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Psychosocial factors affecting African Americans in alcohol dependency

Mohammad M. Momtahan
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Title of Dissertation: PSYCHOSOCIAL FACTORS AFFECTING AFRICAN AMERICANS IN ALCOHOL DEPENDENCY

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ABSTRACT

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PSYCHOSOCIAL FACTORS AFFECTING AFRICAN AMERICANS
IN ALCOHOL DEPENDENCY

Advisor: Richard Lyle, Ph.D.
Dissertation dated July, 2003

This study is based on a comprehensive review of psychosocial factors in alcohol dependency presented by 214 African American and white patients in Grady Memorial Hospital. The purpose of this study was to extend and elaborate descriptive research of psychosocial differences to create and sustain the appropriate prevention and treatment strategies. Therefore, this research relies on Biopsychocological Integrative Contextual Model that not only permits competing explanations of the etiology and epidemiology but also embarks on prevention and treatment plans.

Prevention Research Institute (PRI), George L. Engel, Jerrold S. Maxmen, Nicholas G. Ward and others have presented models of drinking vulnerabilities that have utilized the above model. As an alternative, this study has confirmed the validity of this model, and structured the theoretical and empirical approaches based on its framework.
The model serves as a foundation for generating hypotheses and general research questions that are set in the context of ethnic experiences among the races and their psychosocial and environmental factors.

Therefore, the contextual information drawn from the above model have guided this research to the following question: will there be any relationship and/or difference between the races (African American and white) regarding psychological (self-esteem, attitude, personality, stress, and logical thinking) and social (lifestyle and legal status) factors in alcohol dependency levels (use, abuse, psychological, and physical)?

Furthermore, the null hypotheses postulate that there will be no relationship and/or difference between the races regarding their psychosocial factors in alcohol dependency.

The rational for these hypotheses are derived from the literatures which indicate that acculturation strains, conflicts, gaps, stressors, and altered psychological or interpersonal circumstances are related to social disorganization and personal dysfunctionality and, therefore, these processes are conducive to a wide variety of social and behavioral deviances which are high-risk in increasing alcohol use and abuse among the races. The findings, of this study, not only stress the above rational but also mitigate perceptions of risk related to cultural, racial, and ethnical factors that have been speculated to African Americans.

Patients' races and alcohol dependency levels (dependent variables) enabled this study to address eight cross-ethnic comparisons and cross-behavioral issues (independent variables). In this study, it was permitted to utilize the Statistical Package for the Social Sciences (SPSS).
PSYCHOSOCIAL FACTORS AFFECTING AFRICAN AMERICANS IN ALCOHOL DEPENDENCY

A DISSERTATION
SUBMITTED TO THE FACULTY OF CLARK ATLANTA UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY

BY
MOHAMMAD MEHDI MOMTAHAN

WHITNEY M. YOUNG, JR., SCHOOL OF SOCIAL WORK

ATLANTA, GEORGIA
JULY 2003
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ACKNOWLEDGMENTS

I have received encouragement and was asked by my mother, Keramat S. Momtahan to complete this dissertation in memory of my father, Gholam Ali Momtahan who suffered and died with addiction; for that I thank her. My wife, Nancy; my sons, Matthew, Mark, and Martin; and my brothers, Vahid and Shahrokh who conveyed the vitality of my work with their expected success and caring support; I thank them for it.

I am especially grateful to my committee members: Dr. Richard Lyle, Dr. Robert W. Waymer, and Dr. Amos A. Ajo whose constructive suggestions were invaluable in completion of this study. I also would like to give special thanks to my supervisors: Mrs. Charlene Turner, Mr. James Reed, Ms. Dollmeshia Adams, and Mr. James Hammons; my colleagues: Mr. Charles Otoka, Ms. Valeria Beasley, and Mr. Lucas Banks; and patients in recovery, in Grady Memorial Hospital, who have shared their experiences, hopes, and sermons in making this great experience possible.
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CHAPTER I
INTRODUCTION

Alcohol use screening, prevention, and early intervention in clinical settings have been some rapidly growing areas of alcoholism treatment with enormous implications for public health. Indeed, for many years this researcher has investigated that the best way to "broaden the base" of treatment for alcoholism is not only to address the full spectrum of alcohol problems (i.e., health and impairment problems) but also to expand clinical prevention that is identified with factors which foster the different phenomenons of drinking patterns (drinking choices) and drinking behaviors among people.

Given an adequate emphasis, the possible factors (determinants) that have been most influential to create such differences were identified as: (a) the level of dependency to alcohol, (b) psychological factors (e.g., personality traits, self esteem, attitude, stress, and logical thinking), and (c) influences of ethnicity and acculturation (e.g., lifestyles, legal consequences).

Although considerable studies on alcoholism have been aimed to address the influences of the above psychosocial factors on quantity and frequency (Q/F) choices of drinking (Prevention Research Institute [PRI], 1998; Barnes, 1979; Huba & Bentler, 1984; Schuckit, Irwin, & Brown, 1990); but not enough alcoholism epidemiological researches have focused on comparing the prevalence of these determinants on drinking patterns and drinking problems among different ethnical groups (e.g., African Americans and whites).

Furthermore, rarely pathognomonic study has been conducted to evaluate the relationship between these psychosocial factors and drinking choices (or drinking

Consequently, many alcoholism prevention and treatment programs which established to provide care for whites, have been automatically viewed to be transmissible to African-American population. This study not only focuses on the differences among African Americans and whites regarding the above psychosocial factors (research determinants) but also reviews the vulnerability of these two populations to alcohol use based on their sociodemographic characteristics. Further, this study will provide solutions to alcohol-related problems, present methodological treatment options, and offer appropriate intervention strategies to African Americans within the context of the above researched determinants.

**Statement of the Problem**

African Americans originate 12.3 percent (34,658,190) of the United States' populations; 55.6 percent (19,269,954) of African Americans use alcohol and 23 percent (4,432,089) of them are high-risk (heavy) drinkers (U.S. Census Bureau [USCB], 2000; National Institute on Alcohol Abuse and Alcoholism [NIAAA], 1981, 1994; Watts & Wright, 1983). With nearly 14 million alcoholics, alcoholism ranks as the number one mental health problem and the third cause of deaths (after cancer and heart disease) in the United States (PRI, 1998; Watts & Wright, 1983). Watts and Wright (1983) noted that "alcohol abuse can be characterized as black America's primary health and social problem" (p. 5).

Although African-American population is severely affected by alcoholism (alcohol-related health and impairment problems), the social and psychological factors that determine the etiology of alcoholism (James & Johnson, 1996) among this
population are not intensively researched. To some degree, the development of alcoholism is different for different ethical and cultural groups, and the progression of the disease of alcoholism can be influenced by their social and psychological factors (PRI, 1998; James & Johnson, 1996). Furthermore, these factors (determinants) can also influence the availability and quality of prevention, intervention, and treatment programs and change the prospects of diagnosis and recovery of alcoholism among different ethnic groups.

In the past 40 years, there have been many studies to examine the magnitude of issues and problems (i.e., traditions, norms, pattern of alcohol use, sociocultural and political-economic context, health, morbidity and mortality rates, prevention, and treatment) associated with African Americans' use of alcohol in the United States, but there have been only a few studies with consideration of psychosocial influences in examining the pathogenesis of alcoholism among population.

Consequently, with limited knowledge of psychosocial factors (as epidemiological implications) among African Americans, there have not been any clinically appropriate prevention and treatment strategy for this population. African Americans and other minority groups still lagged behind clinical diagnoses and treatment plans conducted by the majority (white) population (Caetano, Clark & Tam, 1998). This study presents the psychosocial findings, in alcohol dependency, obtained from African-American patients in a clinical setting and identifies methodological approaches for implementing prevention, intervention, and treatment plans (programs).

Purpose of the Study

The purposes of this study are: (1) to explain the high-risk and low-risk effects of some psychological factors (self-esteem, attitude, logical thinking, and stress),
personality traits (gregariousness, impulsiveness, rebelliousness, and sensation-seeking) and some social factors (lifestyle and legal status) in alcohol dependency (social, psychological, and physical) among African Americans and whites; (2) to identify the race (African American or white) with a higher level (or higher risk) of alcohol dependency; and (3) to suggest some prevention and treatment options based on modification of high-risk factors to low-risk factors that fit the dependency levels among the two populations (PRI, 1998; James & Johnson, 1996).

Research Questions

Some diagnostic criteria, such as alcoholism, consist of not one but several dependency entities which all share similar cardinal features. The entities may be defined by the most prominent symptoms, as in the various subtypes of alcoholism (social dependency, psychological dependency, and physical dependency). Each subtype may involve different etiological factors. Conversely, entities which present with the same clinical outcomes may have arisen via different etiological and pathognomonic routes.

Researchers in the past 20 years, undoubtedly, has raised many major questions concerning the etiology and epidemiology of alcoholism among African Americans and has attempted to recognize and categorize the physiological, psychological, and sociological ramifications in development of alcoholism among this population. The following questions have taken on greater significance as researcher focused on a series of compelling assumptions about development of alcoholism among African Americans:

1. Will there be significant difference between African Americans and whites regarding their alcohol dependency levels (subtype dependency)?
2. Will there be significant difference (low-risk or high-risk) between races regarding their lifestyle preferences in alcohol dependency?
3. Will there be significant difference (low-risk or high-risk) between races regarding their legal statuses in alcohol dependency?

4. Will there be significant difference (low-risk or high-risk) between races regarding their attitude preferences in alcohol dependency?

5. Will there be significant difference (low-risk or high-risk) between races regarding their self-esteem statuses in alcohol dependency?

6. Will there be significant difference (low-risk or high-risk) between races regarding their stress levels in alcohol dependency?

7. Will there be significant difference (low-risk or high-risk) between races regarding their personality traits in alcohol dependency?

8. Will there be significant difference (low-risk or high-risk) between races regarding their logical thinking abilities in alcohol dependency?

Based on research findings resulted from above investigative questions, can this study effectively develop and reason new prevention and treatment plans for African Americans convinced by their psychosocial factors (etiological determinants)?

Hypotheses

Knowing that addiction phenomenology belongs to a view of health psychology which, according to Robert J. Sternberg (1994), encompasses to question of "why do some people seem to choose risky behaviors and lifestyles that compromise their well-being?" and the major response to this view that emphasizes "some people believe that they are strong enough not to allow their well-being to be compromised" (P. 711); these people (African Americans and whites), according to Daugherty and O'Bryan (1998), believe that "alcoholism as lifestyle-related health problems can not happen to them" (p. 9), and the high-risk use of alcohol can not jeopardize their health.
The etiology for alcohol dependency (alcoholism) is the use of high-risk quantity and frequency choices of alcohol (PRI, 1998) and the etiology can be influenced by the people's (African Americans and whites) high-risk psychosocial values (James & Johnson, 1996). In other words, it is clear that not only alcohol dependency can happen to anyone but also it happens in different dependency levels due to influence of different psychosocial values. Accordingly, some people (as ethnic group) are in higher risk of alcohol dependency to compare with others, because they are influenced by their high-risk psychosocial values. Based on these analyses (hypotheses), this research established the following null hypotheses:

1. Will there be no statistically significant relationship between African American and white races and the level (subtype) of alcohol dependency?
2. Will there be no statistically significant difference (low-risk or high-risk) between races regarding their life style preferences in alcohol dependency?
3. Will there be no statistically significant difference (low-risk or high-risk) between races regarding their self-esteem preferences in alcohol dependency?
4. Will there be no statistically significant difference (low-risk or high-risk) between races regarding their attitude preferences in alcohol dependency?
5. Will there be no statistically significant difference (low-risk or high-risk) between races regarding their stress levels in alcohol dependency?
6. Will there be no statistically significant difference (low-risk or high-risk) between races regarding their logical thinking abilities in alcohol dependency?
7. Will there be no statistically significant difference (low-risk or high-risk) between races regarding their legal statuses in alcohol dependency?
8. Will there be no statistically significant difference (low-risk or high-risk) between races regarding personality traits in alcohol dependency?

Consequently, base on these null hypotheses, will there be no effective prevention and treatment plans for African Americans regarding their psychosocial factors (etiological determinants)?

The following independent and dependent variables will conciliate the assessment for the preceding hypotheses. The dependent variables are race and the alcohol dependency level and independent variables which they can be arranged in eight types and twenty-three subtypes as following: life style (standing, feeling, coping, and action), legal status (criminality, alcohol-related offense, and feeling), self-esteem (position, quality, and feeling), attitude (status and action), personality (sensation seeking, gregarious, impulsive [personal risk and social risk], and rebellious), alcohol dependency (physical, psychological, social, and nondependency), stress level, and logical thinking (abstraction).

Significance of the Study

The latest theoretical framework (Biopsychocological Integrative Contextual Model), in etiology, pathogenesis, and prevention of high-risk drinking choices and alcoholism (PRI, 1998; Engel, 1980; Maxman & Ward, 1994; Hollin, 1992), is based on a "New View of Lifestyle-Related Health Problems" (Daugherty and O'Bryan, 1998) that emphasizes

everyone has some level of biological risk or trigger level, for all lifestyle-related health problems like heart disease, cancer, and alcoholism. In any lifestyle-related health problem, quantity and frequency choices interact with biology to trigger the health problem. Social and psychological factors influence quantity and frequency choices, but by themselves they cannot directly cause or prevent any lifestyle-related health problem (p.10).
Based on this model, the quantity and frequency choices of drinking are the only thing people can control to reduce risk for alcoholism.

The formulation for this theoretical framework has been presented by Prevention Research Institute as: Biology (B) + Quantity & Frequency (Q/F) Choices = Risk for Alcoholism (RA). Based on this formula, risk of alcoholism will increase, if the quantity and frequency choices are influenced by high-risk psychological and sociological factors, and risk of alcoholism decreases, if the quantity and frequency choices (drinking choices) are influenced by low-risk psychological and sociological factors (PRI, 1998).

The PRI's model has focused on a number of issues including: (1) the effect of biology on drinking patterns and alcoholism, (2) the effect of quantity and frequency of drinking choices on alcoholism and alcohol-related health and impairment problems, and (3) the influence of psychological and sociological factors on how much and how often a person drinks. According to PRI, this model not only can be used to identify the development of alcoholism but also can be used as a preventive model.

However, PRI (1998) emphasizes that "neither a person's level of biological risk nor the psychological and sociological influences will force a person to make high-risk or low-risk choices." Once a person understands his or her risk and knows what is low-risk, he or she can protect himself or herself by choosing to make low-risk choices. Although the PRI model suggesting that psychological and sociological factors will, only, influence the quantity and frequency choices, and by themselves can not cause or prevent alcoholism; it is important to know if some populations are psychologically and sociologically riskier than others.

This study will focus on African American and white populations to determine their high-risk and/or low-risk psychosocial factors, and accordingly to identify the level of alcohol dependency among these two populations. This study also investigates a segregated prevention or treatment plan for African-American population.
Brief Overview of Methodology

For the purpose of this study, the methodological characteristics involved the following:


2. Site of the study - Grady Health System, Grady Memorial Hospital, Department of Social Services, Atlanta, Georgia.

3. Sample population - A population of 214 patients were conveniently selected with the following ethnic and gender characteristics: (a) 18 African-American females, (b) 89 African-American males, (c) 18 white females, and (d) 89 white males.

4. Data collection - Patients were diagnosed by physicians for one of the following alcohol-related conditions: (a) alcohol use (nondependency), (b) alcohol abuse (social dependency), (c) alcohol dependency (psychological without physiological symptoms), and (d) alcohol Wernicke-Korsakoff Syndrome (alcohol dependency with physiological and psychological symptoms).

Patients with the above alcohol dependency diagnoses were reassessed for summary alcohol dependency scores. Scores, as demographic elements, were added to the demographic information to be analyzed with other sections of the patients' questionnaires. Each questionnaire featured the following sections: (1) demographic information, (2) lifestyle questions, (3) legal questions, (4) self-esteem questions, (5) attitude questions, (6) logical thinking questions, (7) stress questions, and (8) personality questions.

5. Data analyses - Analyses were conducted using Chi-Square test for categorical variables to determine the interdifferences between and among variables (race, level of alcohol dependency, lifestyle, legal status, self esteem, attitude, logical thinking, stress, personality, and other demographic information). Some of these variables (psychosocial
variables) were placed in two subgroups, depending on whether responses could be mentioned with high-risk or low-risk characteristics. Where continuous data did not meet assumptions for non-parametric Chi-Square statistical distribution, Pearson, and Phi(0) tests were utilized.

Typical null hypotheses were proposed for no significant difference between races (African Americans and whites) regarding their high-risk and low-risk psychosocial factors in alcohol dependency levels. Most of the data were analyzed with two nominal categories in which the data consisted of a frequency count that was tabulated and placed in the appropriate cells. Results were found in 2x2 and 2x4 (or combined multifarious) contingency tables, showing the number of African Americans and whites responding to different psychosocial factors with high-risk or low-risk characteristics.

All 214 patients were asked to complete questionnaires. Each questionnaire contained 56 question items. Items were included: (1) demographic information and their clear descriptions; (2) items to be responded by participants by indicating "best" or "worst" statuses; and (3) and items to be responded by "yes" or "no," where in any item, "yes" or "no" response was characterized by "low-risk" or "high-risk" psychological or social factor.

Statuses were measured by unweighted scores of 1 = "worst" and 2 = "best." In determining the effect of psychosocial factors on participants' alcohol dependency levels, responses were measured by unweighted scores of 1 = "yes" and 2 = "no." Low-risk and high-risk characteristics were measured by scale predictor ranges of 1 through 1.599 = 1, where 1 could be characterized as low-risk or high-risk score, and 1.6 through 2.99 = 2, where 2 could be characterized as low-risk or high-risk score.

The relationship between the numbers of "yes" or "no" answers; scores on the dependency scale (no dependency = 1, social dependency = 2, psychological
dependency = 3, and physical dependency = 4); and race were examined by the Chi-Square, Pearson, and Phi (\( \phi \)) tests for the 214 patients.

Definition of Terms

The definition of terms in this study can be summarized as following:

1. Addiction - A physiological phenomenon characterized by significantly increased tolerance and withdrawal symptoms.

2. Addictive Personality - A pervasive and excessive pattern of preoccupation with the habitual use of certain drugs and/or habitual need of others to assume responsibility for most major areas of life.

3. Adoption Studies - Studies to determine whether people raised apart (adopted) from their biological parents are still more likely to develop their biological parents' psychiatric conditions (alcoholism or other psychiatric difficulties).


5. Alcoholism - A morbid condition, when person's alcohol consumption repeatedly interferes with occupational or social functioning, emotional state, or physical health.

6. Alcohol Dependency - A persistent, habitual, or compulsive physiological or at least psychological need for alcohol.

7. Alcohol Intoxication - Clinically significant maladaptive behavior or psychological changes (e.g., inappropriate sexual or aggressive behavior, mood liability, impaired judgment, impaired social or occupational functioning) that developed during, or shortly after, alcohol ingestion.

8. Alcohol-Induced Anxiety Disorder - A prominent anxiety, panic attacks, or obsessions or compulsions predominate in the clinical picture.
9. Alcohol-Induced Delirium - The disturbance of consciousness (i.e., reduced clarity of awareness of the environment) with reduced ability to focus, sustain, or shift attention. A change in cognition (such as memory deficit, disorientation, language disturbance) or the development of a perceptual disturbance that is not better accounted for by a preexisting, established, or evolving dementia. The disturbance develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day.

10. Alcohol-Induced Persisting Amnestic Disorder - The development of memory impairment and memory disturbance causing inability to learn or recall information.

11. Alcohol-Induced Persisting Dementia - The development of multiple cognitive disturbances (such as language disturbance, impaired motor function, sensory function disturbance, and deficits in executive functioning) manifested by memory impairment (impaired ability to learn new information or to recall previously learned information).

12. Alcohol-Induced Mood Disorder - A prominent and persistent disturbance in mood characterized by depression or elevated, expansive, and irritable mood.

13. Alcohol-Induced Psychotic Disorder (with delusions or hallucinations) - A prominent hallucinations or delusions developed during or within a month of alcohol intoxication or withdrawal.

14. Alcohol-Induced Sleep Disorder - A prominent disturbance in sleep that is sufficiently severe to warrant independent clinical attention.

15. Bible Belt States - Regions of the United States, particularly areas in the South, where fundamentalist beliefs prevail and Christian clergymen are especially influential.

16. Biology - A condition that a person inherits as Genotype (gene itself) or Phenotype (gene manifestation) to determine the degree, form, and existence of a disorder.
The biology can be Genotype, when disorder is caused by deformed gene; it can be Phenotype, when disorder is caused by the gene that needs interrelationship of other environmental factors (e.g., alcohol, stress, and smoking) to cause the disorder.

17. CAGE - An acronym of the four areas probed (Cut down, Annoyed, Guilty, and Eye opener). The CAGE is the best screening questions for alcoholism with an accuracy rate of over 85% when is applied during an alcohol dependency evaluation.

18. Certified Addiction Counselor - A national certified (by education, experience, exam, and licensure) practitioner in psychological (behavioral) treatment of alcoholism and drug addiction to work in medical or clinical setting.

19. Children of Alcoholics (COAs) - Children born to alcoholic parents (grandparents).

20. Children of Nonalcoholic (CONAs) - Children born to nonalcoholic parents and grandparents.

21. Coronary Artery Disease - Disorder of the arteries (the right and left coronary arteries arise from the aorta just above the aortic valve) which are supplying blood to the heart.

22. Dehydrogenase - One of the group of enzymes that catalyze oxidation-reduction reactions and aldehyde dehydrogenase which is the enzyme primarily responsible for metabolism of acetaldehyde. One of which (ALDH2) is responsible for the "Asian" flushing response.

23. Disease - Any morbid condition with a characteristic train of symptoms affecting either the whole organism or any parts, with known or unknown etiology, pathology, and prognosis.
24. Enabling - Any response by others that allows a person or a group of people to make and to continue high-risk drinking choices. Enabling could be in forms of accepting, encouraging, covering up, rescuing, and helping high-risk drinkers.

25. Epidemiology - The science that studies the frequency and distribution of disorders within various populations.


27. Familial Alcoholism - Alcoholism caused by increased biological risk in family of children of alcoholics.

28. Fetal Alcohol Syndrome (FAS) - A syndrome in children of drinking women. A FAS baby has a small head, short nose (philtrum), small eye openings, and flat cheeks, low birth weight, retarded growth as an infant, mental retardation, heart murmurs, birthmarks, hernias, and urinary tract abnormalities.


30. High Density Lipoprotein - One of a compact and crowded group of proteins found in blood plasma and lymph, that are combined with other lipids (cholesterol) to transport fats in blood and lymph.

31. High-Risk Drinking Choices - Any drinking that exceeds the individualized, research-based quantity and frequency choices.

32. Idiosyncratic Intoxication - Becoming violent due to an unusual and unexpected sensitivity exhibited after use of a single alcoholic drink or use of a particular drug or food.

33. Impaired Abstract Thinking - The cognitive dysfunction documented at varying levels of high-risk drinking. Abstract thinking includes the ability to understand and relate ideas, concepts, words and relationships that may not be immediately apparent. The high-risk drinking impairs these abilities.

34. Impairment - Any slowing of the mental or physical functions beyond the
initial relaxation effects of a drink.

35. Impulsive - A tendency toward nonconformity and lack of commitment.

36. Intervention - A preventive measure or regime that is deliberately arranged to modify, settle, or hinder someone's action, argument, and behavior for the protection of that person's health affairs.

37. Isoenzymes - Physically distinct forms of the given enzymes.

38. Jellinek's Three Phases of Alcoholism - Jellinek (1952) had acknowledged three clinical phases of alcoholism as prodromal, crucial, and chronic. These three phases are consisted of many symptoms in social, psychological, and physiological dependency to alcohol.

39. Kinetic Properties - The parts of chromosomes that join the parts of chromatids to each other and become attached to the spindle during mitosis and meiosis.

40. Korsakoff's Syndrome (Psychosis) - An organic disorder affecting the brain that results in a memory defect in which new information fails to be learned although events from the past are still recalled; disorientation for time and place; and a tendency to invent material to fill memory blanks. The commonest cause of the condition is alcoholism, especially when this has led to deficiency of vitamin B₁ (thiamin). This condition often becomes chronic.

41. Licensed Clinical Social Worker - A social worker licensed by education, experience, and national exam to work in medical or clinical setting to assess and treat psychosocial complications.

42. Low-Risk Drinking Choices - An umbrella term covering both abstinence and specific, individualized, research-based quantity and frequency choices not associated with increased risk.

43. Pathogenesis - The course of development of a disorder.
44. Pathognomonic - The description of symptom or sign that is characteristic of /or unique to a particular disorder.

45. Patient - A person receiving medical (clinical) care or treatment for physical or mental disorder (complication).

46. Polymorphism - A condition in which a chromosome or a genetic character occurs in more than one form, resulting in the coexistence of more than one morphological type in the same population.

47. Prevention - A comprehensive and systematic effort to reduce the risk that people of any age who do not already have alcoholism or other drug addiction will experience alcohol or drug-related health or impairment problems at any point in life.

48. Prevention Research Institute (PRI) - The Prevention Research Institute, Inc., a non-profit organization based in Lexington, Kentucky pioneered the Risk Reduction approach to alcohol and drug problems in 1983. PRI's staff has extensive experience in the prevention, early intervention and treatment of alcohol and drug problems. Organization provides intensive workshops in the lifestyle Risk Reduction programs throughout the United States and the world.

49. Physical Dependence - The physical effects produced by the habitual drinking of alcohol, characterized by a compulsion to continue drinking alcohol to reverse the withdrawal symptoms.

50. Psychological Factors - The factors (variables) that influence and affect the study of how people think, learn, perceive, feel, interact with others, and understand themselves.

51. Psychological Dependence - Something or someone that a person becomes dependent on to function, without that someone or something, a person feels troubled, sad, incompetent, uncertain, and frightened or bad.
52. Rebellious - An antisocial behavior and social alienation.

53. State Dependent Learning - Things learned in a chemically-altered state are most easily accessible and most intense when the person is back in that same chemically-altered state.

54. Sensation Seeking - Difficulty in postponing gratification.

55. Social Factors - Variables that influence and affect the study of how thought, feeling, and behavior of individuals are related to the actual, imagined, or implied presence of others.

56. Social Dependence - A person or group comes to rely on others behaviors, feelings, and beliefs to do its normal social functioning.

57. Tolerance Level - The degree of impairment at a given blood alcohol level.

58. Trigger Level - A term that refers to an individual's level of biological risk for a given health problems.

59. Wernicke Encephalopathy - A mental confusion or delirium occurring in combination with paralysis of the eye muscles, nystagmus, and an unsteady gait. It caused by a deficiency of vitamin Bi (thiamin) and is most commonly seen in alcoholics and in patients with persistent vomiting.

60. White - The Caucasian division of mankind or Indo-European mankind.

61. Withdrawal Symptoms - Specific symptoms such as sweating, vomiting, or tremors, that are reversed by further use of alcohol or other substances.

In summary, alcoholism and alcohol related health and impairment problems are caused by high-risk quantity and frequency choices of drinking. The quantity and frequency choices of drinking become high-risk, when certain high-risk biological, psychological, and sociological factors interact with person's physical, mental, and environmental status. Among any race or ethnic group, there are certain, specific, and
ethnic-related biological, psychological, and sociological factors that are considered to be high-risk in development of alcoholism.

This dissertation has recognized and analyzed many specific and ethnic-related high-risk psychological and sociological factors that have interacted with African-American and white populations' mental and environmental statuses and have increased their quantity and frequency choices of drinking. These different high-risk psychological and sociological factors among African Americans and whites have caused different high-risk drinking patterns, drinking problems, and drinking dependency levels. This study has evaluated these differences to promote a new approach in prevention and treatment of alcoholism and alcohol-related health and impairment problems.

Alcohol prevention and treatment programs for African Americans should be designed to focus on their appropriate influential psychosocial factors in alcoholism (high-risk drinking patterns) to provide a greater understanding of their unique recovery needs (i.e., education, intervention, clinical care, and after care needs). This dissertation is divided into five chapters. Chapter I consists of the introduction of the research and some applicable theoretical frameworks which highlight theories used in this research.

Chapter II consists of the review of the literature related to the existing research in recognition of high-risk biological, psychological, and sociological factors (values) among African Americans and whites. Also in Chapter II, there are some existing discussions of specific ethnic-related high-risk drinking patterns, drinking problems, and drinking dependency levels, and some suggestions for early prevention and treatment of alcoholism and alcohol related impairment problems.

Chapter III presents the methodology of the study. Chapter IV is the presentation of the findings, and Chapter V presents the conclusion and implications of the study. Also in Chapter V, there are some discussions for new research opportunities and suggestions in policy implications and clinical treatment of alcoholism (for African
Americans) to health care providers (hospitals, rehabilitation centers, group homes, religious organizations, charitable organizations, prevention and intervention centers, governmental agencies in treatment of alcoholism, DUI or DWI prevention educational centers, private practitioners, and research centers).

Information in chapter 5 can be evolved with today's organizational development for health-care providers in their new approaches toward multinational, multicultural, and global health-care delivery system. This study can result in organizational improvements in health-care settings that intervene with African Americans and their cultural, social, and psychological boundaries for treatment of alcoholism. This study can smooth the transition of health to alcohol-related disorders, clarify treatment and recovery, and reduce the uncertainty associated with implementing new techniques and practices, when working with addicted African-American patients.
CHAPTER II
REVIEW OF THE LITERATURE

The alcoholism epidemic in America can not be understood without searching for some answers in Americans' biopsychosocial (biological [genetical and physiological], psychological [behavioral, emotional, and mental], and ecological [political, economical, financial, environmental, cultural, historical, and ethnical]) attributes in development of high-risk patterns of alcohol use (Schiele, 1996; Waymer, 2001; Watts & Wright, 1982; Alho, Heinala, Kiianmaa, & Sinclair, 1999; American Medical Association [AMA], 1999; PRI, 1998).

In last century and especially in past frothy years, in the United States alone, thousands of etiological and epidemiological studies have been aimed not only to understand the disease of alcoholism but also to introduce prevention and treatment plans for it. This chapter will emphasize on coalition of the strongest recent studies in etiology and the above noted biopsychosocial factors in epidemiology, prevention, and treatment of alcoholism among Americans.

Also, the chapter reviews the existence literature; and investigates and demonstrates the similarities and differences between African Americans and whites in the following eight alcoholism epidemiological determinants: (1) lifestyle, (2) legal status, (3) self-esteem, (4) attitude, (5) personality, (6) stress, (7) logical thinking, and (8) alcohol dependency levels. The above noted determinants can be identified and
discussed, in general, throughout these pursuing discussions:

1. An overview of alcoholism among Americans.
2. Theoretical framework (phenomenology) of alcoholism.
3. Drinking choices in alcoholism etiology.
4. Psychological factors in alcoholism epidemiology.
5. Sociological factors in alcoholism epidemiology.
6. Biological (physical and genetical) factors in alcoholism.
7. Alcoholism and biopsychosocial factors in African Americans and whites.
8. Prevention (education and intervention) and treatment for alcoholism.

An Overview of Alcoholism Among Americans

Alcoholism, now widely regarded as a disease, is caused by alcohol. Alcohol is so widely promoted and consumed that people tend to ignore the fact that it is an addictive psychoactive drug (Sternberg, 1995; Maxmen & Ward, 1995). Alcoholism is one of the most common afflictions in the United States. The epidemiology of alcoholism in the United States has been manifested by probably an estimated total of 10-14 million people with alcoholism (Sternberg, 1995; Maxmen & Ward, 1995; Seymour & Smith, 1987) and approximately an estimated 75-90% of adults report using alcohol (PRI, 1998; Sternberg, 1995).

Roughly 1 out of 10 adults or 10 percent of drinkers have alcohol-related health and impairment problems (PRI, 1998; National Institute on Alcohol Abuse and Alcoholism [NIAAA], 1994). A total of 55.6 percent of African Americans drink alcohol, 23 percent of them are alcoholics (United States Census Bureau [USCB], 2000;
NIAAA, 1994; Watts & Wright, 1983). One quarter (25%) of people with alcoholism have an onset prior to the age of 20 and 75 percent by the age of 40 (Goodwin, 1988; Maxmen & Ward, 1995). For every 3 males with alcoholism, there are 2 females with alcoholism (3:2 ratio) (Maxmen & Ward, 1995; Goodwin, 1988; PRI, 1998) and the onset of alcoholism is earlier for African Americans and American Indians than for whites (Maxmen & Ward, 1995; Goodwin, 1988; Bird & Harrison, 1987).

New national surveys, examining the prevalence of drinking in African-American population, indicate that African Americans report lower rates of alcohol use than whites; which it is contradictory to earlier findings (United States Department of Health and Human Services [USDHHS], 1998; Dawson, Grant, Chou, & Pickering, 1995). The social-environmental studies also have indicated that prevalence of drinking is lower in "middle" social class and in rural population and higher in urban America (Goodwin, 1988; Bird & Harrison, 1987; PRI, 1998).

Any final epidemiological explanation in alcoholism must include the following complications: (1) An estimated 90 percent of all assaults, 50-60% of all murders, and more than 50 percent of all the rapes and sexual attacks on children are alcohol related (Sternberg, 1995; PRI, 1998); (2) alcoholism is a major factor in 40 percent of all divorces and problems brought to family court; (3) alcoholism and high-risk drinking are major factors in 57 percent of marital violence caused by men and 27 percent caused by women (Maxmen & Ward, 1995; Bird & Harrison, 1987; PRI, 1998; NIAAA, 1997); and (4) half (50%) of all police works and 40 percent of all prison placements are associated with high-risk drinkers and 51 percent of all victims interviewed by police believed that
their assailants had been drinking (Roizen, 1997; NIAAA, 1997).

