

TABLE 14

Correlation coefficient

Social isolation in relationship to race, education, income			
	Freq talk on phone	Freq visit with friends	Freq attend meetings, programs, etc.
Race (black=1)	-.108**	-.149**	.020
Education	-.178**	-.135**	-.183**
Income	-.10**	-.073**	-.138**

*p<.05 **p<.01

At the next stage of analysis, one-way analyses of variance (ANOVAs) were computed. To compute ANOVAs, education was divided into three categories of low, middle and highly educated. Table 15 presents the results for frequency of talking on the phone, visiting with friends and attending meetings, clubs, etc. among low, middle and highly educated blacks. The coding for frequency of talking on the phone, visiting with friends, attending meetings ranges from one to six. Those who least frequently engage in such activities are coded as one and those who engage the most are coded as six. Therefore, the higher the mean number, the more frequently the respondent either talks on phone, visits with friends or attends meetings, programs, etc.

Accordingly, the highly educated blacks talk the most frequently on phone (4.71) and blacks with the lowest level of education talk the least frequently on the phone (4.2). Although not significant, the same trend is found when examining frequency of visiting with friends. Moreover, it is found that the highly educated have the highest mean score (3.55) for frequency of attending meetings, clubs, etc. Thus, the most educated blacks attend meetings, clubs, etc. more frequently than the least educated blacks. These results support our H3 hypothesis.

TABLE 15

Mean of isolation among low, middle and highly educated blacks

	Mean	N	F	Sig of F
		Frequency talk on phone		
Education				
Low	4.20	566	8.686	.000
Middle	4.33	255		
High	4.71	260		
		1081		
		Frequency visit with friends		
Education				
Low	3.99	566	2.739	.337
Middle	4.02	255		
High	4.22	260		
		1081		
		Frequency attend meeting, clubs, etc.		
Education				
Low	2.58	566	77.359	.000
Middle	2.71	255		
High	3.55	260		
		1081		

Table 16 shows the results for frequency of talking on phone, visiting with friends and attending meetings, clubs, etc. among low, middle and highly educated whites. Also among whites, it is found that the highly educated whites talk on phone, visit with friends, attend meetings, clubs, etc. more frequently than the middle and low educated

whites. Thus, the highly educated whites are least isolated and the lesser educated whites are most isolated.

Table 16

Mean of isolation among low, middle and highly educated whites

	Mean	N	F	Sig of F
		Frequency talk on phone		
Education				
Low	4.38	613	17.249	.000
Middle	4.72	675		
High	4.78	823		
		2111		
		Frequency visit with friends		
Education				
Low	4.30	613	12.472	.002
Middle	4.56	675		
High	4.66	823		
		2111		
		Frequency attend meeting, clubs, etc.		
Education				
Low	2.27	613	29.925	.000
Middle	2.77	675		
High	3.18	823		
		2111		

Summary of Bivariate analysis

Blacks were found to talk on the phone and visit with friends less frequently than whites. However, they attend meetings, club, etc. more frequently than whites. Low income and less educated persons talked on the phone, visited with friends and attended meetings, clubs, etc. less frequently than the high income and higher educated persons. We also tested to see if education interacts with race in determining isolation. Our results show that highly educated blacks are less isolated than the less educated blacks. A discussion of the interpretation is provided in the next section.

Multiple Regression analysis

The relationship between isolation, race, education and income were also examined using ordinary least squares multiple regression. Separate sets of regression analysis were performed. First, the main effects were entered in the order of sex, age and then race, education, income and the interaction effects were entered separately.

Table 17 shows the results with all the control and independent variables entered in the regression model predicting isolation. As Table 17 demonstrates, there is a significant relationship between race and the three measures of social isolation. Since black is coded one, the

interpretation follows that blacks are less likely than whites to talk on the phone and (B=-.104), visit with friends (B=-.143); however, they are more likely than whites to attend meetings, programs, etc. (B=.075).

There are few possible explanations for our findings. A possible explanation as to why blacks visit with friends less frequently than whites could be found in the severe restrictions of residential choice. Blacks might be less able to entertain guests due to unsatisfactory living quarters. Blacks are often restricted in their housing choices, due to segregation, in spite of their social mobility. Therefore, middle class and higher class blacks can still live in poorer neighborhoods. It makes intuitive sense that people would be uncomfortable to invite guests to their homes if they feel ashamed of the way their dwelling looks like, or if they are ashamed of the neighborhood in which they live in.

On the other hand, blacks who break the ethnic segregation barriers might be isolated due to racism. They can be surrounded by white neighbors who are not interested in associating with blacks. Thus, blacks might visit with friends, relatives and neighbors less frequently than whites because of several reasons. One, both low and high income blacks might entertain guests less frequently due to unsatisfactory living quarters, like public housing and poor neighborhoods. Second, middles class and higher class

blacks can be isolated from their white neighbors.

