1981

Anxiety Depression and Substance Use of Job Corpsmembers: A Descriptive Analysis

Gloria Litos Donaldson

Loyola University Chicago

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ANXIETY, DEPRESSION, AND SUBSTANCE USE
OF JOB CORPSMEMBERS:
A DESCRIPTIVE ANALYSIS

by
Gloria Litos Donaldson

A Dissertation Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy

April
1981
ACKNOWLEDGEMENTS

I wish to express my sincere appreciation to the Director of the committee for this research, Dr. Judy Mayo. Dr. Mayo's interest, concern, ongoing support, and consultation helped make this project possible. My appreciation is also extended to the committee members of this project: Dr. Manuel Silverman, Dr. Gloria Lewis, and Dr. Kenneth Feigenbaum, for their support and assistance. Special thanks is extended to Dr. Gloria Lewis who served as my advisor in the Ph.D. program and who offered encouragement throughout the program.

My appreciation is also extended to the following: my parents, Thomas and Pauline Litos, for their constant encouragement of my professional and educational pursuits; my husband, David Donaldson, for his support and understanding; and my long time friends and colleagues, Ellen Edgar Ravitz, Harry Kall, and Edward Wygonik for their assistance, support, and patience. Special appreciation is additionally extended to Ellen Edgar Ravitz, who served as computer and statistical consultant on this project; and to Dr. Robert Patrick who provided guidance on this research.
Finally, my gratitude is extended to the Job Corps members who participated in this research, as well as Mr. William Peters, the Dayton Job Corps Center Director and the staff of the Dayton Job Corps Center. Their cooperation, assistance, and interest helped make this project possible.
To my parents,

Thomas and Pauline Litos
VITA

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CHAPTER I

INTRODUCTION

The twentieth century has been labelled the "age of anxiety." Human beings living in contemporary society are increasingly confronted with difficulties in terms of meeting basic and self-actualizing needs. Technological advancement, economic opportunity, increasing competition for employment, and rapid change are a few among countless variables that contribute to stress and concern regarding individual and societal well being.

Concomitant with the environmental factors producing the "age of anxiety," adolescents and young adults are confronted with additional stresses pertinent to growth and maturation. The numerous definitions of adolescence include both the physical and psychological changes indicative of this life phase.

Historically, the definition of adolescence can be traced to the 15th Century Oxford Dictionary, however, the beginnings of adolescent psychology came
to focus in the early 20th Century with the work of G. Stanley Hall. The relatively new field of adolescent psychology combined with the increasing emphasis by contemporary society on this life cycle, make this group a pertinent population for study. Adolescents are the adults and leaders of the future. Psychological, educational, and sociological understanding of the life phase of adolescence contribute to the welfare and quality of the future.

The Job Corps Training Program exemplifies a national commitment to support and promote the future of "disadvantaged youth." The young adults enrolled in Job Corps represent a segment of future adults and potential leaders of society. The study of anxiety, depression, and substance use in Job Corps is designed to yield descriptive information about the population enrolled in Job Corps. The understanding of the needs of Job Corps members and the subsequent mental health services provided is an essential component to the maintenance of an effective and comprehensive Mental Health Program in Job Corps.
Purpose of the Study

The purpose of the study is to examine anxiety, depression, and substance use among Job Corps members, and to determine the relationship of anxiety and depression to substance use. Additionally, current substance usage patterns are compared to prior Job Corps survey results.

The investigation aims to assess, describe, and compare anxiety levels, depression levels, and substance usage among Job Corps members. Four instruments are utilized to achieve this purpose. The IPAT Anxiety Scale Questionnaire and the Beck Depression Inventory respectively assess levels of anxiety and depression. The Self Report Substance Use Questionnaire is constructed specifically for the population under investigation and elicits data pertaining to current substance use and attitudes toward substance use. A Demographic Questionnaire is additionally utilized.

The data is analyzed and interpreted with specific recommendations for counselors, mental health professionals, and educators in Job Corps.
Objectives of Study

The overall objective of the study is to better understand the disadvantaged youth reflected in the Job Corps population. The descriptive data generated by the study aims to assess levels of anxiety, depression, and substance use in relationship to demographic and adolescent stress variables. The specific objectives of the investigation are:

1. To describe existing levels of anxiety of Job Corps members in relationship to the selected demographic variables of age, sex, length of time in the Job Corps program, marital status, racial heritage, level of education, and urban-rural origin;

2. To describe existing levels of depression of Job Corps members in relationship to the selected demographic variables of age, sex, length of time in the Job Corps program, marital status, racial heritage, level of education, and urban-rural origin;
3. To determine if a significant relationship exists between users and nonusers of substances to level of anxiety;

4. To determine if a significant relationship exists between users and nonusers of substances to level of depression;

5. To describe Job Corps members' self-report of current uses of substances and attitudes toward substance usage;

6. To compare current substance usage patterns of Job Corps members to prior Job Corps survey results;

7. To describe levels of anxiety of Job Corps members in relationship to the selected stress variables of transitional stress, situational stress, personal stress, peer group stress, growth and maturational stress.

8. To describe levels of depression of Job Corps members in relationship to the selected stress variables of transitional stress, situational
Anxiety

An internal behavior characterized by feelings of apprehension, tension, low self-control, emotional instability, suspicion (Krug, Sheier, Cattell, 1963)

Depression

An internal behavior, with either an organic or psychological basis, which is characterized by feelings of dysphoria, self-deprecation, guilt, fatigue, hopelessness, and numerous somatic complaints such as loss of appetite and sleeplessness

Substance/drug

Any chemical that modifies the function of living tissue resulting in physiological or
behavioral change (Substance Use Training Manual, 1979)

Categories of substance abusers

1. **user**
   Individuals who are not addicted and are not affecting others, but whose drug misuse is adversely affecting their own performance

2. **experimenter**
   Individuals who are not addicted and whose drug misuse is having little or no harmful effects on themselves or others

3. **non-user**
   Individuals who abstain from taking drugs

Self-report
Responses to questions (verbal or written) describing an individual's self assessment of their own behavior, feelings, attitudes
Transitional stress
Changes in environment for Corpsmember which may include separation from family and friends (Substance Use Training Manual, 1979)

Situational stress
Temporary environmental conditions pertinent to institutional living which may include roommate conflicts, abiding by center rules, study problems (Substance Use Training Manual, 1979)

Personal stress
Intrapersonal problems which may include loneliness, sense of failure, personal identity (Substance Use Training Manual, 1979)

Peer group stress
Concerns which may include interpersonal relationships, inclusion/exclusion issues, competition, racial ethnic, conflict (Substance Use Training Manual, 1979)
Growth and maturation stress

Concerns which may include issues of sexual development and identity, physical appearance, self-identity (Substance Use Training Manual, 1979)

Significance of Study

The Job Corps Program was developed to support the future of disadvantaged youth, whereby vocational and educational skills and training are among a variety of services provided to enhance the probability for adequate life functioning of youth. Included in Job Corps is a Comprehensive Mental Health Program (United States Department of Labor, Technical Supplement D, 1976). The goals of the Mental Health Program are to:

1. Encourage the social and psychological growth of Corpsmembers;

2. Assist in preventing mental illnesses;

3. Provide mental health services to Job Corpsmembers;

4. Deal effectively with emotional crisis of Corpsmembers
The preventive and remedial aspects of the Job Corps Mental Health Program are necessary components in the implementation of programs and services to enhance Corpsmember life functioning both in Job Corps and upon termination of the program. Job Corpsmembers reflect youth who may be experiencing a high level of stress. Job Corpsmembers are confronted with numerous environmental changes that are unique to the Job Corps experience. Youth in Job Corps are involved in a temporary program involving residential living generally away from family, friends, and hometown of origin, which could contribute to stress, anxiety, or depression in terms of coping with and adapting to change and loss. Further, Corpsmembers are receiving, perhaps, the last chance to succeed in terms of vocational and educational training and job potential. Several of the above-mentioned factors contributing to possible stress may be positive motivators for Corpsmembers; however, the converse may also hold true. Corpsmembers may be overwhelmed by the environmental, personal, and situational adaptations and requirements indicative to successful
functioning in the Job Corps Program. Anxiety levels may become severe, often generating a variety of overt and covert symptoms among which is the use and abuse of substances. The identification and management of anxiety and depression are emphasized in the Job Corps Mental Health Program (ET Handbook 330, Standing Order 18b). In addition to treatment for Corpsmembers suffering acute or chronic distress and depression, Job Corps counselors, and other helping professionals need to provide programs and training whereby Corpsmembers can learn constructive life coping skills.

The study contributes to the knowledge base of counselors, mental health consultants, and health educators in Job Corps by providing baseline and comparative data about anxiety, depression, and substance abuse among Job Corpsmembers. The descriptive data generated from the study yields information necessary for the development and implementation of counseling and educational services that help to provide an environment for Corpsmembers that is conducive to learning effective life management skills. Among these necessary life skills, the identification and treatment of anxiety, depression, and substance use
patterns are areas for future mental health and counseling program design for Job Corps professionals.

The study also provides Job Corps staff and program planners with data as to current use and abuse of substances among Job Corps members which is compared to prior survey results. The Self-Report Substance Use Questionnaire, which was developed for this study, can be utilized in the future as an instrument to assess substance usage of Corps members, as well as to assess needs in terms of substance use information and education.

This investigation is particularly significant in that few research studies exist that examine the mental health status and needs of Job Corps members. The examination of levels of anxiety and depression, as well as the assessment of the possible relationship of anxiety and depression to substance use, has not been previously studied in Job Corps. The descriptive nature of this study, therefore, is essential to mental health program planning, evaluation of current mental health services, and future research in Job Corps.
Delimitations of the Study

The study has several limitations inherent to the design and population under investigation. The delimitations are:

1. The study does not attempt to assess or predict overt behavior of Job Corps-members.

2. The study does not determine the sources of anxiety or depression of Job Corps-members other than Corpsmember self-report and ranking of possible sources of stress.

3. The study is limited by the selection of subjects and cannot be generalized to other populations.

4. The study does not assess the extent to which the Job Corps experience increases or decreases levels of anxiety and depression of Job Corpsmembers.

5. The study is limited by the researcher's construction and interpretation of the Self-Report Substance Use Questionnaire.
6. The study is limited by the self-report nature of much of the data which may be subject to intentional or unintentional bias by subjects.