Also, every year, there are 17,000 to 25,000 alcohol related traffic fatalities and approximately 300,000 to 500,000 persons are injured in alcohol-related crashes; and approximately 3 in 5 Americans will be involved in an alcohol-related crash at some point in their lives (National Highway Traffic Safety Administration [NHTSA], 1996; NIAAA, 1996). Information received from hospitals indicated that approximately 50 percent of all admissions are in alcohol-related health problems and most of these admissions are due to sustained and permanent damage to the nervous system, pancreas, liver, and brain. Alcohol contributes to 100,000 deaths annually and heavy drinking can also lead to suppression of the immune system, nutritional deficits, mental health problems, and general failure concerning health matters among alcoholics.

These problems can eventually lead to many other unfortunate consequences including: increased risk of cancer, cardio-vascular disease, and psychiatric complications (Hennekens, Willett, Rosner, Cole, & Mayrent, 1979; MacClure, 1993; Klatsky, Armstrong, & Friedman, 1990; Watson, 1991; Lelbach, 1985; Wynder & Bross, 1961; Roth, Levy, & Post, 1994; National Council on Alcoholism and Drug Dependence [NCADD], 2002). For these and other reasons, alcohol is the third leading cause of preventable mortality in the United States after tobacco use and unhealthy dietary activities; and alcoholics generally have their life expectancy cut short by an average of 10 to 12 years (Sternberg, 1995).

Alcoholics also may experience some immediate alcohol-related health and impairment problems such as blackouts, loss of memory, psychosis, convulsions,
hallucinations, tremors (during intoxication and withdrawal), and alcohol-induced death (Seymour & Smith, 1987; Jensen & Pakkenberg, 1993; Lister, Eckardt, & Weingartner, 1987). Alcohol use by pregnant women, even in moderate (low-risk) amounts, can result in Fetal Alcohol Syndrome (FAS) which may produce tragic permanent mental retardation, as well as facial deformities among children born to drinking mothers. The FAS incidence among African Americans appears to be about seven times higher than among whites, although more African-American women than whites abstain from drinking.

Furthermore, some studies have found higher FAS rates among Native American Indian communities than African Americans and whites in United States (NIAAA, 1999; Goodwin, 1988; Maxmen & Ward, 1995; Bird & Harrison, 1987). Alcoholism, as one of the alcohol-related health problems, is the third largest health problem after cancer and heart disease and costs roughly $184.6 billion a year in lost work and medical care (Maio & Cunningham, 2001). With consideration of the above epidemiological phenomenon in alcoholism, and alcohol-related health and impairment problems, alcohol remains the drug of choice in the United States. Alcohol industry produces $116.2 billion in revenues annually which results in the quantity of alcohol consumption per capital of 39.5 gallons and cost of $1,811 per person (Wortis, 1993; PRI, 1998; NIAAA, 1995; Hendrick, 2003).

There is no evidence that with the increasing popularity of other drugs during the last several decades, use of alcohol has declined; in fact, it may have increased (Goodwin, 1988; PRI, 1998; Hendrick, 2003). Alcohol has been considered to be number one illegal drug used in United States due to under age consumption. Under 21
years old population quaff 11.24-19.7% of all alcoholic beverages consumed in this
country and this is a revenue of $22.5 billion for alcohol industry (National Broadcasting

**Common Reasons for Drinking**

Alcohol is the most well-known and widely used Central Nervous System (CNS)
depressant. People drink alcohol to feel pleasure. Someone who sips a drink over the
course of an evening is less likely to become intoxicated (high or drunk) than someone
who gulps it. Party-goers often drink alcohol to relax and reduce inhibitions.

At first, alcohol use often appears to increase people's level of arousal and
responses. At Blood Alcohol Level (BAL) of 0.02 percent (one drink with half ounce of
pure Ethanol) to 0.04 percent (two drinks) an average person (140-pound non-alcoholic
person) often has relaxed, uninhibited, and has obtained a general sense of well-being
(PRI, 1998; Krug & Cass, 1989, Sternberg, 1995). However, at a BAL of more than 0.05
percent, a person's sensorimotor functioning is markedly impaired and decreased and
causing a general depressed feeling.

People with a condition called "Idiosyncratic Intoxication" often become violent
only on a single drink (Maxmen & Ward, 1995). Drinking increases High Density
Lipoprotein (HDL), a form of "good cholesterol," that is associated with a decreased
risk of coronary artery disease; it also improves "glucose tolerance" that may be helpful
in the treatment of diabetes, when it is used in low risk amount. Any use of alcohol for
medical reason must be recommended by a physician (Goodwin, 1988; PRI, 1998).
People may use a low-risk amount of alcohol with food to encourage their appetite or to relieve tension.

Perhaps, the most insistent reasons for drinking among some people are freedom from the intolerable clutch of reality and probably "just" to be happier than others (Goodwin, 1988). Drinking alcohol is part of Western culture, such as using cannabis in India, the poppy in China, and cocaine (from the coca leaf) in some South American countries (Goodwin, 1988). In most societies, the use of some form of mood-altering substances are accepted for ceremonial occasions and sociocultural events (Goodman, Loejoy, & Sherratt, 1995; Goodwin, 1988; Schiele, 1996).

In America, therefore, reasons to use alcohol by people must be viewed within the American's sociocultural and political-economic context (Oliver, 1989; Schiele, 1996). Consumption of alcohol not only emphasizes human presentation but also identifies their social and psychological values.

Theoretical Framework (Phenomenology) of Alcoholism

According to Prevention Research Institute (1998), alcoholism is a lifestyle-related health problem with a level of biological risk established by genetic make-ups. Repeated high-risk quantity and frequency alcohol choices interact with biology to trigger alcoholism. Physical addiction to alcohol (increased tolerance and withdrawal symptoms) is the key characteristic of alcoholism, although both psychological and social dependence on alcohol typically exist. Psychological and social factors (values) play a critical role in development of alcoholism; because they influence the quantity and frequency choices of drinking. It is important to mention that psychological and social
factors would not cause or prevent alcoholism, but drinking choices would.

**Pathogenesis of Alcoholism**

The biopsychosocial formulations (pathogenesis) indicate how the combination of high-risk or low-risk quantity and frequency choices of alcohol with high-risk or low-risk biology has resulted in likelihood of alcoholism. Although the alcoholism can happen to anyone, a diagnostic category would indicate the following: (a) this disease consistently runs in some families; (b) it is genetically transmitted; (c) it initiated by psychosocial forces (factors); and (d) exacerbated or aggravated by specific biological and environmental (ecological) conditions. The pathogenesis of alcoholism has been identified with the following biopsychosocial entities (formulations).

**Biopsychosocial Entity (1): Alcoholism Most Likely**

This entity describes that with combination of the high-risk biology (familial status), the high-risk psychological and/or sociological factors, and their influences on the quantity and frequency choices of drinking, the risk for development of alcoholism would be most likely.

**Biopsychosocial Entity (2): Alcoholism Likely**

This entity describes that with combination of the high-risk biology (familial status), the low-risk psychological and/or sociological factors, and their influences on the quantity and frequency choices of drinking, the risk for development of alcoholism would be likely.
Biopsychosocial Entity (3): Alcoholism Possible

This entity describes that with combination of the low-risk biology (nonfamilial status), and the high-risk psychological and/or sociological factors, and their influences on the quantity and frequency choices of drinking, the risk for development of alcoholism would be possible.

Biopsychosocial Entity (4): Alcoholism Unlikely

This entity describes that with the low-risk biology (nonfamilial status), the low-risk psychological and/or sociological factors, and their influences on the quantity and frequency choices of drinking, the risk for development of alcoholism would be unlikely.

In summary, these phenomenological classifications of alcoholism suggested by PRI (1998) are concentrated on high-risk quantity and frequency (Q/F) choices of drinking and the high-risk Q/F considered to be major factors in development of alcoholism. These choices of drinking can be high-risk when they are influenced by the high-risk biological status, high-risk psychological, and high-risk social factors.

Beginning with basic information provided above, the elements of this scientific (pathogenesis) view, in development of alcoholism, must be defined and discussed under the following etiological and epidemiological questions:

1. What are the high-risk drinking choices in alcoholism etiology?
2. What are the high-risk psychological factors in alcoholism epidemiology?
3. What are the high-risk sociological factors in alcoholism epidemiology?
4. What are the high-risk biological (physical and genetic) factors in alcoholism?
Drinking Choices in Alcoholism Etiology

Drinking alcohol in small amount is an exhilarating and relatively harmless nutritional activity; in larger amount (the high-risk Q/F choice), drinking is known to be very harmful. The larger amount of alcohol, in high-risk drinking patterns, can act as a sedative and as a toxic, or poisonous, agent and it can damage the cells, tissues, and organs. When taken in very large amounts and over long periods of time, alcohol can cause major health and impairment problems.

It is suggested (by studies of diseases, insurance studies, and hospital records) that any Q/F choice of 3 drinks (one drink contains only 1/2 ounce of pure Ethanol \[\text{CH}_3\text{CH}_2\text{OH}\]) or more daily are considered to be high-risk (PRI, 1998; Goodwin, 1988; Volk, Cantor, Steinbauer, & Cass; 1997; Chou, Grant, & Dawson, 1996). PRI (1998) has suggested that, the low-risk Q/F choices of drinking can be considered as "one drink per hour and not to exceed of 2 drinks daily" (p. 22). Alcoholism is a biopsychosocial disease that is caused by high-risk quantity and frequency use of ethyl alcohol over time.

In development of alcoholism, alcohol is known to be the most important etiological property (Hungerford & Pollock, 2002). As matter of the fact, without alcohol, there is no alcoholism. Although alcoholism is caused by alcohol use, there are many predisposing factors such as psychological, cultural, social, heredity, and ethnic susceptibilities that can definitely influence the drinker's drinking patterns. These factors will determine whether a drinker becomes addicted to alcohol or not. The following articles and literature will further emphasize on biopsychosocial factors in alcoholism etiology and epidemiology.
Psychological Factors in Alcoholism Epidemiology

These factors can be consisted of the personality characteristics, general psychological and psychiatric conditions, and alcohol (alcoholism) induced psychological and psychiatric complications.

Personality Characteristics

Research has identified many personality traits to be influential factors in high-risk drinking choices, drinking patterns, and development of alcoholism. Some of these traits are recognized as: gregariousness (outgoing), rebelliousness (antisocial or not following rules), impulsiveness (spontaneous or risk taking behavior in handling self and others), and sensation-seeking (easily getting bored and difficulty in postponing gratification). People who are more identified with some of these characteristics, tend to engage in high-risk Q/F choices of drinking. Therefore they can develop alcoholism at higher rates (PRI, 1998; James & Johnson, 1996).

Research, however, indicates that these personality traits are normal and they are not indicative of any abnormal "per-alcoholic" traits or "addictive personality" among people (PRI, 1998; Goodwin, 1988; Sher, 1994; Bates & Stabenau, 1990).

General Psychological and Psychiatric Conditions

These conditions can influence the drinking patterns and increase the Q/F choices of alcohol consumption. Research has recognized these psychological and psychiatric conditions to be mostly consistent of: depression and mania depression, situational
anxiety and anxiety disorder, situational stress and stress disorder, polysubstance abuse, dependent personality disorder, sociopathy, social phobia disorder, and schizophrenia (Maxmen & Ward, 1995; Krug & Cass, 1987; Goodwin, 1988; Rolf, Johnson, Israel, Baldwin, & Chandra, 1988).

However, in the longest research (50 years) by Harvard University, Vaillant (1995) has concluded that "the majority of people who develop alcoholism are psychologically normal prior to becoming alcoholic," and PRI (1998) argued that in development of alcoholism "the alcoholism has led to emotional problems more than emotional problems have led to alcoholism." Although, the recent research indicates that most of the emotional conditions in people with alcoholism are the result of the alcoholism, not the cause (PRI, 1998). It is arguable that many psychological and psychiatric conditions will influence (increase) the Q/F choices of drinking which eventually lead to development of alcoholism (Goodwin, 1988; Winokur, Cook, Liskow, & Fowler, 1993; Maxmen & Ward, 1995).

Also, there are many alcohol-induced (alcoholism-induced) psychological and psychiatric complications that are diagnosed with alcoholism (dual-diagnosed or multi-diagnosed complications) (Goodwin, 1988; Maxmen & Ward, 1995; Lister, Eckardt, & Weingartner, 1987; Eich, 1980; Hannon, Day, Butler, Larson, & Casey; 1983; Hesselbrock, Hesselbrock, & Stabenau, 1985). These complications are as following:

Alcohol-Induced (Alcoholism-Induced) Psychological (Psychiatric) Complications

These complications are recognized by American Psychiatric Association (APA) in forth edition of the Diagnostic and Statistical Manual (DSM-IV) of Mental Disorders
and in the World Health Organization (WHO) International Classification of Diseases, 9th and 10th Revisions, Clinical Modification (ICD-9, -10-CM). PRI (1998) has maintained some of these complications throughout four "phases of drinking" or "phases of progression" to alcoholism, which they are analyzed mostly as "psychological factors" rather than "psychiatric complications."

Table 1-2 not only summarizes these alcohol-induced (alcoholism-induced) psychological and psychiatric complications but compares the PRI's "psychological factors" in its four "phases of progression of drinking" with the APA's "criteria for alcohol-induced psychotic disorders during intoxication or withdrawal and other alcohol-induced chronic psychiatric conditions."

These eleven mental status can occur due to use of alcohol or during alcohol abuse and/or alcohol dependency. Some of these psychological and/or psychiatric complications can last, even, during or after recovery period. Some alcoholics, for example, will continue to suffer from alcoholism-induced mood disorder, in form of depression, for the rest of their lives.

Table 1-2

PRI's Psychological Factors and APA's Psychiatric Conditions in Alcohol Use

<table>
<thead>
<tr>
<th>PRI's Psychological Factors</th>
<th>APA's Psychiatric Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-Risk Choices (Phase 1):</td>
<td>Alcohol Use:</td>
</tr>
<tr>
<td>1. Low-risk drinking attitude</td>
<td>1. No psychiatric condition</td>
</tr>
<tr>
<td>Social Dependency (Phase 2):</td>
<td>Alcohol Abuse:</td>
</tr>
<tr>
<td>1. Anticipation of high-risk drinking</td>
<td>1. No psychiatric condition</td>
</tr>
<tr>
<td>2. High-risk drinking attitude</td>
<td>2. No psychiatric condition</td>
</tr>
<tr>
<td>3. Strong common views about drinking</td>
<td>3. No psychiatric condition</td>
</tr>
</tbody>
</table>
Table 1-2 (Continued)

4. State dependent learning
5. Lost of abstract thinking
6. Lost sharpness or attention

Psychological Dependency (Phase 3):
1. Stronger common views
2. More impaired abstract thinking
3. Psychological dependency
4. More state dependent learning
5. Relationship with alcohol
6. Defense of Q/F choices
7. Preoccupation with alcohol
8. Changing lifestyle to fit the Q/F

Physical Addiction (Phase 4):
1. Blackouts
2. Hallucinations
3. Delusions
4. Delirium
5. Impaired sharpness and attention
6. Impaired abstract thinking
7. Agitation and anxiety
8. Withdrawal learning
9. State dependent learning
10. Relationship to alcohol
11. Defensiveness about drinking

4. Alcohol-related disorder Not Otherwise Specified (NOS)
5. Alcohol-induced transient amnestic disorder
6. Alcohol-induced dementia

Dependence Without Physical Evidence:
1. No psychiatric condition
2. Alcohol-induced chronic amnestic disorder
3. Psychological dependence
4. Alcohol-related disorder (NOS)
5. Psychological dependency to alcohol
6. Psychological dependency to alcohol
7. Alcohol-related disorder (NOS)
8. Psychological dependency to alcohol

Dependency With Physical Evidence:
1. Alcohol-induced amnesia
2. Alcohol-induced psychotic disorder
3. Alcohol-induced psychotic disorder
4. Alcohol-induced delirium
5. Alcohol-induced persisting dementia
6. Alcohol-induced persisting amnestic disorder
7. Alcohol-induced mood disorder
8. Alcohol-related disorder (NOS)
9. Alcohol-related disorder (NOS)
10. Psychological dependence
11. Psychological dependence

In summary, this current analysis introduces two groups of high-risk psychological factors and/or psychiatric conditions; the first group encourages people to drink in high-risk Q/F before the development of alcoholism, and the second group maintains high-risk Q/F choices of drinking during alcoholism as the manifestation of alcoholism itself (PRI, 1998; Goodwin, 1988; APA, 1994). Once the Q/F choices are influenced by these high-risk psychological factors and/or psychiatric conditions, they are
going to be increased to high-risk level of consumption; which the continuation of this high-risk consumption, can eventually cause alcoholism (Babor, Kranzler, & Lauerman; 1987; Volk, Cantor, Steinbauer, & Cass, 1997).

Sociological Factors in Alcoholism Epidemiology

The high-risk social factors can be viewed as enabling factors that not only emphasize high-risk drinking patterns among drinkers but also remove the negative consequences of high-risk drinking choices from drinkers. These enabling factors are known as public enabling, cultural enabling, institutional enabling, and environmental enabling.

Public Enabling

This type of enabling can be discussed as public encouragement about heavy drinking in forms of: (a) family members' heavy drinking activities (in family reunion, in family feasting, in family celebrations, in birth days and in other family occasions), (b) social heavy drinking activities (in group contests, in happy hours, in business parties, in graduation or promotion parties, and in leisure activities), and (c) drinking to cope with stressful social events (public or family tragedies, public unemployment, war, social uncertainly, and terrorist activities against people) (PRI, 1998; Johnson, Graham, Hansen, Flay, McGuigan, & Gee, 1988; Grant, Hartford, & Grigson, 1988; Cahalan, Cisin, & Crossley, 1969; Jennison, 1992).
**Cultural Enabling**

American culture confirms that heavy drinking is a part of: (a) traditional attitudes (heavy ethnic drinking, heavy drinking in sport and cultural events, and heavy lifestyle-related drinking), (b) religious beliefs (vague drinking messages such as moderate drinking or total abstinence [Bible Belt States cultural view of total abstinence ideology]), and (c) ceremonial and cultural messages (in family and/or home drinking, social drinking, adult drinking, men drinking, American drinking, hard working and hard drinking) (PRI, 1998; Perkins, 1987; Francis, 1992; Kimpel, 1992; Edwards, 1994; Marshall, 1979; Goodwin, 1988).

**Institutional Enabling**

American alcoholic beverage companies, bars, restaurants, clubs, entertainment and tourist industries and federal, state, and local governments are maximizing the use of alcohol for economic gain by: (a) alcohol advertising (in form of cultural confirmation, in form of normalization, in form of consumers manipulation, and in form of promotion), (b) tax-induced low alcohol prices, (c) marketing strategy (urban and/or rural marketing and advertising differences, supermarket alcoholic product display, advertising on tee shirts and clothing, greeting cards, and quantity packing sales), (d) media advertising (television, radio, newspapers, magazines, books, billboards, scoreboards, car racing, toys and games, and matchbook covers), (e) legal policies (easier whole sales and/or retail permits, chipper license fees, misleading alcohol laws, and easy accessible alcohol to minors) (Wagenaar, Toomey, Murray, Short, Wolfson, & Jones-Webb, 1996; Barsby & Marshall, 1977), and (f) beverage industries' financial support to social means (important

**Environmental Enabling**

The environment is an encouraging factor in high-risk consumption of alcohol which eventually will lead to alcoholism. Goodwin (1988) pointed out that colder climate of north influencing people to drink more alcohol (e.g., Northern France). One study showed that, here in the United States, northern and tropical states are among the first ten states in consumption of alcohol (U.S. Bureau of the Census, 1997). The working environment is also a major enabling factor in drinking.

For example, as Goodwin (1988) explained "by the nature of their works, reporters, bartenders, and house painters have more freedom to drink than surgeons or airline pilots," therefore, there are more alcoholism among those with occupational freedom than those with restricted working environment.

**Biological (Physical and Genetical) factors in Alcoholism**

There are two types of biological risk in development of alcoholism, familial biological risk and nonfamilial biological risk (i.e., self-induced biology change by increased tolerance to alcohol [Ethyl]) (Nagoshi & Wilson, 1989; Vessell, Page, and Passananti, 1971; Goodwin, 1988; Pickens et al., 1991; PRI, 1998). These biological
risks are the best predictors of future alcoholism among people (Maxmen & Ward, 1995; Bird & Harrison, 1987; Krug & Cass, 1987).

**Familial (Genetical) Biological Risk**

The familial risks are the status of alcoholism predicted by genetic makeups of sons and daughters of alcoholics. Research confirmed that people with a biological parents or grandparents with alcoholism have about four times more alcoholism as adults, even though they were all raised by non-alcoholic adoptive parents (Adoption Studies) (PRI, 1998; Goodwin, 1988; Bird & Harrison, 1987).

Research has also insisted that risk for developing alcoholism is even greater when these following conditions are met: (a) there are several blood relatives with alcoholism in family, (b) the closer the relatives are in the bloodline, the greater risk for alcoholism, (c) the more quickly the alcoholism develops in family, the greater risk for alcoholism, and (d) the more severe the alcoholism in family, the greater risk of developing alcoholism (i.e., numbers of problems and difficulties in treatment of alcoholism) (PRI, 1998).

According to PRI (1998), although some people are biologically in higher level of risks for development of alcoholism, but they are not born with alcoholism (i.e., heredity does not predestine people to develop alcoholism, though it can predispose people) and the level of biological risks or "trigger levels," only can be set by people's genetic makeups in development of alcoholism. The higher the biological risk, the lower the trigger level would be.

People with higher familial biological risks or lower familial trigger levels for
alcoholism are likely to develop alcoholism with higher rates (i.e., four times higher rates). The familial alcoholism is considered to be phenotype. This means, if there is a gene for alcoholism, whether it develops into alcoholism, depends on an environmental factor such as (drinking) alcohol (Maxmen & Ward, 1995). Without alcohol, there is no alcoholism.

Nonfamilial (Physical) Biological Risk

The nonfamilial risks are the statuses of adaptation to high-risk Q/F choices of alcohol. The adaptation to alcohol can be called the "tolerance to alcohol." There are two types of tolerance: initial tolerance (i.e., initial adaptation level to alcohol set by person's genetic makeup) and acquired tolerance (i.e., increased adaptation level to alcohol by high-risk Q/F choices of drinking over time).

The initial tolerance level is controlled by heredity and people are born with it, therefore, it is considered to be a sign of the familial biological risk. The acquired high tolerance can be increased by drinking over time and can be a sign of the nonfamilial biological risk in development of alcoholism (Goodwin, 1988; Begleiter & Porjesz, 1988; deWit & McCracken, 1990; Kalant, 1971; Forney & Hughes, 1963; Kalant, LeBlanc, Gibbins, & Wilson, 1987; Begleiter & Kissian, 1996; PRI, 1998).

Physical Adaptation and Dependency to Alcohol

A general biological rule holds that when any bodily system is under stress, it either adapts or suffers damage. Adaptation is actually a tool of survival; it will help the body to endure stressful changes in internal or external environments. Adaptational
responses occur rapidly, spontaneously, and in most cases, without the person's conscious knowledge. In onset of alcoholism, adaptation is central.

Alcoholics initially experience physical adaptations whenever they drink. The adaptations which occur in the early stage of alcoholism can be of two kinds: those affecting the metabolism of alcohol, and those taking place in the central nervous system and contributing to addiction (dependency). Both types of adaptation have direct effects on the alcoholic's ability to drink large amounts of alcohol without becoming intoxicated (tolerance) and actually to function better when he or she is drinking than when he or she is not drinking (dependency to alcohol). The physical dependency to alcohol occurs when an alcoholic's body enzymes, hormones, and numerous chemical processes are thrown out of balance by alcohol, and the normal ebb and flow of materials into and out of the cells is upset.

To counteract this confusion, the cells make certain changes in their structures. These adaptations gradually allow the cells to work smoothly and efficiently even when alcohol is present in the body in large quantities. In fact, the alcoholic cells become so competent at using alcohol for energy that they choose alcohol over other energy, or food, sources. For an alcoholic, although alcohol gives the cells a rich supply of energy and provides stimulation and sedation in different amounts, these benefits are inevitably turned into stiff penalties. Gradually alcohol attacks the cells, destroying their delicate chemical balances, eating away at the membranes, and deforming the cell innards.

If alcoholic continues to drink, the penalties of drinking sooner or later outweigh the benefits as the alcoholic gradually progresses into the later, deteriorative stages of the
dependency. The length of time between adaptation and deterioration varies from one alcoholic to the next. For some alcoholics, adaptation occurs rapidly, and within weeks or months after first taking a drink, the alcoholic is clearly addicted to alcohol. In other cases, many years go by before the earliest symptoms of adaptation and addiction develop. (Kalant, LeBlanc, Gibbins, & Wilson, 1978; Rigter & Crabbe, 1980; Tabakoff, Cornell, & Hoffman, 1986; Harper & Littleton, 1990; Blum, 1989; Blum & Trachtenberg, 1988).

In summary, the etiology of alcoholism, in general, can be manifested by Q/F choices of drinking (environment-induced trauma) when Q/F choices become high-risk due to high-risk psychological and social influences (psychosocial-induced trauma), and they interact with familial and/or nonfamilial biological status and produce new alcohol-induced biology, psychology, and physiology (alcoholism) (PRI, 1988; Maxmen & Ward, 1995; Krug & Cass, 1987; Bird & Harrison, 1987).

Alcoholism and Biopsychosocial Factors in African Americans and Whites

Alcoholism is a multifaceted and complex problem (disease) that affects all races, classes, and nationalities (PRI, 1998; Watts & Wright, 1982). In any attempt to comprehensively understand the nature of alcoholism (i.e., etiology and epidemiology of alcoholism) among any group, one must acknowledge all major social factors (i.e., demographic, environmental, cultural, and ethничal values), psychological factors (behavioral variables) and biological factors of the group. These, in or between
the groups, biopsychocological factors (or differences) can be considered as etiological and epidemiological determinants in prevention and treatment of alcoholism (Maxman & Ward, 1995; Watts & Wright, 1983; PRI, 1998; Jones-Webb, 1998).

Social Factors Among African Americans and Whites in Alcoholism

In order to understand the nature of the alcohol problems and their impact on the African Americans and whites, it is necessary to review the two races' social factors that have led them to high-risk drinking patterns and alcoholism. Alcoholism is a disease, and as with any disease, certain social factors influence its etiology. The following literature investigates the relationship between alcohol and ethnical history, cultural, and social-environmental values among African Americans and whites.

Ethnical History of Alcohol Consumption

The history of alcohol consumption among African Americans indicates that alcohol simultaneously was used with lower Q/F choices in Africa and before slavery. During slavery and during segregated urbanization, with influence of European Americans, the pattern of drinking was changed to a high-risk level. This high-risk drinking patterns under the rigid racial and social boundaries (poor education, poverty, unemployment, adverse living conditions, and poor health care) were increased and continued to recent years. However, many studies have shown that, still, overall drinking levels have been lower among African Americans to compare with whites.

Cultural patterns of heavy alcohol use and the commercial processes that have influenced the production, distribution, and consumption of alcohol among European
Americans have placed this group of Americans in higher risk for alcoholism and alcohol related problems (Cobb, 1858; Davidson, 1961/1996; Beidelman, 1961; duToit, 1991; Kletzing & Crogman, 1903; Greene, 1942; Rorabaugh, 1979; Aron & Musto, 1979; Herd, 1988b; James & Johnson, 1996).

Table 2-2 African Americans' drinking history and European Americans' drinking history are compared and many powerful determinants (sociological conceptions) in alcoholism among these two ethnic groups are identified.

Table 2-2

Comparison Between African Americans' Drinking History and European Americans' Drinking History

African Americans' Drinking History in Africa:

1. African tribal societies fermented maize, millet, and palm for wine and beer to drink in their social interaction and as an offering to gods and spirits to pledge adjudication and appreciation (1300s).

2. In Africa, alcohol was a focus of a group interest. It was a mark of esteem and affection. The public exchange of alcohol was to celebrate the harvest or marital relationship (1400-1500s).

3. African family produced over 83.5 pounds of millet. This could provide about 40 gallons of beer a year. The alcohol content of the beer was 3-5% and the average adult used 1 to 2 quarts of beer during special events (games of hunting) (1600s).

4. In Africa, European slave traders paid for slaves with cases of gin. This alcohol product replaced palm oil as the main source of the tribal income (1700-1800s).

5. In Africa, liquor traffic was carried on by the United States and Great Britain as a part of slave trading. The very vessels that transported missionaries to Africa also carried thousands of gallons of rum to African ports (1700-1800s).

6. In Africa, Africans became involved in the distilling and exporting of gin made from palm wine (1900s).
African Americans' Drinking History in America:

1. When Africans were brought to the New World, they had their indigenous social patterns and drinking styles. These Africans as slaves drank and danced in ceremonial costumes in many plantation celebrations (1600-1800s).

2. African slaves worked in production of whiskey and rum for their white owners, because they were relatively sober as new Americans (1700s).

3. Since African slaves were demanded daily, dawn-to-dusk, for forced labor, their patterns of drinking became very similar to their white owner. They became heavy drinkers on weekends, holidays, and New Year’s Days (hiring day), when they had no work to do (1700-1800s).

4. As European slave masters drank, they permitted, encouraged, and forced slaves to drink by water buckets. Usually, the full buckets of liquor were given to slaves to drink as incentives and rewards for prodigious feasts of labor (i.e., most cotton picked) (1800-1930s).

5. African slaves were particularly valued in the production of alcohol because of their skills (1900s).

6. During slavery, alcohol was used much more commonly in the life of the slaves than merely on holidays and special occasions and for reasons other than celebrations (1800-1900s).

7. At the end of slavery and at the beginning of migration and urbanization, African Americans in segregated urban society, who could seldom find employment, traded and sold alcohol as a source of income (1900s).

8. After the Civil War, African-American churches and universities (or higher education institutes) became major influences on sobriety and abstinence among African Americans. These organizations encouraged African Americans to get involved with religious, educational, political, and economical agendas instead of drinking (1870s).

9. Following World War I, and during the Great Migration, African Americans changed their patterns of alcohol use to heavy daily drinking in taverns and clubs, rather than drinking occasionally (1900s).
Table 2-2 (Continued)

10. During the prohibition era, African-American clubs, bars, and stores sold illegal alcoholic beverages, especially whiskey, and the law often ignored these sales (1930s).

11. From World War II to post Vietnam War, African-American men became heavy drinkers due to poor education, poverty, unemployment, poor living conditions, lack of health care, and racial discrimination (1940-1980s).

European Americans' Drinking History In New World:

1. European American settlers used alcoholic beverages (i.e., ales, brews, ciders, and wines) from grains and/or fruits for social events, celebrations, and ceremonies (1600s).

2. Alcohol was used as part of colonial life: barn and house raising, church raising, weddings, harvesting, apple paring, maple sugaring, corn husking, and work partying (1600-1800s).

3. European Americans produced whiskey and other alcoholic beverages for themselves and for sale with alcohol content of 40 to 60 percent. At the time of celebration, they drank in the morning and night till they were drunk and/or unconscious (1700s).

4. The Temperance Movement, Prohibition in states, and the Eighteenth Amendment against the sale or transport of alcohol caused less drinking among European Americans (1800-1920s).

5. European Americans used the prohibition movement to promulgate their prejudices against African Americans with rumors that liquor gave African-American men the courage to overcome their inferior status and to lose their sexual desires on white women (1900s).

6. During prohibition, European Americans were visiting African-American bars, clubs, and drinking stores to drink, gamble, and hear "black music" (1900s).

7. Research on the effect of socioeconomic variables about alcohol-related problems has found that the heavy alcohol consumption, by itself, has been the major influence in increasing the rate of alcohol-related problems among European Americans (1940-1990s).
As it was evidenced by the above table, the ethnical, cultural, and social-environmental values can influence the patterns of drinking (i.e., the Q/F choices of drinking), thus it is necessary to determine such factors in drinking patterns, among African Americans and European Americans (Goodwin, 1988; Philleo & Brisbane, 1997; James & Johnson, 1996).

The above table, also, compared African Americans with European Americans in their relationship with drinking patterns in the last 700 years (1300s to 1990s). In this comparison, African Americans' drinking patterns were within lower risk due to: reasons for drinking, the kinds of alcoholic beverages used, the lower ethyl alcohol concentration, and the lower quantity and frequency choices. In other word, African Americans increased their drinking patterns due to major enabling factors imposed on them by involvement in white culture and its forceful elements of slavery, manipulation, segregation, discrimination, and depravation of resources (politically, economically, educationally, culturally, and legally) (James & Johnson, 1996; Watts & Wright, 1983; Schiele, 1996; Philleo & Brisbane, 1997).

Cultural Perspectives

Sociocultural attributes of the United States, in historical context, have shown that how sociodemographic characteristics and cultural heterogeneity among African Americans have resulted in the ambiguity of their current drinking patterns (Amuleru-Marshall, 1993; Bell & Evans, 1981; Cheung, 1991; Gray & Barrow, 1993; Philleo & Brisbane 1997; Schiele, 1996).

Some studies of etiology identified socioeconomic conditions such as poverty,
discrimination, unemployment, and victimization to combine with whites' cultural drinking similarities such as drinking for sociability and celebrations, spiritual drinking, weekend drinking, street drinking, drinking with the "blues," drinking high-priced and high-proof brands, drinking without meals, and drinking in urban community clubs and bars have influenced the patterns of drinking among African Americans and caused the higher rate of alcoholism in this population (NIAAA, 1993; Herd, 1990; Goddard, 1993; Lee, Mavis, & Stoffelmayr, 1991).

National surveys examining the prevalence of drinking in European Americans indicate this population reports higher rates of alcohol use than African Americans. Data from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and National Longitudinal Alcohol Epidemiologic Survey (NLAES) showed that whites were more likely than African Americans to have used alcohol at some time in their lives and whites were also more likely than African Americans to develop alcohol dependence during their lifetime.

According to Dawson et al. (1995), African Americans at a higher percent (49%) were more likely to be lifetime abstainers than whites (31%), but once alcohol dependence occurred, African Americans were more likely than whites to remain alcohol dependent (Center for Substance Abuse Treatment [CSAT], 2000; Grant, 1997).