Blacks might attend meetings, programs, etc. more frequently than whites because of their greater involvement in church activities. Studies indicate that blacks attend church more frequently than whites (Berkman & Breslow 1983). Consequently, blacks might attend more meetings, programs, clubs than whites.

As shown in Table 17, education also has a significant relationship with the three measures of social isolation. As education increases, the respondent is more likely to talk on the phone (B=.178), visit with friends (B=.125), and attend meetings, programs, etc (B=.272). This is consistent with both the correlation coefficient and the COEFFICIENTS results. A possible explanation for the significant relationship between education and social isolation could be the existence or absence of social skills. School teaches social skills; it is also an ideal place to make friends with people of similar ages and backgrounds. Friendships formed through college often last through a life time.

Income also has a significant relationship with social isolation. As income increases, the respondent is more likely to talk on the phone (B=.114) and attend meetings, clubs, etc. (B=.193). However, the relationship between income and frequency of visiting with friends is not significant. An important factor as to why income has a significant relationship with social isolation could be

resources. Resources allow people to have telephones; it allows people to travel easily in order to make contacts with potential friends. Those with financial means are also able to entertain guests; they can go out socially because of resources that allow them to have free time from household tasks. Overall, those with income are less hampered by constraints.

Interaction terms between main effects of race, education and income were entered in the equation to assess their significance. Here, we wanted to know if race relates to isolation differently depending on the level of education and income. Table 17 presents the results for the significant interaction terms. Of the two interaction terms, race * education and race * income, only one interaction term has a significant relationship with social isolation. As seen in Table 17, the interaction term race * education has a significant relationship with all three measures of social isolation. Thus for blacks, the relationship between education and frequency of visiting with friends and attending meetings, clubs, etc. is positive. This means that among blacks, the highly educated will visit with friends and attend meetings, clubs, etc. more frequently than the less educated blacks.

TABLE 17

Regression of isolation on race, education, income,

Predictors	Unstandardized Regression Coefficients		
	Freq talk on phone	Freq vst friends	Freq attend meetings
Sex (male=1)	-.242**	-.045*	-.045*
Age	.014	-.095**	.079**
Race (black=1)	-.104**	-.143**	.075*
Education	.178**	.125**	.272**
Income	.144**	.013	.193**
Race * Educ	.037	-.133*	.106*
Race * Income	.032	-.009	-.006
Constant	3.211	2.024	5.249
	N=3492	N=3196	N=3195
	R squared= .088	R squared= .033	R squared= .03

* p<.05 ** p<.01

However, this interaction term does not tell us whether among blacks, education is an important predictor of social isolation. Table 18 shows the results of regression of isolation on education among blacks. As seen, education has a significant relationship with all the three measures of social isolation. This means that as blacks move up the education ladder, they talk on phone, visit with friends and attend meetings, clubs, etc. more frequently.

TABLE 18

Regression of isolation on education among blacks

Predictors	Unstandardized Regression Coefficients		
	Freq talk on phone	Freq visit friends	Freq attend meetings
Sex (male=1)	-.219**	.043	-.038
Age	.179**	-.076*	.208**
Income	.066	-.055	.091*
Education	.235**	.079*	.226**
Constant	4.374	2.86	6.731
	N=1072	N=1084	N=1083
	R squared=.098	R squared=.015	R squared=.063

* p<.05 ** p<.01

Summary of regression analysis results

A significant relationship was found between race and the three measures of isolation. Blacks talked on the phone and visited with friends less frequently than whites; however, they attended meetings, clubs, etc. more frequently than whites.

The lower income and the less educated talked on the phone, visited with friends, and attended meetings, clubs, etc. less frequently than the higher income and the more educated. When testing for the interaction between race and education, we found that the significant relationship between race, frequency of talking on phone, visiting with

friends, attending meetings, clubs, etc. became stronger when education was added in the equation. We also found that as blacks move up the education ladder, they talk on the phone, visit with friends and attend meetings, clubs, etc. more frequently.

Conclusion

Our results show that race is significant in predicting social isolation. Hypothesis H1a and H1b were supported. We found that blacks are less likely than whites to talk on the phone with friends, neighbors or relatives and visit with friends, neighbors or relatives. However, they are more likely than whites to attend meetings, programs, etc. Thus, hypothesis H1c was not supported.

Education and income were also found significant in predicting social isolation. The less educated blacks are less likely to talk on phone, visit with friends and attend meetings, programs, etc. Thus, we can conclude that the less educated blacks are more isolated. For income, the lower income groups were less likely to talk on phone or attend meetings, programs, etc. Thus, hypotheses, H2a, H2b, H2c would be supported, except that the lower income blacks were not less likely to visit with friends, relatives and neighbors.