7. The study is limited by the usage of survey methodology which yields extensive information rather than intensive or depth exploration of relations.

Assumptions of the Study

The study recognizes the following psychological, sociocultural, and educational assumptions:

1. Substance use and abuse is increasing in society, particularly among adolescents and young adults.

2. Substance use and abuse, particularly use of marijuana and alcohol, is widespread among Job Corpsmembers.

3. Abuse of substances can adversely affect the health, psychological well being, and performance of individuals.
4. Substance use is a non-productive means of managing life stress.

5. There is a need for further development and implementation of counseling and educational services in Job Corps that assist Corpsmembers in learning productive means of anxiety reduction and depression management.

6. The educational and counseling staff in Job Corps will benefit from descriptive data about the population of Job Corps in terms of levels of anxiety, depression and substance abuse.

7. High levels of anxiety and depression can adversely affect the health, psychological well being, and performance of individuals.

8. The IPAT Anxiety Scale Questionnaire is a valid, reliable instrument used to measure anxiety.
9. The Back Depression Inventory is a valid, reliable instrument used to measure depression.

10. The average reading level of Job Corpsmembers is at the sixth grade level which makes the readability of the IPAT Anxiety Scale Questionnaire, the Beck Depression Inventory, and the Self-Report Substance Use Questionnaire readable by the average Job Corpsmember.

Overview of Chapters

The study is organized into five chapters. Chapter I provided an introduction to the study, and defined the significance, objectives and goals of the investigation. Chapter I also defined the terminology utilized as well as the assumptions and limitations of the study.

Chapter II surveys the current literature related to adolescent stress, anxiety, depression, and substance use. A descriptive overview of the Job Corps Mental Health Program is also provided in Chapter II.
Chapter III describes the methodology and research design. The population, the sample, the instrumentation, and the procedures are described in Chapter III.

Chapter IV provides the results and analysis of the data collected for the study. Chapter IV also describes the statistical analysis of the seven respective hypotheses.

Chapter V provides an overview of the purpose and procedures of the study. A discussion of the results, implications, conclusions, and recommendations for future research are provided in this chapter.
CHAPTER II

SURVEY OF LITERATURE

Introduction

Chapter II begins with a descriptive overview of the Job Corps Mental Health Program. Following the overview, the literature related to anxiety, depression, substance use, and adolescent stress is examined. Definitions of the respective constructs of anxiety and depression are provided. Chapter II also surveys the literature on anxiety, depression, and substance use in terms of contemporary environmental stress sources.

Job Corps Mental Health Program

The Job Corps Program was developed in 1964 in order to combat poverty and to provide disengaged youth with educational and vocational training. The main emphasis of the Job Corps program is to provide training, however, Job Corps also offers numerous support services which are considered as integral
parts of the program (Hayman and Frank, 1979). Residential living, health care, recreation, and counseling reflect essential support services provided to Job Corps enrollees. The overall goal of the Job Corps program is to foster constructive attitudes and lifestyles that will prepare Job Corps members to function effectively in society upon termination of the program (Hayman and Frank, 1979). The Job Corps Mental Health Program, which is a part of the Job Corps Comprehensive Health Program, was developed with the primary objective of prevention of mental and emotional illness (Hayman and Frank, 1979). The Mental Health Program in Job Corps is designed to provide direct counseling, evaluation, and short term treatment to Job Corps members (Hayman and Frank, 1979).

The literature related to the Job Corps Mental Health program is primarily descriptive of the Job Corps population in terms of mental health needs of Job Corps members. The review of literature reveals that there have been few formal research projects that have studied Job Corps members in terms of mental health assessment or evaluation. One exception is a current survey study that assesses the behavioral,
attitudinal, and health changes of Job Corps-members (United States Department of Labor, 1979). Utilizing a battery of instruments to measure behavioral and attitudinal change with a sample of 489 Job Corps enrollees, the general findings of the above study indicated that Job Corps had a positive impact on enrollees who stayed in the program for three months or more (United States Department of Labor, 1979). Due to sampling procedures, small sample size, and questionable reliability and validity of the instruments utilized, the generalization of the study of "The Assessment of the Job Corps Performance and Impacts," (1979) is limited and the study raises many questions for future research and consideration. One essential difficulty in both assessment and evaluation of the mental health status and needs of Job Corps members is that it is often difficult to isolate the numerous interpersonal, intrapersonal, and sociocultural variables which may affect Job Corps enrollees.

The four specific goals delineated by the Department of Labor for the Comprehensive Mental Health Program in Job Corps are defined as follows: (Department of Labor, Technical Supplement D, 1976)
1. To provide an environment which fosters the social and psychological growth and development of all Corpsmembers;

2. To promote the mental health of Corpsmembers through use of prevention-oriented mental health principles and techniques;

3. To provide training to staff members which will enable them to identify Corpsmembers who are undergoing emotional stress and who need assistance;

4. To furnish needed mental health assistance through trained staff, through mental health professionals, and, as a last resort, through medical termination and referral to an appropriate agency.

The mental health goals, as described in the above paragraph, encompass several major components indicative to counseling, psychotherapeutic, and educational programing. The above stated mental health goals emphasize a preventive approach to mental health, yet crisis intervention strategies, environmental planning, and ongoing staff training are also inherent components of the stated Job Corps Mental
Health program. Termination for emotional or mental illness is viewed as a last resort according to the stated goals of the mental health program (Department of Labor, Technical Supplement D, 1976).

The examination of the stated mental health goals reveals a possible gap between the preventive aspect of the program and the mental health criteria for termination and referral. The gap pertains to questions regarding the ongoing counseling and psychotherapeutic treatment services available to Job Corps members that go beyond prevention. Do all the respective Job Corps centers make available ongoing or long term counseling to Job Corps enrollees? What is the training level of Job Corps counselors? Are Job Corps members aware of the services available? What conditions or behaviors are considered serious enough to warrant termination for mental health problems?

The above questions are to some extent addressed by the literature; however, the literature also reveals that much speculation and many assumptions can be drawn from the lack of a clear cut and precise definition of the specific ongoing counseling services that are provided to Corpsmembers. Hayman and Frank (1979) examined the overall health services as well as medical reasons for termination from the
Job Corps program for the 1975 fiscal year. The findings of the above study indicate that approximately two percent of the Corpsmembers enrolled in Job Corps were terminated for medical reasons in 1975, and the majority of the medical terminations were for mental health problems (Hayman and Frank, 1979). According to the survey by Hayman and Frank (1979), the category labelled mental health and emotional disease accounted for 32.3 percent of medical terminations, pregnancy and childbirth accounted for 43 percent of all medical terminations, and the category of accidents, poisoning, and violence accounted for 4.2 percent of all medical terminations.

The study by Hayman and Frank (1979) indicates that medical termination is relatively low among Job Corps enrollees. Mental health problems, however, ranked high among the list of reasons for medical termination. The analysis of the health problems of Job Corpsmembers by Hayman and Frank (1979) reveals that the educational and preventive aspects of the Job Corps Health program are particularly effective in promoting the psychological well being of Corpsmembers. Hayman and Frank (1979) also emphasize the importance of supportive mental health services as reflected in the following observation of the Job Corps population:
Stress reactions of adolescence, alcohol and drug abuse, depressive reactions, and sexual problems constitute about one-third of all mental and emotional disorders in the Job Corps population. Many Corps-members with these conditions could be expected to respond to sympathetic, supportive mental health services.

The question as to what extent the ongoing supportive counseling services exist in Job Corps is raised by Bryson and Bardo (1975), who contend that from 1965 through 1970 counseling services in Job Corps regressed from a high priority function to a low priority function with nominal funding.

Bryson and Bardo (1975) further contend that counseling services in Job Corps have deteriorated to the point where the Job Corps counselor's role changed from that of leader to that of a clerical worker primarily involved in information and referral. The evaluation of the Job Corps counseling program by Bryson and Bardo (1975) indicates that counseling in Job Corps followed a traditional vocational counseling model which the above authors view as inadequate for the population of Job Corps members. Bryson and Bardo (1975) recommend that comprehensive mental health training as well as training to better understand and work with disadvantaged youth are necessary prerequisites for Job Corps counselors.
The review of literature suggests that disadvantaged youth are often suspicious and hesitant in terms of seeking counseling services and in trusting the counseling relationship (Amos and Grambs, 1968). Several sources concur that patience and reaching out are essential counselor characteristics and skills especially in working with disadvantaged youth. One major strength of the Job Corps Mental Health program is that consideration is given to the population served in Job Corps in terms of requesting and requiring staff to reach out to Corpsmembers. The United States Department of Labor, Technical Supplement D (1976), which defines the Job Corps Mental Health program, emphasizes the following:

Many youth entering Job Corps have had unsatisfactory experiences with educational institutions. Therefore center staff members must reach out to individuals rather than wait for them to request help which they may never do because of previous experiences with 'helping' agencies or individuals.

The second major strength of the Job Corps Mental Health Program is that emphasis is placed upon the uniqueness of individual Corpsmembers as well as on the dignity and respect of Corpsmembers. The
The philosophy of the Job Corps Mental Health Program stresses the self image of the Corpsmember (Department of Labor, Technical Supplement D, 1976). According to the Job Corps philosophy, the concept of self image is defined as follows: (Department of Labor, Technical Supplement D, 1976):

Self-image may be viewed as a dynamic, changing aspect of personality important in determining behavior, especially for young adults entering Job Corps with strong feelings of worthlessness and failure. Some Corpsmembers unknowingly reinforce and justify their own poor self-images by setting up situations in which failure is inevitable. However, the self-image is modifiable and center staff can make a positive impact on Corpsmembers' self-esteem by demonstrating both respect and concern for them.

The above quotation reflects the attitude of support and subsequent progress for the Job Corpsmember which is stressed in the philosophy of Job Corps. Emphasis is on the necessity of staff to be sensitive to the emotional needs of Job Corpsmembers.

The Job Corps Mental Health Program is described as preventive in nature, with special emphasis on total environmental planning that is conducive to the Corpsmember's personal growth and total development (Department of Labor, Technical Supplement D, 1976). A constructive balance between vocational
training and free time is recommended by mental health program planners (Department of Labor, Technical Supplement D, 1976). Corpsmembers are encouraged to explore numerous recreational and avocational activities which are provided on the Job Corps Centers. Although providing an environment which fosters social and psychological as well as vocational growth is a stated goal in the Job Corps Mental Health Program, there is no conclusive evidence in the literature that suggests that the goal has been realized throughout the respective Job Corps Centers.