In 1997, according to the National Household Survey on Drug Abuse, 53 percent of African Americans and 68 percent of whites reported drinking in the past year (Substance Abuse and Mental Health Services Administration, 1998). Similarly, in 1992 the National Alcohol Survey found an abstention rate of 51 percent among African-
American women and 35 percent among African-American men, compared with a rate of 36 percent among white women and 28 percent among white men (Caetano & Kaskutas, 1995).

Studies in drinking patterns among European Americans have indicated that the availability of alcohol in families or communities, low cost of alcoholic beverages, condemnation of drunkenness, lesser religious or cultural sanctions (taboos) against drinking, cultural "favored," "preferred," and "approved" alcohol as intoxicant choice, social pressure in drinking, cultural variation in drinking patterns, and customs and attitudes about drinking were contributing factors in heavy drinking among European Americans (Goodwin, 1988; James & Johnson, 1996; Jones-Webb, 1998; Herd, 1994b; Cooper, Russell, Skinner, Frone, & Mudar, 1992).

Social-Environmental Factors

Social-environmental factors influencing patterns of drinking (Q/F choices of drinking) among African Americans are: (a) racially oriented alcohol advertising that is targeting younger African Americans; (b) residential areas (geography) of African-American population (urban vs. rural and north vs. south); (c) level of income among African Americans (lower-income communities); (d) place of drinking (street and club drinking); (e) arrest rates (multiple incarcerations); (f) accessibility to alcohol (i.e., liquor stores in residential and school neighborhoods); (g) nature of occupation (physical labor and low pay jobs); (h) use of other drugs and cigarette; (i) frequency of heavy drinking (weekends and holidays drinking); and (j) alcohol related laws and policies (i.e., low
taxation, low price, selling licenses for bars and grocery stores in urban areas, and daily selling hours) (Goodwin, 1988; O'Donnell, 1985; Maxmen & Ward, 1995; Bird & Harrison 1987; James & Johnson, 1996).

According to the recent studies, the patterns of drinking among European Americans are mostly affected by some predominant environmental factors such as drinking settings (i.e., restaurants, bars, outdoor public areas, stadiums and fields), drinking occasions (i.e., social and cultural events, celebrations, television viewing, family [friends] visiting, family unifications, traveling, sexual activities, holidays and weekends drinking, and sport activities), and alcohol advertising (Herd & Grube, 1993; James & Johnson, 1996; Goodwin, 1988; PRI, 1998).

Drinking problems and alcoholism are recognized by two major consequences: problems in different aspects of a person's life (social problems), and symptoms of alcohol dependency (physical and psychological problems) (PRI, 1998; Hilton, 1991; Goodwin, 1988; Herd, 1994a). Studies on drinking problems have supported that African Americans' heavy drinking had caused significantly greater numbers of social problems in area of income, education, occupation, and employment status to compare with white population (Herd, 1994a).

Survey of New York, Barr and Colleagues (1993) has found that African Americans with lower income have had higher rate of alcoholism (alcohol dependency symptoms) to compare with whites. The same survey has reported that African Americans with higher income have had lower rate of alcoholism to compare with the white counterparts. Many studies have reported that higher social class could be a
protective factor for African Americans against the influence of race on drinking problems (Jones-Webb, 1998).

Psychological Factors Among the Two Races in Alcoholism

The studies investigating epidemiology of alcoholism have recognized three groups of psychological factors that influencing drinking patterns: (a) psychological factors that influencing drinking patterns (Q/F choices) prior to development of alcoholism (per-alcoholism psychological factors), (b) psychological factors influencing drinking patterns during development of alcoholism (primary alcoholism-induced psychological factors), and (c) psychological factors influencing Q/F choices after development of alcoholism (psychological factors in chronic alcoholism) (PRI, 1998; Goodwin, 1988; Bird & Harrison, 1987; Krug & Cass, 1987; Maxmen & Ward, 1995).

Although some scientific studies have indicated that there is not a high rate of alcoholism associated with per-alcoholism psychological factors and most psychological factors are presented during and after development of alcoholism (Vaillant, 1995; PRI, 1998); it is important to evaluate the existing per-alcoholism and alcoholism-related psychology statuses among African Americans and European Americans.

Per-Alcoholism Psychological Factors

These psychological factors have enormous heterogeneity within African-American & European-American populations and these psychological factors have been the subject of considerable discussions in the alcohol literature (Jones-Webb et al., 1995).
Psychological factors such as coping behaviors (i.e., high-avoidance-coping behaviors), peer attitudes about drinking, and stress (number of stressful life events) strongly have influenced alcohol use and drinking problems among African Americans to compare with whites (Cooper et al., 1992; Herd, 1994b).

Psychological research has indicated that alcoholism is not associated with any abnormal pre-alcoholic and/or "addictive" personality trait. However, there are some normal psychological and personality characteristics that predict who is more likely to develop alcoholism (or other addictions). These normal personality and psychological characteristics that encourage and influence drinking are as following: (1) sensation-seeking (difficulty postponing gratification), (2) impulsiveness (lack of commitment and conformity with others and taking personal and societal risks in planning and dealing with others' affairs), (3) rebelliousness (antisocial behavior and social alienation), (4) gregariousness (outgoing behavior), (5) lack of self-esteem, and (6) elevating level of stress and/or depression (Brisbane & Womble, 1985; PRI, 1998). These traits influence people to drink with high-risk quantity and frequency and cause them to develop alcoholism or addictions in higher rates.

These psychological and personality characteristics, specifically, can produce high-risk drinking patterns or cause major complications in dealing with drinking patterns among African Americans, when they are considered in light of racism, poverty, unemployment, ghetto life, availability of alcohol, inadequate education, discrimination, and cultural and class conflict (James & Johnson, 1996; Waymer, 2001). Michels, Johnson, and Sheridan (1996) have found culture, race, gender, age, family income, and
education, in combination with personalities and other psychological characteristics, to be very important in development of alcoholism. In one study when African-American and white women were matched on age, education, and income; significant income differences were evidences in the higher rate of alcoholism among white women.

According to this epidemiological study, the relative wealth of white alcoholic women during their childhood may have impacted the higher rate of childhood dysfunction, which could have resulted the higher rate of alcoholism among European-American women. A study of age-related drinking attitudes among African-American and white women showed that young white women (18-29 years old) are much more likely than young African-American women to drink in higher risk level (higher Q/F choices of drinking).

Among white women, high risk drinking decreases with age and levels off to about 16 percent by age 50. In contrast, high risk drinking among African-American women increases with age through the early twenties, falls somewhat in the early thirties, and then increases to a peak in the early forties. By age 50, the prevalence of heavy drinking is at a similar rate for both groups (Russell, 1989; Caetano, 1984). According to Herd (1989), in the eighteen to twenty-nine years age group, African-American men were at lowest risk, while white men were at highest risk for alcoholism and alcohol-related problems.

For men in their thirties, alcohol-related problem rates decreased sharply among whites but increased among African Americans. African-American men between the ages of thirty and thirty-nine exceeded white men in the category of "drinking in high
Q/F choices" by 33 to 26 percent. African-American men also more often become frequent heavy drinkers in the fifties and sixties age groups. In middle and older age, African Americans continued to experience alcohol use problems.

Epidemiological models that explore a relationship between psychological factors and alcoholism among African Americans require more rigorous research in general. However, from a conceptual viewpoint, approaches that emphasize the psychology of drinking must lend to an understanding of how being African American (or being black) in the United States can relate to alcoholism among this population (Oetting, 1993; Schiele, 1996; Waymer, 2001). Long (1993) indicated that a bicultural identities have been damaging for African Americans because in reality African Americans have not been able to maintain their own culture while taking on the values (drinking patterns) of the mainstream European culture.

In addition, the National Institute on Drug Abuse (1993) acknowledged that a high level of cultural identification (multi-culture) can lead to substance abuse if the culture approves it, and can be prevented if the culture disapproves it. Also, low self-cultural identification and identity confusion can lead to low self-esteem and low self-esteem leads to substance abuse (Oetting, 1993; Long, 1993). By necessity, culturally sensitive (with ethnic identification) psychological research must be explored to examine the pattern of drinking as the product of complex interaction between the drinking choices and multiple psychological factors (self-esteem, attitude, stress level, personality characteristics, and logical thinking). This research will explore the possibility of finding African Americans not only to be in lower risk of alcoholism due to low-risk attitude,
high self-esteem, low-risk personality characteristics but also to seek treatment for alcoholism sooner, if they are offered affordable health care providers.

**Primary Alcoholism-Induced Psychological Factors**

These factors (conditions) are found to be: alcohol-related behaviors, depression (retarded depression), dependency, cognitive-affective impairment, escapism, failed attempt at intimacy, isolation, stress, thoughts and feeling of failure, personal disorganization, mid-life crisis behaviors, psychological frustrations, deliberate self-harm, criminalities, and withdrawal hallucinations (Beck & Zannis, 1992; Welte & Barnes, 1987; Kim, 1981; Steer & Shaw, 1977; Bird & Harrison, 1987; Goodwin, 1988).

**Psychological Factors in Chronic Alcoholism**

Although there are not many researches available to examine ethnicity in relationship with psychological conditions in chronic alcoholism, some researches have found white alcoholics to be: (a) manic-depressive patients, (b) more suicidal, (c) more angry toward themselves (self-aggression), (c) more anxious (anxiety neurosis), and (d) social phobic (Goodwin, 1988).

Between 20 to 30 percent of male psychiatric admissions are alcoholics with alcohol-related problems. These alcoholics are suffering of alcohol-related disorders such as alcohol intoxication, alcohol withdrawal, delirium, dementia, amnestic disorder, psychotic disorder, mood disorder, anxiety disorder, sexual dysfunction, sleep disorder, and other alcohol-related disorders that are not classifiable, but they are clinically
significant to be specified for alcohol and alcoholism. These "none specified alcoholism-induced conditions" are: apprehension, agitation, dysphoria, guilt, remorse, despair, hopelessness, futility, self-deprecation, relationship to alcohol, state dependent learning, preoccupation to alcohol, impaired abstract thinking, and withdrawal learning (Goodwin, 1988; APA, 1994; Maxmen & Ward, 1995; PRI, 1998).

Biological Factors Among African Americans and Whites in Alcoholism

Although Watts and Wright (1982) have noted that "there is yet to be done a definitive study looking at genetics or hereditary factors in black alcoholism" (p. 48); there are other studies available to only include neurochemical involvement and genetic susceptibility in African Americans in order to over-present African Americans among addicted population. Newton (1993) explored the impact of physiological structure and neurochemical composition in African Americans' biological vulnerability to alcohol and drug by acknowledging a relationship between melanin concentration level (a dark-brown to black pigment occurring in the hair, skin, iris, and eyes with higher concentration in African Americans) and toxins (alcohol or drugs).

According to Newton (1993), increased melanin level in African Americans has caused the release of neurotransmitters into the body that are associated with alcohol or drug use. In dietary patterns, it is also hypothesized that addiction to fat and sugar found in some produced foods may be a precursor to addiction to illicit substances (liquor and cigarettes) available to African Americans and their communities (Philleo & Brisbane, 1997). Prevention Research Institute (1998) has recognized no differences in biological or genetic makeups among African Americans and whites and argued that the
biological risk of alcoholism for children of alcoholics is four times higher than children of nonalcoholics.

PRI (1998) has also recognized different biological responses to alcohol in people with different levels of biological risks (i.e., different biological responses to alcohol among children of alcoholics (COAs) and children of nonalcoholics (CONAs). According to PRI (1998), COAs with increased biological risk have different (not abnormal) powerful alpha brain waves after drinking which causes more relaxation effects and indicate a diminished response to startling noises or lights; COAs have higher initial tolerance to the intoxicating effects of alcohol and report one of two extreme reactions to alcohol early on, either greater pleasure or a mild discomfort and flushing reaction, even, on low amount of alcohol consumption.

National Institute on Alcohol Abuse and Alcoholism (1994) reported that certain minority groups have some genetic traits which these traits can either predispose them to or protect them from alcoholism. Such traits, for example, could be: the flushing reaction occur by reddening of the face and neck due to increased blood flow after drinking small amounts of alcohol among people of Asian ancestry (flushing is linked to enzymes involved in alcohol metabolism), headaches, nausea, and other symptoms (Japanese-Americans with quick flushing responses drink less and have higher rate of abstention from alcohol).

Other genetic differences among ethnic groups are involved in metabolizing enzyme levels. Stalls (1978) had noted that there are some racial differences in patterns of alcohol metabolism and Burnell and Bosron (1989) have found genetic polymorphism
of human liver alcohol dehydrogenase and kinetic properties of the isoenzymes could be in variations among African Americans, Asians, and whites. This study being followed to relate some medical complications of alcoholism, such as higher rate of liver disease and cirrhosis-related deaths among African Americans and faster elimination of alcohol in Asians, to production of dehydrogenase and kinetic properties (metabolic enzymes) (Meier-Tackmann, Leonhardt, Agarwal, & Goedde, 1990; Jones-Webb, 1998; Caetano & Kaskutas, 1995; James & Johnson, 1996).

Another interesting finding of recent research is the discovery of direct relationship between an ethnic group's exposition time to alcohol and the rate of alcoholism within that group. For example, Jews and Italian have had access to large amounts of alcohol for more than 7,000 years, and their alcoholism rate is very low. Alcohol was first introduced in quantity to the northern European countries, including France, Ireland, and the Scandinavian countries, some 1,500 years ago, and the rates of alcoholism are relatively higher there.

Native Americans, who suffer from extremely high alcoholism rates (somewhere around 80-90 percent), did not have large supplies of alcohol until approximately 300 years ago (Glad, 1947; Bales, 1946; Lolli, Serianni, Golder, & Lussatto-Fegis, 1958).

Interbreeding among ethnic groups will also have a dramatic effect on alcoholism rates. If ethnic groups with high susceptibility rates interbreed with ethnic groups with a lower susceptibility, the alcoholism rates for both groups will change (Hill, Cloninger, & Ayre, 1977; Penick, Read, Crowley, & Powell, 1978; Cotton, 1979; McKenna &
Pickens, 1981). In fact, it has been observed that alcoholism rates among both Jews and Italians are rising steadily as they increasingly interbreed with people who have a higher susceptibility to alcoholism.

The scientific evidence clearly indicates an interplay of various hereditary physiological factors (metabolic, hormonal, and neurological) which work together and in tandem to determine the individual's susceptibility to alcoholism. Even a slight difference in the number or type of liver enzymes, for example, could alter a person's drinking patterns, preference, physical dependence, and addiction (Davis & Walsh, 1970; Schuckit & Rayses, 1979; Lipscomb, Carpenter, & Nathan, 1979; Hill & Steinhauer, 1993; Milam & Ketcham, 1990; Schuckit & Smith, 1997).

In summary, while additional predisposing factors to alcoholism will undoubtedly be discovered, abundant knowledge already exists to confirm that alcoholism is a hereditary and physiological disease, and we must account fully for its onset and progression. It is reported that people with a family history of drinking problems may have different drinking patterns to compare with those who do not have such a family history. Different people with different biological responses to alcohol may have different levels of biological risk of alcoholism and alcohol-related health and impairment problems (PRI, 1998; Darrow et al., 1992; Lozina et al., 1995).

Prevention (Education and Intervention) and Treatment

Health care providers in prevention and treatment of alcoholism for African Americans must briefly review and eliminate previous disfavored and distrusted prevention models which were not compatible with African Americans' social and
cultural considerations. In planning prevention strategies and seeking the cause of alcoholism, such traditional models were identified and introduced without utilizing the danger of their repressive effects and conflicting messages on African Americans' recovery efforts. To examine the controversy surrounding the previously introduced prevention theories, this section begins with brief review of prevention ground works and historical events from Africa to America.

Many lessons are to be learned from the history of the prevention perspectives in America which they are powerful reminders of the need to develop culturally competent and appropriate prevention, intervention, treatment and aftercare strategies for African Americans.

**Prevention Model of Disease Susceptibility (5,000 B.C. - 2000s)**

According to the recent research, when ethnic susceptibilities to alcoholism were studied, the rate of alcoholism was directly related to the length of time that an ethnic group has been exposed to alcohol (Milam & Ketcham, 1990). For example, research has found that since Jews and Italians have been exposed to alcohol for more than 7,000 years, they have been very low-risk in development of alcoholism. The Northern Europeans (France, Ireland, and Scandinavian populations) were introduced to alcohol about 1,500 years ago, therefore the rates of alcoholism are relatively higher among them. But Native Americans, with approximately 300 years exposure to alcohol, have extremely higher rates of alcoholism.

These differences in susceptibility have been given scientific implications to
interplay various prevention and treatment strategies. Unfortunately, once again, African Americans and their exposure length of times to alcohol were ignored in recent susceptibility research. Therefore, it is important to mention that the scientific and historical evidences clearly have indicated that distillation, which was discovered about A.D. 800 in Arabia, brought man-made alcohol to Northeast and East Africa by Arabic social and cultural influences and practices (non-Western interactions) prior to European contact (Milam & Ketcham, 1990; Weir, 1985; duToit, 1991).

Many studies with major evidences have focused on the presence of alcohol (beer from maize, sugar, and millet) in specific populations of Africa (e.g., Kofyar, Ijaw-Nembe, Kalabari, Bonny, and Opobo), in northern Nigeria and east-central Tanzania, years before European contact (Beidelman, 1961; Netting, 1964; Heath, 1975). These evidences could clearly be used to place Africans' length of exposure to alcohol well above Europeans. Therefore, we should expect the lower susceptibility to alcoholism for the entire African groups included African Americans.

The prevention principle of natural selection provides people with longer exposure time to alcohol use, and the lower susceptibility rates to alcoholism. Therefore, these people will survive and pass on their low susceptibility rates to generation after. This may explain the lower rates of alcoholism among different group of African Americans today.

Prevention and Precolonial Alcohol Use (A.D. 800-1399)

The use of alcohol among Africans in precolonial Africa was considered to be healthy and low-risk. The quantity of alcohol use was about 40 gallons a year per person
and the frequency use for average adult was between one and two quarts at each drinking party and special event. Sometimes, these events could occur about twice each week.

Africans mostly were beer and wine drinkers. The alcohol content for beer or wine was ranged between 3 to 5 percent. Africans fermented grains and palm sap to make beer and wine (Stevenson, 1993; Herd, 1985). At the same time, among Europeans (Portuguese and British), liquors (gin, rum, and whiskey) were widespread.

The alcohol content of these beverages were ranged between 40 to 50 percent. Europeans used alcohol at more various social events (weddings, parties, funerals, celebrations, ceremonies, house and barn raisings, church raisings, harvest rituals, and work parties) and for longer drinking duration (from morning to late at night or from night time to morning). Alcohol also was used in large containers for a person (water bucket or large pitcher) (Killion, 1973; Jacobs, 1861; Greene, 1942; Rorabaugh 1979; Aaron & Musto, 1979). At this period of time and for the most part, the drinking among Africans was in lower risk and it was more preventive of major health and social problems (McNeese & Dinitto, 1994; Herd, 1985; Umunna, 1967).

Prevention in Colonial Time and During Slavery (1400-1800s)

When Africans were brought to the New World they brought their indigenous social patterns and drinking styles with them. Europeans, also, brought their drinking patterns to the New World (Johnson, 1937). The beer and wine parties during sugarcane cutting, apple paring, maple sugaring, cotton picking, and corn husking which were observed by whites, could be closely resembled by African slaves to their cultural harvest
rituals (Stampp, 1961; Jacobs, 1861).

The early European settlers also used alcoholic beverages at the various colonial life events. In European communities drinking until one was drunk or even unconscious had developed as a style of drinking behavior. In this era, alcohol was widely and literally viewed as a source of strength and health. Abstainers were charged 10 percent more on their life insurance policies (PRI, 1998). Distilled products (whiskey, rum, gin beer, and wine) generally with more potency were made as desirable drinks.

These settlers drank liquor during weekends, holidays, agricultural production celebrations, and other party times from dawn-to-dusk, with water buckets until they were drunk. Slaves were relatively sober when compared as a group to European settlers. But as they participated in the same events and adopted the drinking patterns of the European colonists, they reported not only the development of certain destructive patterns of alcohol use but also many health and impairment problems (Killion, 1973).

Stampp (1961) argued that alcohol was used much more commonly in the life of the slaves than merely on holidays and special occasions; alcohol was used by slaves masters to befuddle the slaves' minds and keep them in bondage during abolishing the African slave trade and after the passage of the Thirteenth Amendment to the U. S. Constitution in 1865. The preventive lesson for this period was to be free. During this era, Frederick Douglass argued that sobriety was necessary for freedom because "one had to be alert to plan and execute an escape to freedom" (Amuteru-Marshall, 1993).

Slave masters used alcohol to manipulate slaves and minimize unrest. Amuleru-
Marshall (1993) referred to this era as "chemical slavery" era. However, the literature on prevention attributes the absence of alcohol problems to the slaves' precolonial culture (Joyner, 1991; Herd, 1985). The prevention phenomenon was so pervasive that African Americans were thought to be physiologically immune to alcoholism (Philleo & Brisbane, 1997).

**The Temperance Prevention Model (1830s-1870s)**

During the 17th century, alcohol-related problems were increased significantly. Therefore, Temperance Movement and the Abolition Movement became intrinsically connected to deal with tremendous increase in drinking patterns among African Americans and whites. On the one hand, the black churches reinforced temperance and abstinence among African Americans; on the other hand, the white reformist Protestant churches denounced slavery and the consumption of alcohol (Herd, 1985). However, alcohol itself was seen as a source of health, only the type of alcohol (distilled spirits) and not the consumption was considered to be the problem.

During slavery as slavemasters worked slaves without relief, especially in crop planting, maintenance, and harvesting; alcohol was used to reward for working hard and better health. Thus, various alcoholic beverages, including distilled spirits (rum, whiskey, and gin), became material rewards that slaves received for their labors, and alcohol use become a conditioned responses and a reward systems following hard work. Prior to slavery time and before this rewarded pattern of drinking behaviors, the cultural experience of the slaves had been limited to relatively mild intoxication by using occasional mild beverages such as beer and palm wine used for social and sacred cultural
events in African tribal societies.

Although, during this time, the people who formulated these African and colonial lifestyles were long gone, but their beliefs were still existed. These cultural and traditional drinking behaviors combined with temperance ideology had failed the African-American population to engage in low-risk drinking and prevention. African Americans, at this period, were severely influenced by major cultural, traditional, and societal mixed messages. Consequently, and due to these mixed messages, the level of alcohol consumption among African Americans was actually increased.

African Americans not only were drinking in high-risk but also were engaging in sale of illegal alcohol to non-free slaves. In both southern and northern cities during the slavery period, free African Americans had become a substantial presence. This increasing urbanization and mixed messages about drinking not only changed African Americans' patterns of occasional alcohol use into patterns of addiction but also turned the mood of the country against African Americans.

According to Goldfield (1991) in Before Freedom Came, "the problem was less the sale of alcohol to slaves than the alleged plots that might be hatched in such a convivial and heady atmosphere" (p. 141). Hard liquors were sold in African American saloons and clubs. In the south the movement was affected by the racist belief that prohibition was needed as a means of preventing drinking and interracial sex. White Southerners used their prejudices against "black man" and spread the rumor that liquor sometimes gave the African-American male the courage to overcome his inferior status and to lose his sexual desires on white woman (Irwin, 1908; Sinclair, 1962; Gwinnell,
During this time, due to hostile and unhomogeneous surrounding environments, African Americans could not form a common prevention strategy in response to the temperance movement.

**The Prohibition Prevention Model (1870s-1930s)**

The formation of the United States Temperance Union in 1836 was rooted in nationalism. Supporter of the movement had a belief that self-control was essential for the country, that abstinence would bring social reform, that the movement against bars, saloons, and drinking would eliminate prostitution and crime. This major reform movement grew into strong prohibition movements. Over a period of almost fifty years various groups worked for national prohibition. By 1920, there was enough national support to pass the Eighteenth Amendment against the sale or transport of alcohol within the United States.

Initially, prohibition did reduce consumption and rates of alcohol-related problems. Some studies indicate that the prohibition was the best prevention strategy ever in reducing rates of alcoholism and alcohol-related liver-disease among whites (Goodwin, 1988). According to these studies, when there was no alcohol, there was no alcoholism. However, according to PRI (1998), prohibition did not eliminate alcohol use or alcohol problems and in fact, created problems of its own. Various inflammatory tales were told of the danger of alcohol such as, "alcoholics who belched near a candle would explode because of the high level of alcohol in their system," "morally upright people don't drink," "African American males, by drinking, overcome their inferior status to
loose their sexual desires on white women," "black votes are corrupted by liquor," "Negro problem is Nigger gin," and "blacks are liquor crazed" (Sinclair, 1962; Irwin 1908; Herd, 1985; Gaines, 1985; Ray & Ksir, 1993).

Although prohibition was reforming society's approach toward no use of alcohol, it caused African Americans to become a prime target for the illegal alcohol sales of white liquor traders (Drake & Cayton, 1945; McKay, 1968). Across the United States and especially in major cities such as Los Angeles, San Francisco, Seattle, Chicago, New York, Philadelphia, Boston, Atlanta, Miami, Pittsburgh, and Detroit, African-American businesses began to take advantage of the desire of the populace to escape from financial confusion caused by both poverty and sobriety, and increasingly became the place where whites and blacks practiced their voices.

These businesses in the form of clubs (for jazz, dance, and after-hours activities), houses (for prostitution and gambling), and liquor stores (for drinking and trading) sold illegal alcoholic beverages, and law enforcement officials often ignored alcohol and other drug sales in these businesses and communities. In the South, the prohibition provided many African Americans with the opportunity to become successful bootleggers. In the North, patterns of community policing and law enforcement formed and created "de-facto" legal protection for those African-American communities which were willing to become the sensual and sexual playground for the larger white community (Anderson, 1981).

These businesses also provided a haven where those African-American church members who wanted to find an escape from the more rigid teachings of African-
American preachers. For these members, there were clubs with full casinos, gentleman pimps in the bars, and alcohol and/or drugs for sale (de Barros, 1993). Consequently, prevention lesson learned from prohibition, if any, did not work for African Americans.

African Americans were allowed openly to use alcohol in high-risk patterns, despite of its illegality. Also, at the same time, those African Americans who once embraced the prohibition movement by establishing temperance societies such as the Philadelphia's Colored American Temperance Society (1830), the New England Temperance Society of Colored People (1836), the Connecticut State Temperance Society of Colored People (1840), and the African Temperance Society of New York (1840), began opposing prohibition as the movement embraced racist propaganda and white supremacy (Ku Klux Klan) ideologies.

Since African Americans were segregated from white society and discriminatory laws (in the South) denied or restricted their right to vote, it seemed equally appropriate to the white population to use the prohibition movement to promulgate their prejudices against African Americans and to deny them the right to drink. This caused revenged reaction by African Americans. They not only drunk liquor in high-risk patterns but also sold illegal alcohol in the bars, clubs, and restaurants (Sinclair, 1962; James & Johnson, 1996).

The Disease Prevention Model (1930s-1960s)

Although the disease model was not a formal preventive model, but it affected what was done in prevention. The disease model was launched within the medical and/or alcohol field and recovery and/or care providers by the book, "The Disease Concept of
Alcoholism," by E. M. Jellinek, M.D., of Yale University in 1960. Initially, according to Jellinek (1952) and his disease model, alcoholism was "any drinking that led to problems," but later he defined the criteria for disease of alcoholism under "chronic alcoholism."

In chronic alcoholism status, Jellinek characterized alcoholics with some physical and psychological symptoms such as "impaired thinking," "psychosis," "loss of tolerance," "tremors," "obsessive drinking," and "benders." He also considered them with severe social and behavioral changes such as "ethical deterioration," "decline in social level," "undefinable fears," "religious desires," and "interest in treatment."

Therefore, in 1963, the above characterization as a part of disease model created the regrettable confusion in the public mind about whether or not alcoholism was a health problem or a moral problem masquerading as a health problem (PRI, 1998). Some critics questioned whether the health field was appropriate for or capable of preventing alcohol problems that could be more social than medical in nature (Beauchamp, 1976; Watts & Wright, 1983). During this time, low-income, church advocating, justice and freedom seeking African-American rural and urban populations were represented as despairing chronic alcoholics on the street corners of major cities.

Since the migration out of the south was continued, the major urban centers were struggled with racism, police violence, unemployment, housing discrimination, and lack of opportunities, therefore, per capita consumption of alcohol was increased among African Americans. At the same time, African Americans were three to four times more likely to die of cirrhosis liver (high cirrhosis mortality rates).
Perhaps the most significant event about African Americans occurred happened when they were conceptualized by public as chronic alcoholics due to their social and behavioral images. Therefore, treatment and prevention opportunities outside of public hospitals, federal treatment centers, prisons, and probation centers became very limited for African Americans. At the same time, private care provider, mental hospitals and Alcoholics Anonymous (AA) were mostly becoming oriented toward middle-class white alcoholics.

Alcoholic Anonymous participation was particularly difficult for African Americans, who have felt alienated by a racist society, to identify with the culture of AA when the meetings were mostly white (James & Johnson, 1996). Unfortunately, the disease model was yielded to pressure African Americans to be categorized as "hard rock bottom" alcoholics that their alcoholism only had two types of treatment: (1) death and (2) complete sobriety; which "sobriety" for this group of street alcoholics was not an option.

Harper and Dawkins (1976) examined 16,000 studies in the Classified Abstract Archive of the Alcohol Literature (CAAAL) from 1939 to 1969 and found only sixteen studies had dealt with alcoholism services for African Americans in an empirical manner. In other word, the continuing denial of researchers to deal with black alcoholism was simply another example of masking their racism ideologies in treatment and prevention plans (Watts & Wright, 1983). The neglect of studies on black alcoholism to combine with the "disease model's confusion" had tended to analyze African-American alcoholics' (the victims') responsibilities of their alcoholism and
neglected broader interventions that made African Americans aware of how alcoholism in their communities was merely another form of white America's complicity in asphyxiating African Americans (Forrest, 1975; Harper, 1978; Dembo & Burgos, 1976).

The Social Influence ("Normative") Prevention Model (1960s-1970s)

In 1961, the National Institute on Mental Health (NIMH), based on studies conducted in the 1940s and 1950s which had explored various cultures and their rates of alcohol problems, found the Cooperative Commission on the Study of Alcoholism (CCSA). The CCSA was directed an international committee of leading scholars from the United States and Canada to study the issues and make recommendations for future strategies to prevent alcohol problems. This committee based on sociological research recommended that alcohol problems were lower: (1) among cultures which were introduced to alcohol at "younger age" and (2) among those which had widely accepted ground rules of "social drinking norms" and "at home drinking" concepts.

These recommendations were introduced during 1960s which Vietnam War and so-called "Hippie Lifestyle" had developed epidemic drug and alcohol use (Plaut, 1966; Kunnes, 1972; Wallace, 1993; James & Johnson, 1996). Contacts with the counterculture hippie communities and war time service integrations changed the patterns of alcohol and drug use among African Americans. Communities and races that would not speak to each other in the 1950s were going to school, dating, drinking, and smoking marijuana with each other in the 1960s.
The normative model suggested that when a group comes to consensus on drinking norms, the members will accept the norms, the group will enforce the norms, and problems could be reduced (PRI, 1998). Also, the model suggested that it was anxiety created by conflicting norms, guilt created by not accepting drinking, and confusion created by lack of consensus about drinking that would cause problems (Blane, 1976; Room, 1978, 1981; Gonzalez, 1982).

The overrepresentation of African Americans in white groups due to increasing integration of American society, the growing leftist political movements in colleges (e.g., Students for a Democratic Society and Black Panthers), formation of integrated fraternity and sorority organizations; and lack of studies on African-American cultural norms, values, beliefs, and behaviors increased the rate of alcoholism among African Americans during the 1960s and early 1970s. This was, also, in conjunction with the rise in per capital consumption of alcohol under the group's integrated "normal" and "responsible" drinking concepts (NIAAA, 1980; Brown & Tooley, 1989; Kraft, 1984).

Another strategy of the model was about social policies that would integrate drinking into normal life, such as increasing availability of alcohol at recreational facilities (bowling alleys, ski resorts, movie-theaters, and sport earners), working places, and social settings. Alcohol advertisings also would portray drinking in more normal family settings such as picnics, parties, and reunions (Engs, 1987, 1977; James & Johnson, 1996).

This strategy had caused the alcoholic beverage industries to target the African-American communities and saturating their televisions, radios, billboards, scoreboards,
newspapers, and magazines. A content analysis of alcoholic beverage advertising in a total of forty-two magazines published in late 1960s and in 1970s found that about 12 percent of the ads in the sample of African American-oriented magazines were for alcohol. This was nearly twice what was expected "under the assumption of uniform distribution of ads across magazine types" (Strickland, Finn, & Lambert, 1982; Hacker, Collins, & Jacobson, 1987).

This normalization occurred while African-American moderate (religious) and radical (political) leaderships envisioned the threat to their people as external oppression, racism, and violence, unemployment, and discrimination; therefore, normalization and integration of white and black communities; their races, their drinkings, and their druggings did not sound any significant alarm about the perils of African Americans' addiction (James & Johnson, 1996).

The hope that alcohol-related problems would be reduced among African Americans by encouraging common norms and normalizing alcohol use proved not only to be unfounded but also to be destructive for this population's cultural and social values.

The Educational ("Information") Preventive Model (1965-1970s)

The major focus of this model was on teaching (pharmacological data, street names, production and usage) about drugs (1960s recurring drug addictions in the United States); and where alcohol and alcoholism were concerned, the model emphasized teaching about alcoholism and alcohol effects (Stuart, 1974). The assumption was that any change in knowledge could lead directly and inevitably to change in attitude which, in turn, directly would lead to change in behavior (PRI, 1998).
According to this model, the more one knew about alcohol and drugs, the less likely one was to use problematically (Goodstadt, Sheppard, & Chan, 1982; Swisher, Crawford, Goldstein, & Yura, 1972; Berberian, Gross, Lovejoy, & Paparella, 1976). This model was rooted in public health principles and involved various strategies for educating persons about the various potential effects of alcohol usage (Milgram, 1980; Ward, 1980).