Our study also established that there is a significant interaction between race and education in relationship to

frequency of talking on the phone, visiting with friends, attending meetings, clubs, etc. When education was added in the regression equation, it became evident that the less educated blacks are even more isolated than the higher educated blacks. Thus, H3 was partially supported. We did not examine isolation of low vs. high income blacks, since we did not find income to interact with race in predicting social isolation.

Based on our results, we were unable to conclude that blacks are more isolated than whites, since we found that blacks are more likely than whites to attend meetings, programs, etc. However, one can argue as Dohrenwend & Dohrenwend (1970) do that this area of advantage is not sufficient to counterbalance the other disadvantages blacks face. Moreover, one can argue that talking on the phone and visiting with friends provide a stronger sense of integration than attending meetings, programs, etc. Talking on the phone and visiting with friends are contexts in which informal contacts are made, where individuals share ideas and feelings. Attending meetings, programs, etc, on the other hand, is a more formal setting where the individual might not necessarily establish an informal relationship. For example, a person might attend a formal meeting but never establish an informal contact with any of the members of that group. This can be especially true if one is attending a program.

In the next chapter, we will examine the relationship between race, socioeconomic status, social isolation and alcohol use. We want to investigate race, socioeconomic status and social isolation as they interact together in predicting alcohol use. The hypothesis is that they do interact; in other words, blacks or low socioeconomic status people will drink more frequently than whites or higher socioeconomic status people due to isolation.

CHAPTER FIVE

Research findings: social isolation, race, SES, and alcohol use

The major aim of this chapter is to examine the interaction between social isolation, race, SES, and alcohol use. Basically, we want to understand the role of social isolation in predicting ever use alcohol, frequency and quantity of alcohol intake of whites vs. blacks and low SES blacks versus high SES blacks.

In chapter three, we examined the effect of social isolation on alcohol use. We discovered that social isolation is a determinant of alcohol use. In chapter four, we explored the relationship between race, SES and social isolation. We found that a significant relationship does exist; whites tend to talk on the phone and visit with friends, neighbors or relatives more frequently than blacks, while blacks attend meetings, programs, etc. more frequently than whites. Now, we want to test for the interaction of all the above variables, race, SES, social isolation and alcohol use.

Thus, the hypothesis will be:

H1) Frequency of visiting with friends will predict alcohol use among whites. The detailed hypothesis will be: H1a) Frequency of visiting with friends, neighbors and relatives

will predict ever use alcohol among whites only, H1b) Frequency of visiting with friends, neighbors and relatives predict frequency of alcohol intake among whites only, H1c) Frequency of visiting with friends, neighbors and relatives will predict quantity of alcohol intake among whites only.

H2) Frequency of attending meetings, programs, etc. will predict alcohol use among blacks only. The detailed hypothesis will be: H2a) Frequency of attending meetings, programs, etc. will predict ever use alcohol among blacks only, H2b) Frequency of attending meetings, programs, etc. will predict frequency of alcohol intake among blacks only, H2c) Frequency of attending meetings, programs, etc. will predict quantity of alcohol intake among blacks only.

H3) There will be a difference between the less and the more educated blacks in relationship to isolation and alcohol use.

Analytic procedures

In tables 19 and 20, we regressed frequency and quantity of alcohol intake on isolation and race. We did a cross product of race with visiting friends and attending meetings, programs, etc. As seen in both tables 19 and 20, we found no significant relationship for our interaction terms.

TABLE 19

Regression of ever use alcohol on isolation, race and interaction terms

Predictors	Unstandardized Regression Coefficient
	Predicting ever use alcohol
Sex (male=1)	.148**
Education	.129**
Family income	.204**
Employment status (working=1)	.02
Widowed	.049*
Divorced	.078**
Separated	.075**
Never married	.049**
Race (black=1)	-.032
Frequency visit friends	.061**
Frequency attend meetings	-.081**
Race * vst friends	.017
Race * attend meetings	-.048
Constant	.277
	R squared .196
	N=3190

*p<.05 **p<.01

TABLE 20

Regression of frequency and quantity of alcohol intake on isolation, race and interaction terms

Predictors	Unstandardized Regression Coefficient	
	Predicting frequency of alcohol intake	Predicting quantity of alcohol intake
Age	.099**	-.229**
Sex (male=1)	.254**	.246**
Education	.061*	-.15**
Family income	.116**	-.034
Employment status (working=1)	-.035	-.05
Widowed	.004	.05
Divorced	.075**	.072**
Separated	.040	.049
Never married	.063*	-.006
Race (black=1)	.025	.046
Freq vst friends (linear)	-.033	.03
Freq vst friends (quadratic)	.1*	
Freq attend meetings	-.108**	-.057*
Race * vst friends	-.001	-.02
Race * attd meetings	-.064	-.017
Constant	.291	4.752
	R squared .100 N=1289	R squared .138 N=1576