Eighty-five respective Job Corps centers were in full operation in 1979 with pending plans to open several new centers by 1980 (Hayman and Frank, 1979). The physical environment, staffing, and programs provided vary widely from center to center. The requirements for position as counselor, for example, do not require state counselor certification, an advanced degree, or any specified type of training for the counseling position applicant. Further, the roles, functions, and uses of counselors as well as mental health consultants vary from center to center. A disparity also exists in terms of the physical environments of the respective centers often depending
on such variables as geographic location, funding, and community involvement with the center. Additionally, specific services and recreational activities vary from center to center and are often contingent upon the physical environment of the respective centers.

The wide variation of physical conditions, staffing composition, and services provided throughout the respective Job Corps Centers is compounded by the variation in mental health policy implementation from center to center. A possible example of policy variation pertains to the policy regarding substance abuse. According to the mental health program guidelines, Corpsmembers assessed as having drug or alcohol related problems are to receive counseling and other assistance (Department of Labor, 330-E, 1978). Further, the National Health Office recommends that each center is to maintain a substance abuse prevention program as well as a staff substance abuse coordinator (Department of Labor, 330-E, 1978). The review of the literature related to the Job Corps Mental Health Program suggests that no conclusive evidence exists to confirm that all centers have formalized substance abuse programs and coordinators. Further, whether or
not Corpsmembers receive ongoing counseling and other assistance pertinent to substance abuse is subject to speculation.

The final focal point as well as strength of the Job Corps Mental Health program is the program emphasis on crisis theory and crisis intervention in working with the population of Job Corpsmembers (Department of Labor, 1977). Emotional crisis is viewed as a significant feature of the psychological composition of the Job Corpsmember (Department of Labor, 1977). The literature related to the Job Corps Mental Health program reveals that the program has delineated four categories of potential crisis for Job Corpsmembers which are defined as follows: (Department of Labor, 1977)

1. **Arrival crisis:** defined as a potentially stressful time due to the new environment, temporary separation from family and friends, and potential pressure to be accepted by peers in Job Corps.

2. **Engagement crisis:** Defined as the emotional testing of the Job Corps
program and the questioning of center rules, regulations, services, etc.

3. **Transfer crisis:** defined as transfer from one center to another.

4. **Graduation crisis:** defined as leaving Job Corps upon completion of the program and returning to society.

The review of the guidelines and philosophy of the Job Corps Mental Health program reflect the assumption that stress and emotional crisis may occur during any or all of the four time phases listed above. Additionally, the mental health program philosophy recognizes the high probability that many Job Corps members initially elected to enroll in the Job Corps Program possibly as an outcome of personal, vocational or educational failure or stress (Department of Labor, 1977),

The summary of the literature related to the Job Corps Mental Health program suggests that mental health is an essential component of the overall Job Corps program. The literature reveals that of the few evaluative studies measuring the efficacy of the mental health program, the studies reveal that the
program outcomes have been successful in terms of emotional cost effectiveness for Corpsmember psychosocial well being. The literature is replete with philosophical statements as well as guidelines for working with disadvantaged youth in the area of mental health.

Job Corps strives to offer youth individualized training programs as well as individualized support services which provide for the counseling guidance, and mental health needs of the Job Corps population. The literature reveals that the Job Corps Mental Health program is especially adapted to meet the needs of poor, jobless, and undereducated youth between the ages of sixteen and twenty-one (Amos and Grambs, 1968). The program emphasizes the view that Corpsmembers are not labelled as "disadvantaged" by reason of psychopathology, but rather by reason of environmental, socioeconomic, and educational delimitations. The above view does not deny the possibility of internal and intrapsychic problem areas among some Corpsmembers; however, the main focus is on the external or environmental forces that contribute to experiences of hardship and failure for the majority of Corpsmembers.
The overall philosophy of the Job Corps Mental Health Program is to promote a positive self image of Corpsmembers through successful experiences in the Job Corps program. This task may be difficult to achieve due to the limitations of poverty, prior failure, and potential stress sources indicative to disadvantaged adolescents. The following section examines adolescent stress in relationship to both internal and external stress sources.

The following segment of Chapter II, Adolescent Stress, will review the literature related to the internal and external stress sources indicative to adolescence. The stress areas are reviewed with particular attention to potential stress sources experienced by the disadvantaged youth reflected in the Job Corps populations.

Adolescent Stress

There are numerous external and internal variables that are indicative of the adolescent life cycle that may be potent sources of stress. Studies examining the effects of stress suggest that both prolonged and acute stress contribute significantly to physical and psychological health status (Coleman, 1976). Several sources concur that stress is a
reality in contemporary society, and the availability of external supports, either personal or material, are crucial variables in the adaptive management of stress. Coleman (1976) points out that how the individual perceives stress, prepares for coping with stress, and utilizes available resources in dealing with stress influences the severity and potential consequences of stress.

A plethora of literature exists that describes and distinguishes categories of stress variables pertinent to adolescents. The Department of Labor (1979) has categorized adolescent stress sources into five major components which are labeled as:

1. personal stress
2. peer group stress
3. growth and maturational stress
4. transitional stress
5. situational stress.

The above five stress categories are defined and examined with special emphasis on environmental factors that may be particularly relevant to the disadvantaged youth reflected in the Job Corps population.
The five categories are described as separate adolescent stress sources; however, it is essential to note that factors in each category may overlap and interact in terms of degree of severity of stress on the individual organism.

The category of personal stress is particularly relevant to adolescents in that the adolescent years involve the psychological process of affirmation of personal identity (Grinder, 1975). The Department of Labor (1979) has defined the category of personal stress as intrapersonal concerns which may include a wide array of conflict areas ranging from familial relations to personal identity issues. The literature related to adolescence emphasizes the life period of adolescence as a crucial time in terms of the developmental states of the self concept of the individual. Meyer (1972) contends that although self concept is developed and modified through life experiences, adolescence represents highly significant and possibly final formative phase in determining adjustment in later life. The hypothetical construct of self-concept is viewed as a learned phenomenon by most theorists in psychology and counseling. Significant interpersonal relationships combined with life experiences and how
the individual perceives the experiences represent essential internal variables influencing the formulation of self concept.

The current literature on adolescence also emphasizes external or environmental variables that exist which are unique to contemporary society and may contribute to personal stress particularly in the population of disadvantaged youth. The changing family structure and economic uncertainty appear to be significant environmental variables that influence levels of personal stress.

Several sources that emphasize the importance of the family and significant others on the developing adolescent assume the traditional two parent family structure, with underlying and often unspoken assumptions that a nontraditional family structure contributes to maladjustment or pathological symptomatology among adolescents. Research to date neither refutes nor confirms the above mentioned assumptions. The recognition and acceptance that the traditional family structure is changing is fairly new to the literature. Howe (1974), in describing contemporary American family, states:
This is a book about the American family, and the first thing to remember about the American family is that it doesn't exist. Families exist! All kinds of families in all kinds of economic and marital situations, as all of us can see.

The above quotation exemplifies the point that a culture lag exists in terms of the distinction between perception and reality of American family life. One source further contends that the rapid change in family structure may particularly effect adolescents and young adults in terms of security and role identification needs of adolescents (Rutter, 1977). Aubrey (1973) states that American society has by default thrown the school and peer group into major sources of support and responsibility for adolescent development.

How the changes in the family structure effect adolescents in terms of personal stress varies from individual to individual. Several sources concur that minority youth may be more likely to experience elevated stress levels since there is a higher incidence of flux in the family life of socioeconomically disadvantaged persons (Brody, 1968).

The second environmental variable indicative to contemporary society is economic uncertainty. For many disadvantaged youth, economic uncertainty is compounded by poverty. Typically, the adolescent life
phase includes career and vocational decision making. Havighurst, et. al. (1972) point out that career and vocational decision making may be especially stressful to minority youth in that current and future employment opportunities are limited. Job Corps is an example of a government funded program developed to assist disadvantaged youth in the development of vocational and educational skills necessary for employment. Whether or not there will be available positions and jobs for young adults in the 1980's remains questionable at this time. Studies indicate that rates of unemployment among youth who are disadvantaged by reason of poverty, race, or cultural deprivation continue to be higher than the unemployment rates of other youth (Amos and Grambs, 1968).

Economic uncertainty, change in the traditional family structure, and poverty represent environmental variables that may contribute to an increase in stress levels among adolescents and particularly disadvantaged youth. Concomitant with the personal stress category is the growth and maturational stress category. Growth and maturational stress is defined as concerns which include issues such as sexual development, sexual identity, and physical appearance
(Department of Labor, 1979). Physical growth, change, and maturation is universal to the life cycle of adolescence, and may also serve as a source of stress to the adolescent.

The literature related to adolescent growth and maturation examines the possible range of emotional and behavioral consequences of the physiological changes indicative to the adolescent life phase. Rutter (1980) contends that the consequences and behavioral outcomes of changes in estrogen and progesterone levels which occur in the teen years are not well understood. The literatures does point out that body image and emerging sexuality are areas of concern to the adolescent especially the fact that rapid physical and emotional changes are taking place within the adolescent without the consent or control of the adolescent.

Similar to the personal stress category, both internal and external or environmental variables exist which contribute to growth and maturational stress. Recent studies indicate that sexual decision making among adolescents is occurring at increasingly younger ages (Grinder, 1975). The data as to incidence of teenage pregnancy and birth varies; however, what is
evident is that pregnancy particularly among disadvantaged young women is increasing rapidly.

The third stress category defined by the Department of Labor (1979) is the peer group stress category which is defined as concerns which includes interpersonal relationships, inclusion or exclusion issues, competition, acceptance or non-acceptance by others. The peer group phenomena has been viewed as a source of support as well as a source of stress for the adolescent (Aubrey, 1973). Aubrey (1973) contends that the concept of the adolescent peer group and the effects of peer influence requires further study in order to enhance psychological understanding of the contemporary adolescent. Aubrey (1973) states:

The adolescent of the 1970's is probably closer to his agemates and more estranged from adults than any adolescent society in history.

Nonacceptance in a peer group may be a potent source of stress for the adolescent especially when familial support is not available or is sporadic. The increase in adolescent suicide over the past decade and particularly the increase of suicide among minority youth raises many questions in terms of how much support and direction contemporary youth are receiving
within the peer group, family or from society in general (Lee, 1978).