Research has repeatedly shown that the information and educational model had failed African Americans in following perspectives: (1) evaluation of the behavioral change resulting from such educational efforts generally had indicated minimal to no effects (King, 1980; Serdahely, 1980; Staulcup, 1980) and such lack of effect had been particularly evident among African-American populations (Crisp, 1980; Globetti, Pomery, & Bennett, 1969), (2) this type of education had led to increased experimentation and production of alcohol and drug among African Americans (Kinder, Pape, & Walfish, 1980; Schaps, DiBartolo, Moskowitz, Palley, & Churgin, 1981; Watts & Wright, 1983), and (3) this model had universally failed to produced prevention outcomes (Tobler, 1986; Hochheimer, 1981).

While the model was made and designated to prevent alcohol and drug addictions based on knowledge-attitude-behavior paradigm, unfortunately in 1960s, this paradigm advanced the knowledge of drug and alcohol production and distribution among despairing unemployed drug addicts; and younger African Americans gained expertise in drug preparation, packaging, and sales. Bootlegging also became a major activity that offered economic and social stability.
Therefore, from the mid-1960s to the early 1970s a new class of so-called "criminal" in African-American society was born (James & Johnson, 1996; O'Donnell, Voss, Clayton, Slatin, & Room, 1976). Addiction in African-American communities became intergenerational, with entire families involved with alcohol and drug use and sales. During and after Vietnam War (in 1960s) and due to the following: (a) widespread alcohol and drug use by military personnel retiring from Vietnam (African-American soldiers represented 25 percent of the American forces in Southeast Asia), (b) repealed laws regarding use of alcohol and drug in many states, and (c) fashionable experimentation knowledge, African-American communities experienced an increase in the absolute number of addicted individuals.

Consequently, the severe drug and alcohol problems spread from the urban ghettos to smaller communities and the middle and upper classes (Brown, 1965) and the information model could not be effective in changing behavior (Ellickson & Pobyn, 1987) and knowing more did not lead to using less when the education perspectives were concerned primarily with strategies for control (Globetti, Pomeroy, & Bennett, 1969). According to Holliday (1983), preventing a disruptive behavior pattern is undoubtedly a practical and important outcome, however, it can not be achieved when prevention theories and models are rooted in such strategies as education and promotion of health.

An alcohol prevention strategy must become more practical and quantifiable to the extent when they represent indicators of reductions in the negative behavioral consequences. The information model did not reduced the negative behavior consequences among African Americans in 1960s, but provided some promotions for
positive health, therefore, this prevention model did not work for African Americans (McPheeters, 1976; Holliday, 1983).


This model, in 1960s, emphasized prevention throughout increased self-esteem and interpersonal skills (psychosocial development) which could be implemented by affective education in regular classroom settings. This model was focused largely on psychological traits of drug addicts such as poor communication, lack relationship skills, and low self-esteem (Shain, Suurvali, & Kilty, 1980; Kim; 1982; Brochu & Souliere, 1988) and it was developed around a relatively troubled population. Some applications of the Developmental Model focused on peer refusal skills, alternative activities, and impacting risk and resiliency factors (PRI, 1998).

As implied from the history of African Americans in the United States, intragroup differences and many behavioral patterns (rhythmic and/or pantomime body language, oral patterns, peer orientation, interactive style, African thought, and spontaneity) reflected the heterogeneity among African Americans and also represented the nature of cultural identity (Bell & Evans, 1981; Akbar, Saafir, & Granberry-Steward, 1980).

According to Butler (1992), "the worldview of African Americans represents their general design for living and patterns for interpreting reality. It is how they make sense of their world and their experiences ... and provides the process by which those events are made harmonious with their lives" (p.29). Given the above considerations, the developmental prevention model was designed from European Americans values with
approaches that were suggested for prevailing prevention and treatment strategies among whites, therefore, it was insensitive and inappropriate to African Americans' interpersonal skills and their behavioral patterns (Amuleru-Marshall, 1993; DeLeon, Melnick, Schoket, & Jainchill, 1993; Rowe & Grills, 1993).

The Developmental Model could not be applied to African-American populations due to following: (1) it had tended to focus on either the general population (whites) or treatment populations (addicts and alcoholics); differences were existed among African Americans and these two populations (Lee, Mavis, & Stoffelmayr, 1991; Wilsnack, Wilsnack, & Klassen, 1985), (2) the model had adhered to traditional epidemiological research, etiological theories, and Eurocentric racial and social classification categories; and for the most part, the model (researchers) did not use a cultural theory of human differences and ethnographic approach (Gaines, 1985), and (3) the model had developed recommendation (mostly) based on intragroup cultural comparisons and interpersonal (self-esteem, communication, and relationship) skills, not based on intergroup social comparisons; therefore, the capacity to understand intragroup variations (differences among African Americans and whites) were limited.

The Community-Based ("Responsible Decision-Making") Model (1973-1980s)

This model had brought "responsible drinking" from the community-based normative drinking filed and combined with "affective education" from drug filed to create Responsible Decision-Making curricula. Its primary strategy was to emphasize the relationship between alcohol problems and the normative patterns of alcohol use within a society (Blane, 1976). This model provided the greatest promise for sustainable efforts
that can impact large segments of populations.

According to this model, problems of alcohol were considered likely to occur when the common norms were conflicting. Problematic conflicts were viewed as personal ambivalence and anxiety about drinking that was leading to alcohol abuse (Room, 1974). The model had taught people to make their own decisions, encouraged them to set norms in their groups about responsible use (alcohol or drug), and emphasized feeling good about themselves. The theoretical bases of this model were integrating the social or community norms and the system-centered educations. The model was implemented by combining school, family, media, and community advocacy.

This model was responsible for organizing parent groups, such as MADD (Mothers Against Drunk Driving) and NFP or NFPDFY (National Federation of Parents for Drug-Free Youth) (Schinke, Botvin, & Orlandi, 1991). For the purposes of prevention, the model had not dealt with the issue of alcohol use and alcoholism among African Americans in a significant manner, it had been guided by previous maladaptive models, and infused with deficit perceptions about this population. This model did not provide time, patience, and sensibility to ethnic class in order to take root in a multicultural and ethnically fragmented community.

The tendency in this model was to motivate those with the economic means to move from their communities (inner-cities) elsewhere, looking for social norms, and leaving behind a population facing myriad structural barriers and racial tensions. This prevention model failed to engage the communities that were at greatest need of education and multicultural normalities. This model not only did not allow inner-city
communities to take ownership of their community-based efforts (religious programs) but also increased the feeling of disenfranchised and transients among inner-city populations (Rothman, Erlich, & Teresa, 1981; Watzawick, Weakland, & Fisch, 1974).

It is important to mention that the disenfranchised and transient status have been the objective character of minorities' (African Americans) life in America. Therefore these status have resulted in feeling of "radical reappraisal of a society from the standpoint of people on the bottom" (Bennett, 1972); and this means that minorities had experienced violation of their rights, violence, and exploitation as their "truth" and as the "social norms" in their American experience. Given this objective, it became clear that any inquiry into explanations of behavioral causality, normative, and responsible among African Americans have been undergirded, not only with a consideration of the historical as well as social circumstances of the America's existence.

Therefore, one must ask the question of how can be the relationship between living in a hostile, violent, exploitive, and nonsupportive society and the incidences of responsible drinking, feeling better, improved decision-making, relationship skills, and normative behavior in African-American communities? In fact, African Americans have not given the opportunity to display some experiences in forms of social norms, responsible behavior (i.e., responsible drinking), feeling better, and relationship skills resulted from their heritage links (community-based links) to low-risk African tribal characteristics.

Furthermore, their heritage links had been deliberately broken by the slave trade economy and Eurocentric values (Butler, 1992; Cheung, 1991; Schiele, 1996). For
example, today, the high-risk drinking patterns have been emphasized as a part of social norms, adults' responsible decision-making, and relationship skills by the liquor industries, when dealing with African Americans and they have been used in industries' traditional practice of marketing and advertising when they have targeted African-American population.

But in slavery era, high-risk patterns of alcohol use, or prohibition to use, was the mean of social control by slavemasters. Therefore, according to Schiele (1996), in African Americans' experience not only "addictive substances are part of a broader arsenal used to dominate people more efficiently by rendering them politically passive and indifferent," but also they are used to modify peoples' social and cultural norms.

Although, the focus of this model has been to illustrate prevention by emphasizing on drinking norms, positive drinking behaviors, and community-based efforts; the model had failed African Americans in following regards: (a) in past 350 years, African Americans' norms and behaviors have been influenced by white role models and Eurocentric value systems, and these new social norms and behaviors have not been preventive for African Americans, (b) African Americans' traditional prevention strategies always have included abstinence and low-risk drinking alternatives; preventionists have not incorporated these culturally specific strategies and alternatives into their preventive model, and (c) African Americans' heritage, culture, and the history of normative alcohol use (responsible drinking) and alcohol abuse (high-risk drinking) have not been included in the model.

Therefore, since the normative and responsible behaviors by African-American
heritage and history standards were not used; sanctioning and modifying this population's behaviors via any Eurocentric value system would not be achieved (NIAAA, 1979).

The Public Health Prevention Model (1960s-1980s)

The public health model of early 1960s had originated and reported by Cooperative Commission on the Study of Alcoholism (Plaut, 1966). It was formed by National Center for Prevention and Control of Alcoholism within the National Institute of Mental Health. Basically, the model was designed as a generic model for contagious diseases (such as malaria). The model was involved three points of intervention: (1) the host; the individual and his and/or her knowledge about alcohol, (2) the agent; the alcohol, its content, distribution, and availability, and (3) the environment; the setting or context in which drinking occurs and the community that influence drinking (U. S. Department of Health, Education, and Welfare, 1978).

Although, this model has been concerned primarily with projects involving the host and the agent, a central feature of the model has been to decrease consumption through control of availability of alcohol (The Research Demonstration Project) (NIAAA, 1981; Bruun, Edwards, Lumio, Makela, Pan, Popham, Room, Schmidt, Ole-Jorgen, Sulkunen, & Osterberg, 1975). This model supported the origination of the Distribution of Consumption Model (in 1970s) which led to creation of the state Alcohol Beverage Control (ABC) boards, restricting hours of sale, reducing outlets, raising alcohol taxes, using warning labels, limiting advertising, and raising the drinking age (Schmidt & Popham, 1978; PRI, 1998).
Although, this model as a preventive model concerned with placing alcohol issues squarely within the health field with focusing on alcohol itself (agent), rather than on the individual (host), but it led to the adoption of powerful control laws and regulations (environmental modifications) as the main strategy for prevention which harmed the African-American population in following dimensions:

First, the model supported the unjust and unfair new control laws and ignored the 1970s Comprehensive Drug Abuse Prevention and Control Act by U.S. Congress which reclassified the laws against alcohol and marijuana use with less restriction; consequently, the impact of such laws on the African Americans were horrendous in criminal penalties received for alcohol- and drug-related offenses and African-American alcoholics and addicts were ending up in jails and states and federal prisons whereas white addicts and alcoholic were placed on probation and in supervised treatment programs (James & Johnson, 1996).

Second, the model ignored the variety of ethnographic studies which they repeatedly pointed to alcohol use and abuse as social, psychological, and cultural phenomenas; therefore during oppressive 1960s and 1970s and post-Vietnam War, the survival of African Americans often became dependent on: (a) the organization of illegal alternative (sales of alcohol and drugs) economies (social phenomena), (b) the high-risk use of alcohol and drug for reducing deep scars of guilt, anger, and pain left by meaningless Vietnam experience (psychological phenomena), and (c) becoming a part of urban subculture (ghetto communities) with high-risk night life and the illegal liquor and drug traffics, where hardly a treatment center could be found (forced cultural

Third, the complexities in addressing what type of disease alcoholism was led to the proposal of several prevention and intervention models, not all of which could fit neatly into the African-American lives due to bigotry, professional intolerant, social and religious paternalism, prejudice, and discrimination and stigmatization (Watts & Wright, 1983; James & Johnson, 1996). In reality, the Public Health Model has not provided an array of opportunities for prevention activities for African-American population, which public health agencies have to explore.

The Drug War Prevention Model (1970s-1980s)

Under President Richard Nixon a fierce, bombastic campaign was launched to define drugs as a major source of crime in America and to make a war on drugs and crime a national priority. This war continued under Presidents Gerald Ford and Jimmy Carter, though with less fanfare and public attention. When Ronald Reagan and then George Bush entered the White House, they revived and dramatically escalated Nixon's drug war as part of a broader effort to roll back what they saw as liberal, unpatriotic, and immoral social transformations wrought in the 1960s and 1970s (Andreas, 1993; Andreas, Bertram, Blachman, & Sharpe, 1992).

The Reagan administration initially saw drugs as one of a number of issues that could garner and sustain support among the moral conservatives so important to the popular right-wing base of his electoral coalition. A campaign for total abstinence, Nancy Reagan's "Just Say No" drive, not only appealed to parents' group that had organized to do something about drug in schools but was a powerful symbolic attack on
the left, the counterculture, and permissive liberal humanism. The antidrug campaign promised to win even broader support when joined with an anticrime platform. The national context, marked by a resurgence of conservatism in the early 1980s, the organizational strength of the moral majority, and relatively weak antiprohibitionist forces, were thus ripe for Reagan's escalation of the drug war.

Reagan was positioned to draw on the widely shared assumptions of the punitive paradigm that had survived the 1960s and 1970s and to gain legislative and bureaucratic support from the drug-enforcement apparatus that Nixon had put into place. As the "Just Say No" campaign picked up steam, the drug war expanded to include alcohol use especially among minors (junior high students) and then it was combined with 1970's "Peer Refusal Skill", 1980's "Project STAR (Students Taught Awareness and Resistance)" in Kansas City, and UCLA's "Project Smart" prevention strategies which was carefully taught to student for reducing tobacco (cigarettes) and drug use.

At this time the "War on Drug's Peer Resistance Model" was born. This model was focused on specific refusal skills, ages, substances, and behavioral modification methodologies (peer influences and deviant behaviors, social control, and social learning) (Andreas, Bertram, Blachman, & Sharpe, 1992; Pentz, 1989; Trebach, 1987; PRI, 1998, Eliot, Huizinga, & Ageton, 1985; Bandura, 1977).

The model achieved one specific prevention goal among white adolescent drug and alcohol users: "delaying the onset of use of alcohol, drug, and tobacco" (PRI, 1998). However, for African Americans, the prevention lesson was somewhat of a paradox when the prime battle front in the drug war had deepen in to the inner-city neighborhoods and
according to Jesse Jackson, Rep. Charles Rangel, and Allen Webster the "war on drugs" became "a war on minorities" and the "just say no" became "just show racism" (Meddis, 1993). For many African Americans, this prevention model became "almost legal genocide" by being "locked up as an entire generation of young black Americans"; according to A. J. Kramer (1992), chief of the federal public defender's office in Washington, D.C. (NIDA, 1990; Meier, 1992; Taylor, 1993).

The war on drugs prevention model has brought the popular images of African-American males getting drunk at the corner carry-out, the inner-city minority drug dealers, and violent youth gangs stereotypes; by interpretations from television and media headlines which demonstrated African American inner-city population with lack of personal and social skills, self-control, and self-esteem. According to media shows lack of assertive skills, skills for resisting negative social influences, and peers refusal skills were reasons for continuation of alcohol and drug abuse among African Americans.

On the basis of these psychosocial perspectives and under the name of war on drugs and prevention, the federal government has responded to the drug-policy reforms with budgets, for drug law enforcement, surging from $855 million in 1981 to more than 12.7 billion a year in 1993 (Rosenbaum, 1996; Bertram, Blachman, Sharpe, & Andreas, 1996).

These drug-policy reforms targeted America's urban areas and their agendas were shaped by a sizable and vocal national constituency that had grown impatient with the permissive attitudes toward drug use and other counterculture activities of the previous decade. Therefore, these policies articulated most powerfully to
sustain so called "environmental factors" that promote or facilitate drugs (i.e., "people" and "pipe") in urban areas, but not the drug cartels and their governments (i.e, "pipers") (Andreas, Bertram, Blachman, & Sharpe, 1992).

For African Americans, drug policies (war on drugs) achieved the following horrible results: (1) policies had deepen the society-wide divisions between rich and poor, black and white and fueled a war of fear, anger, and intolerance, (2) policies increased discriminatory and racial implications with mounting black drug arrests, aggressive tactics, hostility, and suspicion toward African Americans, (3) policies were seeking to suppress racial and ethnic minorities, when drug use spread from the middle classes into urban ghettos and became visible among inner-city population, (4) policies splashed statistics across the newspapers and televisions with interpretations that drugs-related crime were primarily the problems of (or even the responsibility of) inner-city black communities, and (5) policies triggered intolerance and unwillingness to share economical incentives and financial means to remove drug abuse and provide treatment in America and particularly among African Americans, seemingly the bugedtory dollars were spent to war on drugs but not to prevent them (Harris, 1990; Lusanc, 1991; Meddis, 1993; Kornblum, 1991, & Friedman, 1993).

Harm Reduction Prevention Model (1990s-2000s)

This model was conceived in the United Kingdom, and has considered to be an alternative to the "traditional" prevention goal of abstinence in Europe. In the United States, however, it is only discussed among researchers for further studies. The goals of
this model are secondary prevention rather than primary; the model has taught people to deal with their drug and alcohol use under the assumption that drug and alcohol use among a large proportion of the population is present and inevitable (Cohen, 1993).

The model has strategized that educational approaches should convey methods for avoiding abuse or accidents, rather than advocate complete avoidance of alcohol and drugs (Marlatt & Witkiewitz, 2002; Baer, Marlatt, Kivlahan, Fromme, Larimer, & Williams, 1992). Responsible and moderate use of drugs is condoned. The model has advocated that it possible to use drugs or alcohol in a responsible way, and use does not constitute abuse (Rosenbaum, 1996).

This model has been vigorously opposed by African Americans because of the following perspectives: (1) harm reduction is a reaction to the stated failures of prevention efforts and would not be culturally acceptable in African-American communities where strong taboos exist about drug use (DuPont, 1996), (2) the model would minimize the harmfulness of certain substances like alcohol and marijuana by providing peers' harmless use, and (3) harm reduction as a prevention strategy may lack consistent information and restriction efforts, therefore, it is very possible for African Americans to dismiss the message ("harmless use") and follow the messenger ("peer use").

Mass Media Prevention Model (1987-2000s)

Since media is a major source to promote drug-using lifestyle (alcohol and cigarette), media can be used to prevent use of alcohol and drugs. The Partnership for a Drug-Free America (PDFA), which has spent over one billion dollars since 1987 (in less
than five years) in antidrug public service announcements (PDFA, 1992), has showed some positive effects in convincing adolescents to stop using drugs (Reis, Duggan, Adger, & DeAngelis, 1992).

Public service announcements (advertisings) work, otherwise corporations would not be spending large amounts of money on them. For example, in Sweden a ban on all beer and wine advertising in the mid 1970s resulted in a 20 percent per capita reduction of alcohol consumption (Romelsjo, 1987). However, mass media prevention strategy has not been effective among African Americans for the following reasons:

(1) For every antidrug announcement in media, American children and adolescents are exposed to 25 to 50 alcohol commercials, and these commercials are increased via billboards, radio, and magazine in inner-city black communities (Strasburger, 1995, James & Johnson, 1996), (2) antidrug commercials are not as attractive, sophisticated, and pervasive to compare to alcohol advertising that African Americans are directly and indirectly exposed to (Grube & Wallack, 1994), (3) the time slots provided by television stations for antidrug advertisings are rarely aired during prime viewing hours or during very popular African-American shows.

Biopsychoecological Integrative Contextual Prevention Model (1990s-2000s)

The term biopsychoecological is used here in the sense of multidimensional approaches to plan prevention strategies. This model demonstrates specific approaches to alcohol and drugs use prevention by understanding the complex interactions between individuals' choices (patterns of use) and their biological (physiological functioning
Based on factors inherent, psychological (individual's ability and capacity to behave), and ecological (environmental variations) (Hollin, 1992; PRI, 1998).

Based on this model, biological, psychological, social factors interact to create vulnerabilities in people's patterns of alcohol and drug use, therefore, the prevention strategies are proposed to recognize these multiple elements and to minimize or eliminate their high-risk influences on alcohol and drugs' pattern of use (Botvin & Botvin, 1992; Johnston, O'Malley, & Bachman, 1994). Clearly, the model addresses that there are important contextual circumstances that lead people to alcohol and drug use beyond the initial experimental phase.

Such experimentation may have very different consequences based on genetic, psychological and environmental factors (PRI, 1998). Therefore, in effectively reaching prevention, one must know and consider all the elements of this multistructural system. These elements of prevention must function simultaneously at all levels, and the individual must be allowed "ownership" of these elements and becomes the focal point of implementation by making preventive choices.

From a public health perceptive, this model is a comprehensive, coordinated, and complementary set of elements in the planning and implementation stages of prevention efforts with the rigorous outcome. However, risk and protective factors (biopsychoecological factors) associated with this model can be different across ethnic groups. With dismissal of differences in genetic factors among different ethnic groups, which have yet to be researched, sociocultural and behavioral variations suggest the substantial differences in prevention implementation and implication.
For example research had indicated that there are differences among African-American, white, and Hispanic populations for many psychosocial (risky or protective) factors such as self-esteem, depression, belief in societal norms, risky or disobeying attitude, perception of fairness in rules and punishments, religious beliefs, loyalty to one's family, peer relationship, and racial awareness (Kaplan, Johnson, & Bailey, 1987; 1988a, 1988b; Warheit, Biafora, Vega, & Zimmerman, 1995; Dryfoos, 1990; Wallace & Bachman, 1991).

These differences can influence the patterns of alcohol or drug use among ethnic groups (Herd, 1987). While the model builds on previous theory and empirical research, it must be viewed as somewhat speculative and requiring longitudinal research focusing on testing the model of different ethnic group. The proposed model does suggest a number of ideas with respect to interventions for targeted alcohol and drug using populations, but does not discuss the cultural identification, behavior patterns, ethnic-centered attitudes, cognitive dispositions, socioeconomical assumptions, and patterns of beliefs and practices among ethnic groups.

The development of alcoholism and addiction is different for different ethnic groups due to different biological, psychological, and sociological (cultural, spiritual, political, economical, and environmental) factors that effect each group in different ways. Also, the progression of the disease of alcoholism (or alcohol dependency) can be different during drinking over time, because the drinker can be influenced by different biological, sociological, psychological, and physiological factors that encourage high-risk drinking patterns (PRI, 1998; Bell & Evans, 1981; James & Johnson; 1996).
In education, intervention, and treatment of alcoholism, the high-risk effects of these influencing factors have to be discussed; they must be evaluated and possibly eliminated. Although, professional treatment services are argued to be genuine, sensitive, and custom to all clients, but research has indicated that these services were not successful to deal with the fundamental and primary obstacles in development of alcoholism among African Americans and they were unable to show efficiency to overcome the treatment difficulties among this population (Watts & Wright, 1983, Royce, 1981; Schiele, 1996; Harrington, 1998; Lyle, 2001).

Lyle (2001) has indicated that the majority of heavy drinking African Americans eventually continue to harmful drinking patterns and cannot receive education, intervention, and treatment in any primary care settings. However, when alcoholism causes clinically significant physical harm, frequent emergency room visits and hospital admissions become the sources of alcoholism treatment. Even in such treatment condition, an interaction between severity of alcohol dependency and health problem does not emerge, and most African Americans will only receive care for their health problems which were developed secondary to their alcoholism.

According to Lyle (2001) and from the public health perspective, African Americans do not seek alcohol treatment for a variety of reasons, including: concerns about the stigma associated with alcohol treatment, negative beliefs about treatment, the desire to continue drinking socially, and racial inconvenience. A treatment program for African Americans must combat these problems by providing easy access, nonstigmatized, and flexible treatment options (education, intervention, detoxification,
and hospitalization) with a variety of goals and approaches catered to the special needs of African-American patients.

Furthermore, prevention efforts should continue to focus on skills training and alcohol-safety, and treatment approaches need to incorporate goal choice and lifestyle considerations within a broader context of the social, physical, and psychological world of this population. James and Johnson (1996) have argued that the primary presented problems in treatment of alcohol abuse and alcohol dependency among African Americans are racism, discrimination, oppression, lower-income lifestyle (poverty, unemployment), inadequate and wrong education, accessibility to alcohol, and treatment provider's bigotry, prejudice, paternalism, and compliance.

Schiele (1996) discussed that in the sociocultural and political-economic context, African Americans are provided with addictive substances to preserve their spiritual alienation (away from their core of spiritual beings) and to be dominated more efficiently by rendering them politically passive and indifferent. Consequently, he argued that prevention and intervention of substance abuse for African Americans can be based on eliminating spiritual alienation and raising the political consciousness about social policies and political oppression of their targeted communities.

Waymer (1975), the co-founder of the National Association of Alcoholism Counselors and Trainers (NAACT) in Atlanta and the founder of the Atlanta University School of Social Work's Alcoholism Training Program (1975), has indicated that education, prevention, and treatment programs for alcoholism among African Americans must include: (a) religious and spiritual experiences, (b) extended family utilization as
support systems, (c) community groups utilization, (d) training for African-American alcoholics in dealing with social conditions, (e) implications in dealing with availability of alcohol in African-American communities, (f) more African-American treatment centers, (g) strategies for getting the alcoholics off the streets, (h) solutions to problems of racial and economic oppression, (i) physical and nutritional cares, (j) better relationship with legal system for referral needs, and (k) considering racism-induced stress and psychological conditions among African Americans.

Harrington (1998) and Lyle (2001) have argued that all alcoholics suffer from malnutrition to some degree. Even the alcoholic's earliest psychological and social problems stem from or are aggravated by nutritional deficiencies. In treatment of alcoholism, nutritional efficiency must be a major part of prescribed care. Without nutrients, an alcoholic, already weakened by long exposures to alcohol, is not able to continue with treatment. Therefore, he or she will experience thiamin deficiency, loss of mental alertness, easy fatigue, loss of appetite, irritability, and emotional instability, and if allowed to continue, more severe mental confusion and loss of memory which eventually will result in voluntary termination of treatment.

The treatment for alcoholism among poor, homeless, and uninsured African-American population must be coordinated with massive nutritional programs. These alcoholics must go under heavy diet for vitamin (B complex vitamins [thiamine "B1," pyridoxine "B6," pantothenic acid, and nicotinic acid]) and mineral intakes by being provided with adequate food and nutrients.

According to Harrington (1998) and the studies on natural recovery from alcohol
problems, poor and homeless African-American alcoholics in urban area have responded to the shelters with nutritional-oriented treatment more effectively than those without dietary-supported programs, incorporated in outpatient intervention settings.

Therefore, alcoholism treatment centers combined with innovative nutritional-supported delivery methods will further increase the accessibility and desirability of alcohol treatment services for poor, inner-city, alcoholics.

In summary, because African Americans' involvements in treatment programs appear disproportionately low to compare with whites; prevention and treatment must share sociocultural context, traditional and historical experiences, strategies for survival in hostile environment, protective strategies mitigate against risk factors, religious involvement and spirituality, educational opportunities, elimination of inner-city alcohol sales and advertising, family support, building self-esteem, opposition to subcultural norm of "respectable drinking," early evaluation of drinking problems for admission to treatment programs, encouragement toward receiving mental health care, in-jail treatment programs, and more suggestions for participation in a 12-step program (Butler, 1992; Brook, 1993; Gross, 1993; Caetano, Hawkins, Krenz, Gillmore, Morrison, Wells, & Abbott, 1993; Gordon, 1993; DeLeon, Melnick, Schoket, & Jainchill, 1993; Brown, 1992).

Furthermore, etiology (origins) plays an unusual role in alcoholism, since alcoholism is a disorder with pathogenesis (all the mechanisms) causes (Goodwin, 1988; Maxmen & Ward, 1995; James & Johnson, 1996). In order to recognize the pathogenesis of alcoholism, one must not only consider the biopsychosocial formulation
of development of alcoholism, but the alcohol itself. Alcoholism is a disorder (disease) that is caused by drinking of high-risk quantity and frequency choices of alcoholic beverages (PRI, 1998).

The high-risk drinking choices occurs when certain high-risk biological, psychological, and social factors influence the quantity and frequency choices overtime. Continuation of high-risk drinking choices not only compose new biological, psychological, sociological adaptations to high-risk consumption of alcohol, which enforce more drinking, but also produce high-risk drinking physiology (PRI, 1998; APA, 1994). This new high-risk drinking physiology also influence drinking choices. In prevention and treatment of alcoholism, it is important not only to eliminate the alcohol, but also to minimize the influence of the high-risk biological, psychological, social, and physiological factors before and after the development of alcoholism.

In this chapter the researcher recognized alcohol and all biological, psychological, and social influences as major factors in development of alcoholism among African Americans and whites. Also, prevention and treatment of alcoholism were introduced in elimination and minimization of these influencing factors. This chapter also offered major comparisons between African Americans and whites in introducing of pathogenesis and biopsychosocial formulations in development of alcoholism.
CHAPTER III
METHODOLOGY

This chapter establishes a design for presenting and describing the extent and range of the relationships and/or differences between races (African American and white [the dependent variables]), in alcoholism, and the twenty-three independent variables which are categorized in eight classes as following: (1) life style (standing, feeling, coping, and action), (2) legal status (criminality, alcohol-related offense, and feeling), (3) self-esteem (position, quality, and feeling), (4) attitude (status and action), (5) personality (sensation seeking, gregarious, impulsive [personal risk and social risk], and rebellious), (6) alcohol dependency level (physical, psychological, social, and nondependence), (7) stress level, and (8) logical thinking (abstraction).

Furthermore, this chapter explores the research design, description of the site, sample and population, instrumentation, statistical treatment of data sets (description, organization, and summarization of data sets), and limitations of this research.

Research Design

The data were obtained according to convenience sampling procedures, and they were mostly categorized according to two qualitative variables for testing category probabilities in a two-way (contingency) tables. Therefore, the study design involved the classification of a cross-sectional (two-way table) research design with subjects
conveniently being selected only one-time in the experiment (Waymer & Ajo, 2003).

Because this design provided inferences about category probabilities for data classified according to two qualitative variables, the statistic used for these inferences is one that possesses, approximately, the familiar chi-square distribution and its related phi (\(\phi\)) and pearson (r) tests (Agresti, 1990; Walker & Duncan, 1967). In the demographic information, the selected population was identified with ages, genders, races, educational levels, marital status, employment status, incomes, and summary of alcohol dependency scores.

Description of the Site

This research project was contrived in Grady Memorial Hospital in city of Atlanta, where the majority of African-American population seek medical and mental health cares. However, since the hospital has established many neighborhood clinics under the name of Grady Health System, in the metropolitan city of Atlanta, the number of urban white patients, seeking the hospital services, have been increased.

In developing this research, alcohol dependency referrals, received by Department of Social Services in Grady Health System, were conveniently selected; referred patients (African Americans and whites) were interviewed, and prior to their treatment plans, a fifty-six items questionnaire was administered to the participants. These participants (patients) were diagnosed with different levels of alcohol dependency by physicians throughout the system. The patients were under the care of Medical Social Workers certified as Master Addiction Counselors (MSW/MAC) or Licensed Clinical Social Workers (LCSW), in outpatient setting for an average time of twelve weeks, for
treatment of alcohol dependency.

Sample and Population

A convenience (haphazard) sampling was obtained by partitioning the sampling units in the population into nonoverlapping observable subpopulations (strata) of African American and white populations (Sincich, 1993; Waymer & Ajo, 2003).

Convenience samples were then selected from each stratum. In this study, an even, non-probabilistic, and accidental selection was advantageous because it allowed research to access the sample units easily and conveniently. This sampling technique was used to deliver accurate results for each homogeneous stratum population, as well as for the entire population (i.e., alcohol dependent patients) (Waymer & Ajo, 2003).

It was less costly to use this non-probabilistic investigating technique, and since the variability of the responses within each stratum (race) was less than the variability of the responses between strata (races), this unstructured sampling approach provided more accurate estimates of strata and population's ideas or points of view. Also, data could be analyzed easily by using both descriptive and inferential statistics. For the purpose of this research project, the experimental population would integrated into the following characteristics:

Race—one hundred seven African Americans and one hundred seven whites.

Age—all African American and white adults.

Gender—eighty-nine African-American males, eighteen African-American females, eighty-nine white males, and eighteen white females. These populations, with different levels of clinical diagnoses of alcohol dependency which were receiving
outpatient treatment and being accommodated by Department of Social Services in Grady Memorial Hospital, agreed to participate in this research.

In this study, the frame for sample selection was all African-American and white patients (experimental units) who appeared conveniently in the population (Cochran, 1952). In comparing and analyzing the two races for the effects of all independent variables, it was impossible to have enough white patients for conducting this research during a short period of time; assuming that patients, seeking care in Grady Health System, are 90-95% African Americans.

Therefore, study was started in the beginning of 1998 and ended in December of 2001, in order to have enough conveniently selected white participants to accumulate an adequate sample. Furthermore, in this study, more time was needed because most of alcohol dependent patients were hesitant to confirm their participation in clinical trial due to issues of confidentiality and stigma. To be sure, patients were told their identities were preserved by hospital policy according to state and federal laws.

In order to have an adequate number of participants in this clinical study, a sample population of the 689 patients were interviewed, only a subset size of 214 patients or thirty-one percent (31%) of the total sample population conveniently agreed to respond to field-tested questionnaire. The questionnaire, used for collecting data from 214 participants, was considered as the main research instrument.

Instrumentation

The instrumentation method was consisted of three major separable steps (operations): physician's referral, interview, and questionnaire.
Physician's Referral

Throughout the Grady Health System, alcohol dependent patients were identified and diagnosed by physicians. These patients were referred to Medical Social Workers, certified in addiction counseling, or Licensed Clinical Social Workers, specialized in substance abuse treatment, for follow up and treatment. The physician's referral as the first instrument would emphasize the following four diagnostic criteria: alcohol use, alcohol abuse, alcohol dependency (without physiological symptoms), and alcohol Wernicke-Korsakoff Syndrome. Patients referred by this instrument were contacted and interviewed for qualitative and quantitative data collection in relation to their alcohol dependency conditions and treatment plans.