*p<.05 **p<.01

To further examine hypothesis (H2a, H2b, H2c), subgroups of black were examined. In a study, Herd (1989) found heavy drinking among white men in the 18-to-29 age category with a decline in successive age groups. On the other hand, she found high abstention rates among black men between 18 and 29, with an increase for those in their thirties. This increase in alcohol use after age thirty

reflects drinking due to problems. We wanted to test further the hypothesis that blacks are not social drinkers but that they drink because they feel socially isolated. Thus, we thought that separating blacks by age might reflect our hypothesis that blacks drink because they feel socially isolated. Thus, we divided blacks into different age groups. Separate regressions were run for blacks over the age of 30 and under the age of 30. No difference in the drinking pattern of the younger vs. the older blacks was found. Thus, the results were identical to our table 18.

In Chapter four, it was established that for blacks the relationship between education and frequency of attending meetings, programs, etc. is positive. Thus here, blacks were divided into high vs. low education groups. This was done to test the interaction between social isolation, race, SES, and alcohol use. Based on the mean of education among blacks, those with 11 and less than 11 years of education were the lower educated group and those with 12 and more than 12 years of education were the higher educated group.

In tables 21 and 22, regression of ever use alcohol on isolation among the less educated and the more educated blacks is shown. As seen, in both groups, frequency of visit with friends contributes to the likelihood of alcohol use and attending meetings, programs, etc. lessens the likelihood of alcohol use. Thus, the significant results for isolation were identical for the less vs. the more

educated.

TABLE 21

Regression of ever use alcohol on isolation among less educated blacks

Predictors	Unstandardized Regression Coefficient
	Predicting ever use alcohol
Age	-.111**
Sex (male=1)	.120**
Income	.0119*
Employment Status (working=1)	.148**
Widowed	.008
Divorced	.079
Separated	.154**
Never married	.120**
Freq vst friends	.08*
Freq attend meetings	-.107**
Constant	.131
	R squared=.149
	N=567

*P<.05 **p<.01

TABLE 22

Regression of ever use alcohol on isolation among more educated blacks

Predictors	Unstandardized Regression Coefficient
	Predicting ever use alcohol
Age	-.115**
Sex (male=1)	.156**
Income	.27**
Employment Status (working=1)	-.012
Widowed	.002
Divorced	.086
Separated	.136**
Never married	.146**
Freq vst friends	.092*
Freq attend meetings	-.143**
Constant	.231
	R squared=.131
	N=515

*p<.05 **p<.01

Similarly, in tables 22 and 23 frequency of visiting with friends and attending meetings, programs, etc. predict frequency and quantity of alcohol intake similarly for the less vs. the more educated blacks.

TABLE 22

Regression of frequency and quantity of alcohol intake on isolation among less educated blacks

Predictors	Unstandardized Regression Coefficient	
	Predicting frequency of alcohol intake	Predicting quantity of alcohol intake
Age	-.110**	-.13**
Sex (male=1)	.308**	.331**
Income	.21*	-.06
Employment Status (working=1)	-.121	-.111
Widowed	.170*	-.109
Divorced	.164*	.068
Separated	.189*	.052
Never married	.117	-.082
Freq vst friends	.045	.121
Freq attend meetings	-.183**	-.085
Constant	2.21	2.43
	R squared=.163 N=222	R squared=.152 N=175

*p<.05 **p<.01

TABLE 23

Regression of frequency and quantity of alcohol intake on isolation among more educated blacks

Predictors	Unstandardized Regression Coefficient	
	Predicting frequency of alcohol intake	Predicting quantity of alcohol intake
Age	-.121**	-.104**
Sex (male=1)	.255**	.136*
Income	.052	.115
Employment Status (working=1)	.012	-.01
Widowed	-.069	-.053
Divorced	.107	.087
Separated	.022	.081
Never married	.053	.115
Freq vst friends	.077	-.096
Freq attend meetings	-.138*	-.066
Constant	3.92	3.336
	R squared=.111 N=301	R squared=.054 N=258

*p<.05 **p<.01

Conclusion

In this chapter we attempted to find a significant relationship between race, SES, ever use alcohol and isolation. Our hypothesis was that frequency of attending meetings, programs, etc. will predict alcohol intake, frequency and quantity of alcohol intake among blacks, while frequency of visiting with friends, relatives and neighbors will predict ever use alcohol, frequency and quantity of alcohol intake among whites. We expected to find that only attending meetings, programs, etc. predicts ever use alcohol

among blacks. This was with the assumption that attending meetings is a form of social integration that will lessen alcohol use, while visiting friends represents social drinking and not social integration per se.