The categories of transitional stress and situational stress are stress categories pertinent to Job Corps and other similar residential youth training programs. Transitional stress is defined as sudden changes in the environment and including issues such as separation from family and friends (Department of Labor, 1979). Situational stress is defined as temporary environmental conditions pertinent to institutional living (Department of Labor, 1979).

Both situational and transitional factors are significant to Job Corps youth in that for many Job Corpsmembers the Job Corps experience may be the first time away from home and familiar surroundings and customs. The implications of rules and regulations, as well as the exposure to differing values and customs, represent life style changes that may be stressful to Corpsmembers.

A final stress source for Job Corpsmembers is the pressure to succeed in the program. The literature pertaining to Job Corps youth emphasizes that a significant number of youth entering Job Corps have had unsatisfactory experiences with educational institutions,
job situations, and people in general (Department of Labor, Technical Supplement D, 1976). Further, the Job Corps population has been described as young people who are both socially as well as economically disadvantaged (Hayman and Frank, 1979). Evidence also exists that socioeconomically disadvantaged youth have a high incidence of significant health problems (Hayman and Frank, 1979). The problems and environmental disadvantages indicative of the Job Corps population combined with the stress of adolescent development make success in the Job Corps program an essential experience for Corpsmembers.

The numerous sources of adolescent stress have been described in terms of internal and external factors potentially serving as stressors. Coleman (1976) describes the severity of stress as contingent upon a combination of individual, cultural, and situational factors. Several additional sources concur that stress can be highly detrimental to psychological, interpersonal, physiological, and vocational functioning. A potential outcome of severe or prolonged stress is elevated anxiety.
Literature Related to Anxiety

Anxiety is a construct that presumes a multitude of meanings among professionals in the human services. The symptomatology, treatment, and etiology of anxiety has been addressed and studied by many theorists. An extensive body of speculative literature exists that describes and defines anxiety. The intent of the section of Chapter II related to anxiety is to provide a definition of anxiety, and to review the literature related to adolescent anxiety.

The survey of the literature related to anxiety reveals that disparity exists among human service professionals as to definition, assessment, and treatment of anxiety. The twentieth century has been labelled the "age of anxiety," yet no universally accepted definition of anxiety currently exists in the literature. Craighead, Kazdin, and Mahoney (1976) contend that the lack of consensus in the definition of anxiety is also reflected in the measurement of anxiety. Currently, there are approximately 120 procedures available that purport to assess anxiety and level of anxiety (Craighead, et. al., 1976).

The current trend reflected in the literature is to define anxiety in terms of a complex set
of overt and covert behaviors (Cormier and Cormier, 1979; Craighead, et. al., 1976; Rimm and Masters, 1974). Bandura (1969), for example, has defined anxiety as a persistent, learned maladaptive response resulting from stimuli that have acquired the capacity to elicit intense emotional reactions. Craighead, et. al. (1976) have further defined anxiety as a complex and variable pattern of behavior which occurs in response to both internally or externally produced stimuli. The above authors also provide a social learning approach describing the possible etiology of anxiety. The two categories of anxiety are labelled as reactive anxiety and conditioned anxiety (Craighead, et. al., 1976). The category of reactive anxiety involves situations in which overarousal occurs as an appropriate reaction to actual stress or danger to the individual (Craighead, et. al., 1976). Conditioned, inappropriate anxiety responses, conversely signify that the individual responds to situations as if the situations were threatening or stressful (Craighead, et. al., 1976).

The problem of clear definition and subsequent assessment of anxiety is further complicated by the concepts of both stress and depression. Depression,
stress, and anxiety are often difficult to distinguish between in that the somatic complaints, psychological descriptors, and behavioral symptomatology can be similar in nature. The differentiation between anxiety and depression has been defined by Gaylin (1968). According to Gaylin (1968), anxiety and depression represent diametrically opposed responses where anxiety is the organism's fight response to a real or imagined danger, while depression is the organism's withdrawal response and inability to meet real or imagined danger (Gaylin, 1968).

The differentiation between stress and anxiety is also essential to the clear definition of anxiety. Although the terms of anxiety and stress are frequently used synonymously by human service workers as well as by lay persons, a distinction in terms of meaning exists between anxiety and stress. Coleman (1976) defines stress as an adjustive demand requiring coping behavior on the part of the individual, while anxiety is defined as generalized feelings of fear and apprehension. The majority of sources concur that stress constitutes numerous environmental and interpersonal variables that alone or in combination may contribute to anxiety which is
viewed as a constellation of uncomfortable overt or covert symptoms (Gaylin, 1968). Anxiety, therefore, is viewed as a response to stress.

Several theorists have speculated on the physiological and the psychological origin of anxiety. The past two decades indicate that complaints of anxiety or complaints of inexplicable physiological symptoms labelled as anxiety constitute a large portion of the patient caseloads treated by physicians as well as other human service workers. The most popular strategy for treatment of anxiety among physicians is medication. It was estimated that in 1974, physicians prescribed 59.3 million prescriptions for Valium, a medication used to treat anxiety (United States Department of Labor, Substance Use Manual, 1979). The nonmedical human service workers such as counselors, educators, and mental health professionals also treat persons suffering from anxiety. The myriad of treatment strategies range from psychoanalysis to relaxation therapy. The traditional psychological treatment for anxiety was to uncover an event or conflict that was presumed to be the cause of anxiety (Redd and Sleator, 1976). The current literature, however, reveals a trend among human service providers that view anxiety as a learned
response that can be relearned and rechannelled through self mastery of numerous anxiety management techniques (Rimm and Masters, 1974; Rathus and Nevid, 1977; Redd and Sleator, 1976).

The literature review suggests that the majority of studies related to anxiety and the management of anxiety describe sample participants from the general adult age population. Although few studies exist that examine adolescent anxiety, the concept of adolescent anxiety seems to be assumed in the literature. The studies investigating adolescent anxiety suggest that a combination of numerous independent variables may be related to anxiety level among adolescents. The literature related to adolescent stress that was examined in the former section of Chapter II, suggested that numerous internal and external variables contribute to adolescent stress. The evidence indicated that contemporary adolescents contend with several stress sources, however, there is no conclusive data that definitively identifies a consistent prediction as to the short term and long term psychological effects of the stress sources previously described.

The data as to incidence of anxiety among disadvantaged youth rarely appears in the literature.
Several sources have studied a range of independent variables that have been found to be associated to anxiety (Wells and Stacey, 1976). The IPAT Anxiety Scale Questionnaire was administered to adolescents to determine the relationship of anxiety to substance misuse (Wells and Stacey, 1976). The results indicated that drug misuse was consistently related to elevated levels of anxiety (Wells and Stacey, 1976). Wells and Stacey (1976) also found that independent variables such as unemployment, unhappy home life, and school problems were associated with high levels of anxiety as well as substance misuse.

The reported incidence of anxiety among disadvantaged youth is assumed as high by many sources (Ogletree, 1974; Amos and Grambs, 1968; Aubrey, 1973). Gordon and Green (1974) state that adolescents from economically disadvantaged backgrounds are induced and nurtured by poverty that may maintain consistently elevated levels of anxiety. A recent study by Coney and West (1979) describes the relationship of academic pressures to the black adolescent. The above study compares black and white adolescents in an inner city school and finds that lower socioeconomic black youth tended to experience
significantly more academic stress than the white youth examined in the study (Coney and West, 1979).

Several sources concur that undetected and untreated anxiety among adolescents may manifest in numerous examples of maladaptive coping behaviors such as drug abuse, delinquency, and teenage pregnancy (Proskauer and Rolland, 1973; Beck, Rush, Shaw and Emery, 1979). The literature that describes disadvantaged youth has indicated that the additional environmental stresses pertaining to this population significantly contribute to elevated anxiety levels and subsequent maladaptive behavior. The Job Corps Mental Health Program, for example, has issued a standing order pertaining to the detection and management of Job Corps member anxiety reactions (United States Department of Labor, Standing Order H18b, 1977). The standing order recommends that Job Corps members experiencing chronic or acute anxiety receive immediate counseling services (United States Department of Labor, Standing Order H18b, 1977).

The prior section of Chapter II that described the Job Corps Mental Health program, emphasized the preventive nature of the program. The mental health program describes the Job Corps population as disadvantaged youth entering Job Corps with strong
feelings of worthlessness and failure (United States Department of Labor, Handbook 330, 1976). Although there have been no studies that assessed the population of Job Corpsmembers in terms of measured anxiety levels, the mental health program assumes that Job Corpsmember anxiety levels are high. The implied assumption in the mental health program guidelines is that the pressure to succeed combined with past experiences of failure as well as numerous situational stress variables, may contribute to anxiety reactions among Job Corpsmembers.

The section of the literature related to anxiety has provided definitions of anxiety which incorporate a broad range of overt and covert behaviors. The concept of anxiety was described as a learned reaction to psychological, environmental, and interpersonal stress variables. Adolescent stress categories were examined in the previous section, and adolescent anxiety is considered as a possible reaction to acute or prolonged stress. The literature review revealed there are few studies related to adolescent anxiety. Anxiety among disadvantaged youth is assumed to be existent based upon the environmental hardships experienced by the population of disadvantaged youth.
The Job Corps Mental Health Program standing order on anxiety was described and the program assumptions related to anxiety were also examined (United States Department of Labor, Standing Order H18b, 1977).

Literature Related to Depression

Similar to the numerous definitions of anxiety, there are several theories, definitions, assessment procedures, and treatment strategies related to depression. The alleged causes and cures of depression have been studies by professionals in psychiatry, counseling, and psychology, yet no conclusive evidence exists that definitively confirms or refutes any particular theory as to etiology of depression or strategy for treating depression.

The concept of depression is defined by numerous sources. The Webster Dictionary (1974), for example, defines depression as an emotional disorder marked by sadness, inactivity, difficulty in thinking and concentration, and feelings of dejection. The Dictionary of Psychology (1973) further defines depression as a state of despondency characterized by feelings of inadequacy, lowered activity, and pessimism about the future. The Diagnostic and Statistical Manual of Mental Disorders III (1980) defines depression
as an affective disorder characterized by a depressed mood and a pervasive loss of interest or pleasure in all activities (Janicak and Andriukaitis, 1980).