Interview

This instrument was applied to obtain information that could consolidate and convert some dependency related qualitative facts that are produced by the patient to quantitative data which will be used to produce an alcohol dependency score. In this study with using interview and using Jellinek's Phases of Alcoholism (Jellinek, 1952) and CAGE + Q/F analysis (Ewing, 1984; PRI, 1998), the following quantified levels of dependency were projected:

No Dependency Level

Patients diagnosed with only alcohol use by physicians could be projected to dependency scores, ranged 0 to 6 at "no dependency level."
Social Dependency Level

Patients diagnosed with alcohol abuse by physicians could be projected to dependency scores, ranged 7 to 13 at "social dependency level."

Psychological Dependency Level

Patients diagnosed with alcohol dependency (without physiological symptoms) by physicians could be projected to dependency scores, ranged 14 to 20 at "psychological dependency level."

Alcoholism Level

Patients diagnosed with alcohol (or alcoholic) Wernicke-Korsakoff Syndrome or Korsakoff psychosis by physicians could be projected to dependency scores, ranged 21 to 28 at "alcoholism level" (i.e., with a combination of social, psychological, and physiological dependency symptoms).

In some incidents, patient's interview and evaluation did not support the level of dependency diagnosed by physician (mostly in dependency diagnoses without physiological symptoms) due to miscommunication by patients or physicians. Such cases generally were eliminated from this research project, but were followed for providing possible treatment. Patients who successfully were analyzed by this instrument and agreed to participate in this study were given opportunity to respond to the research questionnaire, and their dependency levels were registered as the alcohol dependency items in the demographic information section of their questionnaires.
Questionnaire

The questionnaire, as the third instrument, contained a total of 56 items which were divided to 48 psychosocial items (establishing a total of 23 independent variables), 7 demographic items (describing the sample population), and one alcohol dependency item (registering dependency levels diagnosed by physicians).

The questionnaire was field-tested and was screened for biased information to obtain a strong measure of reliability (inter-rater type) and validity (construct type) of the instrument. The questionnaire was administered to African-American and white adult patients who participating in this study.

The questionnaires were given to respondents in main Social Services Department (SSD) or Emergency Care Center (ECC) at Grady Memorial Hospital, in Atlanta, during the business hours and days when the initial intake interviews and clinical services were conducted. The procedures using the questionnaire and its items were explained to the respondents in consistent steps and participants' questions regarding the purpose of the study were answered in clinical and professional manner.

Patients were assured that all information regarding their personal status and their responses to all items of the instrument were protected by hospital confidentiality policy and state and federal laws. This instrument was used when patients' intake interview and their evaluation for alcohol dependency treatment were completed. The researcher did not impose any obligation to patients in making a decision as to whether or not they would participate in this study. With disclosing and explaining the intention of researcher and purpose of the study, patient's participation in this research project
considered to be totally optional.

When a patient agreed to participate, the patient was provided with a copy of questionnaire for completion. The researcher was available to answer any question regarding the 56 items during completion time (25 to 35 minutes). The completed questionnaires were checked for incomplete or missing items; checking was done to reduce errors in collecting and interpreting primary data. Collected instruments were utilized by secure coding (medical record number) procedures to ensure confidentiality.

Treatment of Data

Descriptive statistics and its numerical descriptive measures (i.e., central tendency, data variation, relative standing, frequency distribution, two-way tables, chi-square, phi [φ] and pearson [r]) were applied to analyze and treat the data. These statistical treatments utilized two or more nominal categories in which the data was consisted of a frequency count that was tabulated and placed in the appropriate cells. These frequency cells (as frequency distribution) were provided to the variables (nominal categories) in order to summarize and form the basic measures of the study.

Consequently, there was no immediately obvious way to assign expected frequency values to each nominal category, and the expected frequencies could only be obtained from reanalyzation and recombination of the frequencies themselves.

Furthermore, a frequency distribution (with appropriate cells) was used to display and measure frequency of demographic information in the population. Since the chi-square (with pearson [r] and phi [φ] applications) was used, null hypothesis (H₀) and alternative hypothesis (H₁) were applied to test the statistical significance with the level
of 0.05 (significance level [P] = 0.05) and the degree-of-freedom (df) of 1 or more.

Considering the sample size, number of independent variables, instrumentation items, and multihypothesis configurations, traditional calculations of outcomes were not possible. Subsequently, it was permitted to utilize computerized statistical program (Statistical Package for the Social Sciences [SPSS]) to calculate and define the outcomes of this research project.

Cross-sectional (contingency) tables and chi-square test (with significance level of probability [P] = 0.05) were used to measure and describe the strength of the relationship between the two races (African American and white as dependent variables) and the following twenty-three independent variables: (1) life style standing, (2) life style feeling, (3) life style coping, (4) life style action, (5) legal status with criminality, (6) legal status with alcohol-related offense, (7) legal status feeling, (8) self-esteem position, (9) self-esteem quality, (10) self-esteem feeling, (11) attitude status, (12) attitude in action, (13) sensation seeking personality, (14) gregarious personality, (15) impulsive personality with personal risk, (16) impulsive personality with social risk, (17) rebellious personality, (18) no alcohol dependency, (19) social dependency to alcohol, (20) psychological dependency to alcohol, (21) physical dependency to alcohol, (22) stress level, and (23) logical thinking with abstraction.

A fundamental assumption in the use of chi-square was that each observation or frequency (participant) was independent of all other observations and the interrelationships (interdifferences) between and among variables were considered.

The phi (φ) test, a symmetric (nonskewed) statistical test, was applied to measure
the association, sensitivity, and relationship approximation between and among variables (Runyon & Haber, 1977; Sincich, 1993; Waymer, 2002).

In this study the relationship approximation value ranges for phi (Φ) were:

- 0.00 to 0.24  "no relationship"
- 0.25 to 0.49  "weak relationship"
- 0.50 to 0.74  "moderate relationship"
- 0.75 to 1.00  "strong relationship"

The Pearson (r), the Pearson product-moment correlation coefficient, was employed for ratio-scaled (interval) variables to represent the extent to which the same race individuals occupy the same relative position on two independent variables. The values of the correlation coefficients were vary between +1.00 and -1.00. Both of these extremes were representing the perfect relationships between the variables, and 0.00 was representing the absence of a relationship.

The relationship could be positive, when races were obtaining high scores or low scores on any two variables. The relationship could be negative, when races were scored high on one variable and low on second variable (Sincich, 1993; Bohrnsted & Knoke, 1988).

Assumptions and Limitations of the Study

Considering the wide range of variables and the size of the sample population in this study, the following assumptions and limitations should be addressed:

(a) African Americans make up a range of 90-95% of the patients in Grady Health System (research site) and consequently in this study whites with a range of 5-10% of the
patients' population were seldom selected conveniently.

(b) the instrumentation of this research (in part) was involved in participant's self-report interview, participant's self-report events, and his or her perceptions in responding to the questionnaire, therefore, researcher has assumed that each subject (participant) had mental ability to respond to the instruments with accuracy and honesty.

(c) in many items of the questionnaire, the language was involved in technical concepts and challenging terms and difficult to be accurately responded by participants, therefore, the questionnaire could not ensure the 100 percent reliability and validity of the study,

(d) the researcher's ethnicity could influence the quality of data, especially when patients were interviewed about racially or clinically sensitive issues (i.e., family situations, alcohol-related work problems, financial problems, ethnicity, and alcohol-related biological issues),

(e) the 214 patients (sample population) could not be large enough to provide a measure of 100 percent reliability for the inferences,

(f) the gender maldistribution added an unexpected confound to the analyses, consequently, this disproportion could not disentangled from the treatment effect by statistical maneuvers, and

(g) Jellinek's three phases of alcoholism (i.e., prodromal, crucial, and chronic) test and CAGE (Cut down, Annoyed, Guilty, and Eye opener) test in combination with Q/F (quantity and frequency) drinking questions were applied to determine the alcohol dependency levels and scores, however, these alcoholism tests would not always pertain
to all patterns of drinking and all types of alcoholics; they only determine the presence or absence of alcoholism about 85 percent of the time. They miss more cases of alcohol dependency in women than they do in men (Ewing, 1984; Jellinek, 1952; Beresford, Blow, Hill, Singer, & Luccy, 1990).

Further studies are needed to be theory based, to use a wide range of statistical designs and variables, to include comparisons between the two races (African American and white) and their psychosocial factors, to identify drinking patterns and drinking problems in order to better address current gaps in knowledge. Studies are needed to investigate the reasons behind the different trends in alcohol dependency levels and to ensure better prevention and intervention policies to reduce drinking problems among African Americans and whites.

In this chapter, the researcher has presented a design for evaluating and explaining the nature and scope of the relationship between the race (or races) and psychosocial factors (variables) in alcohol dependency and scientifically described research site, population, instrumentation, treatment of data, and the limitation of the study to initiate many ideas for further alcohol dependency research studies.
CHAPTER IV
FINDINGS

Research on etiology and epidemiology of African-American Alcoholism always has been short in supply (Watts & Wright, 1983; NIAAA, 2002). In last 20 years, many researchers in the field of alcoholism have been cautiously encouraged by academia and others (prevention, education, treatment, and health care providers) to engage in study projects concerning alcohol use and drinking complications among African-American population.

Knowing that increase use of alcohol and its complications (in a person or in any group) are directly related to enabling psychosocial factors which influence them, the researcher has investigated these factors to be the main subjects in alcohol dependency among African-American population.

In this chapter, researcher has discussed twenty-two known influential psychosocial factors that predictably were effective in increase of the quantity and frequency choices of drinking to high-risk levels. These influential factors that are suggested for research and review (Jones-Webb, 1998; Herd, 1994a; PRI, 1998) can be categorized in the following classes: life style, legal status, self-esteem, attitude, personality, alcohol dependency level, stress level, and logical thinking.

The major purpose of this study is to determine if there are significant differences between African Americans and whites regarding these psychosocial patterns in
alcohol dependency levels. This study also describes and tests the findings and significance of these variables which have put forward in the hypotheses of the study. The findings are arranged in to four categories: demographic information (data), alcohol dependency levels among African-American and white populations, psychological, and sociological factors (variables) that influencing the two races, and differences in alcohol dependency levels based on differences in psychological and sociological factors among the two races.

A total of 214 patients divided to 107 African Americans and 107 whites in different levels of alcohol dependency were surveyed. The sample was selected from a population of patients referred to Social Services Department in Grady Memorial Hospital in Atlanta for prevention, intervention, and treatment of alcohol dependency.

Demographic Data

The demographic data in this study characteristically was a great deal of numerical information about patients seeking alcohol dependency treatment. In their original form, as collected, these data was constructively raw. By employing the descriptive function, the researcher formulated rules and procedures for presentation of these data in a more and meaningful form. As shown in Table 1-4, eight groups of raw data were manipulated in order to observe and describe, at a glance, an overall picture of the participants' characteristics. A participant with average or a reference point status in this study was: an African-American or a white male, never married, between 22-35 years of age, a high school graduate, employed, and with a low income up to $37,000 a year.

In the following Table 1-4, the age group of under 22 did not represent under 18.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>Percent</th>
<th>Cum%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Group:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 22</td>
<td>25</td>
<td>11.7</td>
<td>11.7</td>
</tr>
<tr>
<td>22-35</td>
<td>98</td>
<td>45.8</td>
<td>57.5</td>
</tr>
<tr>
<td>36-56</td>
<td>84</td>
<td>39.3</td>
<td>96.7</td>
</tr>
<tr>
<td>57 &amp; over</td>
<td>7</td>
<td>3.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Gender:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>178</td>
<td>83.2</td>
<td>83.2</td>
</tr>
<tr>
<td>Female</td>
<td>36</td>
<td>16.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Race:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>107</td>
<td>50.0</td>
<td>50.0</td>
</tr>
<tr>
<td>White</td>
<td>107</td>
<td>50.0</td>
<td>50.0</td>
</tr>
<tr>
<td>Education:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>&lt; 9th Grade</td>
<td>8</td>
<td>3.7</td>
<td>3.7</td>
</tr>
<tr>
<td>&lt; 12th Grade</td>
<td>37</td>
<td>17.3</td>
<td>21.0</td>
</tr>
<tr>
<td>High School Grad</td>
<td>118</td>
<td>55.1</td>
<td>76.2</td>
</tr>
<tr>
<td>Vocational and/or College</td>
<td>51</td>
<td>23.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Marital Status:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married ( &amp; Remarried)</td>
<td>62</td>
<td>29.0</td>
<td>29.0</td>
</tr>
<tr>
<td>Never Married</td>
<td>82</td>
<td>38.3</td>
<td>67.3</td>
</tr>
<tr>
<td>Divorced ( &amp; Living Together)</td>
<td>57</td>
<td>26.6</td>
<td>93.9</td>
</tr>
<tr>
<td>Separated</td>
<td>10</td>
<td>4.7</td>
<td>98.6</td>
</tr>
<tr>
<td>Widowed</td>
<td>3</td>
<td>1.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Employment:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part Time</td>
<td>172</td>
<td>80.4</td>
<td>80.4</td>
</tr>
<tr>
<td>Unemployed (Disabled, Student, &amp; Other)</td>
<td>39</td>
<td>18.2</td>
<td>98.6</td>
</tr>
<tr>
<td>Retired</td>
<td>3</td>
<td>1.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Family Income (All Members Together):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under $15,000</td>
<td>61</td>
<td>28.5</td>
<td>28.5</td>
</tr>
<tr>
<td>$15,001-25,000</td>
<td>45</td>
<td>21.0</td>
<td>49.5</td>
</tr>
<tr>
<td>$25,001-35,001</td>
<td>43</td>
<td>20.1</td>
<td>69.6</td>
</tr>
<tr>
<td>$35,001-37,999</td>
<td>65</td>
<td>30.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Alcohol Dependency Score:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Dependency (0-6)</td>
<td>10</td>
<td>4.7</td>
<td>4.7</td>
</tr>
<tr>
<td>Social Dependency (7-13)</td>
<td>49</td>
<td>22.9</td>
<td>27.6</td>
</tr>
<tr>
<td>Psychological Dependency (14-20)</td>
<td>87</td>
<td>40.7</td>
<td>68.2</td>
</tr>
<tr>
<td>Physical Dependency (21-27)</td>
<td>68</td>
<td>31.8</td>
<td>100.0</td>
</tr>
</tbody>
</table>
In marital status, divorced did include "not married but living together" and "divorced but living together." Also, in employment category, the "part time" represented the "part time working annually." The demographic information being exhibited above develops a descriptive application in virtually all areas of participants' observable boundaries.

As shown in Table 1-4, of the 214 patients in this study, 178 or 83.2 percent were males and 36 or 16.8 percent were females. The majority of patients or 98 of them were between 22-35 years of age with the 45.8 percent of total population. Patients between 36-56 years of age were second largest population in the study with 84 participants or 39.3 percent of total patients.

In this study the number of African-American and white participants were selected equally with 107 members of each race or 50 percent of total population. The major category in education level in this study was high school graduate with 118 participants or 55.1 percent of the population. The second largest number of participants were 51 or 23.8 percent with vocational or college studies. In marital status category, never married indicated the largest section with 82 participants or 38.3 percent followed by 58 married participants or 27.1 percent and 57 divorced participants or 26.6 percent of the population.

Among the patients in this study 172 or 80.4 percent were employed during some months of the year and 39 or 18.2 percent were totally unemployed due to disability, student status, and other conditions. Only three patients or 1.4 percent were retired. The annual family income (all family members' income combined) of the
participants ranged from under $15,000 to over $35,000. As shown in Table 1-4, sixty-one or 28.5 percent of patients had a family income of $15,000 or less, 45 of them or 21 percent earned between $15,001-25,000 annually, 43 of them or 20.1 percent had a family income between $25,001-35,000 annually, and 65 of them or 30.4 percent had a family income of $35,000 and up (but not more than $37,000) annually.

In alcohol dependency section, 10 patients or 4.7 percent of population were assessed for alcohol use with no dependency, 49 patients or 22.9 percent were assessed for alcohol abuse in social dependency level, 87 patients or 40.7 percent were assessed for alcohol dependency in psychological level, and 68 patients or 31.8 percent were assessed for alcohol Wernicke-Korsakoff Syndrome with a combination of psychological and physical dependency levels.

All patients in this study were assessed in a three step process: (1) medical diagnose for alcohol dependency by physician, (2) Jellinck's alcoholism assessment, and (3) CAGE + Q/F assessment. Patients were given summary scores of 0-6 for no dependency, 7-13 for social dependency (alcohol abuse), 14-20 for psychological dependency (without physiological dependence), and 21-28 for physical dependency (alcohol Wernicke-Korsakoff Syndrome). The assessment results were added to demographic information of the questioners by registering scores in area pertaining to the question which asked for "summary alcohol dependency score."

Alcohol Dependency Levels Among Participants

Heavy drinking increases the risk of alcoholism and alcohol-related problems, therefore, researchers often focus on heavy drinking when comparing African-American
and white drinkers. The two of the most widely studied indicators of drinking problems include drinking consequences and alcohol dependence symptoms. In review of the literature, researcher has found many studies to indicate that African Americans reported significantly higher numbers of drinking consequences and alcohol dependence symptoms (Grant, 1997; Herd, 1994a; Caetano & Kaskutas, 1995; Goodwin, 1988; Bird & Harrison, 1987).

Alcohol dependence symptoms refer to a set of behaviors and experiences that are associated with alcoholism or addiction to alcohol. They are included alcohol withdrawal, blackouts, loss of control, efforts to control drinking, changes in tolerance, psychological defenses, state dependent learning, and other negative outcomes (PRI, 1998; APA, 1994). These alcohol dependency symptoms are mostly associated with physical dependency to alcohol (addiction to alcohol). However, this research indicates (to compare with whites) African Americans may have lesser symptoms of physical addiction to alcohol (alcoholism).

Among 107 African Americans in this study, only 30 or 28 percent of them were diagnosed or evaluated for physical dependency to alcohol; while the number of white patients with physical dependency were 38 or 35.5 percent of white population. Consequently, 43.9 percent or 47 of African Americans were diagnosed with psychological dependency to compare with 40 white patients with 37.4 percent of their population in study. In no dependency and social dependency levels the two populations had almost the same frequency distribution. Table 2-4, indicates that 87 or 40.7 percent of participants were psychologically dependent to alcohol which 47 of them were African
Americans. Also, in Table 2-4, "no dependency" means patients were admitted to medical services due to impairment problems, but the impairment was due to episodical and very low-risk drinking. The "social dependency" is used to represent alcohol abuse.

Table 2-4

Summary of Alcohol Dependency Levels Among Studied Patients

<table>
<thead>
<tr>
<th>Value</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependency Status:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Dependency</td>
<td>10</td>
<td>4.7</td>
</tr>
<tr>
<td>Social Dependency</td>
<td>49</td>
<td>22.9</td>
</tr>
<tr>
<td>Psychological Dependency</td>
<td>87</td>
<td>40.7</td>
</tr>
<tr>
<td>Physical Dependency</td>
<td>68</td>
<td>31.8</td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Mean = 2.995
Std. Dev. = .859

Differences Among Participants in Alcohol Dependency

Comparison 1: Alcohol Dependency Level

Research Question 1: Will there be significant difference between African Americans and whites regarding their alcohol dependency levels for a treatment plan?

Null Hypothesis 1: Will there be no significant difference between African Americans and whites regarding their alcohol dependency levels for a treatment plan?

Table 3-4, is a cross tabulation between African Americans and whites for differences in alcohol dependency levels. These dependency levels are: no dependency (low-risk),
social dependency (alcohol abuse), psychological dependency (high-risk alcohol abuse),
and physical dependency (alcoholism).

Table 3-4

Race by Alcohol Dependency Levels in Clinical Setting

<table>
<thead>
<tr>
<th>Value</th>
<th>Race of the Population</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>African American</td>
<td>White American</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Dependency Status:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Dependency</td>
<td>5</td>
<td>2.3</td>
<td>5</td>
<td>2.3</td>
</tr>
<tr>
<td>Social Dependency</td>
<td>25</td>
<td>11.7</td>
<td>24</td>
<td>11.2</td>
</tr>
<tr>
<td>Psychological Dependency</td>
<td>47</td>
<td>22.0</td>
<td>40</td>
<td>18.7</td>
</tr>
<tr>
<td>Physical Dependency</td>
<td>30</td>
<td>14.0</td>
<td>38</td>
<td>17.8</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
</tr>
</tbody>
</table>

Phi(0) = 0.08441  df = 3  P-Value = 0.67656

As indicated in Table 3-4, the largest number of patients, 47 or 22 percent of
the population were psychologically dependent to alcohol and all these 47 patients were
African Americans. The next largest number of patients, 40 or 18.7 percent of the
population also were psychologically dependent to alcohol and these 40 patients were
whites. This table also indicates that there was no relationship (Φ = .08441) between
African Americans and whites regarding alcohol dependency. Subsequent to the study,
when chi-square test was applied the null hypothesis (H₀) was not rejected (p-value =
.67656 >.05) indicating that there was not statistically a significant difference between
African Americans and whites regarding their alcohol dependency levels at the .05 level.
Participants' Distribution Regarding Lifestyles

Lifestyles in this study were organized in four major categories: (1) lifestyle standing, (2) lifestyle feeling, (3) lifestyle coping, and (4) lifestyle action. Each category was identified with many questions which were descriptive of participant's quality of life as following:

1. Lifestyle standing status was identified with combination of questions 9, 10, 11, 12, 15, and 16 of the questioner which asked participants to score their lifestyles; using the scale of 1 to 9 to evaluate their lifestyle positions. Values given to measure low-risk and high-risk were as following: high-risk (very worst) = V, when \( 1 < V \leq 1.5 \) and low-risk (very best) = V, when \( 1.6 \leq V \leq 2 \).

2. Lifestyle feeling status was identified with combination of questions 13 and 14 of the questioner which asked participant to answer questions about their feeling regarding their life and its legal situation. Here using the scale of 1 to 9, participants could express their lifestyle feelings. Values given to measure low-risk and high-risk were: high-risk (very worst) = V, when \( 1 \leq V \leq 1.5 \) and low-risk (very best) = V, when \( 1.6 \leq V \leq 2 \).

3. Lifestyle coping status was identified with combination of questions 17, 19, 20, and 22 of the questioner which asked participants to answer "yes" or "no" to questions regarding their coping abilities toward lifestyles of others. Values given to measure low-risk and high-risk were: high-risk (yes) = V, when \( 1 \leq V \leq 1.5 \) and low-risk (no) = V, when \( 1.6 \leq V \leq 2 \).

4. Lifestyle action status was identified with combination of questions 18 and
21 of the questioner which asked participant to answer "yes" and "no" to questions regarding their actions to live in a perfect life. Values given to measure low-risk and high-risk were: high-risk (no) = V, when $1.6 < V < 2$ and low-risk (yes) = V, when $1 \leq V \leq 1.5$.

Table 4-4, indicates the frequency distribution of these four lifestyle categories.

Table 4-4

Four Lifestyle Categories' Frequency Distribution Among Studied Patients

<table>
<thead>
<tr>
<th>Value</th>
<th>Number</th>
<th>Percent</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lifestyle Categories:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standing:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>188</td>
<td>87.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-Risk</td>
<td>26</td>
<td>12.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>1.879</td>
<td>0.327</td>
</tr>
<tr>
<td>Feeling:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>69</td>
<td>32.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-Risk</td>
<td>145</td>
<td>67.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>1.678</td>
<td>0.469</td>
</tr>
<tr>
<td>Coping:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>121</td>
<td>56.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-Risk</td>
<td>93</td>
<td>43.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>1.565</td>
<td>0.497</td>
</tr>
<tr>
<td>Action:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>184</td>
<td>86.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-Risk</td>
<td>30</td>
<td>14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>1.360</td>
<td>0.348</td>
</tr>
</tbody>
</table>

These categories' distributions (standing, feeling, coping, and action) are
examined among the 214 patients in the study. In three of these lifestyle categories most of the participants were considered to be low-risk with the following statistical contributions: in lifestyle standing 188 or 87.9 percent of them were low-risk, in lifestyle coping 121 or 56.5 percent of them were low-risk, and in lifestyle action 84 or 86 percent of them were low-risk. However, in feeling 145 or 67.8 percent of them were high-risk.

Differences Among Participants in Lifestyles

Comparison 2: Four Lifestyle Categories

Research Question 2: Will there be significant difference between African Americans and whites regarding their lifestyle categories in alcohol dependency?

Null Hypothesis 2: Will there be no significant difference between African Americans and whites regarding their lifestyle categories in alcohol dependency?

Table 5-4 is a cross tabulation between the two races regarding their lifestyle categories. Also, this table has indicated that African Americans with 99 participants or 46.3 percent in lifestyle standing, 71 participants or 33.2 percent in lifestyle coping, and 94 participants or 43.9 percent in lifestyle action were considered to be in low-risk status to compare with the white participants. However, whites with 41 participants or 19.2 percent were in low-risk category in lifestyle feeling status to compare with African Americans.
Table 5-4

Race by Four Lifestyle Qualities

<table>
<thead>
<tr>
<th>Value</th>
<th>Race of the Population</th>
<th>African American</th>
<th>White</th>
<th>Total</th>
<th>df</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Standing:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td></td>
<td>99</td>
<td>46.3</td>
<td>89</td>
<td>41.6</td>
<td>188</td>
</tr>
<tr>
<td>High-Risk</td>
<td></td>
<td>8</td>
<td>3.7</td>
<td>18</td>
<td>8.4</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td>214</td>
</tr>
<tr>
<td>Feeling:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td></td>
<td>28</td>
<td>13.1</td>
<td>41</td>
<td>19.2</td>
<td>69</td>
</tr>
<tr>
<td>High-Risk</td>
<td></td>
<td>79</td>
<td>36.9</td>
<td>66</td>
<td>30.8</td>
<td>145</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td>214</td>
</tr>
<tr>
<td>Coping:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td></td>
<td>71</td>
<td>33.2</td>
<td>50</td>
<td>23.4</td>
<td>121</td>
</tr>
<tr>
<td>High-Risk</td>
<td></td>
<td>36</td>
<td>16.8</td>
<td>57</td>
<td>26.6</td>
<td>93</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td>214</td>
</tr>
<tr>
<td>Action:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td></td>
<td>94</td>
<td>43.9</td>
<td>90</td>
<td>42.1</td>
<td>184</td>
</tr>
<tr>
<td>High-Risk</td>
<td></td>
<td>13</td>
<td>6.1</td>
<td>17</td>
<td>7.9</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td>214</td>
</tr>
</tbody>
</table>

To investigate the differences among the two races, chi-square was applied.

In lifestyle standing, when p-value = .04 < .05; and lifestyle coping, when p-value = .0 < .05 the null hypotheses could be rejected. Thus, there were differences between African Americans and whites regarding their standing and coping lifestyle statuses in alcohol dependency. However, in lifestyle feeling, when p-value = .06 > .05; and in lifestyle action, when p-value = .43 > .05; the null hypotheses (H0) could not be rejected.
Thus, there was insufficient evidence to indicate that the two races in the this contingency table (regarding their feeling and action) were dependent. When phi ($\phi$) a symmetric measure of association was applied to all four lifestyle statuses with $\phi = .14303$ (standing), $\phi = .12997$ (feeling), $\phi = .19796$ (coping), and $\phi = .05384$ (action), there was not any relationship (no similarities, but differences) between the races regarding their lifestyle statuses.

Participants' Distribution Regarding Legal Statuses

Participants in this study were asked to response to three legal questions about criminality, alcohol-related offenses, and feeling. Their answers were analyzed in high-risk and low-risk classifications. Participants with 147 members or 68.7 percent in criminality, 117 members or 54.7 percent in alcohol offenses, and 149 members or 69.6 percent in feeling were considered to be low-risk. The following are the three legal statuses and their value limitations:

1. The criminality status was examined by the participant's answer to question 23 of the questioner which was evaluating the extend of the participant's felony offenses. The participant was considered to be in low-risk, when he or she had no felony and low-risk ($2 = V$) with $0 \leq V < 1.99$. Participant was in high-risk, when there was any felony and high-risk ($5 = V$) with $2 \leq V \leq 5$.

2. The alcohol-related offenses were examined by the participant's answer to question 24 of the questioner. This question was indicating the number of alcohol-related offenses. The participant had low-risk value ($V$), when low-risk ($2 = V$) and $0 \leq V < 1.99$. The participant was considered with high-risk value ($V$), when
high-risk \((5) = V\) and \(2 \leq V \leq 5\).

3. The legal feeling status was examined by the participant's answers to questions 25 and 26 of the questioner. These two questions were evaluating the participant's feeling by being legal in action (legal activities or actions). The participant was in low-risk value \((V)\), when low-risk (no) = V and \(1 \leq V \leq 1.599\). The participant was in high-risk value \((V)\), when high-risk (yes) = V and \(1.6 \leq V \leq 2\).

Table 6-4 indicated the frequency distribution of the population with low-risk and high-risk consideration. This table is shown the number of the participants who placed in low-risk and high-risk legal statuses.

**Table 6-4**

**Population in Low-Risk and High-Risk Legal Status**

<table>
<thead>
<tr>
<th>Value</th>
<th>Number</th>
<th>Percent</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criminlity:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>147</td>
<td>68.7</td>
<td>2.939</td>
<td>1.395</td>
</tr>
<tr>
<td>High-Risk</td>
<td>67</td>
<td>31.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>2.939</td>
<td>1.395</td>
</tr>
<tr>
<td><strong>Alcohol Offenses:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>117</td>
<td>54.7</td>
<td>3.360</td>
<td>1.497</td>
</tr>
<tr>
<td>High-Risk</td>
<td>97</td>
<td>45.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>3.360</td>
<td>1.497</td>
</tr>
<tr>
<td><strong>Feeling:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>149</td>
<td>69.6</td>
<td>1.696</td>
<td>0.461</td>
</tr>
<tr>
<td>High-Risk</td>
<td>65</td>
<td>30.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>1.696</td>
<td>0.461</td>
</tr>
</tbody>
</table>
Differences Among Participants in Legal Statuses

Comparison 3: Three Legal Statuses

Research Question 3: Will there be significant difference between African Americans and whites regarding their legal statuses in alcohol dependency?

Null Hypothesis 3: Will there be no significant difference between African Americans and whites regarding their legal statuses in alcohol dependency?

Table 7-4 is a cross tabulation between the two races and their legal statuses.

Table 7-4

Race by Three Legal Statuses in Alcohol Dependency Evaluation

<table>
<thead>
<tr>
<th>Value</th>
<th>Race of the Population</th>
<th></th>
<th></th>
<th>Total</th>
<th></th>
<th></th>
<th>df</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>African American</td>
<td>n</td>
<td>%</td>
<td>White</td>
<td>n</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>147</td>
<td>68.7</td>
<td>147</td>
<td>68.7</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
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<td>50.0</td>
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<td>50.0</td>
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<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td>0.0906</td>
<td>1</td>
<td>0.1846</td>
</tr>
<tr>
<td>Criminality:</td>
<td></td>
<td>69</td>
<td>32.2</td>
<td>78</td>
<td>36.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td></td>
<td>38</td>
<td>17.8</td>
<td>29</td>
<td>13.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-Risk</td>
<td></td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>117</td>
<td>54.7</td>
<td>97</td>
<td>45.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alc. Offenses:</td>
<td></td>
<td>66</td>
<td>30.8</td>
<td>51</td>
<td>23.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td></td>
<td>41</td>
<td>19.2</td>
<td>56</td>
<td>26.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-Risk</td>
<td></td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>117</td>
<td>54.7</td>
<td>97</td>
<td>45.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling:</td>
<td></td>
<td>79</td>
<td>36.9</td>
<td>70</td>
<td>32.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td></td>
<td>28</td>
<td>13.1</td>
<td>37</td>
<td>17.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-Risk</td>
<td></td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>149</td>
<td>69.6</td>
<td>65</td>
<td>30.4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


This table shows the association (relationships or differences) between the two races, when their legal statuses are considered in alcohol dependency evaluation. As indicated in Table 7-4, African Americans with 66 participants or 30.8 percent in alcohol-related offenses and with 79 participants or 36.9 percent in legal feeling status were considered to be in low-risk to compare with white population.

However, whites with 78 participants or 36.4 percent in criminality were considered to be in low-risk status. With applying phi (\( \phi \)) test, in all three legal statuses of criminality (\( \phi = .09069 \)), alcohol-related offenses (\( \phi = .14080 \)), and legal feeling (\( \phi = .09145 \)), no strengthful relationships between race and legal status were determined.

Consequently, the fundamental assumption was that each observation or frequency (of legal status) was independent of all other observations (the two races). Chi-square tests also were applied; in criminality (p-value = .18 >.05) and in legal feeling status (p-value = .18 >.05) the p-values were greater than .05 level of probability, therefore, the null hypotheses (H\(_0\)) could not be rejected. In other words, it can be concluded that African Americans and whites have shown no differential basis for criminality and legal feeling statuses.

When alcohol-related offenses were considered among the two races, the p-value of applied chi-square was less than .05 level of probability (p-value = .04<.05), therefore, the null hypothesis (H\(_0\)) was rejected. Accordingly, there was a significant difference between the two races regarding their alcohol-related offenses in alcohol dependency evaluation.
Participants' Distribution Regarding Attitudes

Attitudes were evaluated in two major categories: the status of the participants' attitudes and their actions anticipated from attitudes. The following are the two attitude categories limited to high-risk and low-risk values.

1. The status of the participants' attitude were obtained by analyzing the participants' responses to questions 38, 39, 40, 44, and 51 of the questioner. A participant was considered to have low-risk attitude status, when he or she had answered "yes" to the questions pertaining this section of the questioner. Therefore, low-risk value (yes) = V, when 1 ≤ V ≤ 1.599 and the participants could be in high-risk attitude, when high-risk value (no) = V, and 1.6 ≤ V ≤ 2.