Among both blacks and whites, visiting with friends, relatives and neighbors and attending meetings, programs, etc. predict all three alcohol measures, ever use alcohol, frequency and quantity of alcohol intake. This was not expected. We had argued that attending meetings, programs, etc. would not be a significant predictor of alcohol use among whites, since social isolation would not predict drinking among whites. The implication of our finding is that whites drink both due to social integration and social isolation. In other words, they drink with their friends, neighbors and relatives. They also drink when they feel socially isolated, such as when not attending meetings, programs, etc. This interpretation is implied by our finding of a curvilinear relationship between frequency of visiting with friends, neighbors and relatives and frequency of alcohol use.

In the next stage of analysis, we regressed the cross product of race with visiting with friends and attending meetings, programs, etc. on the three alcohol use measures. We found no significant relationship. This means that race did not relate to any of the alcohol use measures differently based on the level of social isolation.

We also wanted to see if any of the subgroups of blacks would yield different significant results; we found none. We thought maybe social isolation would be significant among older blacks. This was based on the assumption that blacks start drinking heavily at a later age due to social isolation.

As explained previously, our results might have suffered due to methodological and substantial reasons. Our measurements were not precise enough to predict the role of social isolation in alcohol use among blacks and whites. Our only significant result was that among blacks, only attending meetings, programs would predict frequency of alcohol use. Future research can ascertain alcohol use in relation to social isolation among blacks and whites by asking the respondents directly to explain why they drink.

CHAPTER SIX

SUMMARY AND CONCLUSIONS

In this concluding chapter, some of the major results of the study, as well as the implications of the findings of the study, will be discussed. The limitations of the present study and directions for future research will also be addressed.

Findings and implications

Durkheim had noted that social integration can reduce the probability of problematic or maladaptive behavior. He had argued that social relationships such as marriage, parenthood, religious involvement and employment can reduce suicide rate by providing a sense of meaning and purpose in life and by creating a set of constraints and controls on individual behavior (Durkheim 1951).

What Durkheim failed to note was that social integration can also have negative consequences. Our most interesting and notable finding is that social integration can have benefits as well as costs for the individual. As will be reviewed in the summary of our findings, we note that the research findings reflect partly Durkheim's classic view of social integration, in which social integration is benefical to the individual. On the other hand, our

findings point to the fact that social integration can also have negative consequences for the individual, such as alcohol use.

In this research, we found support for our hypothesis that frequency of attending meetings lessens alcohol use. Also according to our hypothesis, we found that frequency of visiting with friends lessens alcohol use; however, we found that it can also contribute to alcohol use. When examining social isolation in relationship to race and socioeconomic status, our hypothesis that blacks talk on the phone and visit with friends less frequently than whites was supported. Also according to our hypothesis, we found that the more educated talked on the phone, visited with friends and attended meetings more frequently than the less educated. Moreover, the more educated blacks talked on the phone, visited with friends, and attended meetings more frequently than the less educated blacks. Our hypothesis that social isolation predicts alcohol use among blacks only was not supported. We found that frequency of visiting with friends and attending meetings predicted alcohol use among both whites and blacks. In the next section, a more detail overview of our findings is provided.

Social isolation and alcohol use

In chapter three of this study, we examined the relationship between social isolation and ever use alcohol,

frequency and quantity of alcohol use. Previous empirical work indicated that frequency of attending meetings, programs, clubs and organizations differentiates heavy drinkers from moderate drinkers. Frequency of attending meetings is only one of the dimensions of social isolation. However, the two other dimensions of social isolation, a) frequency of visiting with friends, neighbors and relatives and b) talking on the phone were left unexamined. Thus we wanted to document whether the three dimensions of social isolation predicted the three measures of alcohol use.

The main hypotheses were that a) frequency of talking on the phone, b) visiting with friends, relatives and neighbors and c) attending meetings, programs, etc. would contribute to ever use alcohol, frequency and quantity of alcohol use. Our analyses indicated that visiting with friends, relatives and neighbors predicts ever use alcohol and frequency of alcohol intake but not quantity of alcohol intake. Although we began with the expectation that visiting with friends, relatives and neighbors would contribute to less drinking, the data revealed that those who visit with friends, relatives and neighbors are more likely to drink and drink more frequently.

Our main interpretation of this finding was that those who frequently visit with friends, neighbors and relatives can drink more frequently because of the norms set by the environment in which they meet their friends. Environments

in which friends, neighbors and relatives meet each other are usually characterized by pleasure seeking or social conviviality. Since pleasure seeking is a motive for alcohol use, visiting with friends can actually contribute to alcohol use. This interpretation can be further implied by the finding that while visiting with friends predicts frequency of alcohol intake, it does not predict quantity of alcohol intake. Quantity of alcohol intake represents binge drinking, drinking which can be associated with problem drinking and not social drinking.