The three definitions of depression describe depression as an emotional disorder characterized by feelings of despondency as well as by lowered activity levels. One major problem with the concept of depression is that the term 'depression' has been used to describe numerous symptoms, feelings, behaviors, and moods. Craighead, Kazdin, and Mahoney (1976) contend that the hypothetical construct of depression has many meanings to many people. Craighead, et. al. (1976) state:

> Although we all have some general idea of what a person means when he says "I am depressed," no clear cut definition of the term depression exists.

The above authors further contend that the lack of definition of depression has hindered progress in depression research (Craighead, et. al., 1976).

The lack of a precise definition of depression, perhaps, accounts for the fact that depression has been labelled "the common cold of mental illness" (Miller and Seligman, 1973). Several sources recommend that clinicians need to redefine the concept
of depression in terms of the specific behaviors that are distressing to the clients (Craighead, et. al., 1976). Beck (1967), for example, recommends four distinct categories of behaviors to be examined in working with clients reporting depression which are labelled respectively as:

1. emotional (covert) difficulties
2. cognitive (covert) difficulties
3. behavioral (overt) difficulties
4. physical (overt) difficulties.

The preceding paragraphs have described the varied semantics of the concept of depression. Varied opinion also exists in terms of assessment, theory, and treatment of depression. Beck (1967) describes theories of depression which include neurological, biochemical, psychoanalytic, psychodynamic, and existential conceptualizations of the etiology and subsequent treatment of depression. The research to date neither confirms nor refutes the above mentioned theories. The evidence instead suggests that numerous psychological, physiological, and environmental variables may precipitate the diverse symptomatology labelled as depression (Beck, 1967).
The literature review reveals a recent trend in depression research that emphasizes an environmental learning paradigm relating to the etiology and treatment of depression. The learning model of depression presumes that the numerous overt and covert behaviors that constitute depression are learned and reinforced by external and internal events or environmental variables. Ferster (1973), for example, investigates depressive behaviors and specifies possible variables that contribute to the development and maintenance of a depressive reaction. Among the variables found to be significant, Ferster (1973) identifies the presence of anxiety and sudden changes in the environment as potentially related to the development of depression.

Seligman (1975) further describes a learned environmental model of depression that is labelled the learned helplessness paradigm of depression. Seligman (1975) contends that numerous variables may precipitate and reinforce feelings, beliefs, and attitudes of helplessness. According to this model of depression, the unpredictability of modern life contributes to elevated levels of depression or anxiety that subsequently may lead to maladaptive behaviors and maladaptive coping mechanisms.
The recommended treatment for depression according to the learning paradigm of depression involves numerous techniques reflected in behavioral counseling such as skills training in social or cognitive deficit areas, manipulation of environmental variables, development of individualized reinforcement contingencies for non-depressed behaviors, and cognitive restructuring (Beck, Rush, Shaw, and Emery, 1979). The main emphasis of treatment in the learned model of depression is on altering target symptoms and restructuring depressogenic assumptions.

The majority of experimental, descriptive, and field studies related to depression were conducted using adult sample populations. Adolescent depression has not been widely investigated, although several sources speculate that the incidence of depression among adolescents may be high. Lee (1978), for example, contends that the rate of suicide among youth is increasing at alarming rates. The New York Daily News reported on March 3, 1978 that more than 35,000 American adolescents committed suicide in 1978. Numerous sources studying adolescent suicide speculate that unrecognized and untreated depression exists among contemporary youth. A study of depression
levels of seventh and eighth graders, for example, measured depression level utilizing the Beck Depression Inventory. The findings indicated that 33.3 percent of the sample were experiencing moderate to severe depression (Beck, 1975).

The research describing the relationship of stress to depression is not conclusive; however, some evidence indicates a relationship exists between level and duration of stress and depression. The literature suggests that little is known about the impact of stress events on adolescent depression. Several sources emphasize that underlying depression is potentially precipitous to numerous maladaptive behavior patterns among adolescents such as delinquency or drug use (Albert and Back, 1975). The impact of stressful events on depression was investigated by Gong-Guy and Hammen (1980). The results of the study suggest that conditions such as perceived uncertainty and external events such as actual environmental uncertainty accounted for variables precipitating depression. Proskauer and Rolland (1973) further contend that the environmental stresses of contemporary living are the primary causes of increasing incidents of depression among
youth. The above authors further contend that depression among adolescents is difficult to assess due to the numerous maladaptive behaviors which potentially represent depression.

The literature reveals that the actual incidence of depression among adolescents, and particularly among disadvantaged youth, is unknown. Lee (1978) identified an increase in the suicide rates of minority youth, particularly black male youth and attributed the increased suicide rates as extreme reactions to psychosociological pressures leading to severely elevated levels of depression. Adolescent suicide was traditionally viewed as an act resulting from unconscious, irrational, or impulsive emotional actions (Jacobs, 1971). The above view is challenged by Jacobs (1971) who contends that adolescent suicide is a conscious, rational choice. The comparison of the nature, number, and sequence of events in the lives of suicide attempters were compared to a control group of adolescents by Jacobs (1971). The results of the comparison indicated that there are several external variables indicative to the adolescent suicide attempters (Jacobs, 1971). The variables found to be associated with suicide attempt included the following categories
as described by Jacobs (1971):

1. Long standing history of problems

2. The dissolution of meaningful social relationships

3. Progressive failure of available coping techniques or support systems

4. Escalation of several problem areas during adolescence.

The effect of poverty on level of depression has been studied by Seligman (1975) in relationship to the learned helplessness model of depression. Seligman (1975) contends that although poverty does not necessarily have to equate to helplessness, the lives of the poor are replete with restrictions and lack of environmental control. The following quotation by Clark (1964) illustrates the concept of helplessness and poverty in Harlem:

Harlem is made up of the socially engendered ferment, resentment, stagnation, and potentially explosive reactions to powerlessness and continued abuses. The powerless individual and community reflect this fact by increasing dependency and by difficulty in mobilizing even the latent power to counter the most flagrant abuses. Immobility, stagnation,
apathy, indifference, and defeat are among the more obvious consequences of personal and community impotence.

The contention that poverty may produce and maintain depression has been examined by Rodin (1974) in a study describing the effects of crowding on children from a housing project. The results of the study suggested that crowding produces a sense of helplessness that potentially undermines the desire or ability to make choices.

The literature review related to adolescent depression and particularly depression among minority youth suggests a potential relationship between contemporary environmental events and depression. The majority of sources delineate numerous environmental stress variables that may contribute to elevated depression levels. The research indicates that although the assumption exists that incidence of depression among adolescents is high, no conclusive evidence exists to confirm the assumption. Several sources agree that relief from depression is a major force behind many kinds of adolescent behavior (Proskauer and Rolland, 1973). Beck (1967) further contends that adolescents and young adults may be especially prone to depression due to the stresses experienced from
the numerous changes the adolescent undergoes in the transition to adulthood. The fact that the incidence of suicide has increased rapidly among adolescents may be further evidence that adolescent depression has not been adequately detected and treated in contemporary society. Once source stated that suicide ranked as the second most common cause of death in the 15 to 24 year age group, with non-white males considered as particularly vulnerable (Coleman, 1-76).

The summary of literature related to depression, and particularly adolescent depression, reveals that the definition and treatment of depression vary and are subject to controversy. The literature assumes that adolescent depression is widespread and increasing, and that numerous internal and external variables account for the increase in adolescent depression. Elevated rates of suicide and attempted suicide by adolescents are viewed as evidence to substantiate the contention that adolescent depression is widespread. Environmental variables leading to feelings of helplessness and hopelessness have been described as contributing to depressive reactions among adolescents. Several sources also concur that adolescent depression may manifest into diverse behaviors that are not necessarily indicative of the traditional definitions
of depressive behavior.

The assessment of depression among disadvantaged youth has not provided conclusive evidence that minority youth are more prone to depression than youth who are not considered disadvantaged. One important drawback of past and current research relating to adolescent depression is that the majority of studies and observations consist of samples of the adolescent population that come to the attention of mental health agencies, psychiatric institutions, and correctional institutions. The Job Corps Mental Health program, for instance, recognizes the importance of assessment and treatment of depression, yet the emphasis of the standing orders on depression appear to be remedial or crisis oriented in nature (United States Department of Labor, 1977). The question as to whether or not Job Corps members with moderate levels of depression or with ongoing depressive reactions are receiving adequate attention is speculative.

Literature Related to Adolescent Substance Use

In contrast to anxiety and depression, adolescent substance use is widely addressed in the literature. Substance use is generally viewed as a contemporary societal issue with potentially negative
ramifications to both the individual user of substances as well as society in general. Crime, psychopathology, decreased productivity, and national apathy have been linked to increase substance use. Oakley (1972) describes the United States as a "nation of drug users," where drugs are viewed as acceptable means of problem solving. The United States Department of Labor (1978) describes the misuse of drugs as one of the most serious problems facing society today. The data as to the precise percentage of adolescent substance use varies; however, most sources consur that the use and abuse of drugs among adolescents is increasing steadily.

The literature reveals that the misuse of drugs is a problem that continues to plague the American society (Nelson, Kraft, Fielding, 1974). Substance use appears to have become an acceptable behavior in contemporary society, and the literature review suggests that numerous distinctions between use and misuse currently exist among both the lay population and the human service provider population. One essential feature related to adolescent substance use that the adult population seems to ignore is that adolescent substance usage and incidence resembles the usage and incidence patterns of the adult population.
Alcohol, for example, has been found to be the number one substance of choice among both adolescents and adults (United States Department of Labor, Substance Abuse Training Manual, 1979). Nelson, et. al. (1974) state that adults frequently misperceive the feelings and attitudes that young people have concerning substance use. Adult misperceptions of adolescent substance abuse are reflected in the numerous myths and assumptions held by adults in both the general population as well as in the population reflected in the helping professions. Nelson, et. al. (1974) describe findings where staff members in Job Corps were found to be poorly informed regarding both the incidence of Job Corpsmember substance usage as well as the attitudes held by Job Corpsmembers pertaining to substance use. This study indicated that staff members perceived Corpsmembers as approving of and using drugs more than the actual reported incidence of substance use by Job Corpsmembers (Nelson, et. al., 1974).