2. The action anticipated from participants' attitude was evaluated by questions 41, 42, 43, 45, 46, 47, 48, 49, and 50 of the questioner. A participant could act in high-risk when he or she considered to response "yes" to all the questions presenting above and he and/or she could act in low-risk, when the above questions were answered with "no." Therefore, high-risk value (yes) = V, when 1 ≤ V ≤ 1.599 and low-risk value (no) = V, when 1.6 ≤ V ≤ 2.

Table 8-4 indicated the frequency distribution of the sample population with low-risk and high-risk attitude (status and action) categories. In attitude status, low-risk with 168 participants or 78.5 percent of the population was most selected category. Also, low-risk acting attitude was expressed by 123 participants or a total of 57.5 percent of the population in this study.
Table 8-4

Population in Low-Risk and High-Risk Attitudes

<table>
<thead>
<tr>
<th>Value</th>
<th>Number</th>
<th>Percent</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Status:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>168</td>
<td>78.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-Risk</td>
<td>46</td>
<td>21.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>1.302</td>
<td>0.257</td>
</tr>
<tr>
<td>Attitude Action:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>123</td>
<td>57.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-Risk</td>
<td>91</td>
<td>42.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>1.618</td>
<td>0.284</td>
</tr>
</tbody>
</table>

In comparing the two attitude categories, more number of the participants (91 patients) or 42.5 percent considered themselves to act with high-risk attitudes and only 21.5 percent of the population or 46 patients have shown high-risk attitude statuses.

Differences Among Participants in Attitudes

Comparison 4: Two Attitude Categories

Research Question 4: Will there be significant difference between African Americans and whites regarding their attitude statuses and action in alcohol dependency?

Null Hypothesis 3: Will there be no significant difference between African Americans and whites regarding their attitude statuses and action in alcohol dependency?

Table 9-4, is a cross tabulation between the two races and their attitudes in alcohol dependency evaluation. This table has indicated the association between these
two races in forms of relationship or differences in attitudes which have emphasized alcohol dependency level.

Table 9-4

Race by Attitudes in Alcohol Dependency Evaluation

<table>
<thead>
<tr>
<th>Value</th>
<th>Race of the Population</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>African American</td>
<td>n</td>
<td>%</td>
<td>White</td>
<td>n</td>
<td>%</td>
<td>Total</td>
<td>n</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Ate. Status:</td>
<td>Low-Risk</td>
<td>89</td>
<td>41.6</td>
<td>79</td>
<td>36.9</td>
<td>168</td>
<td>78.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High-Risk</td>
<td>18</td>
<td>8.4</td>
<td>28</td>
<td>13.1</td>
<td>46</td>
<td>21.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td>214</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ate. Action:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low-Risk</td>
<td>71</td>
<td>33.2</td>
<td>52</td>
<td>24.3</td>
<td>123</td>
<td>57.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High-Risk</td>
<td>36</td>
<td>16.8</td>
<td>55</td>
<td>25.7</td>
<td>91</td>
<td>42.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td>214</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As indicated in Table 9-4, African Americans with 89 participants or 41.6 percent of the population in attitude status and with 71 participants or 33.2 percent of the population in attitude action category were considered to be low-risk. In this psychological category, white with 28 participants or 13.1 percent in attitude status and 55 members or 25.7 percent of the population in attitude action were considered to be in high-risk.

In interpretation of the relationship (association) between African Americans and whites regarding their low-risk and high-risk attitudes, phi (\( \phi \)) and its identical pearson (\( r \)), the correlation coefficient with \(-1.00 \leq r \leq +1.00\) statistics were applied to each 2 \( \times \) 2 cross tabulation of races and attitudes (African American, white, low-risk
attitude, and high-risk attitude).

With $\phi = .11375$ or $r = -.11375$ (due to similarity in values of $r$ and $\phi$) in Table 9-4, Pearson ($r$) has not been mentioned in attitude status category and $\phi = .17959$ or $r = .17959$ in attitude action category, there was not any relationship between African Americans and whites regarding their low-risk and high-risk attitudes in alcohol dependency evaluation. Therefore, the chi-square test, a test of statistical significance based on a comparison between African Americans and whites regarding their joint contingency table frequencies (with low-risk and high-risk attitude) was applied.

Under the null hypothesis ($H_0$) of no difference, in attitude status category with $df = 1$ and $p-value = .096 > .05$, the null hypothesis ($H_0$) was not rejected; it indicated no significant difference between the two races regarding their attitude statuses. However, in attitude action category, with $df = 1$ and $p-value = .01 < .05$, the null hypothesis ($H_0$) was rejected and it indicated a significant difference between the two races regarding their attitude actions in alcohol dependency evaluation. In other words, African Americans had showed to be in lower risk in their attitude-induced actions (having own ways, getting even, hurting others' feeling, disliking anyone, taking advantage, smashing things, and telling someone off).

Participants' Distribution Regarding Self-Esteem

The following variability of three self-esteem distributions (position, quality, and feeling) permit the precise interpretation of low-risk and high-risk self-esteem scores within the African American and white tested populations. These three
Interpretive self-esteem aspects are:

1. Self-esteem position which was evaluated with employing measures to questions 27, 28, 29, 30, 31, 33, 36, and 37 of the questioner. In this section, a participant was considered to have low-risk self-esteem position, when he or she had answered "no" to the above questions and low-risk value (no) = V, when $1.6 < V < 2$. Consequently, a participant was in high-risk self-esteem position, when he or she had answered "yes" to the above questions and high-risk value (yes) = V, when $1 < V < 1.6$. 

2. Self-esteem quality which was evaluated with interpretations utilized from questions 34 and 35 of the questioner. In this part, a participant was considered to have low-risk self-esteem quality, when he or she had answered "yes" to the above questions and low-risk value (yes) = V, when $1 < V < 1.5$. Under this circumstance, a participant was in high-risk self-esteem quality, when he or she had answered "no" to the above questions and high-risk value (no) = V, when $1.6 < V < 2$.

3. Self-esteem feeling which was examined with question 32 of the questioner. The answer to this question revealed the participant could have low-risk self-esteem feeling, if he or she had responded "yes" to the above question and the low-risk value (yes) = V, when $1 < V < 1.6$. Therefore, a participant was in high-risk self-esteem feeling condition, if he or she had answered "no" to the above question and high-risk value (no) = V, when $1.6 < V < 2$.

Table 10-4 indicated the frequency distribution of the tested population. It can be seen that in interpreting low-risk and high-risk self-esteem scores, the mean and
standard deviation; two of the five measures of dispersion or variability (range, interquartile range, mean deviation, variance, and standard deviation) were used. These two were most useful measures of dispersion in this descriptive distribution.

Table 10-4

Population in Low-Risk and High-Risk Self-Esteem Categories

<table>
<thead>
<tr>
<th>Value</th>
<th>Number</th>
<th>Percent</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Position:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>189</td>
<td>88.3</td>
<td>1.883</td>
<td>.322</td>
</tr>
<tr>
<td>High-Risk</td>
<td>25</td>
<td>11.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>1.883</td>
<td>.322</td>
</tr>
<tr>
<td><strong>Quality:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>20</td>
<td>9.3</td>
<td>1.907</td>
<td>.292</td>
</tr>
<tr>
<td>High-Risk</td>
<td>194</td>
<td>90.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>1.907</td>
<td>.292</td>
</tr>
<tr>
<td><strong>Feeling:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>143</td>
<td>66.8</td>
<td>1.332</td>
<td>.472</td>
</tr>
<tr>
<td>High-Risk</td>
<td>71</td>
<td>33.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>1.332</td>
<td>.472</td>
</tr>
</tbody>
</table>

Differences Among Participants in Self-Esteem

**Comparison 5: Three Self-Esteem Categories**

Research Question 5: Will there be significant differences between African Americans and whites regarding their self-esteem categories in alcohol dependency?

Null Hypothesis 5: Will there be no significant differences between African Americans and whites regarding their self-esteem categories in alcohol dependency.
Table 11-4 is a cross tabulation between the two races and their self-esteem categories in alcohol dependency evaluation among the 214 patients in the study.

Table 11-4

Race by Self-Esteem Categories in Alcohol Dependency

<table>
<thead>
<tr>
<th>Value</th>
<th>Race of the Population</th>
<th>African American</th>
<th>White American</th>
<th>Totals</th>
<th>df</th>
<th>Ø</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td></td>
<td>98</td>
<td>45.8</td>
<td>91</td>
<td>42.5</td>
<td>189</td>
<td>88.3</td>
</tr>
<tr>
<td>High-Risk</td>
<td></td>
<td>9</td>
<td>4.2</td>
<td>16</td>
<td>7.5</td>
<td>25</td>
<td>11.7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td>214</td>
<td>100.0</td>
</tr>
<tr>
<td>Quality:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td></td>
<td>8</td>
<td>3.7</td>
<td>12</td>
<td>5.6</td>
<td>20</td>
<td>9.3</td>
</tr>
<tr>
<td>High-Risk</td>
<td></td>
<td>99</td>
<td>46.3</td>
<td>95</td>
<td>44.4</td>
<td>194</td>
<td>90.7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td>214</td>
<td>100.0</td>
</tr>
<tr>
<td>Feeling:</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td></td>
<td>73</td>
<td>34.1</td>
<td>70</td>
<td>32.7</td>
<td>143</td>
<td>66.8</td>
</tr>
<tr>
<td>High-Risk</td>
<td></td>
<td>34</td>
<td>15.9</td>
<td>37</td>
<td>17.3</td>
<td>71</td>
<td>33.2</td>
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<tr>
<td>Total</td>
<td></td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td>214</td>
<td>100.0</td>
</tr>
</tbody>
</table>

This table has indicated the association between African Americans and whites in forms of relationships or differences in self-esteem test which was applied to level of alcohol dependency. As it is indicated in table 11-4, African Americans with 98 participants or 45.8 percent in self-esteem position and with 73 participants or 34.1 percent in self-esteem feeling were considered to be in low-risk. At the same time, in these categories, whites with 91 participants or 42.5 percents in self-esteem position and
with 70 participants or 32.7 percent in self-esteem feeling were considered to be in low-risk.

Consequently, the higher percent of Africa Americans were evaluated in low-risk self-esteem statuses. However, in self-esteem quality, African Americans with 99 participants or 46.3 percent and whites with 95 participants or 44.4 percent were considered to be in high-risk. In interpretation of the relationship (association) between African Americans and whites regarding their low-risk and high-risk self-esteem categories, phi (\( \phi \)) and its identical test, pearson (\( r \)), the correlation coefficient statistics were applied. Each 2 x 2 crosstabulation of races and self-estees (African American, white, low-risk self-esteem, and high-risk self-esteem) were calculated.

With \( \phi = .10184 \) (\( r = .10184 \)) in self-esteem position, \( \phi = .06422 \) (\( r = .06422 \)) in self-esteem quality, and \( \phi = .02977 \) (\( r = -.02977 \) when \(-1.00 \leq r \leq +1.00 \)) in self-esteem feeling, there were not any relationship between African Americans and whites regarding their low-risk and high-risk self-esteem position, quality, and feeling in alcohol dependency.

Therefore, the chi-square test, or test for significance difference, was applied and under the null hypothesis (\( H_0 \)) of no difference, self-esteem position with p-value = .14 > .05, self-esteem quality with p-value = .35 > .05, and self-esteem feeling with p-value = .66 > .05 were not rejected; the chi-square indicated no significant difference between the two races regarding their self-esteem statuses.
Participants' Distribution Regarding Stress

Stress was evaluated by asking participants to represent their abilities to handle stress. Scores 1 through 4 were considered to be worst abilities to handle stress, and scores 5 through 9 were indicating the best abilities to handle stress. The stress level was obtained by analyzing the participants responses to question 35 of the questioner.

A participant was considered to be in low-risk stress level, when he or she had answered "best" to the question pertaining this section of the questioner. Therefore low-risk value (best) = V, when $1.6 < V < 2$, and the participant was in high-risk stress level, when participant had answered "worst" to the question 35 and high-risk (worst) = V, when $1 < V < 1.59$.

Table 12-4 has indicated the frequency distribution of the sample population with low-risk and high-risk stress levels.

Table 12-4

<table>
<thead>
<tr>
<th>Value</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress Level:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>199</td>
<td>93.0</td>
</tr>
<tr>
<td>High-Risk</td>
<td>15</td>
<td>7.0</td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Mean = 1.930  Std. Dev. = 0.256

In stress level statuses, 199 of the participants or 93 percent of the population were in low-risk and only 15 of them or 7 percent of the population were in high-risk.

As indicated in this table, majority of the participant expressed to be in control of their
stress levels. They considered themselves to handle their stresses in best they could.

Differences Among Participants Regarding Stress

Comparison 6: Stress Level

Research Question 6: Will there be significant differences between African Americans and whites regarding their stress levels in alcohol dependency?

Null Hypothesis 6: Will there be no significant difference between African Americans and whites regarding their stress levels in alcohol dependency?

Table 13-4 is a cross tabulation between the two races and their stress levels (ability to handle stress) in alcohol dependency evaluation. This table has indicated the association between African Americans and whites in forms of relationships and/or differences in stress levels in alcohol dependency evaluation.

Table 13-4

<table>
<thead>
<tr>
<th>Race of the Population</th>
<th>African American</th>
<th>White American</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Stress Level:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>103</td>
<td>48.1</td>
<td>96</td>
</tr>
<tr>
<td>High-Risk</td>
<td>4</td>
<td>1.9</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>50.0</td>
<td>107</td>
</tr>
</tbody>
</table>

Phi (φ) = 0.12812

df = 1

P-Value = 0.06089
As indicated in Table 13-4, African Americans with 103 participants or 48.1 percent of the population in stress level and whites with 96 participants or 44.9 percent of the population in stress level evaluation were considered to be in low-risk. In this category, African Americans with higher number of participants to compare with whites were in low-risk stress or they were able to handle stress. In order to measure the association between the two races regarding their low-risk and high-risk stress levels, phi (\( \phi \)) and Pearson (r) tests were applied.

Consequently, with \( \phi = .12812 \), and/or \( r = .12812 \) in this stress category, there was not any relationship between the two races regarding their low-risk or high-risk stress levels in alcohol dependency evaluation. Also, when the chi-square test was applied with p-value = .060 > .05, the null hypothesis (\( H_0 \)) was not rejected; it indicated no significant difference between African Americans and whites regarding their stress handling abilities.

Participants' Distribution Regarding Personality Traits

From the review of the literature, the researcher has identified five possible personality traits that were associated with high-risk use of alcohol among people with alcoholism. These personality traits were: sensation-seeking, Gregariousness, rebelliousness, and impulsiveness (Personal Risk [PR: risking one's personal opportunities] and Social Risk [SR: risking others social status]). The following is an analysis of the responses from the participants in the study about the above personality traits.

Table 14-4 is a frequency distribution of how participants described their
personalities by answering a total of 25 questions. The participants' response were interpreted as low-risk or high-risk personality traits in the following aspects.

1. Sensation-seeking personality was measured with analyzing the participants' responses to questions 17, 18, 20, 27, and 42 of the questioner. These questions were concentrated on constant gratification in merely, joyful, helpful life. A participant was considered to be low-risk, when he or she had answered "no" to all above questions and low-risk value (no) = V, when \(1.6 \leq V \leq 2\). Under this circumstance, a participant was in high-risk sensation-seeking personality, if he or she would answered "yes" to the above questions and high-risk value (yes) = V, when \(1 \leq V \leq 1.59\).

2. The gregariousness trait was evaluated by interpretations utilized form questions 32, 38, and 40 of the questioner. These questions were descriptive of major skills in sociability and outgoing behavior. In this part, a participant was considered to be low-risk, when he or she had answered "no" to all the above questions and low-risk value (no) = V, if \(1.6 \leq V \leq 2\). Therefore, a participant was in high-risk, when he or she had answered "yes" to the above questions and high-risk value (yes) = V, if \(1 \leq V \leq 1.59\).

3. The rebelliousness trait was evaluated with employing measures to questions, 19, 22, 26, 30, 43, 45, 46, 47, 49, and 50 of the questioner. These questions were exploring disobedience to social norm and authoritarian behavior. In this section, a participant was considered to be low-risk, when he or she had answered "no" to all questions under this section and the low-risk value (no) = V, if \(1.6 \leq V \leq 2\). A participant was in high-risk, when he or she had answered "yes" to all of the
above questions and the high-risk value (yes) = V, if 1 ≤ V ≤ 1.599.

4. The impulsiveness trait in personal decisions was evaluated by commonality interpretation received from questions 21, 39, 44 and 51 of the questioner. These questions were emphasizing on risky behaviors that would jeopardized personal quality of life. In this area, a participant could be in low-risk status, when he or she had answered "yes" to all the questions and the low-risk value (yes) = V, if 1 ≤ V ≤ 1.599.

A participant was in high-risk impulsive personality, when he or she had answered "no" to all the above questions and the high-risk value (no) = V, if 1.6 ≤ V ≤ 2.

5. The impulsiveness trait in social status was measured by asking participants to response to question 25, 41, and 48 of the questioner. These questions were concentrating on risk taking behaviors that could change the outcome of social status. In this part, a participant was in low-risk, when he or she had answered "no" to all the questions and the low-risk value (no) = V, when 1.6 ≤ V ≤ 2. A participant was in high-risk, when he and/or she had answered "yes" to all the question in this section and the high-risk value (yes) = V, if 1 ≤ V ≤ 1.599.

Table 14-4 has indicated the frequency distribution of the tested population for low-risk and high-risk personality traits in alcohol dependency. In interpreting these data, mean and standard deviation were used to describe the typical outcome of a distribution of scores (from 1 [yes] to 2 [no]). The means and standard deviations reflect the size and dispersion of participants and permit the precise interpretation of scores (number of participants) within the distribution. In the following table, the more compactly our scores (participants) are distributed about the mean, the smaller our
errors and if two or more distributions have almost equal means but different degrees of
dispersion, the one with the smaller standard deviation provides more precise measures
(i.e., measures closer to the mean) on the average.

Table 14-4

Population in Low-Risk and High-Risk Personality Traits

<table>
<thead>
<tr>
<th>Value</th>
<th>Number</th>
<th>Percent</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensation-Seeking:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>143</td>
<td>66.8</td>
<td>1.577</td>
<td>.234</td>
</tr>
<tr>
<td>High-Risk</td>
<td>71</td>
<td>33.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>1.577</td>
<td>.234</td>
</tr>
<tr>
<td>Gregarious:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>56</td>
<td>26.2</td>
<td>1.308</td>
<td>.302</td>
</tr>
<tr>
<td>High-Risk</td>
<td>158</td>
<td>73.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>1.308</td>
<td>.302</td>
</tr>
<tr>
<td>Rebellious:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>133</td>
<td>62.1</td>
<td>1.626</td>
<td>.235</td>
</tr>
<tr>
<td>High-Risk</td>
<td>81</td>
<td>37.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>1.626</td>
<td>.235</td>
</tr>
<tr>
<td>Impulsive (Personal Risk):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>177</td>
<td>82.7</td>
<td>1.362</td>
<td>.277</td>
</tr>
<tr>
<td>High-Risk</td>
<td>37</td>
<td>17.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>1.362</td>
<td>.277</td>
</tr>
<tr>
<td>Impulsive (Social Risk):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>156</td>
<td>72.9</td>
<td>1.684</td>
<td>.325</td>
</tr>
<tr>
<td>High-Risk</td>
<td>58</td>
<td>27.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
<td>1.684</td>
<td>.325</td>
</tr>
</tbody>
</table>

This tested population with following status: 143 members or 66.8 percent in
sensation-seeking, 133 members or 62.1 percent in rebelliousness, 177 members or 82.7
percent in personal impulsiveness, and 156 members or 72.9 percent in social impulsiveness were considered to be low-risk. However the population with 158 members out of 214 total participants or 73.8 percent of the population was considered to be in high-risk in gregarious personality trait.

Differences Among Participants in Personality Traits

Comparison 7: Five Personality Traits

Research Question 7: Will there be significant difference between African Americans and whites regarding their personality traits in alcohol dependency?

Hull Hypothesis 7: Will there be no significant difference between African Americans and whites regarding their personality traits in alcohol dependency?

Table 15-4 is a crosstabulation of all low-risk and high-risk personality traits and two races. Numerical values contained within cells are frequencies (n), proportions (total), percentages (%), degree of freedom (f), phi (φ) a symmetric measure of association for each 2 x 2 crosstabulations (races by risk statuses of the personality traits tested), phi (φ) equivalent pearson's correlation coefficient (r), and the p-value (p) for the tested chi-square with choice of probability = 5 percent (.05).

This table not only indicates the association between the races but also shows statistical significance based on a comparison of the observed cell frequencies that would be expected under the null hypothesis (H0) of no difference.
Table 15-4
Race by Low-Risk and High-Risk Personality Traits in Alcohol Dependency

<table>
<thead>
<tr>
<th>Value</th>
<th>Race of the Population</th>
<th></th>
<th></th>
<th>Totals</th>
<th>df</th>
<th>Ø</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>African American</td>
<td>White American</td>
<td>Totals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensation-Seeking:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>75</td>
<td>35.0</td>
<td>68</td>
<td>31.8</td>
<td>143</td>
<td>66.8</td>
<td>1</td>
</tr>
<tr>
<td>High-Risk</td>
<td>32</td>
<td>15.0</td>
<td>39</td>
<td>18.2</td>
<td>71</td>
<td>33.2</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td>214</td>
<td>100.0</td>
<td>1</td>
</tr>
<tr>
<td>Gregarious:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>25</td>
<td>11.7</td>
<td>31</td>
<td>14.5</td>
<td>56</td>
<td>26.2</td>
<td>1</td>
</tr>
<tr>
<td>High-Risk</td>
<td>82</td>
<td>38.3</td>
<td>76</td>
<td>35.5</td>
<td>158</td>
<td>73.8</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td>214</td>
<td>100.0</td>
<td>1</td>
</tr>
<tr>
<td>Rebellious:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>78</td>
<td>36.4</td>
<td>55</td>
<td>25.7</td>
<td>133</td>
<td>62.1</td>
<td>1</td>
</tr>
<tr>
<td>High-Risk</td>
<td>29</td>
<td>13.6</td>
<td>52</td>
<td>24.3</td>
<td>81</td>
<td>37.9</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td>214</td>
<td>100.0</td>
<td>1</td>
</tr>
<tr>
<td>Impulsive (PR):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>96</td>
<td>44.9</td>
<td>81</td>
<td>37.9</td>
<td>177</td>
<td>82.7</td>
<td>1</td>
</tr>
<tr>
<td>High-Risk</td>
<td>11</td>
<td>5.1</td>
<td>26</td>
<td>12.1</td>
<td>37</td>
<td>17.3</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td>214</td>
<td>100.0</td>
<td>1</td>
</tr>
<tr>
<td>Impulsive (SR):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>80</td>
<td>37.4</td>
<td>76</td>
<td>35.5</td>
<td>156</td>
<td>72.9</td>
<td>1</td>
</tr>
<tr>
<td>High-Risk</td>
<td>27</td>
<td>12.6</td>
<td>31</td>
<td>14.5</td>
<td>58</td>
<td>27.1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td>214</td>
<td>100.0</td>
<td>1</td>
</tr>
</tbody>
</table>

As indicated in Table 15-4, African Americans with 75 members or 35 percent in sensation-seeking personality, 78 members or 36.4 percent in rebellious personality, 96 members or 44.9 percent in personal impulsiveness, and 80 members or 37.4 percent in social impulsive personality were highly (or very high percentage)
measured to be in low-risk status.

In gregarious personality, African Americans with 82 members or 38.3 percent were considered to be in high-risk. White Americans were considered to be high-risk in sensation-seeking, rebellious, personal impulsiveness, and social impulsive personality traits. In gregariousness, white Americans were measured to be in low-risk to compare with African Americans.

However, the percentage indicating the low-risk status for white (14.5%) was very close to African Americans percentage (11.7%) in this personality trait. In interpretation of the relationship (association) between these two races regarding their low-risk and high-risk personality traits, phi (\(\phi\)) and Pearson's correlation coefficient (\(r\)) were applied.

The symmetric measure phi (\(\phi\)) and its identical value of Pearson's \(r\) with:
\[
\phi = .06947 \text{ or } r = .06947 \text{ in sensation-seeking, } \phi = .06379 \text{ or } r = -.6379 \text{ in gregariousness, } \\
\phi = .18535 \text{ or } r = -.18535 \text{ in personal impulsiveness, } \phi = .04205 \text{ or } r = .04205 \text{ in social impulsiveness, and } \\
\phi = .22159 \text{ or } r = .22159 \text{ in rebelliousness}
\]
indicated no relationship between the two races regarding their personality traits. Therefore, the chi-square test for comparison (differences) was applied.

Consequently, the null hypothesis (H\(_0\)) of no difference with df = 1 for p-value = .001 < .05 in rebelliousness, and p-value = .006 < .05 in personal impulsiveness was rejected. The test indicated that there were significant differences between African Americans and whites regarding the above personality traits. However, for each of the following: sensation-seeking with p-value = .309 > .05, gregariousness
with p-value = .350 > .05, and social impulsiveness with p-value = .538 > .05 the null hypothesis was not rejected and the test indicated that there were no significant differences between the two races regarding the above personality traits.

Participants' Distribution Regarding Logical Thinking

Logical thinking was evaluated by analyzing the participants responses to questions 52, 53, 54, 55, and 56 from the questioners. A participant was considered to be low-risk, if he or she had answered "yes" to all the questions in this section and the low-risk value (yes) = \( V \), when \( 1 < V < 1.599 \). A participant was evaluated to be in high-risk logical thinking level if he or she had answered "no" to all the above questions and the high-risk value (no) = \( V \), when \( 1.6 < V < 2 \).

Table 16-4 indicated the frequency distribution of the sample population with low-risk and high-risk logical thinking abilities.

Table 16-4

<table>
<thead>
<tr>
<th>Value</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logical Level:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-Risk</td>
<td>212</td>
<td>99.0</td>
</tr>
<tr>
<td>High-Risk</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Mean = 1.080

Std. Dev. = 0.117

As Table 16-4 has indicated, only 2 participants out of 214 patients or 1 percent of the population was selected to be in high-risk for logical thinking abilities. This
population, in general, showed very strong and abstracted thinking ability.

**Differences Among Participants in Logical Thinking**

**Comparison 8: Logical Thinking**

Research Question 8: Will there be significant differences between African Americans and whites regarding their logical thinking abilities in alcohol dependency?

Null Hypothesis 8: Will there be no significant differences between African Americans and whites regarding their logical thinking abilities in alcohol dependency?

Table 17-4 is a cross tabulation between the two races and their logical thinking abilities in alcohol dependency evaluation. This table has indicated the association between these two races in forms of relationship or differences in logical thinking.

**Table 17-4**

**Race by Logical Thinking Abilities in Alcohol Dependency**

<table>
<thead>
<tr>
<th>Value</th>
<th>Race of the Population</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>African American</td>
<td>White American</td>
<td>Totals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Logical Level: Low-Risk</td>
<td>105</td>
<td>49.1</td>
<td>107</td>
<td>50.0</td>
<td>212</td>
<td>99.1</td>
<td></td>
</tr>
<tr>
<td>Logical Level: High-Risk</td>
<td>2</td>
<td>.9</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>50.0</td>
<td>107</td>
<td>50.0</td>
<td>214</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Phi ($\phi$) = 0.09713  
df = 1  
P-Value = 0.15535

Table 17-4 is indicating that African Americans with two members in high-risk
categories were considered to show less abstract thinking ability to compare with whites. However, in this evaluation 212 participants or 99.1 percent of the sample population were considered to be in low-risk or with more abstract thinking abilities during the alcohol dependency evaluation.

In applying the two tests, phi ($\phi$) for relationship and chi-square for differences between African Americans and whites, the following outcomes were produced: (a) with $\phi = .09713$ (or $r = .09713$) there was no relationship between the African Americans and whites in their logical thinking abilities or their abstract thinking before and during the alcohol dependency evaluation, and (b) with null hypothesis ($H_0$) of no differences in logical thinking abilities, the $p$-value = .155 > .05 indicated that the null hypothesis was not rejected. Accordingly, there were no significant differences between races regarding their logical thinking abilities in alcohol dependency.

In summary, this study has identified many demographic, social, and psychological factors (Table 18-4) to be influential in development of alcoholism among (inner-city) African Americans and whites. With understanding these factors, their measurable risks, and high-risk drinking patterns, whether these factors are vastly different or similar among African Americans and whites, one can develop and refine an appropriate prevention and treatment approach for alcoholism.

As Table 18-4 has indicated, compared to African Americans in this study, white participants were 3.8 percent more physically dependent to alcohol, 4.7 percent more unsatisfied with their lifestyle standing scales. Also, to compare with African Americans, whites were 9.8 percent more unable to cope with their lifestyles and
### Table 18-4

<table>
<thead>
<tr>
<th>Value</th>
<th>African Americans</th>
<th>European Americans</th>
<th>P</th>
<th>( \phi )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High-risk %</td>
<td>Low-risk %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependency:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0.0</td>
<td>2.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>11.7</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological</td>
<td>22.0</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>14.0</td>
<td>0.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifestyle:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standing</td>
<td>3.7</td>
<td>46.3</td>
<td>8.4</td>
<td>41.6</td>
</tr>
<tr>
<td>Feeling</td>
<td>36.9</td>
<td>13.1</td>
<td>30.8</td>
<td>19.2</td>
</tr>
<tr>
<td>Coping</td>
<td>16.8</td>
<td>33.2</td>
<td>26.6</td>
<td>23.4</td>
</tr>
<tr>
<td>Action</td>
<td>6.1</td>
<td>43.9</td>
<td>7.9</td>
<td>42.1</td>
</tr>
<tr>
<td>Legal Status:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criminality</td>
<td>17.8</td>
<td>32.2</td>
<td>13.6</td>
<td>36.4</td>
</tr>
<tr>
<td>Alcohol Offenses</td>
<td>19.2</td>
<td>30.8</td>
<td>26.2</td>
<td>23.8</td>
</tr>
<tr>
<td>Feeling</td>
<td>13.1</td>
<td>36.9</td>
<td>17.3</td>
<td>32.7</td>
</tr>
<tr>
<td>Attitude:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>8.4</td>
<td>41.6</td>
<td>13.1</td>
<td>36.9</td>
</tr>
<tr>
<td>Action</td>
<td>16.8</td>
<td>33.2</td>
<td>25.7</td>
<td>24.3</td>
</tr>
<tr>
<td>Self-Esteem:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position</td>
<td>4.2</td>
<td>45.8</td>
<td>7.5</td>
<td>42.5</td>
</tr>
<tr>
<td>Quality</td>
<td>46.3</td>
<td>3.7</td>
<td>44.4</td>
<td>5.6</td>
</tr>
<tr>
<td>Feeling</td>
<td>15.9</td>
<td>34.1</td>
<td>17.3</td>
<td>32.7</td>
</tr>
<tr>
<td>Stress</td>
<td>1.9</td>
<td>48.1</td>
<td>5.1</td>
<td>44.9</td>
</tr>
<tr>
<td>Logical Thinking:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personality:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensation-Seek</td>
<td>15.0</td>
<td>35.0</td>
<td>18.2</td>
<td>31.8</td>
</tr>
<tr>
<td>Gregarious</td>
<td>38.3</td>
<td>11.7</td>
<td>35.5</td>
<td>14.5</td>
</tr>
<tr>
<td>Rebellious</td>
<td>13.6</td>
<td>36.4</td>
<td>24.3</td>
<td>25.7</td>
</tr>
<tr>
<td>Impulsive (PR)</td>
<td>5.1</td>
<td>44.9</td>
<td>12.1</td>
<td>37.9</td>
</tr>
<tr>
<td>Impulsive (SR)</td>
<td>12.6</td>
<td>37.4</td>
<td>14.5</td>
<td>35.5</td>
</tr>
</tbody>
</table>
1.8 percent more troubled to put their life style in action.

Furthermore, whites were 7 percent more involved in alcohol offenses, 4.2 percent more reported feeling very bad about their legal statuses, 4.7 percent more having abnormal attitudes, 8.9 percent more considered themselves to be selfish, 3.3 percent more suffered of low self-esteem, 1.4 percent more felt very bad about themselves, 3.2 percent more reported to be under difficult and heavy stresses, 3.2 percent more reported to be sensation-seekers, 10.7 percent more reported to be rebellious, 7 percent more reported to be self-destructive, 1.9 percent more reported to be socially destructive.

In this study, however, African Americans were characterized to be 3.3 percent more psychologically dependent to alcohol, 6.1 percent more unpleasant in their feelings about life options, 4.2 percent more in higher felony and criminal offenses, 0.9 percent more logically unstable, and 2.8 percent more gregarious than white participants.

Table 18-4 has also presented the results of chi-square analyses of all categories (variables) tested as a function of alcoholism. The prediction of alcoholism by any of these reported social and psychological factors did not differ as a function of race for the following subcategories: lifestyle feeling, lifestyle action, criminality status, feeling about legal status, attitude status, self-esteem position, self-esteem quality, self-esteem feeling, stress, logical thinking, sensation-seeking, gregariousness, and social impulsiveness.

More than any other variable, the presence of alcoholism significantly differentiated African Americans and whites in regard of their lifestyle standing, lifestyle coping, alcohol offenses, attitude action, rebelliousness and personal impulsiveness.
CHAPTER V
DISCUSSION, IMPLICATIONS, AND CONCLUSION

In this study, despite the small sample size, lack of substantial training in recognition of the cross-cultural alcoholism among treating physicians, and replicating many operational tasks in diagnostic protocol; omnibus results from a multivariate analyses showed that there were statistically significant and attenuated equalities among African Americans and whites regarding their psychosocial characteristics in alcohol dependency assessment.

Consistent with the rationale for the study, race was sampled across all ages, educations, genders, marital status, incomes, employment conditions, and alcohol dependency levels (variables) to eliminate the criticism that the research was skewed in favor of economically, educationally, and medically deprived inner-city alcoholic patients.