In our analysis, we had discovered that the relationship between frequency of visiting with friends and frequency of alcohol use is curvilinear. Thus, this also implies that those at the low end level of frequency of visiting will also have higher frequencies of alcohol intake.

Finding a curvilinear relationship between visiting friends and frequency of alcohol use provides a key insight for those who examine the relationship between social integration and health behavior. Our finding highlights that social integration can have both negative and positive damaging health behavior effect. Researchers usually discuss the positive effect of social integration on health behavior. Umberson (1987) had argued that through direct social control a family member can affect health behavior, such as the type and the amount of food an individual

consumes. Thus a relative can facilitate or directly impose health promoting behavior. Umberson further suggests that indirect social control occurs when individuals are forced to follow the norm offered by family members. Our finding suggests that the same type of control can be potentially negative if the family member engages in the same negative behavior. Thus, if the expected activity of a group of friends or family members is drinking, this will influence how frequently the individual drinks.

Our analyses also indicated that attending meetings, programs, etc. predicts ever use alcohol, frequency and quantity of alcohol use. Those who attend meetings, programs, etc. are less likely to drink, drink less frequently and in lower quantities. As interpreted earlier, attending meetings, programs, etc. can create a sense of meaning, obligation and constraint that inhibit negative health behavior such as alcohol use. Another possible interpretation is that attending meetings, programs, etc. represents the types of activities shared with spouses and children. Thus, drinking will not be the focus of such meetings, programs, etc.

The data indicated that frequency of talking on the phone did not predict any of the three measures of alcohol use. We attempted to examine this hypothesis further by examining a different variable in relationship to alcohol use. We examined the variable of the 'willingness of

friends to listen to the respondent's problems'. We found that it had no significant relationship with alcohol use. The significance of these results is that talking on the phone might not contribute to the individual's sense of meaning, obligation and constraint to a level which is necessary to inhibit negative health behavior. Thus this finding implies that talking on the phone with friends, relative and neighbors does not play a significant role in predicting any of the three measures of alcohol use.

Overall, our examination of the three dimensions of social isolation in relationship to ever use alcohol, frequency and quantity of alcohol use delineated the dimensions of social isolation that have significant consequences for alcohol use. Our finding also points out the direction of the relationship between the various dimensions of social isolation and alcohol use. Whereas frequency of attending meetings contributes to less drinking, frequency of visiting with friends, neighbors and relatives contributes to more drinking.

Social isolation, race and socioeconomic status

In chapter four, we examined the main hypotheses that blacks are more isolated than whites and that the lower socioeconomic groups are more isolated than the upper socioeconomic groups. Furthermore, we hypothesized that the lower socioeconomic status blacks would be more isolated

than the higher socioeconomic status blacks.

Previous theoretical and empirical work indicated that blacks and the lower socioeconomic groups have less social support and social network. However, no one had yet examined whether blacks and lower socioeconomic groups would differ from whites and upper socioeconomic groups based on the three dimensions of social isolation, frequency of talking on the phone, visiting with friends, neighbors and relatives and attending meetings, programs, etc.

Our expectation was that blacks would be less likely to talk on the phone, visit with friends, relatives and neighbors and attend meetings, programs, etc. Our data showed that blacks are less likely than whites to talk on the phone and visit with friends, neighbors or relatives. However, they are more likely than whites to attend meetings, programs, etc.

An earlier interpretation suggested that severe restrictions of residential choice caused blacks to visit with friends less frequently than whites. Blacks are often restricted in their housing choices, due to segregation, in spite of their social mobility. Therefore, middle class and higher class blacks can still live in poorer neighborhoods. On the other hand, blacks who break the ethnic segregation barriers tend to be surrounded by white neighbors who are not interested in associating with blacks. Thus, several reasons may cause blacks to visit with friends, relatives

and neighbors. One, both low and high income blacks might entertain guests less due to unsatisfactory living quarters, like public housing and poor neighborhoods. Second, middle class and higher class blacks can be isolated from their white neighbors.

Blacks might attend meetings, programs, etc. more frequently than whites because of their greater involvement in church activities. Studies indicate that blacks attend church more frequently than whites (Berkman & Breslow 1983). Consequently, blacks might attend more meetings, programs, clubs than whites.

Based on the above findings, we could not determine if blacks are more or less isolated than whites. Blacks talk on the phone and visit with friends less frequently than whites; on the other hand, they attend meetings, programs, etc. more frequently than whites. However, talking on the phone and visiting with friends provide a stronger sense of integration than attending meetings, programs, etc. Talking on the phone and visiting with friends, relatives and neighbors are contexts in which informal contacts are made. In these types of contacts individuals share ideas and feelings informally. Attending meetings, programs, etc. on the other hand, is a more formal setting where the individual might not necessarily establish an informal relationship.