The question as to when substance use becomes substance misuse or abuse is open to speculation among many sources. Brecher (1972) defines substance use in terms of licit and illicit drugs and emphasizes that substances falling into either category can be equally harmful to the user. Caffeine, nicotine, and alcohol
are examples of licit drugs frequently treated as nondrugs by the general population (Brecher, 1972). A study assessing the average daily use of coffee indicated that eighty-two percent of respondents drank coffee daily (Brecher, 1972). Among the coffee users, twenty-five percent reported drinking six or more cups daily (Brecher, 1972). The major point indicative to the above example is that both licit and illicit substances are frequently misused in contemporary society.

The distinction between use and misuse of substances is further defined by the National Health Office (Department of Labor, 1978). According to the differentiation defined by the National Health Office (1978), drug use is viewed as the use of a chemical substance that produces an effect on the body or the mind or both. The term 'effect' is presumed to be harmless or neutral in the definition of drug use. Drug misuse is conversely defined as the use of a legal or illegal substance to the extent that the drug produces effects that are potentially harmful psychologically or physically to either the user or to the others (United States Department of Labor, 1978).

Coleman (1976) provides a further distinction between drug dependence and drug abuse. According to
Coleman (1976), drug abuse denotes excessive consumption of a drug, while drug dependence refers to psychological and physiological reliance on a drug or a combination of drugs.

The above definitions reflect examples of differing assumptions as to the distinctions between drug use, drug misuse, and drug dependence. Assessment as to when drug use becomes drug misuse and when drug misuse can be classified as drug dependence is difficult and often contingent upon subjective opinion.

The classification of categories of adolescent drug users is also varied and contingent upon subjective opinion and assessment. Aubrey (1973), for example, classifies adolescent drug users into the following categories:

1. followers: those who are easily influenced by others

2. situational users: those who take drugs for specific reasons such as socializing or relaxing

3. thrill seekers: those who take drugs for kicks or for fun
4. hard core users: those who live in the world of drugs.

Proskauer and Rolland (1973) further provide a classification of adolescent drug users that consists of the following three categories:

1. the experimental drug user
2. the depressive drug user
3. the characterological drug user.

Proskauer and Rolland (1973) contend that the categories of depressive drug user and characterological drug user denote drug misuse, while the category of experimental drug user denotes drug use.

The review of literature reflects a wide array of distinction between substance use and misuse as well as a broad continuum relating to categories of adolescent drug users. One area where the literature related to adolescent substance use is in agreement is in reports on the current trends and incidence of adolescent substance usage. Several sources concur that alcohol and marijuana are respectively the number one and number two substances most frequently used by adolescents.
Specific data as to drug use among disadvantaged adolescents rarely appear in the literature; however, most sources concur that the usage patterns of disadvantaged youth are similar to the patterns of the general adolescent population (Nelson, et. al., 1974). A survey investigating the patterns of drug usage by Job Corps members, for example, found that the Job Corps youth tended to use and misuse drugs to about the same degree as did other youth in the equivalent age level (United States Department of Labor, 1973). The literature emphasizes that drug use and abuse is a problem affecting adolescents in all socioeconomic strata of society (Nelson, et. al., 1974).

The use of substances is viewed as reflecting maladaptive patterns to life demands by several contemporary sources (Coleman, 1976). Oakley (1972) defines drug use as behavior that is maintained by either increasing pleasure or reducing discomfort. Adolescent drug use is also described as a maladaptive form of problem solving behavior by Oakley (1972). While most sources agree that no single variable accounts for the increase in adolescent drug usage, the sources contend that the overall attitudes and behaviors of contemporary American society related to drugs contributes to increased adolescent drug usage.
Aubrey (1973) emphasizes that drug taking behavior has become a socially acceptable form of problem solving behavior in America in the following quotation:

Peace, happiness, and security can be found behind the counter at your neighborhood drug or liquor store.

Aubrey (1973) uses the above quotation to exemplify that American society has become increasingly intolerant of pain, and physical pleasure is placed at a high premium. Adolescents using and abusing substances are viewed as simply modeling adult behaviors of coping with the complexity of modern life (Aubrey, 1973).

The view that a number of sociocultural conditions initiate and maintain adolescent substance usage patterns has been explored. Additionally, the research indicates that there are numerous psychological variables that potentially correlate to increased substance usage. Craighead, et. al (1976) point out that drug taking may be a way to reduce aversive emotional states such as anxiety and depression. Albert and Beck (1975) also contend that drug abuse may be maladaptive behavior symptomatic of underlying depression or anxiety.
Several recent studies suggest that high levels of stress, anxiety, and depression are related to substance use and abuse among adolescents (Kaestner, Rosen, Appel, 1977; Volpe, 1977; Kilpatrick, Sutker, Smith, 1976). Among the studies, high levels of anxiety is particularly related to adolescent substance misuse (Wells and Stacey, 1976). The study of the social and psychological features of young drug misusers by Wells and Stacey (1976), for example, found that drug misuse was consistently related to elevated levels of anxiety as measured by the IPAT Anxiety Scale Questionnaire.

The relationship of anxiety to drug misuse was also investigated in child caring institutions. The results indicate that the causes of adolescent drug abuse are significantly correlated to anxiety as well as to other independent variables such as attention seeking, curiosity, and status with peers (Coghlan, 1973).

The evidence indicates that the relationship of depression to substance abuse among adolescents is not as definitive as the evidence that suggests the relationship of anxiety to substance abuse. Several sources, however, contend that adolescent depression is not as easily detected or assessed as anxiety, and
adolescent depression may manifest in numerous diverse symptomatology. Kandel (1978) found that the strongest predictors of adolescent substance use were prior involvement in deviant behavior, peer influence, relationship with parents, and belief system. The above study identified level of depression as related to use of hard drugs. Hard drugs were defined as drug categories in addition to the categories of alcohol and marijuana (Kandel, 1978).

A combination of sociocultural, psychological and environmental variables appear to influence the continuing trend toward substance use among both adults and adolescents. Although there are few studies comparing the substance usage patterns of disadvantaged youth to the general adolescent population, the population of Job Corpsmembers was examined in an investigation of the knowledge, attitudes, and drug usage patterns in Job Corps (United States Department of Labor, National Drug Survey, 1973). The study of drug usage patterns in Job Corps was undertaken to provide a data base that was national in scope. Both Job Corpsmembers and staff members were interviewed to assess patterns of substance usage as well as attitudes toward substance usage among Job Corps enrollees and staff (United States Department of Labor, National
Drug Survey, 1973). Using a combination of a questionnaire and a structured interview, the 1973 study tested a sample of 1,357 Job Corpsmembers and 440 staff members. The instruments and data collection procedures for the 1973 study were developed specifically for the Job Corps population.

The findings of the 1973 study indicate that there are many discrepancies between the attitudes of staff members and the attitudes of Corpsmembers related to drug usage. Among staff, for example, ninety-three percent stated that drug use was a problem among youth, while among Corpsmembers, seventy percent stated that drug use was a problem (National Drug Survey, 1973). Table 1 and Table 2 reflect comparisons of staff and enrollee substance use, frequency of use, and types of substances used. The findings indicate that alcohol, tobacco, and marijuana are the most frequently used drugs among both staff and Corpsmembers (National Drug Survey, 1973). A second important finding of the drug survey (1973) is that a high percentage of Job Corpsmembers held inaccurate knowledge about drugs and the various classifications of drugs. The findings indicate that only twenty-seven percent of the enrollees were accurate on more than one half of the 42 items, and only nine
<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Percent Having Used (n = 44)</th>
<th>Percent Prior Experimental Users</th>
<th>Percent Prior Non-Experimental Users</th>
<th>Percent Currently Using</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>86</td>
<td>2</td>
<td>6</td>
<td>75</td>
</tr>
<tr>
<td>Marijuana</td>
<td>22</td>
<td>8</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Stimulants</td>
<td>8</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Hallucinogens</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Depressants</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Opiates</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Inhalants</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 2
Corpsmembers' Substance Use

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Percent Having Used (n = 1301)</th>
<th>Percent Prior Exper. Users</th>
<th>Percent Prior Non-Exper. Users</th>
<th>Monthly Mean Frequency of Prior Use</th>
<th>Percent Currently Using</th>
<th>Monthly Mean Frequency of Current Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>65</td>
<td>4</td>
<td>8</td>
<td>8.02</td>
<td>53</td>
<td>4.79</td>
</tr>
<tr>
<td>Marijuana</td>
<td>45</td>
<td>7</td>
<td>9</td>
<td>9.29</td>
<td>29</td>
<td>9.02</td>
</tr>
<tr>
<td>Stimulants</td>
<td>16</td>
<td>4</td>
<td>6</td>
<td>8.74</td>
<td>6</td>
<td>5.65</td>
</tr>
<tr>
<td>Hallucinogens</td>
<td>18</td>
<td>7</td>
<td>6</td>
<td>5.71</td>
<td>5</td>
<td>6.02</td>
</tr>
<tr>
<td>Depressants</td>
<td>18</td>
<td>5</td>
<td>7</td>
<td>10.11</td>
<td>5</td>
<td>6.18</td>
</tr>
<tr>
<td>Opiates</td>
<td>10</td>
<td>3</td>
<td>5</td>
<td>12.00</td>
<td>1</td>
<td>4.67</td>
</tr>
<tr>
<td>Inhalants</td>
<td>9</td>
<td>4</td>
<td>4</td>
<td>13.46</td>
<td>1</td>
<td>6.59</td>
</tr>
</tbody>
</table>
percent were accurate on more than two-thirds of the forty-two items. The lack of accurate information generally held by Job Corpsmembers was surprising to staff. The findings indicate that the majority of staff interviewed assumed that Job Corpsmembers had accurate information about drugs (National Drug Survey, 1973).

The third major finding of the 1973 study relates to findings regarding the usage patterns of drugs in relationship to numerous demographic variables. The findings indicated that female Job Corpsmembers were more likely to disapprove of drugs and less likely to use illicit drugs (National Drug Survey, 1973). Additionally, the younger the enrollee, the more likely the enrollee used drugs. Enrollees from large, urban populations were more likely to use illicit drugs than enrollees from rural settings (National Drug Survey, 1973). The summary of the 1973 National Drug Survey in Job Corps indicates that the disadvantaged youth reflected in the Job Corps population use and misuse substances to about the same degree as age equivalent adolescents (Nelson, et. al., 1974).