Although in this study, the incentive to address specific alcohol-related consequences promptly was strong, researcher believes the ultimate findings about alcoholism among African-American and white populations lie in a long-term comprehensive study. Certainly, short-term study may be immediately helpful, however, it typically does not address the underlying issues such as desired patient behaviors, misperceptions, misrepresentation, lack of symptom observations, lack of cognitive assessments, and lack of understanding of the theoretical research grounding.
It is also important not to rely on single study approaches; the quantitative and qualitative study approaches with a longitudinal perspective will be very helpful to the alcoholism research among African Americans and whites. However, his short-term study was implemented to identify differences or relationships among African Americans and whites in alcoholism regarding their alcohol dependency level, life style, legal status, self-esteem, attitude, personality, stress level, and logical thinking.

Among all of the research possibilities, perhaps the following questions and findings could obviously identify the disparities and equalities in psychosocial characteristics among the two races. To explore the issue of equivalence and difference between the races, a brief discussion of the research findings is presented after interpretation of the statistical tests. Also, general implications, which have brought to light by this study, are significantly presented to assume further research opportunities.

Research Question One Regarding Alcohol Dependency

Will there be significant differences between African Americans and whites regarding their alcohol dependency levels (no dependency, social dependency, psychological dependency, physical dependency)?

Data Interpretation Regarding Question One

As indicated in Table 3-4, the following findings have been drawn from the sample population:

1. African Americans with 47 participants or 22 percent of the population were the largest group to be identified with psychological dependency to alcohol in this study.
2. Whites with 38 participants or 17.8 percent of the population were largest group to be identified with physical dependency to alcohol in this study.

3. African Americans and whites were equally identified with social dependency and nondependency to alcohol in this study.

4. In testing relationship between African Americans and whites regarding their alcohol dependency level, there was no relationship ($\theta = .08441$) between the two races.

5. In testing differences between African Americans and whites regarding their alcohol dependency level, there were not significant differences (p-value = .68 > .05) between the two races.

Discussion About Question One

According to Bird and Harrison (1987), "North American Negro and Irish" (African Americans and Irish Americans) were identified with higher risk of alcoholism (physical dependency) than other ethnic group in America. Also, Goodwin (1988) has argued about the higher rates of alcoholism among "Irish and urban blacks." He discussed that "black alcoholics" would start drinking younger and often in their early and mid-teens; by age twenty, they could be floridity alcoholic and need hospitalization. They would have severe symptoms of withdrawal and hallucinations, even more often than "white alcoholics."

The National Institute on Alcohol Abuse and Alcoholism (1994) has reported that one survey of non-Federal, short-stay hospitals in 1991 found the rate for white alcoholics was 48.2 per 10,000 and rate for African American alcoholics was 102.9 per 10,000 population. Gordon (1993) argued that African-Americans enter treatment
programs with more severe problems than European Americans, because they use their personal or informal support systems within the context of their subculture to help define what is an alcohol-related problem?

The above studies have consistently found higher rates of alcoholism (physical dependency) among African Americans to compare with whites. However, this study has found African Americans to be in lower rate in physical dependency (14 %) to compare with whites (17.8 %). This finding may explain the longer heavy drinking careers among African Americans and consequently the higher numbers of alcohol-related health and impairment problems, and perhaps a higher rate of mortality among African Americans (Caetano & Kaskutas, 1995).

Implication of the Findings From Question One

The treatment of psychological dependency to alcohol is easier and less costly than the treatment of physical dependency which requires hospitalization and medical management. According to PRI (1998), about 50 percent of all patients with psychological dependency to alcohol will return to low-risk drinking or abstinence choices. Based on this study African Americans with higher rate in psychological dependency to alcohol have better chance of returning to low-risk drinking and abstinence by outpatient counseling (behavior modification therapy), intensive intervention, and preventive education to compare with white patients.

Therefore, white patients with higher rate of physical dependency must be provided with inpatient detoxification and residential recovering services to compare with African Americans. Addiction professional, who assess African Americans for
alcohol dependency, must be informed of the psychological dependency signs in 
alcoholism such as strong denial, impaired abstract thinking, relationship to alcohol, 
defenses of quantity and frequency choices, preoccupation to alcohol, lifestyle changing 
to continue drinking, and increased drinking in isolation without socialization.

Although recovering from physical dependency to alcohol is more difficult than 
recovering from psychological dependency; patients with psychological dependency to 
alcohol can not be diagnosed easily due to lack of physical symptoms such as delirium 
tremens (DTs), shakiness, hallucinations, convulsions, grand-mal seizures, psychomotor 
agitation, nausea, sweating, increased pulse rate, and anxiety.

Since this study has been researched in health system setting with admission 
protocol of treating indigents (without payment or very low payment), and the health 
services are provided to inner-city population with mostly African Americans, they could 
seek treatment for alcoholism in earlier phases of drinking (alcoholism) than the white 
population in this study.

As a policy, it is important to establish many charitable health service centers for 
lower income inner-city alcoholics in order to assess and treat this population for 
alcoholism. More African-American social workers specialized in addiction are needed 
to work in inner-city addiction treatment centers to diagnose and treat alcoholism in early 
phases of its progression.

Research Question Two Regarding Lifestyles

Will there be significant differences between African Americans and whites 
regarding their lifestyles (standing, feeling, coping, and action) in alcohol dependency?
Definitions for Lifestyle Status

The lifestyle statuses mentioned in this research are defined as following:

1. Lifestyle Standing - The position of the participant in quality scale from "very worst" to "very best" in marital status, employment, physical health, current social life, and financial situation.
2. Lifestyle Feeling - A feeling of the participant in quality scale from "very worst" to very "best" in life and current legal situations.
3. Lifestyle Coping - The coping ability of the participant in dealing with others' fortunes, ideas, behaviors, and private matters.
4. Lifestyle Action - The action of the participant in relationship with others and self.

Data Interpretation Regarding Question Two

As indicated in Tables 4-4 and 5-4, the following findings have been resulted from the tested population:

1. In three out of four tested lifestyle categories: lifestyle standing (188 patients or 87.9%), lifestyle coping (121 patients or 56.5%), and lifestyle action (184 patients or 86%), the sample population was considered to be in low-risk in alcohol dependency assessment. However, the sample population with 145 members or 67.8 percent of the 214 tested population was considered to be in high-risk regarding their lifestyle feelings in alcohol dependency assessment.

2. African Americans in three out of four tested lifestyle categories: lifestyle standing (99 patients or 46.3%), lifestyle coping (71 patients or 33.2%), and lifestyle
action (94 patients or 43.9%), were considered to be in low-risk in this alcohol dependency assessment.

3. Whites with 41 patients or 19.2 percent of the tested population were considered to be in low-risk in lifestyle feeling category to compare with African Americans.

4. In testing relationship between African Americans and whites regarding their lifestyles in alcohol dependency assessment, there were no relationships among the two populations in all tested lifestyle categories of lifestyle standing ($\theta = .14303$), lifestyle feeling ($\theta = .12997$), lifestyle coping ($\theta = .19796$), and lifestyle action ($\theta = .05384$).

5. In testing differences between African Americans and whites regarding their lifestyles, there were differences between African Americans and whites regarding their lifestyle standing (p-value $= .03640<.05$) and lifestyle coping (p-value $= .00378<.05$). However, in two categories of lifestyle feeling (p-value $= .05727>.05$) and lifestyle action (p-value $= .43094>.05$), there were no differences between the two races in alcohol dependency assessment.

Discussion About Question Two

According to Barr and colleagues (1993), and based on State of New York Survey, African-American men with low income were significantly in higher risk of alcohol dependency to compare with white men. The National Institute on Alcohol Abuse and Alcoholism (2002) has reported that "acculturation stress" resulted by conflict between traditional values (beliefs) and mainstream culture has caused minorities (i.e., African Americans) to increase their drinking and drinking consequences.
Also, Herd (1994a) found African-American men to have higher numbers of drinking problems due to their incomes, educations, occupations, and employment statuses. Jones-Webb and colleagues (1997) reported that African-American men who freely (due to their lifestyles) drink more (in nonsocial norms) have increased drinking consequences to compare with white men. Furthermore, scholars have argued that heavy drinking patterns among African Americans traditionally have been thought to result from social disorganization, family breakdown, family dysfunction and lifestyle-related problems (Herd & Caetano, 1987; Caetano, Clark, & Tam, 1998).

This study has contradicted many of the stereotypes of alcohol consumption patterns and alcohol-related problems among African Americans. If we believe that drinking patterns and alcohol-related problems result from a complex interplay of individual's lifestyle attributes, this research also has indicated that the lifestyle attributes (lifestyle standing, lifestyle feeling, lifestyle coping, and lifestyle action) of African Americans toward drinking and drunkenness are not overly permissive and, in some cases, tend to be more conservative (or in lower risk) than those of whites.

**Implication of the Findings From Question Two**

Low-risk lifestyle statuses among African Americans can generate some treatment programs for alcohol dependency that are supported by family and community networks. These networks generally have been found effective in reducing family problems and alcohol use among rural and urban African Americans (Kumpfer, 1998). Considering the findings of this research, the goals of primary prevention and treatment can be influenced by the social functioning and culturally sensitive lifestyle interventions.
This research has confirmed the prevention model provided by Center for Substance Abuse Prevention (1993), which described an African American prevention program must recognize "a human being who is spiritually rejuvenated, has love of self, family, and community and is willing and able to respect, protect, and defend self, family, and community" (p.128). Based on this research, more African Americans emphasize better understanding of their family and societal consistency, therefore, family support, day-to-day community involvement, team intervention, cultural realities, and role modeling can effectively initiate prevention and better treatment outcomes (Smith et al., 1993).

Research Question Three Regarding Legal Status

Will there be significant differences between African Americans and whites regarding their legal status (criminality, alcohol-related offenses, and legal feeling) in alcohol dependency?

Definitions for Legal Status

The legal status mentioned in this research are defined as following:

1. Criminality - The number of times a participant was arrested for felonies (no alcohol).
2. Alcohol-Related Offenses - The number of times a participant was arrested for alcohol-related offenses.
3. Legal Feeling - The feeling of engagement in illegal and unauthorized activity or behavior.
Data Interpretation Regarding Question Three

As indicated in Tables 6-4 and 7-4, the following findings have been resulted from assessed population:

1. In all three legal statuses: criminality (147 patients or 68.7%), alcohol-related offenses (117 patients or 54.7%) and, feeling (149 patients or 69.6%), the sample population was considered to be in low-risk in the alcohol dependency assessment.

2. African Americans with 66 participants or 30.8 percent of the population in alcohol offenses and with 79 participants or 36.9 percent of the population in legal feeling were identified to be in low-risk status, however, this group with 38 participants or 17.8 percent of the population was considered to be in high-risk.

3. Whites with 78 participants or 36.4 percent of the population in criminality were identified to be in low-risk, however, this group with 51 participants or 23.8 percent in alcohol offenses and with 70 participants or 32.7 percent in legal feeling was considered to be in high-risk.

4. In testing relationship between African Americans and whites regarding their legal status evaluation in alcohol dependency, applied phi (\( \phi \)) tests, in all three statuses of: criminality (\( \phi = 0.09069 \)), alcohol-related offenses (\( \phi = 0.14080 \)), and legal feeling (\( \phi = 0.09145 \)), have indicated no full strength relationships between races and legal statuses.

5. In testing differences between the two races regarding their legal statuses, chi-square tests, in criminality with p-value = .18>0.05 and in legal feeling with p-value = .18>0.05 have shown no significant differences between African Americans and whites.
However, in alcohol-related offenses (p-value = .04<.05), chi-square test has indicated significant differences between the two races in alcohol dependency evaluation.

**Discussion About Question Three**

In epidemiology of alcohol dependence, Bird and Harrison (1987) have argued that 40 percent of prison inmates are classified as alcohol dependents (or excessive drinkers). The National Institute on Drug Abuse (2001) purposed a strategic plan for reducing health disparities among racial and ethnic minority populations which were in correctional facilities. According to NIDA, African Americans and Hispanics were majority population in correctional facilities and these two races were in significant risk for alcohol and drug dependency.

Goodwin (1988) considered the high-risk relationship between crime and alcoholism to be a major factor in producing 50 percent of the prisons' population (men and women), taking away 50 percent of the time of city police officers, and correlating most of the murderers to their victims.

In 1995, forty-one percent of all fatal traffic car crashes involved a driver or pedestrian who had been drinking with 17,274 fatalities and 300,000 injuries (National Highway Traffic Safety Administration [NHTSA], 1996b). African Americans constitute about 48.2 percent of the entire prison population in the United States with 50 percent alcohol and 36.3 percent drug offenses (U.S. Department of Justice, 1994, 1995).

Perhaps the above studies have shown the relationship between legal statuses and alcohol use and abuse, and statistically indicated that African Americans are in higher risk for criminality and alcohol-related offenses.
However, this study has indicated no relationship between race and legal status in alcohol dependency and there was no significant difference between African Americans and whites in alcohol-related offenses. It is important to mention that, in the areas of criminality and legal feeling, this study has found African Americans and whites to be different in alcohol dependency evaluation. African Americans mostly were in high-risk for criminality and in low-risk in legal feeling status.

Increase in criminality statuses (high-risk legal factor) among African Americans in this study has indicated that the sample population was expressing the same common African Americans' difficulties in presenting non-guilty vertices in U.S. justice system; and they are more convicted with felonies in petty crimes than white population (Schiele, 1996; Muhammad & Muhammad, 1995).

African Americans with 34,658,190 or 12.3 percent of U.S. population establish 438,659 inmates or 48.2 percent of the U.S. entire prison population (U.S. Bureau of the Census, 1995, 2000; U.S. Bureau of Justice, 2002). In alcohol-related offenses, African Americans are presented in low-risk to compare with whites. This finding also is an accurate presentation in many alcohol-related legal problems among African Americans.

For example, in Driving Under Influence (DUI) of alcohol, according to Harvard University School of Public Health, in 1995, young, unmarried, white males with blue-collar jobs were clearly overrepresented among drunken driving fatalities. This study was drawn from the national Fatal Accident Reporting System, arrest records and other sources (O'Connell, 1995).

Emory University School of Medicine Department of Psychiatry in its evaluation
of the Georgia DUI Alcohol and Drug Risk Reduction Program for fiscal year 1992-1996 (Marsteller, Rolka, & Falek, 1997) has reported that DUI offenders are predominantly white male, young, unmarried, with limited education and low incomes.

In the same study, African Americans' two-year recidivism rate (11.3%) for DUI offenses was lightly higher than whites' recidivism rate (10%) for the same period. As social consequences, the prevalences of drinking and driving in 1997 were 19 percent among American Indians and Alaska Natives, 11 percent for both whites and Hispanics, and only 7 percent for African Americans (Stinson, Yi, Grant, Chou, Dawson, & Pickering, 1998).

**Implications of the Findings From Question Three**

Theoretical models of cultural identification and the role of acculturation have been explored in relation to patterns of alcohol dependency among African Americans; and bicultural identity has been argued to be damaging, because African Americans have not been able to maintain their own culture while taking on the values of the mainstream European culture (Long, 1993; Oetting, 1993). Consequently, African Americans' high level of identification can lead to alcohol or drug use.

This research has indicated that African Americans with alcohol dependency were in low-risk for legal feeling and alcohol-related offenses (bicultural identities). These findings disapprove the notion of self-destructive behavioral patterns in alcohol use among African Americans (Long, 1993) and approve strong sense of discipline, well-defined roles in family and community, and a positive self-concept and self-appreciation among African Americans (African culture identity).
Several studies have described the African-American socialization process to be characterized of three conditions: social injustice, societal inconsistency, and personal impotence; and these three socially determined and institutionally supported conditions have manifested alcohol and drug dependency among African Americans (Philleo & Brisbane, 1997).

This research has rejected the societal inconsistency and personal impotence (alcohol-related problems and legal feelings) to be major factors in alcohol dependency among African Americans, however, this research has approved social injustice (more felony convictions in non-violent crimes and higher rate of recidivism for non-violent offenses [DUI] due to profiling) and incarceration to be the major factors in increase risk for alcohol dependency among African Americans.

With having 48.2 percent of the U.S. entire prisons population to be African Americans (U.S. Bureau of Justice, 1995, 2002), and this growth being in large as the result of alcohol and drug related (non-violent crime) arrests (Peters & May, 1992), some strong prevention and intervention strategies have to be implemented to better reduce risk of alcohol and drug dependency among African Americans in jail and those with history of incarceration.

Robert W. Waymer, director of Alcoholism Counselor Training Program in Atlanta University School of Social Work (1975) has argued that "blacks are more likely than whites to enter alcoholism treatment through the legal system (e.g. arrests and court referral" (p. 77), and it is important to have alcoholism treatment programs that can consider specific risk factors for this minority population in correctional facilities and to
understand their racial and/or ethnic needs (more family, church, health care providers, and community involvements) (Waymer, 1975, 2002; NIDA, 2001).

Research Question Four Regarding Attitude Status

Will there be significant differences between African Americans and white regarding their attitude statuses and actions in alcohol dependency?

Definitions for Attitude Statuses

The attitude categories mentioned in this study are defined as following:

1. Attitude Status - The attitude of being (or behaving) very normal and/or perfect in expressing and presenting self to others.

2. Attitude Action - The attitude of being (or behaving) selfish in dealing with others.

Data Interpretation Regarding Question Four

As indicated in Tables 8-4 and 9-4, the following findings have been drawn from the sample population assessment:

1. In assessing population for attitude status, the study has shown 168 patients or 78.5 percent of the population (majority of the tested patients) were in low-risk in this category.

2. In assessing population for attitude action, the study has shown 123 patients or 57.5 percent of the population (majority of the tested patients) were in low-risk in this category.

3. African Americans, with 89 participants or 41.6 percent in attitude status and with 71 participants or 33.2 percent in attitude action, were considered to be in low-risk.
However, whites were considered to be in high-risk in both attitude categories.

4. In identifying relationship between race, attitude status, and attitude action; phi ($\phi$) tests were applied. With $\phi = .11375$ in attitude status and $\phi = .17959$ in attitude action, there were not any relationship between races and attitude categories in alcohol dependency assessment.

5. In recognizing differences between the two races regarding their attitude status and action categories, chi-square tests were applied. With $p$-value = .096>.05 in attitude status, the study has found no significant difference between African Americans and whites regarding their attitude statuses. However, in attitude action category, with $p$-value = .01<.05, this study has found a significant difference between the two races regarding their attitude actions in alcohol dependency evaluation.

Discussion About Question Four

The normative attitude about drinking and especially about heavy drinking has considered to be very high-risk psychological factor in development of alcohol dependency. This psychological factor can influence the quantity and frequency choices of drinking by normalizing the relationship between social (occasional) and nonsocial (frequent) drinking patterns (PRI, 1998; Jones-Webb, 1998). According to Jones-Webb (1998), African-American men, who become more liberal in their nonsocial drinking norms, have shown increased drinking problems.

Herd and Caetano (1987) have considered the "permissive and liberal" attitudes of African Americans toward alcohol helped shape "blacks' heavy drinking patterns".

However, this research has indicated that African-American population has been
in low-risk in all attitude categories, especially in attitude "status" category. Therefore, according to this study, the notion of normative attitude (or liberal attitude) about heavy drinking is not emphasized among African Americans to compare with whites.

The National Institute on Alcohol Abuse and Alcoholism (1994) has reported that "black women believe drinking is acceptable in fewer social situations than do white women" (p. 2). This attitude can explain why fewer African-American women are frequent, high-risk drinkers than white women (NIAAA, 1994). Other research also has indicated that the attitudes of African Americans toward drinking and drunkenness are not overly permissive and, in some cases, tend to be more conservative than those of whites (Caetano & Clark, 1998).

These findings and others from NIAAA's reports confirm the conclusions of this study in relation to attitude categories. In summary, this study has contradicted many of the stereotypes of alcohol consumption patterns related to African-American attitudes. Most likely, with interpreting the findings of this research, one can argue that drinking patterns and alcohol-related problems result from a complex interplay of individual attributes, social factors, and many psychological factors. Therefore, the attitude alone and at its best, can not determine the level of risk in alcohol dependency among African Americans and whites.

Implications of the Findings From Question Four

Developing effective intervention strategies for alcohol-related problems among African Americans will require understanding of their attitudes. An attitude is a learned, stable, and relatively enduring evaluation of a person, object, or idea that can affect an
individual's behavior (Allport, 1935; Petty & Cacioppo, 1981). Based on this study, higher number of African Americans were identified in low-risk attitudes which can create strong motivational consequences in reducing use of alcohol.

African Americans have shown attitudes to conform to social norms to the extent that they approved them to be used accordingly. However, complying with the same social norms did not result normative attitudes and different overt behavior. The normative attitude encourages a person to engage and continue drinking within high-risk quantify and frequency choices.

African Americans, based on this study, mostly refused the normative attitudes, although, they were influenced by broad American cultural context. To the most African-American participants in this study, broad cultural contexts were considered to be a situational factors; these factors could affect them to determine whether they behave in accord with their attitudes. With these attitudes, African Americans are better to believe the consequences of high-risk drinking choices.

Alcohol education and intensive intervention can help African Americans to prevent alcoholism. In prevention of alcoholism, the cost of education is always lesser than the cost of treatment. With low-risk attitude and willing to change by knowing the consequences of alcohol abuse, education can be the most effective strategy (persuasive communication and attitude-change message) for prevention and treatment of alcoholism for African Americans.

Educational strategies must be supplied with messages which are characterized by balance (cultural variations with poly-sided messages), familiarity (known to African
Americans), credibility (believability), and likeablety (messages from people who they like and trust) (Cialdini, Petty, & Cacioppo, 1981; Hovland & Weiss, 1951; Chaiken & Eagly, 1983; Baron & Byrne, 1991).

A key subject in attitude research in this study has been whether the presentation of a viewpoint (pros and cons) about high-risk drinking choices helps or hinders the process of changing African Americans' and whites' attitudes about drinking. There appears to be more African Americans with low-risk attitudes (less resistant) presented to agree with any low-risk drinking viewpoints.

**Research Question Five Regarding Self-Esteem**

Will there be significant difference between African Americans and whites regarding their self-esteem categories (position, quality, and feeling) in alcohol dependency?

**Definitions for Self-Esteem Categories**

The self-esteem categories mentioned in this study are defined as followings:

1. **Self-Esteem Position** - The self-esteem of a participant based on his or her ability to handle self and others in healthy (psychologically and emotionally), non-irritated, nonjudgemental, successful manners.

2. **Self-Esteem Quality** - The self-esteem of a participant based on quality scale from very worst to very best in handling self-feeling, and self-stress.

3. **Self-Esteem Feeling** - The self-esteem of a participant based on his or her ability to handle others with courtesy.
Data Interpretation Regarding Question Five

As indicated in Table 10-4 and 11-4, the following findings have been drawn from the sample population:

1. In testing variability of three self-esteem category distributions among the sample population, most of the participants were grouped within the low-risk range in self-esteem position (189 participants or 88.3%) and self-esteem feeling (143 participants or 66.8%). However, in self-esteem quality, 194 participants or 90.7% of the population were evaluated to be in high-risk range.

2. In testing association between African Americans and whites in forms of relationships or differences regarding their low-risk and high-risk self-esteem categories, African Americans with 98 participants or 45.8% in self-esteem position category and with 73 participants or 34.1% in self-esteem feeling category were considered to be in low-risk ranges.

However, African Americans with 99 participants or 46.3% of the population, regarding their self-esteem qualities, were considered to be in high-risk range. As Table 11-4 has shown, the two populations were in an equal and almost balanced numbers regarding their self-esteem status in the alcohol dependency evaluation.

3. In testing relationship between the two races, phi (Φ) test was applied. Based on this test of the association regarding low-risk and high-risk self-esteem categories; self-esteem position with $\Phi = .10184$, self-esteem quality with $\Phi = .06422$, and self-esteem feeling with $\Phi = .02977$ indicated that there were no relationship between two populations in their self-esteem categories in alcohol dependency evaluation.
4. In testing differences between the two races, chi-square test was applied and this test indicated no significant difference between the two races regarding self-esteem position with p-value = .14>.05, self-esteem quality with p-value = .35>.05, and self-esteem feeling with p-value = .66>.05 in alcohol dependency evaluation.

Discussion About Question Five

Research in psychological factors and alcoholism indicates that self-esteem cannot cause or prevent alcoholism, but can influence the drinking choices that a person makes (PRI, 1998). In this study, while significant effects of self-esteem and race were evident among African-American and white participants, these differences were attenuated by results in the sampled population Self-Awareness Theory (Chassin, Mann & Sher, 1988) postulated that "alcohol use is motivated by the avoidance of a painful state of self-awareness" (Hull, 1981, 1987).

The findings of this study suggested that African Americans were grouped in higher risk (painful state) status for self-esteem quality which was based on self-awareness. White participants were considered to be in higher risk for self-esteem position which explained their ability to handle self and others in healthy (behavioral), non-irritated, nonjudgmental, and successful manners.

Research in alcoholism has indicated that people with negative experiences during life time who also receive negative feedback from their environment may have predisposed to an impairing awareness or a negative view of themselves. By impairing awareness and diffusing a negative view of self, alcohol use may have been reinforced (Gomberg, 1986). White participants also were grouped with larger number in high-risk
self-esteem feeling which evaluated by ability to handle others with kindness and
courtesy:

Michels, Johnson, and Sheridan (1996) speculated that heavy drinking would be
linked to feeling of loneliness, deficits in self-efficacy, lack of social skills, negative self-
appraisals, and poor opinions of self. Several studies have found a relationship between
low self-esteem and alcohol and drug abuse among African Americans (Philleo &
Brisbane, 1997). Brisbane and Womble (1985) concluded that lack of self-esteem was a
significant personality factor appears to be present in some individuals who are addicted
to alcohol and drugs.

Among African Americans, lack of self-esteem is produced by imposed
racism, poverty, unemployment, lack of career opportunities, hopelessness, inadequate
education, imposed discrimination, and cultural and class conflicts. These factors result
in some form of crisis, failures, and low self-esteem and cause the use of alcohol as an
escape mechanism (James & Johnson, 1996).

According to Watts and Wright (1983), among African Americans, "substance
abuse is one form of compensation employed to deal with feelings of impotence which is
resulted of unsuccessfully negotiating favorable returns in a hostile, oppressive, and
nonsupportive world" (p.194). This study has indicated that African Americans more
than white participants were evaluated to be in worst feelings about themselves and in
worst abilities to handle life style stresses.

Implications of the Findings From Question Five

According to the findings of this research, African Americans with alcohol
dependency admitted and accepted their alcohol use but only episodically, during periods of stress or when under external and societal pressures. Also African-American participants did not perceive, fully acknowledge, or completely accept their own contributions to their alcohol use or alcohol-related problems, but attributed some of these to external circumstances not in their control.

African Americans displayed fears and worries concerning legal, fiscal, health, family, social, domestic, and employment problems. Self-esteem can be largely determined by other people's social judgments or treatment of a person (Cooley, 1982; DeLeon, 1996). Therefore, these external pressures (social judgments) which have effected African Americans' self-esteem statuses must be eliminated in order for them to perceive prevention or treatment for alcoholism.

White participants, in this study, have expressed themselves to more self-deprecating conditions such as desires to abate or eliminate feelings of guilt, self-hatred, or personal despair based on their hurting and failing themselves or others. Knowing that self-esteem can be referred to how much a person values himself or herself (Harter, 1990; DeLeon, 1996), white participants mostly recognized and accepted their personal contribution to their living problems and consequently to alcohol abuse.

Based on this research, white participants must be benefited from an intensive alcohol and drug prevention and or treatment program that has impelled to change (from negative to positive) or eliminate some of these various inner pressures (personal reasons).
Research Question Six Regarding Stress Levels

Will there be significant difference between African Americans and whites regarding their stress levels in alcohol dependency?

Definition for Stress Level

The stress level mentioned in this study is defined as a level of ability to handle lifestyle-related stress.

Data Interpretation Regarding Question Six

As Tables 12-4 and 13-4 have indicated, the following interpretations can be resulted from data analysis:

1. In evaluating stress level in this study, most of the participants (199 patients or 93.0%) have considered themselves to be in low-risk (strong ability) in handling daily stress.

2. African Americans with 103 participants or 48.1 percent were grouped in low-risk category of handling stress to compare with 96 white participants or 44.5 percent. These numbers have indicated some equal abilities in handling stresses among the sample participants in this study.

3. In testing relationship between race and stress, Phi (φ) test, the test for relationship was applied. With φ = .12812 in this stress category, there was no relationship between the two races regarding their stress levels in alcohol dependency evaluation.

4. In testing the differences between the two races regarding their stress levels, chi-square test has shown (with p-value = .06>.05) that there was no significant
difference between African-American and white participants regarding their abilities to handle stress.

**Discussion About Question Six**

According to PRI (1998), stress as a major psychological factor can influence the drinking choices and can increase risk for heavy frequent drinking. This study has indicated that 199 participants out of 214 patients were considered themselves to be in low-risk for handling stress. Also, African-American and white participants have almost equal abilities to deal with stresses.

However, when we combined "participants' handling stress abilities with participants' feelings about themselves in their past 12 months," (questions 34 and 35 of the questioner), 194 participants out of 214 patients were considered themselves to be in high-risk (see self-esteem quality). These findings have emphasized that stressful life events (e.g., divorce, under employment, social isolation, legal, and financial problems) can also influence heavy drinking (Goodwin, 1988).

Brisbane and Womble (1985) have argued that an elevated level of stress, as psychological factor, can be one of the known characteristic of a personality that mostly is identified with heavy drinkers. Based on findings of this study, more of African-American participants (3.2% more) to compare with whites grouped themselves in high-risk stress level category. Bell and Evans (1981) argued that, among African Americans, substance abuse is a part of psychological and emotional problems resulting from racism and oppression (stressful cultural events).

Many studies with multifactorial perspectives have linked psychological stress to
the etiology of alcohol and drug abuse as a part of multifactorial (environmental, biological, cultural, political, and economical) dimensions (Amuleru-Marshall, 1993; Straussner, 1993; Long, 1993; PRI, 1998).

Implications of the Findings From Question Six

Self-examination (internal stress for self-support) and life management (external stress for self-support) are the two major elements in treatment and prevention of alcoholism (PRI, 1998; DeLeon, 1996). In dealing with African Americans with alcoholism, focus must be on their coping abilities with both the external (i.e., cultural, legal, economical, and political) and the internal (i.e., behavioral, emotional, and cognitive states) stresses (Waymer, 2001; NIDA, 2001; NIAAA, 2002, Jones-Webb, 1998; Herd, 1997; Long, 1993).

Based on the findings of this research, African Americans and whites were almost equally recognized to be in low-risk for handling internal stresses, but African Americans were considered themselves not to be able to cope with their external stresses in alcohol dependency evaluation. Prevention and treatment programs must implement plans to improve life circumstances, work, relationships, heath, and meeting obligations and responsibilities in today's sociocultural and political-economic context (Schiele, 1996; Wilson, 1990).

Research Question Seven Regarding Personality Traits

Will there be significant difference between African Americans and whites regarding their personality traits (sensation-seeking, gregariousness, rebelliousness,
impulsiveness with personal risk, and impulsiveness with social risk) in alcohol dependency?

**Definitions for Personality Traits**

The personality traits mentioned in this research are defined as following:

1. Sensation-Seeking Trait - A personality refers to the tendency to seek out consistent stimulation from the environment.

2. Gregarious Trait - A personality refers to the tendency to socialize in consistent outgoing manner.

3. Rebellious Trait - A personality refers to the tendency toward failure to conform social norms with respect and lawful manner. An antisocial behavior and social alienation.

4. Impulsive Trait (Personal Risk) - A personality refers to the tendency toward failure to plan ahead and sustain consistent personal commitments.

5. Impulsive Trait (Social Risk) - A personality refers to the tendency toward failure to plan ahead and sustain consistent social commitments.

**Data Interpretation Regarding Question Seven**

As indicated in Tables 14-4 and 15-4, the following research findings have been drawn from the sample population:

1. The frequency distribution table for personality traits has identified that sample population was considered to be in low-risk for: sensation-seeking trait (143 participants or 66.8%), rebellious trait (133 participants or 62.1%), impulsiveness with risk to self (177 participants or 82.7%), and impulsiveness with risk to society (156 participants or
72.9%). However, the population was considered to be in high-risk for gregarious trait with 158 participants or 73.8 percent of the sample.

2. The cross tabulation of low-risk and high-risk personality traits for population has identified that African Americans were considered to be in low-risk for: sensation-seeking trait (75 participants or 35%), rebellious trait (78 participants or 36.4%), impulsiveness with risk to self (96 participants or 44.9%), and impulsiveness with risk to society (80 participants or 37.4%).

However, African Americans were considered themselves to be very gregarious (high-risk) and were identified with 82 participants or 38.3 percent of the tested population. Consequently, white participants were identified to be in high-risk in all personality traits except the gregarious trait with 31 participants or 14.5 percent of the population.

3. In testing relationship (high-risk and low-risk) between races (African American and white) and personality traits (sensation-seeking, gregarious, rebellious, and impulsive [personal and social]), phi ($\phi$) test was applied to measure the strength of the association among above variables. The strength measure ($\phi$) for relationship between race and personality traits has indicated that there was no relationship between race and any of the personality traits.

In other word, with $\phi = 0.06947$ for sensation-seeking, $\phi = 0.06379$ for gregariousness, $\phi = 0.18535$ for personal impulsiveness, $\phi = 0.04205$ for social impulsiveness, and $\phi = 0.22159$ for rebelliousness, study has identified "no relationship" in all categories.
4. In testing difference (high-risk and low-risk) between races (African American and white) regarding their personality traits (sensation-seeking, gregarious, rebellious, and impulsive [personal and social]), chi-square test was applied to measure the statistical significant based on a comparison of the observed cell frequencies in population. The chi-square test has indicated that there was a significant difference between races regarding their rebellious traits ($p$-value = .001 < .05) and personal impulsive traits ($p$-value = .006 < .05).

However, this study, by applied chi-square test, has identified no significant difference between the races regarding their sensation-seeking traits ($p$-value = .309 > .05), gregarious traits ($p$-value = .350 > .05), and social impulsive traits ($p$-value = .538 > .05).