Both education and income, our two measures of

socioeconomic status, predicted social isolation. As education increased, the respondent was found more likely to talk on the phone, visit with friends, relatives and neighbors and attend meetings, programs, etc. A possible explanation could be that education teaches social skills. Moreover, school is an ideal place to make friends with people of similar ages and backgrounds.

Income also predicted social isolation. As income increased, the respondent was found more likely to talk on the phone and attend meetings, programs, etc. Income provides resources, allows people to have telephones, and frees people from household tasks so that they can go out socially. For example, lack of transportation can hinder people from attending meetings, programs, etc. Or, lack of income forces people to work longer hours or to work more than one job. This leaves little time for social activities, such as attending meetings.

Since blacks attend meetings, programs, etc. more than whites, a prevention strategy for blacks could be to educate them on alcohol use through community programs. These educational programs can inform members as to the causes of alcohol problems, intervention and prevention strategies. Moreover, since blacks attend churches more than whites, churches can also play a role in prevention by educating their members.

The implication of finding a significant relationship

between education, income and social isolation is that it highlights the importance of resources. People's positions in the social structure exposes them to varying opportunities and resources. Education and income and lack of it can either provide opportunities or create structural barriers. This in turn can shape social relationships, such as talking on the phone and visiting with friends.

We also expected to find that race relates to isolation differently depending on the level of education and income. The data indicated that as blacks move up the education ladder, they talk on the phone, visit with friends, neighbors and relatives and attend meetings, programs, etc. more frequently. This implies that among blacks, education can exacerbate or relieve the consequences of race in relationship to social isolation.

Race did not interact with income to predict isolation. This finding can support our earlier interpretation that higher income and middle income blacks can encounter white neighbors who do not associate with blacks socially. Thus, blacks might have less chances to visit with their neighbors. Moreover, at work place blacks might also be socially isolated. As blacks move up the ranks in an organization, they might find that there are so few of them. Consequently, blacks again will be more restricted in their choice of friends.

The implication of finding a relationship between race,

SES and isolation is that an individual's attribute such as race and SES can position that individual in a particular location in the society. That inturn exposes him or her to varying opportunities. This opportunity can determine how often a person visits friends, or goes to a meeting.

Overall, our findings have highlighted the dimensions of social isolation that are important for one group vs. the other. As sociologists, we are interested in examining the impact of macrosocial structures and processes of social isolation. We want to know how structures and processes of social isolation vary across groups of individuals in different structural positions in the society.

Our finding indicates that blacks and lower socioeconomic groups experience different processes of social relationship than whites and the upper socioeconomic groups.

Social isolation, race, SES, and alcohol use

In chapter five, we examined the main hypotheses that race, SES, and social isolation interact to predict ever use alcohol, frequency and quantity of alcohol use. Since the data examining previous hypotheses indicated that social isolation predicts alcohol use and that a significant relationship between race, SES, and social isolation exists, we expected to find that race, SES, and social isolation interact together to predict alcohol use. Specifically, we

expected to find that frequency of visiting with friends, neighbors and relatives will predict ever use alcohol, frequency and quantity of alcohol intake among whites, while frequency of attending meetings, programs will predict ever use alcohol, frequency and quantity of alcohol intake among blacks. This hypothesis was based on the assumption that blacks drink because they feel socially isolated, while whites drink for social reasons. The only support for our hypothesis was that among blacks, we found only attending meetings, programs, etc. to predict one of the three measure of alcohol use, frequency of alcohol intake. However, contrary to our hypothesis, frequency of visiting with friends and attending meetings predicted ever use alcohol, the other measure of alcohol use, among both blacks and whites. Moreover, among whites both frequency of visiting with friends and attending meetings predicted alcohol use.

Since frequency of visiting with friends predicted ever use alcohol among blacks and whites, one can suggest that for both social groups, friends, relatives or neighbors are able to exert pressure to conform to the norm of drinking. Moreover, social drinking occurs among both groups. We can also suggest that whites also drink because they feel socially isolated. Since whites who attend meetings, programs, etc. more frequently drink less frequently.

POLICY IMPLICATIONS

Our findings can contribute to prevention program strategy. Since visiting with friends and attending meetings are contexts in which less or more drinking occurs, the community can take a role in reducing alcohol availability by providing healthy friendship networks where drinking is not a focus of activity. Thus, mechanisms can be developed in which community members become involved in social activities that do not involve drinking.

The finding that SES predicts social isolation also has important implications for public policy. If socioeconomic deprivation and inequality can affect levels of isolation, public policy can focus on reducing these inequalities. Such focus can detract attention from blaming the victim and instead focus the attention on providing formal sources of financial or professional support.