Two methodological areas must be considered in reporting the findings of the 1973 study. First,
the instrument utilized to assess attitudes, knowledge, and drug usage patterns was administered using a personal interview format. Interviewers had a structured set of questions to ask subjects; however, this was done in 'rap session' format in order to alleviate possible discomfort and suspicion among subjects (National Drug Survey, 1973). Second, the interviewers utilized in the 1973 study were former Job Corps members who were trained as interviewers for the 1973 study (National Drug Survey, 1973).

The manner of administering the instruments, the possible subjectivity of interviews, and the questionable skill level of the interviewers are variables that tend to limit both the external and internal validity of the 1973 study. Also, the delicate and potentially threatening nature of the questions pertaining to substance usage may have contributed to intentional or unintentional bias among the sample Job Corps members interviewed in the 1973 study.

One positive outcome of the 1973 study was that Job Corps professionals gained descriptive data related to the possible educational and counseling needs of Job Corps members regarding substance use and
misuse. The section of Chapter II that described the Job Corps Mental Health Program emphasized the preventive nature of the mental health services provided in Job Corps. The misuse of drugs as well as drug informational and educational services are also emphasized in the Job Corps Comprehensive Mental Health Program (United States Department of Labor, Handbook 330, 1978). The philosophy of the Mental Health Program regarding drug misuse is exemplified by the following statement taken from Handbook 330, Department of Labor (1978):

Drug problems are now part of the American scene and are receiving national attention. Drug misuse is prevalent in adolescent groups from which Job Corps recruits; therefore, centers should consider this fact in adopting their programs.

Drug misuse is addressed in Job Corps as a contemporary societal problem that affects the population reflected in Job Corps. According to the guidelines delineated in the Job Corps Mental Health Program, the center director has overall responsibility for the prevention and control of center drug misuse (United States Department of Labor, Handbook 330, 1978). The drug misuse guidelines also stipulate that the center director appoint a drug program
coordinator who is responsible for the design and implementation of the center drug misuse program (United States Department of Labor, Handbook 330, 1978). The program recommendations delineated in Handbook 33 (1978) include:

1. Group counseling for Corpsmembers who misuse drugs
2. Information for Corpsmembers regarding center drug use policy
3. Individual counseling for Corpsmembers who misuse drugs
4. Education and information provided to all Corpsmembers on centers.

The description of the Job Corps Mental Health program regarding drug abuse emphasizes preventive services, yet the program also provides counseling and treatment services to Job Corpsmembers misusing drugs. The mental health program further stipulates that both Corpsmembers adversely affecting other persons, and Corpsmembers who are addicted or adversely affecting their own performance may be terminated from the Job Corps Program (United States Department of Labor, Handbook 330, 1978).
The literature related to adolescent substance use has shown that the use of drugs has steadily increased within the adolescent as well as the adult population. Drug usage is currently viewed as a national problem with potentially negative individual and societal ramifications. The formative and developmental phases of adolescence make the adolescent particularly vulnerable to the potentially harmful physiological and psychological effects of both licit and illicit use of drugs. Brecher (1972) describes the crisis of adolescent substance use with the following contention:

The use of drugs, especially by young people, appears to be increasing year by year. Programs designed to warn children and young people away from drugs have failed to accomplish their purpose; some programs, indeed, have perhaps even contributed to the rising tide of drug use.

The above statement was printed in 1972, yet the data reporting the incidence and trends in adolescent substance use in 1980 indicate that national drug abuse problems persist and have, perhaps, reached the point of national epidemic status.
Summary of the Literature

The review of literature has provided a summary of the literature related to adolescent stress, adolescent anxiety, adolescent depression, and adolescent substance use. The review also examined the Job Corps Mental Health program in relationship to the goals and philosophy of the program. Job Corps enrollees represent a segment of the adolescent population that is described as disadvantaged. The literature review revealed that disadvantaged adolescents have not been studied as extensively as age equivalent adolescents, particularly in terms of mental health status and mental health needs.

The review of literature focused on possible environmental variables that effect contemporary youth. The intent of the literature was not to refute the numerous psychodynamic theories related to adolescent stress, anxiety, and depression, but rather to emphasize the significance of external and environmental variables indicative of contemporary life that may potentially contribute to elevated levels of anxiety and depression among disadvantaged youth. Although adolescence is a life period indicative of
many changes in the process of the transition to adulthood, the significant influence of the socio-cultural era in which adolescents develop has been emphasized throughout the literature review in Chapter II.

The adolescent stress categories of: personal stress, transitional stress, situational stress, peer group stress, and growth and maturational stress were conceptualized by the Department of Labor (1979) as categories of stress particularly applicable to Job Corps youth. The emphasis of the Job Corps mental health program is primarily preventive in nature, yet the philosophy of the program highlights the reality that the past experiences of Job Corps members have included school failure, vocational failure, poverty, family conflict, and delinquency for a high percentage of Job Corps enrollees (United States Department of Labor, Handbook 330, 1978; Substance Use Manual, 1979; Standing Order H18b, 1977). The theory that the above stresses may make Job Corps members high probability candidates for elevated levels of depression and anxiety is assumed in the literature related to Job Corps. The actual measurement of levels of anxiety and depression has
not been formally assessed among the Job Corps population.

The literature related to adolescent substance use was also examined in Chapter II. Although the increasing rate of substance usage has been attributed to the stresses of contemporary life, the general social acceptance of drug taking behavior among the adult population has been emphasized in the literature as a model from which to better understand adolescent drug taking behavior. Chapter II examined adolescent drug taking behavior in terms of both licit and illicit drugs. The 1973 Job Corps study that examined drug usage patterns and attitudes among Job Corps enrollees was also described and examined in Chapter II. The major finding of the 1973 study was that Job Corps enrollees tended to use and abuse drugs to about the same degree as other age equivalent adolescents (National Drug Survey, 1973).

The emphasis throughout Chapter II was both to describe external variables that may be associated to stress, anxiety, depression, and substance use, and to provide definitions of stress, anxiety, depression, and substance use. The significance of clarity of
definition has been emphasized by several sources (Rimm and Masters, 1974; Craighead, et. al., 1976; Mischel, 1968). The constructs of anxiety and depression are replete with inferential assumptions as to etiology, symptomatology, and treatment of anxiety and depression. The learning approach to psychological assessment and treatment emphasizes the importance of clarity of definition and description in the assessment and the treatment of the varied symptomatology labelled as depression, anxiety, as well as substance use.
CHAPTER III

METHODOLOGY

Introduction

Chapter III defines the design of the study, the procedure utilized to select a sample from the population, the testing procedures, and the statistical methods selected. The chapter also describes the hypotheses and the instruments used.

Research Design and Methodology

The design of the study is the expost facto form of the randomized one group design. Limitations of expost facto research are described by several sources (Kerlinger, 1973; Campbell and Stanley, 1963; Mischel, 1968). Kerlinger (1973) states that a major limitation expost facto research is lack of control of the independent variables. Caution must be taken in reporting the results and the interpretation of the data generated from the expost facto design
(Kerlinger, 1973). Although limitations of the expost facto design exist, expost facto research has been extensively used in both educational and psychological studies. Kerlinger (1973) also emphasizes that many of the significant psychological and educational research problems do not lend themselves to experimentation, making expost facto research a viable alternate design.

Descriptive survey methodology is utilized to obtain the data for this study. According to Kerlinger (1973), survey methodology emphasizes and studies the attitudes, beliefs, and behaviors of people. The major advantage of survey methodology is the wide scope and large amount of information generated by the survey method (Kerlinger, 1973).

The design and methodology utilized for the study are selected in order to systematically assess and analyze current conditions and attitudes that exist in the population of Job Corps members. The systematic analysis of present conditions is viewed as a necessary preliminary in problem solving as well as in the further refinement of the objectives and needs of the Job Corps Mental Health Program.
Population

The population of Job Corps consists of youth between the ages of 16 and 22, from socially and educationally disadvantaged backgrounds (Hayman, 1979). Job Corps enrollees come from the fifty states, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific Islands (Department of Labor, FY-76). The Job Corps program includes male and female enrollees who volunteer to enter the Job Corps Program which is sponsored by the Department of Labor. The average age of a new enrollee is seventeen (17) for men and eighteen (18) for women (Department of Labor, FY-76). Although the predominant racial heritage of the Job Corps population is Black, several races and ethnic groups are reflected in the overall Job Corps population. The majority of Job Corps enrollees have completed nine to eleven years of school prior to entering the program, with the average enrollee having dropped out of school after completing the ninth grade (Department of Labor, FY-76).

A significant proportion of female enrollees are high school graduates entering Job Corps due to
inadequate preparation and skill training. The average family of origin size of a Job Corps member is six (6) persons, and the average family income excluding public assistance is $4,500 (Department of Labor, FY-76). Sixty percent of Job Corps members were from broken homes, and sixty percent lived in sub-standard housing prior to entering Job Corps (Department of Labor, FY-76). Table 3 reflects the characteristics of the Job Corps population as assessed in 1976 (Department of Labor, FY-76).

Sample

The 130 participants for the study were selected from currently enrolled Job Corps members in Region 5, the Midwest Region. The Dayton Job Corps Center was selected among the eight Job Corps Centers in Region 5 since the population of this center is representative of the Job Corps population. Among the eight Job Corps Centers in Region 5, in full operation in 1980, the Dayton Job Corps Center was the only one in the region that met the criteria necessary for this study. The Dayton Job Corps Center is an urban, residential center which includes both male and female enrollees. The remaining centers in operation in 1980 were either rural, limited to one sex group, or
Table 3
Characteristics of Job Corps Population

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent of Enrollees</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Family Size</strong></td>
<td></td>
</tr>
<tr>
<td>1 person</td>
<td>14.3</td>
</tr>
<tr>
<td>2-4 persons</td>
<td>28.8</td>
</tr>
<tr>
<td>5-7 persons</td>
<td>36.9</td>
</tr>
<tr>
<td>8 and over</td>
<td>20.0</td>
</tr>
<tr>
<td><strong>Minority Status</strong></td>
<td></td>
</tr>
<tr>
<td>White (excluding Spanish speaking)</td>
<td>29.5</td>
</tr>
<tr>
<td>Black</td>
<td>55.4</td>
</tr>
<tr>
<td>Spanish Speaking</td>
<td>10.8</td>
</tr>
<tr>
<td>American Indian</td>
<td>2.8</td>
</tr>
<tr>
<td>Other</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Years of School Completed</strong></td>
<td></td>
</tr>
<tr>
<td>8 years or less</td>
<td>21.9 14.5 19.8</td>
</tr>
<tr>
<td>9 to 11 years</td>
<td>68.6 62.7 66.9</td>
</tr>
<tr>
<td>12 years or more</td>
<td>9.6  22.7 13.3</td>
</tr>
</tbody>
</table>
Table 3
(continued)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent of Enrollees</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duration of Unemployment</strong></td>
<td></td>
</tr>
<tr>
<td>27 weeks or more and never employed</td>
<td>75.5</td>
</tr>
<tr>
<td>14 to 26 weeks</td>
<td>7.8</td>
</tr>
<tr>
<td>5 to 13 weeks</td>
<td>9.9</td>
</tr>
<tr>
<td>Under 5 weeks</td>
<td>6.8</td>
</tr>
</tbody>
</table>
non-residential for both sex groups. The Dayton Job Corps Center consists of enrollees from both urban and rural home town or city of origin and is a center where enrollees range in age from 16 to 22 years of age. In October of 1980, there were 300 Corpsmembers enrolled at the Dayton Job Corps Center.