**Discussion About Question Seven**

According to PRI (1998), there are four normal personality traits that emphasis heavy drinking: sensation-seeking, gregarious, rebellious, and impulsive. This study has indicated that there was no relationship between the races and personality traits, however, in three of the tested traits (sensation-seeking, rebellious, and impulsive), African Americans were grouped in low-risk statuses. Based on this study, African Americans were in higher risk for gregarious trait to compare with white participants.

Researchers have argued that the above personality traits, combined with other psychological factors (i.e., lack of self-esteem, stress, depression, and hopelessness) and social factors (i.e., poverty, under-employment [lack of career, low-pay job, part time or temporary work], homelessness, ghetto life, cultural problems, class conflicts,
inadequate education, social rejection, and continuing discrimination) are to be blamed for alcoholism among minorities and specially among African Americans (Brisbane, Womble, 1985; James & Johnson, 1996; Philleo & Brisbane, 1997; Watts & Wright, 1983).

This research has identified only two out of five mentioned personality traits (rebellious and personal impulsive traits) to be personality elements to differentiate the two races from each other. African Americans with alcohol dependency were identified to be very outgoing and very harmless to themselves and to others. Clinical studies have shown, alcoholism and depression are the two mental disorders most often affecting people with habitual rebelliousness (antisocial personality disorder [ASPD]).

People with lower socioeconomic statuses and those who are known as "urban dwellers" are effected by habitual rebellious trait or ASPD (Maxman & Ward, 1995; DSM-IV, 1994). This study was conducted among mostly inner-city population who were seeking treatment in Grady Health System in city of Atlanta. Among participants, only white patients were statistically grouped in higher risk for rebellious trait and depression (refer to questions 33 and 37 as indicated in self-esteem position).

Implications of the Findings From Question Seven

African Americans' gregarious personality traits must be considered problematic for the initial stage of treatment which is "separation from sources of the peer (external) pressures." However, in the later stage of treatment with sustained period of sobriety, mainstream circles include: family, friends (recovered peers), work, churches, and others (i.e., Alcoholics Anonymous [AA] and Narcotics Anonymous [NA]) are needed to
help with psychological and existential issues.

This research has indicated that African Americans, psychologically, were validated by confirmatory experiences through their social contacts and dominant gregarious personality traits. Therefore, personal growth, in prevention and treatment of alcohol dependency, could not be facilitated without larger community integration.

Based on findings in this study, levels of denial, ambivalence, shifts in risk taking behaviors, lack of motivation and readiness were not expressed by African-American participants; therefore, multidimensional and systematic peer community treatment methods under "global intervention" could be prescribed. Such peer-mediated methods must be adapted to initiate engagement into treatment among African Americans in shelters, jails, hospitals, and psychiatric wards. Outcomes from this personality research have emphasized that African Americans could benefit from alcohol dependency treatment programs that are managed by community organizations (i.e., church, local AA, shelters, and public and charitable care providers). However the idea of community integration is not new. Robert Waymer (1972) one of the founders of the National Association of Alcoholism Counselors and Trainers (NAACT) who was in charge of the Alcoholism Counselor and Training Program (ACTP) with Atlanta University School of Social Work in Atlanta (Montecino, 1992) had argued that

the training we taught was not based on clinical skills; it was based on a community development model with emphasis on Alcoholic Anonymous (AA). We discussed the development of the disease concept, what counselors' attitudes should be towards clients, what involvement churches and community organizations should have and ..." (p. 16).

Accordingly, the role of the treatment program for African Americas is to help
bring into existence an Afrocentric viewpoint that emphasized "all human beings have the potential to help others; all human beings have experiences and knowledge that can be used to enlighten the thinking and enhance the lives of others" (Brisbane & Womble, 1991; Schiele, 1996;).

Research Question Eight Regarding Logical Thinking

Will there be significant difference between African Americans and whites regarding their logical thinking abilities in alcohol dependency?

Definition for Logical Thinking

The logical thinking mentioned in this study is defined as a significant intellectual ability with multiple cognitive entities manifested by abstract, concrete, connected, organized, and sequenced thinking skills in order to learn new information or to recall previously learned information. It includes also the ability to understand and relate ideas, concepts, words and relationships that may not be immediately apparent.

Data Interpretation Regarding Question Eight

As Tables 16-4 and 17-4 have indicated, the following research findings have resulted from data analysis in alcohol dependency evaluation among African Americans and whites:

1. Based on sample population's frequency distribution table, almost all patients (212 participants or 99.0%) were considered themselves to be in low-risk logical thinking abilities. This population showed very significant intellectual ability in alcohol
dependency evaluation.

2. In cross tabulation between the two races, African Americans with 105 participants or 49.1% of the population were considered to be in high-risk. Therefore all white participants or all 107 white patients (50% of the population) were placed in low-risk for logical thinking.

3. In testing relationship between the race and logical thinking, phi (\( \phi \)) test was applied. This test of association has indicated that there was no relationship (\( \phi = .09713 \)) between the race and population's intellectual ability.

4. In testing the significant difference between African Americans and whites regarding their low-risk and/or high-risk intellectual abilities, the chi-square test was applied. This test has shown that there was no significant differences (p-value = .16 > .05) between races regarding their logical thinking abilities in alcohol dependency evaluation.

Discussion About Question Eight

PRI (1998) has studied alcoholics' intellectual abilities under impaired abstract thinking category. Based on its findings, most alcoholics in social, psychological, and physical dependency phases have manifested impaired abstract thinking abilities. This impaired abstract thinking could last up to 30 days after the last intoxication time. DSM-IV (1994) has recognized some evidences of the persisting dementia (memory impairment and disturbance in executive functioning [i.e., planing, organizing, sequencing, and abstracting]) to be substance induced.

Others have discussed the relationship between alcohol and lost of abstract
thinking when explosively were connecting many of the mental disorders to alcoholism and alcohol related impairment problems (Maxmen & Ward, 1995; Goodwin, 1988; Krug & Cass, 1987; Sternberg, 1995; USDHHS, 1997; NIAAA, 1997).

This study was conducted in hospital setting where the patients subjected to this research had about 7-21 days sobriety. Also most of the questions about evaluating the logical thinking abilities were in very easy and understandable language for all participants, knowing that most of the participants (76.1%) had 12 or under 12-grades education levels.

No abstract thinking or mental health questions were proposed to the participants in this evaluation. This study was conducted to identify the participants with severe or chronic alcohol-induced cognitive deficits. Most of the patients in this study have shown normal intellectual abilities.

Implication of the Findings From Question Eight

Based on this study and in relation to abstract thinking abilities among African-Americans and white participants, the two races have been able to recognize alcohol-related problems and they have not believed that functioning with alcohol had been beneficial to their moods and performances. Therefore they were convinced of values of change relative to their efforts to change.

Usually, intellectual ability influences self-change, and notably in this study all participants have shown very sufficient levels of cognitive and intellectual abilities. These abilities can be used positively for education, prevention and treatment of alcohol dependency.
Conclusion of the Research

Research science can play a critical role in developing effective strategies to address the epidemiology, etiology, clinical presentation, diagnosis, and management of alcohol dependence, but in the real world, it is alcohol that is exclusively contributing to alcohol dependence and it is abstinence that is distinctively providing treatment for it. Perhaps, human being after the yeast (fermentation fungus), is the second victim of alcohol dependence and alcoholic death (Goodwin, 1988; Maxmen & Ward, 1994).

There is no doubts that drinking alcohol and alcohol dependency have been interesting part of human's social presentation before and after discovery of man-made distillation process of alcohol (about 600 A.D.) in Arabia. However, this question still remains, "why are there such obsessions and compulsions to drink alcohol among people?"

As mentioned in this research, there have been numerous multidimensional scientific studies and experiments to determine the reasons of abuse, dependency or high-risk use of alcohol among people. These studies, among all other factors, have identified many biopsychosocial factors that have been emphasizing alcohol dependency and high-risk drinking choices.

These factors are recognized to be (a) social influences: peer experimentation, conformation, and social norm, (b) psychological influences: feeling pleasure, support seeking behavior, and escaping pain, and (c) biological influences: initial (inborn) tolerance and increased (acquired) tolerance. These biopsychosocial elements can affect people's drinking patterns and change their alcohol consumption to the high-risk ranges.
In recent years, it has been not only the rational and purpose of many studies (in alcohol dependency) to identify all influential biopsychosocial factors in alcoholism but also a challenge to determine which racial and ethnic population, perhaps, have been most adversely affected by these factors (NIAAA, 2002, NIDA, 2001; Substance Abuse and Mental Health Services Administration, 1998).

Despite the fact that alcohol dependency is unequivocally known to be a disease like any other medical disease, unfortunately, the fact remains that many people (i.e., public health officials, health researchers, and health care providers) view alcohol dependency as the "besotted disease" which presumably is caused and manifested by prolonged, disabling, and unusual biopsychosocial elements that influence only abnormal, disaffiliated, unhabilitated, frustrated, and incapable individuals (disease for illegal, criminal, immoral, corrupt, weak willed, emotionally challenged, self- and socially-destructive, and ethnically differed people) (PRI, 1998; NIDA, 2001).

Therefore, this stigmatization leads to misperception about people with alcoholism and specially alcohol dependent minority populations and the way in which prevention and treatment is delivered to them. This study has examined seven social and psychological factors (in nineteen subcategories) that usually have influenced African-American and white populations in their alcohol-related lifestyles (before and after alcohol dependency).

These psychosocial examinations would help professional: (a) to recognize the disease of alcoholism, (b) to minimize the alcoholics' stigmatization, and (c) to create
better understanding of the unique education, prevention, and treatment needs for people
with alcoholism. Table 18-4, in chapter four, has profiled, expressed, and described all
social and psychological factors that were selected for this research.

Although alcoholism (alcohol abuse) as a disease is a leading health and safety
problems among African Americans; no study explored the etiology of this disease
among independent African-American population; and very small number of studies have
compared this population to whites based on their psychosocial factors.

According to problem behavior theory, alcohol use results from an interaction of
personal, physiological, biological, and environmental factors (Jessor, 1991; Epstein,
Williams, & Botvin, 2001), however, cultural factors may exert a role over which
particular problematic behavior is associated with one another. This study not only has
identified many important factors in etiology and epidemiology of alcohol dependency
and high-risk drinking behavior among African Americans but also has determined
prevention and treatment strategies for this population.

Implications of the Present Study

This study illustrates important aspects of the relationship between race (African
American and white) and some psychosocial factors (life style, legal status, self-esteem,
attitude, personality, stress level, and logical thinking) in alcohol dependency evaluation.
It also identifies the differences between African Americans and whites regarding the
above psychosocial factors and differences in alcohol dependency levels between
the two races.

Based on findings of this study, many implications were introduced to advance
new strategies in evaluation, prevention, and treatment of alcoholism among African Americans. Findings of this research also projected a need for many segregated plans to deal only with African-American alcoholism. In other word, based on "differences" in psychological and social factors among African Americans and white, study implications have negotiated specialized systems to deal with African Americans' alcoholism.

This study simply indicates that unlike other diseases, alcoholism can be forced by many peculiar psychosocial challenges to African Americans which most of them would compromise, not only the epidemiological and etiological data but also the clinical presentation of this major health problem. These psychological and social challenges can also influence the availability and quality of treatment programs and the prospect for recovery.

Based on this research, a treatment model for African Americans can include the following considerations: (a) staff training about this populations' psychological, social, and cultural factors, (b) knowledge about this group's drinking patterns, (c) involvements of families, communities, and churches in their treatment plans, (d) concerns about their health problems, and (e) planing segregated prevention and intervention measures.

Implications for Social Work Practice

The social work profession must directly engage in prevention and treatment of alcoholism among African Americans, since this population with very limited resources and major alcohol-induced health problems is actively in contact with public and private charitable social service agencies (Hill, 1995; Lincoln & Mamiya, 1990, Schiele, 1996; Philleo & Brisbane, 1996).
Social workers can use Afrocentric intervention strategies manifested by: (a) low-risk use of alcohol and not abuse or overuse (Christmon, 1995; Schiele, 1996; PRI, 1998), (b) sociopolitical reality (context) of being black in the United States (Long, 1993; Oliver, 1989; Lyle, 2001), (c) eliminating spiritual alienation, (d) family, church and community ingratiation (Bell, 1994; Watts & Wright, 1983), (d) political consciousness, and (e) deeming disproportionate location of liquor stores and alcohol ads in urban communities.

This study has characterized many particularistic and universalistic implications based on its psychological and social findings. These findings simply can empower the above theoretical approaches to be used in education, prevention and treatment of alcohol dependency among African Americans. Additionally, social workers can use the data from the above study and their training in social and human services (e.g., mental health, substance abuse, counseling, medical and clinical training) to provide technical assistance to hospitals, alcohol and drug rehab centers, community outreaches, churches, shelters, prisons, school, and colleges to better prepare them as primary providers in the changing prevention and treatment strategies based on these new findings.

Implication for Health-Care Providers

Fortunately, in recent years, a growing number of health care organizations are undertaking the kinds of organizational changes needed to survive and prosper the health care of the African-American population. These changes are congruent with important external need of diversity in health-care providers and the concept of "healthier communities" (Vickery, 1996). Providing care for African Americans with alcoholism,
by these health care organizations, is not an isolated event from this new streamlined external demand.

Gradually, health-care programs expanded beyond Eurocentric efficiency to include American (divers) ethnocentrism in providing care. This expanded focus resulted in larger-scale and longer-term treatment projects than the early care provided to African Americans; but since these health care changes are developed, predominantly, by European-American practitioners to provide care for African-American population; their unpredictable Eurocentric contingencies, intervention skills, and assumptions have still promoted treatment strategies and/or practice methods that are in conflict with the values of African Americans.

In designing and implementing an ethnic-sensitive health-care practice improvements, a provider needs to fit to two important contingencies (1) the cultural values of the receiver (patient) and (2) his and/or her economic ability. Preliminary research suggests that failure to adapt organizational improvements to these cultural and economical contingencies can produce disastrous results (Devore & Schlesinger, 1981; Lum, 1992; Bougeois & Boltvinik, 1981; Brown, 1982; Evans, 1989; Cummings & Worley, 1997).

This study rooted in a thorough understanding of underlying needs of African Americans in treatment of alcoholism. Also, it clearly anticipates the need for shifts, in care delivery system, from white singular functional contacts to a diversified multidisciplinary team-based approach. Based on the findings of this study, the health-care providers in treatment of mental heath disorders, alcoholism, and addiction for
African American population must be reshaped by at least the following five approaches:

(1) defining and enacting new affiliations with communities and consumers which are created from greater variety of individuals and group with cultural diversity;

(2) increasing diversified employees involvement in care delivery system;

(3) designing principles in various merger strategies with public and private sectors for financial supports due to high level of indigence among mental health and alcoholic patients;

(4) requiring and accepting constant reevaluation and redefinition of competencies in alcoholism and addiction field (e.g., with following up proceedings of the research conferences on identification and intervention of alcohol problems suggested by the National Center for Injury Prevention and Control, the Center for Disease Control [CDC] and Prevention [Hungerford and Pollock, 2002], the National Institute on Alcohol Abuse and Alcoholism [NIAAA] the Prevention Research Institute [PRI], the National Institute on Drug Abuse [NIDA], the American Medical Association [AMA], and the Center for Substance Abuse Treatment [CSAT] at Substance Abuse and Mental Health Services Administration [SAMHSA]); and

(5) demonstrating integrity, responsiveness, and commitment to the core values of human needs in a universal theme and providing diversified clinical care.

In this study, alcoholism was introduced as a chronic disease and the complications associated with it will last for life, therefore, the focus must shift from the treatment to the prevention of alcoholism among Americans. Preventive care in mental health, for most, is a practice of social work, therefore, social workers must grow
attention to create education and intervention strategies that prevent alcoholism. Most importantly, African Americans can benefit from prevention due to their psychological dependency to alcohol at earlier phase and the lower cost.

Social work administrations in medical settings must put their resources to deal with intensive education and prevention of alcoholism among African Americans and more intensive treatment for whites.
Appendix A

Survey Questionnaire

Psychosocial Factors Affecting African American in Alcohol Dependency

Section I: Choose only one answer for each question.

1. How old are you?
   1) _16-21  2) _22-35  3) _36-56  4) _57 & over

2. What is your sex (gender)?  1) _Male  2) _Female

3. What is your race?  1) _White  2) _African American  3) _Hispanic
   4) _Native American  5) _Oriental  6) _Multiracial/other

4. Indicate the number of years in school.  1) _0-8  2) _9-11
   3) _High School (12 Yrs)  4) _Some Voc./College (13Yrs & up)

5. Marital Status:  1) _Married  2) _Never Married  3) _Divorced
   4) _Separated  5) _Widow(er)  6) _Divorced/Remarried
   7) _Living Together  8) _Divorced - Living Together

6. What is your employment status?  1) _Employed  2) _Unemployed
   3) _Student  4) _Student-Employed  5) _Homemaker  6) _Retired
   7) _Employed Part-Time  8) _Other

7. What is your family income?  1) _$0-5,000  2) _$5,001-10,000
   3) _$10,001-15,000  4) _$15,001-25,000  5) _$25,001-35,000
   6) _$35,001+

(Please do not answer the following question. To be determined by the medical staff)

8. Summary Alcohol Dependency Score:  1) _No Dependency (0-6)
    2) _Social Dependency (7-13)  3) _Psychological Dependency (14-20)
    4) _Physical Dependency (21-28)
Survey Questionnaire (Continued)

Section II: Choose only one answer for each question.

9. Using the scale of 1 to 9, where 1 is the Very Worst it could be and 9 the Very Best it could be, select the number that best shows your feeling about your marital status. 1) Worst (1 thru 4) 2) Best (5 thru 9)

10. Using the scale of 1 to 9, where 1 is the Very Worst it could be and 9 the Very Best it could be, select the number that best shows your feeling about your employment status. 1) Worst (1 thru 4) 2) Best (5 thru 9)

11. Using the scale of 1 to 9, where 1 is the Very Worst it could be and 9 the Very Best it could be, select the number that best shows your feelings about your physical health. 1) Worst (1 thru 4) 2) Best (5 thru 9)

12. Pick the number that best represents how you feel about your current social life. 1) Worst (1 thru 4) 2) Best (5 thru 9)

13. Pick the number that best represents how you feel about your life at this time. 1) Worst (1 thru 4) 2) Best (5 thru 9)

14. Pick the number that best represents how you feel about your current legal situation. 1) Worst (1 thru 4) 2) Best (5 thru 9)

15. Pick the number that best represents your financial situation at this time. 1) Worst (1 thru 4) 2) Best (5 thru 9)

16. Pick the number that best represents your current family life. Please select (3), if the situation does not apply to you. 1) Worst (1 thru 4) 2) Best (5 thru 9) 3) (0)

17. Have there been times when you are quite jealous of the good fortune of others? 1) Yes 2) No

18. Are your table manners at home as good as when you eat out in a restaurant? 1) Yes 2) No

19. Do you find it very difficult to get along with loud-mouthed ("bossy") or obnoxious people? 1) Yes 2) No

20. Do you like to gossip at times? 1) Yes 2) No
Survey Questionnaire (Continued)

21. Before voting, do you very carefully investigate the background and record of each person running for office?  1) Yes  2) No

22. Have you ever been irritated when people expressed ideas very different from your own?  1) Yes  2) No

Section III: Choose only one answer for each question.

23. Indicate the number of times you have been arrested for a felony offense. Please do not include drunk driving arrests.
   1) (Never)  2) (1-2 times)  3) (3 times or more)

24. Indicate the number of times you have been arrested for an alcohol/drug related offense.
   1) (1 time)  2) (2 times)  3) (3 times)  4) (4 times or more)

25. If you could get into a movie (or any unauthorized place) without paying (or authorization) and be sure you were not seen, would you probably do it?
   1) Yes  2) No

26. Have there been times when you felt like disobeying people in power even though you knew they were right?  1) Yes  2) No

Section IV: Choose only one answer for each question.

27. Are you sometimes irritated by people who ask favors of you?  1) Yes  2) No

28. On a few occasions, have you given up doing something because you thought too little of your ability?  1) Yes  2) No

29. Have you ever played like you were sick to get out of something?  1) Yes  2) No

30. Do you sometimes think that when people have troubles, they only got what they deserved?  1) Yes  2) No

31. On occasion, have you had doubts about your ability to succeed in life?  1) Yes  2) No

32. Are you always courteous, even to people who are disagreeable?  1) Yes  2) No
Survey Questionnaire (Continued)

33. It is sometimes hard for you to go on with your work, if you are not encouraged?
   1) Yes  2) No

34. Pick the number that best represents your current family life. Please select (3), if situation does not apply to you.
   1) Worst (1 thru 4)  2) Best (5 thru 9)  3) (0)

35. Pick the number that best represents your ability to handle stress.
   1) Worst (1 thru 4)  2) Best (5 thru 9)

36. Have you been in treatment or counseling for emotional problems?
   1) Yes  2) No

37. Have you feared that you were going crazy or losing your mind?
   1) Yes  2) No

Section V: Choose only one answer for each question.

38. Are you always a good listener no matter whom you are talking to?
   1) Yes  2) No

39. Are you always careful about the way in which you dress?
   1) Yes  2) No

40. Do you always stop and give help when someone needs a helping hand?
   1) Yes  2) No

41. At times, have you really insisted on having things your own way?
   1) Yes  2) No

42. Have you ever felt that you were punished without cause?
   1) Yes  2) No

43. Do you sometimes try to get even rather than to forgive and forget?
   1) Yes  2) No

44. Do you always practice what you preach?
   1) Yes  2) No

45. Have you ever knowingly said something to hurt someone's feelings?
   1) Yes  2) No
Survey Questionnaire (Continued)

46. Have you ever felt the urge to tell someone off?
   1) Yes  2) No

47. Have you ever intensely disliked anyone?
   1) Yes  2) No

48. Have there been times when you took advantage of someone?
   1) Yes  2) No

49. Have there been some occasions when you felt like smashing things?
   1) Yes  2) No

50. Do you sometimes feel angry when you do not get your own way?
   1) Yes  2) No

51. Will you always admit it when you make a mistake?
   1) Yes  2) No

Section VI: Choose only one answer for each question.

52. Does the sign "No Turn on Red" mean you must wait for the green light before turning?
   1) Yes  2) No

53. Before making a left hand turn at an intersection, should you yield to oncoming traffic?
   1) Yes  2) No

54. To avoid eye strain during a long trip, should you move eyes across the road frequently rather than just stare at the road ahead of you?
   1) Yes  2) No

55. When you are driving near homes, should you watch out for children darting into the streets?
   1) Yes  2) No

56. If the traffic light over your lane stays red when oncoming traffic starts, should you wait until the light over your lane turns green before proceeding?
   1) Yes  2) No

Mohammad M. Montahan, Ph.D. Dissertation Questionnaire
School of Social Work - Clark Atlanta University, May 2001
Selected questions with modifications for nonprofit educational use from ADE Inc. manual (1987).
Appendix B

Statistical Data

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'Mohammad Momtahan, PhD Program • CAU School of Social Work'

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- 'Richard Lyle, PhD Chair'
- 'Amos Ajo, PhD'
- 'Eugene Harrington, PhD'
- 'Robert Waymer, PhD'.

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Mohammad Montahan, PhD Program • CAU School of Social Work

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Mohammad Momtahan, PhD Program • CAU School of Social Work

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> COMPUTE IMPULS1 = (Q44AT + Q21LS + Q39AT + Q51AT) / 4.
> COMPUTE IMPULS2 = (Q25LE + Q41AT + Q48AT) / 3.
> COMPUTE REBEL = (Q19LS + Q21LS + Q26LE + Q46AT + Q43AT + Q30SE + Q45AT + Q47AT + Q49AT + Q50AT) / 10.
```
Statistical Data (Continued)

PSYCHOSOCIAL FACTORS • AFRICAN AMERICANS ALCOHOL DEPENDENCY
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-> VARIABLE LABELS
-> ID 'Case'
-> Q1AGE 'How old are you'
-> Q2SEX 'What is your sex (gender)'
-> Q3RACE 'What is your race'
-> Q4EDUC 'Indicate the number of years in schools'
-> Q5MARI 'Marital Status'
-> Q6EMPL 'What is your employment status'
-> Q7INCO 'What is your family income'
-> Q8SCOR 'Summary Alcohol Dependency Score'
-> Q9LS 'Your feelings about your marital status'
-> Q10LS 'Your feelings about your employment'
-> Q11LS 'Your feelings about your physical health'
-> Q12LS 'How you feel about your current social life'
-> Q13LS 'How you feel about your life at this time'
-> Q14LS 'How you feel about your current legal situation'
-> Q15LS 'What best represents your financial situation at this time'
-> Q16LS 'What best represents your current family life'
-> Q17LS 'Have there been times when you are jealous of the good fortune of'
-> Q18LS 'Are your table manners at home as good as when you eat out in a'
-> Q19LS 'Do you find it difficult to get along with loud-mouthed bossy or'
-> Q20LS 'Do you like to gossip at times'
-> Q21LS 'Before voting, do you very carefully investigate the background'
-> Q22LS 'Have you ever been irritated when people expressed ideas very'
-> Q23LE 'Indicate the number of times you have been arrested for a felony'
-> Q24LE 'Indicate the number of times you have been arrested for an'
-> Q25LE 'If you could get into a movie without paying and be sure your were'
-> Q26LE 'Have there been times when you felt like disobeying people in power'
-> Q27SE 'Are you sometimes irritated by people who ask favors of you'
-> Q28SE 'On a few occasions, have you given up doing something because you'
-> Q29SE 'Have you ever played like you were sick to get out of something'
-> Q30SE 'Do you sometimes think that when people have troubles, they only got'
-> Q31SE 'On occasion, have you had doubts about your ability to succeed in life'
PSYCHOSOCIAL FACTORS • AFRICAN AMERICANS ALCOHOL DEPENDENCY
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- Q32SE 'Are you always courteous, even to people who are disagreeable'
- Q33SE 'Is it sometimes hard for you to go on with your work if'
- Q34SE 'What best represents your feelings about yourself in past years'
- Q35SE 'What best represents your ability to handle stress'
- Q36SE 'Have you been in treatment or counseling for emotional problems'
- Q37SE 'Have you feared that you were going crazy or losing your mind'
- Q38AT 'Are you always a good listener no matter whom you are talking to'
- Q39AT 'Are you always careful about the way in which you dress'
- Q40AT 'Do you always stop and give help when someone needs a helping hand'
- Q41AT 'At times, have you really insisted on having things your own way'
- Q42AT 'Have you ever felt that you were punished without cause'
- Q43AT 'Do you sometimes try to get even rather than to forgive and forget'
- Q44AT 'Do you always practice what you preach'
- Q45AT 'Have you ever knowingly said something to hurt someone's feelings'
- Q46AT 'Have you ever felt the urge to tell someone off'
- Q47AT 'Have you ever intensely disliked anyone'
- Q48AT 'Have there been times when you took advantage of someone'
- Q49AT 'Have there been some occasions when you felt like smashing things'
- Q50AT 'Do you sometimes feel angry when you don't get your own way'
- Q51AT 'Will you always admit it when you make a mistake'
- Q52LT 'Does the sign No Turn on Red mean you must wait for the green light'
- Q53LT 'Before making a left hand turn at an intersection, should you yield to'
- Q54LT 'Should you move eyes across the road frequently rather than'
- Q55LT 'When driving near homes, should you watch out for children darting into'
- Q56LT 'Should you wait until the light over your lane turns green before'.
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<td>3 'Divorced'</td>
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<td>5 'Widow'</td>
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<td>6 'Divo-Remarried'</td>
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<tr>
<td>7 'Living Together'</td>
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Satistical Data (Continued)

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- > Q8SCOR
- > 1 'No Dependency'
- > 2 'Social Depend'
- > 3 'Psychological Depend'
- > 4 'Physical Depend'
- > Q9LS
- > 1 'Worst'
- > 2 'Best'
- > Q10LS
- > 1 'Worst'
- > 2 'Best'
- > Q11LS
- > 1 'Worst'
- > 2 'Best'
- > Q12LS
- > 1 'Worst'
- > 2 'Best'
- > Q13LS
- > 1 'Worst'
- > 2 'Best'
- > Q14LS
- > 1 'Worst'
- > 2 'Best'
- > Q15LS
- > 1 'Worst'
- > 2 'Best'
- > Q16LS
- > 1 'Worst'
- > 2 'Best'
- > Q17LS
- > 1 'YES'
- > 2 'NO'
- > Q18LS
- > 1 'YES'
- > 2 'NO'
- > Q19LS
- > 1 'YES'
- > 2 'NO'
- > Q20LS
- > 1 'YES'
- > 2 'NO'
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- Q21LS
  - 1 'YES'
  - 2 'NO'
- Q22LS
  - 1 'YES'
  - 2 'NO'
- Q23LE
  - 1 '0 times'
  - 2 '1 time'
  - 3 '2 times'
  - 4 '3 times'
  - 5 '4 times'
- Q24LE
  - 1 '0 times'
  - 2 '1 time'
  - 3 '2 times'
  - 4 '3 times'
  - 5 '4 times'
- Q25LE
  - 1 'YES'
  - 2 'NO'
- Q26LE
  - 1 'YES'
  - 2 'NO'
- Q27SE
  - 1 'YES'
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- Q28SE
  - 1 'YES'
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- Q29SE
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- Q30SE
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  - 2 'NO'
- Q31SE
  - 1 'YES'
  - 2 'NO'
- Q32SE
  - 1 'YES'
  - 2 'NO'
Statistical Data (Continued)

PSYCHOSOCIAL FACTORS • AFRICAN AMERICANS ALCOHOL DEPENDENCY
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- > Q33SE
- > 1 'YES'
- > 2 'NO'/
- > Q34SE
- > 1 'Worst'
- > 2 'Best'/
- > Q35SE
- > 1 'Worst'
- > 2 'Best'/
- > Q36SE
- > 1 'YES'
- > 2 'NO'/
- > Q37SE
- > 1 'YES'
- > 2 'NO'/
- > Q38AT
- > 1 'YES'
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- > Q39AT
- > 1 'YES'
- > 2 'NO'/
- > Q40AT
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- > 2 'NO'/
- > Q41AT
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- > Q42AT
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- > 2 'NO'/
- > Q43AT
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- > 2 'NO'/
- > Q44AT
- > 1 'YES'
- > 2 'NO'/
- > Q45AT
- > 1 'YES'
- > 2 'NO'/
- > Q46AT
- > 1 'YES'
- > 2 'NO'/
Statistical Data (Continued)

PSYCHOSOCIAL FACTORS • AFRICAN AMERICANS ALCOHOL DEPENDENCY
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- Q47AT
  - 1 'YES'
  - 2 'NO'/
- Q48AT
  - 1 'YES'
  - 2 'NO'/
- Q49AT
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  - 2 'NO'/
- Q50AT
  - 1 'YES'
  - 2 'NO'/
- Q51AT
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  - 2 'NO'/
- Q52LT
  - 1 'YES'
  - 2 'NO'/
- Q53LT
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- Q54LT
  - 1 'YES'
  - 2 'NO'/
- Q55LT
  - 1 'YES'
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- Q56LT
  - 1 'YES'
  - 2 'NO'/
- LIFEST1
  - 1 'High Risk'
  - 2 'Low Risk'/
- LIFEST2
  - 1 'Low Risk'
  - 2 'High Risk'/
- LIFEST3
  - 1 'High Risk'
  - 2 'Low Risk'/
- LIFEST4
  - 1 'Low Risk'
  - 2 'High Risk'/
Statistical Data (Continued)

PSYCHOSOCIAL FACTORS • AFRICAN AMERICANS ALCOHOL DEPENDENCY
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- LEGAL
  - 1 'High Risk'
  - 2 'Low Risk'/
- SELFEST1
  - 1 'High Risk'
  - 2 'Low Risk'/
- SELFEST2
  - 1 'Low Risk'
  - 2 'High Risk'/
- ATTITU1
  - 1 'Low Risk'
  - 2 'High Risk'/
- ATTITU2
  - 1 'High Risk'
  - 2 'Low Risk'/
- LOGIC
  - 1 'Low Risk'
  - 2 'High Risk'/
- SENSAT
  - 1 'High Risk'
  - 2 'Low Risk'/
- GREGAS
  - 1 'High Risk'
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- IMPULS1
  - 1 'Low Risk'
  - 2 'High Risk'/
- IMPULS2
  - 1 'High Risk'
  - 2 'Low Risk'/
- REBEL
  - 1 'High Risk'
  - 2 'Low Risk'/

MISSING VALUES
- Q1AGE Q2SEX Q3RACE Q4EDUC Q5MARQ Q6EMPL Q7INCO Q8SCOR Q9LS Q10LS
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- Q13LS Q14LS Q15LS Q16LS Q17LS Q18LS Q19LS Q20LS Q21LS Q22LS Q23LE
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PSYCHOSOCIAL FACTORS • AFRICAN AMERICANS ALCOHOL DEPENDENCY
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Satistical Data (Continued)

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Mohammad Momtahan, PhD Program • CAU School of Social Work

CONTACT AUTHOR ABOUT INFORMATION ABOUT COMPLETE DATA SET

END DATA.
BIBLIOGRAPHY


Center for Substance Abuse Treatment (CSAT). (2000, April). *Patterns of substance use and abuse among Whites, Blacks, and Hispanics*. Substance Abuse and Mental Health Service Administration (SAMHSA). National Evaluation Data Services (NEDS), Fact Sheet No. 35.


Atlanta, GA: Clark Atlanta University School of Counseling and Psychological Services.


National Institute on Alcohol Abuse and Alcoholism. (1979). *Black Clients Treated in NIAAA Funded Categorical Programs of Calendar Year 1977* (pp. 1-15). NIAAA program analysis report.


Waymer, R. (1992, May/June). We allowed the soul of National Association of Alcoholism Counselors to breathe its own life. [Interview with The Counselor Virginia staff]. The Counselor, p. 16