Our finding that attending meetings, programs, etc. predicts frequency of alcohol use among blacks also has important implications for prevention program strategy. Studies can further investigate the type of programs that blacks prefer to attend. Harper and Saifnoorian (1991) suggest that blacks favor group modalities such as AA, educational groups, family counseling, job orientation groups and social skill groups. Thus, these meetings, programs can be used as contexts to help the black community with alcohol use problems.

These prevention programs should also take account of differences among blacks. Intraracial differences have to be identified for effective coping strategies. Blacks are not a homogeneous group. The literature clearly points to differences in social class and culture among blacks. For example, for middle income blacks, drinking may be related to alienation on the job, while for the lower income black, unemployment may be related to drinking.

Moreover, while we has hypothesized that social isolation is the mediating factor between race and alcohol use, social isolation and alcohol use can be further mediated by factors such as racial pride and self esteem. For example, blacks who are socially isolated but have strong racial identification might be less vulnerable to alcohol use due to social isolation.

LIMITATIONS OF THE CURRENT STUDY AND SUGGESTIONS FOR FUTURE

The major limitation of this study is lack of information in the data. There are very few surveys with a large sample of blacks. Consequently, surveys with large sample of blacks, detailed social psychological variables and alcohol use measures are extremely few. Thus this data lacks measures that more fully capture the complexity of the relationship between social isolation and alcohol use. With this data, we cannot know what it is about social isolation

that contributes to or lessens alcohol use. Does frequency of attending meetings contribute to less drinking because of the sense of meaning it creates for the individual? Or is it because it creates diversion from the routines and hassles of daily life? Why does social isolation predict alcohol use? Since our understanding of the mechanisms through which social isolation predicts alcohol use is incomplete, future research can focus more specifically on explaining how social isolation predicts alcohol use.

In this study, we could not assess the motivation for drinking directly. There was no direct question such as, why do you drink? Such knowledge would have helped our examination of the hypothesis that blacks use alcohol because they feel isolated, while whites use alcohol because they feel socially integrated. Thus future studies could assess the motivation for alcohol use by asking the respondent why he or she drinks and the contexts in which this drinking occurs. For example, the respondent could be asked, on how many of the last 30 days did you drink alcohol beverages alone, with relatives, with work associates and with close friends? Or the respondent could be questioned as to the times in which he or she drinks. Drinking at different times of the day, dinner, lunch, morning or afternoon, are associated with reasons people drink. For example, those who drink in the morning do so due to personal reasons, since morning is the unsociable time for

drinking.

Another variable that would have been useful to our study is drinking problem. This survey did not have information on drinking problems. Social isolation might be an important predictor of drinking problems. Those who are socially isolated might be more vulnerable to drinking problems, such as missing work due to drinking, worrying about drinking, drinking on the job, morning drinking, drinking alone. Thus, future studies could examine social isolation in relationship to drinking problem.

Future studies could also examine the structural features of the respondent's environment, norms, cultures, or networks, that overtly or covertly encourage alcohol use. For example, the data indicated that visiting with friends, relatives and neighbors contributes to alcohol use. Thus, visiting with friends can create an environment in which drinking is encouraged. Therefore, environments that encourage vs. those that discourage drinking need to be studied.

Our data indicated that those with more education and income talk on the phone, visit with friends, relatives and neighbors, attend meetings, programs more frequently than the less educated and lower income individuals. This suggests that personal and social resources play a role in predicting isolation. Future studies can assess the type of resources that are detrimental to one's level of social

isolation.

The major limitation of this study was that we could not assess the differential role social isolation can play in alcohol use among blacks and whites. As stated our measurements were not precise enough to examine the relationship. As mentioned before, we could not ask the respondent directly if they were drinking because they felt socially isolated.

Despite the limitations, this study makes important contribution to alienation/social isolation studies and public policy regrading prevention programs. It goes beyond previous researchers by documenting the dimensions of social isolation that are important in predicting alcohol use. Previous researchers have called for studies that focus on identifying and weighing the importance of social ties. This study points out the dimensions of social isolation in which whites or blacks are more or less integrated. For example, the data showed that whites talk on the phone more frequently than blacks. This study has, moreover, established that the upper socioeconomic blacks are less isolated than those in the lower socioeconomic status. Our study acknowledges the importance of material resources by illustrating how broader structural conditions impinge on lower SES groups and shape their life experiences.

More importantly, our study contributes to public

policy by suggesting prevention strategies. One of the areas of focus for prevention research is the investigation of the minority populations' sociocultural characteristics. Our study highlights the importance of social integration among blacks in lessening alcohol use. More specifically, we discussed the role of the community or churches in the life of the black population. Prevention programs can utilize ethnic communities, institutions such as churches in the black community to contribute to the prevention of alcohol use among blacks.

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