Sampling Procedure: Purposive sampling was utilized to obtain a representative sample (Kerlinger, 1964). All attempts were made to draw as large a sample as possible. A large sample size was especially important since it was expected that some of the test packets would have to be disqualified following testing due to possible reading difficulties among some participants. All participants volunteered to take the tests and were told they could choose to discontinue testing at any time. Of the one hundred thirty participants and subsequent test packets collected, one hundred five were utilized for this study. Twenty-five test packets were disqualified. Among the twenty-five packets that were disqualified, three packets were found to display obvious participant attempts to distort responses. Two, of the twenty-five packets disqualified, contained incomplete demographic responses. The remaining twenty packets were disqualified due to incomplete responses on one or more of the instruments.
Based on the hundred five (105) sample group, the power of the IPAT Anxiety Scale Questionnaire was .96 (Hays, 1973). The following formula was utilized (Hays, 1973):

$$Z_m = \frac{X - M}{\sigma_m}$$

The alpha was .05, and was selected based upon arbitrary convention.

The demographic characteristics of the sample are presented in Table 4. Inspection of the table reveals that participants resemble the Job Corps population with the exception of the variables of age and sex. There are more female participants in this study than are reflected in the proportion of females in the general Job Corps population census of 1978 (United States Department of Labor, FY-78, 1978).

The age level of the sample also differed from the 1978 census population. The sample tended to be slightly older than average age levels assessed in the 1978 census for the general Job Corps population.
Table 4
Demographic Characteristics of Sample

<table>
<thead>
<tr>
<th>Demographic Variable Label</th>
<th>Frequency</th>
<th>Cumulative Frequency</th>
<th>Percent</th>
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<tbody>
<tr>
<td>AGE</td>
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<td>12</td>
<td>11.4</td>
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</tr>
<tr>
<td></td>
<td>22</td>
<td>4</td>
<td>105</td>
</tr>
<tr>
<td>SEX</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>51</td>
<td>51</td>
<td>48.6</td>
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<tr>
<td>Male</td>
<td>54</td>
<td>105</td>
<td>51.4</td>
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<tr>
<td>MARITAL STATUS</td>
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<td></td>
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<tr>
<td>Single</td>
<td>91</td>
<td>91</td>
<td>86.7</td>
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<tr>
<td>Married</td>
<td>14</td>
<td>105</td>
<td>13.3</td>
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<tr>
<td>RACIAL HERITAGE</td>
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</tr>
<tr>
<td>Non-White</td>
<td>93</td>
<td>93</td>
<td>88.6</td>
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<tr>
<td>White</td>
<td>12</td>
<td>105</td>
<td>11.4</td>
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Table 4
(continued)

<table>
<thead>
<tr>
<th>Demographic Variable Label</th>
<th>Frequency</th>
<th>Cumulative Frequency</th>
<th>Percent</th>
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<tr>
<td><strong>EDUCATIONAL LEVEL</strong></td>
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<tr>
<td>6th Grade</td>
<td>0</td>
<td>0</td>
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<tr>
<td>7th Grade</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8th Grade</td>
<td>7</td>
<td>7</td>
<td>6.7</td>
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<td>12</td>
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<td>17</td>
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<td>11th Grade</td>
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<td>12th Grade</td>
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<tr>
<td>High School Equivalent (GED)</td>
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<tr>
<td>1 Year College</td>
<td>3</td>
<td>105</td>
<td>2.9</td>
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</table>

**TIME IN JOB CORPS**

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<th>Time Indicator</th>
<th>Frequency</th>
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<th>Percent</th>
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<tr>
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<td>2 Months to 6 Months</td>
<td>51</td>
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<td>6 Months to 1 Year</td>
<td>21</td>
<td>98</td>
<td>20.0</td>
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<td>1 Year to 2 Years</td>
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<tr>
<td>2 Years or More</td>
<td>1</td>
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Table 4
(continued)

<table>
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<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>79</td>
<td>79</td>
<td>75.2</td>
</tr>
<tr>
<td>Town</td>
<td>16</td>
<td>95</td>
<td>15.2</td>
</tr>
<tr>
<td>Farm</td>
<td>7</td>
<td>102</td>
<td>6.7</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>105</td>
<td>2.9</td>
</tr>
<tr>
<td>SUBSTANCE USE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User</td>
<td>66</td>
<td>66</td>
<td>62.9</td>
</tr>
<tr>
<td>Non-User</td>
<td>39</td>
<td>105</td>
<td>37.1</td>
</tr>
</tbody>
</table>
Procedure

Participants were each given a test packet which included:

1. The Demographic Questionnaire
2. The IPAT Anxiety Scale Questionnaire
3. The Beck Depression Inventory
4. The Self-Report Substance Use Questionnaire.

Prior to the distribution of the test packets, participants were given the Voluntary Consent Form. The form was explained to all participants, and any participant choosing not to sign the consent form was immediately disqualified from the testing. The consent forms were collected and placed in a separate box. Complete confidentiality was assured to all participants, and there was no possible way either to link forms with individual packets, or to identify any participant by name, number of any other identifying information on the test packet.

Following the collection of the consent forms, participants were provided with an oral introduction
to the study as well as the information and use of information to be generated from the study.

Time for participant questions regarding the study was provided. Participants were given explicit directions for each of the items in the test packet, and participants were also instructed that assistance would be provided in terms of clarification of instructions or help with reading on the various instruments. Fifty minutes was the allotted testing time, and any participants wishing to further discuss the study or items on the questionnaires were asked to remain for discussion following collection of packets. There were three trained assistants to aid the researcher in distribution and collection of test packets, as well as to assist individual participants with reading difficulties.

Assistants: The three assistants hold advanced degrees in Education and Counseling and are experienced in research methodology. Each of the assistants was trained by the researcher in the instructions, recommended procedure, distribution and collection of the test packets. The assistants were also provided with a sample of each of the questionnaires to ensure familiarity and clarity of content and procedure.
Instrumentation

The major instruments used in the study were the IPAT Anxiety Scale Questionnaire (ASQ), and the Beck Depression Inventory (BDI). The Substance Use Questionnaire was constructed specifically for the study to assess current substance usage and attitudes toward substance use. A Demographic Questionnaire was constructed to elicit data that was utilized for the independent variable categories of the study.

1. The IPAT Anxiety Scale Questionnaire:

Developed by Cattell, Krug, and Scheier, the IPAT Anxiety Scale is a brief, structured self report measure of anxiety levels. Originally published in 1957, and updated in 1976, this instrument also clarifies items into two subscales which are labelled covert and overt anxiety. The instrument yields a total anxiety score. In addition to the total score and the two sub-scales, there are five component scores that can be derived in the Anxiety Scale Questionnaire. These are:

a. Component O: Apprehension
b. Component Q: Tension
c. Component Q: Low Self-Control
Component L: Suspicion
Component C: Emotional Instability.

For the purpose of this research project, the component scores were not utilized, and only a total score reflecting overall anxiety level was utilized due to the greater reliability and validity of the total score.

The Anxiety Scale Questionnaire was developed to elicit clinical anxiety information in an objective and standard manner (Krug, et. al., 1976). This instrument is applicable to low educational levels and is purported to be appropriate for chronological ages of 14 years on upward through adulthood (Krug, et. al., 1976).

The IPAT Anxiety Scale Questionnaire is easily administered to large groups, and testing time involves about ten minutes. The scale has been widely used for initial diagnosis as well as in research (Krug, et. al., 1976). In terms of procedure, one unique feature of this scale is that it is permissible to assist subjects with words or phrases on the test if reading skills are limited.

Norms for the ASQ are provided for the sexes separately and together for high school, college and
adult groups. The norm tables provided for the above groups include the raw score as well as the sten equivalent. The reference groups' mean and standard deviation are also provided. It is recommended for research purposes that the raw scores be converted into the sten system. Levels of anxiety are indicated as low, average, high, and severe. A sten score of 4, 5, 6, or 7 indicates an average level of anxiety (Krug, et. al., 1976). Scores of 1, 2, and 3 are considered low and generally found in highly relaxed and secure individuals (Krug, et. al., 1976). Scores of 8 or 9 indicate high levels of anxiety, and a score of 10 indicates an extremely high level of anxiety with possible serious consequences for the individual (Krug, et. al., 1976). Stens of 9 or 10 are found in about 1 of 20 cases (Krug, et. al., 1976).

The reliability of the total score is high (McReynolds, 1978). Reliabilities of the separate overt-covert halves are reported at somewhat lower than the total score, however, at an adequate level. The reliability in terms of consistency over time has been reported at .70 (Krug, et. al., 1976). Internal Consistency is also high and has been obtained from four samples which include high school and college students. Due to the average reading level, as well
as the age level of the population under study, it was determined that the IPAT Anxiety Scale Questionnaire would be an appropriate and valid instrument used to assess anxiety.

2. **The Beck Depression Inventory:**

Developed by Beck, Ward, Mendelson, Mack, and Erbaugh in 1961, the Beck Depression Inventory is a self-report instrument which yields a score measuring level of depression. The instrument consists of 21 groups of four statements in each group. Respondents are asked to select the statement in each group which best describes current self feelings and behaviors. The answers provide a profile of symptoms as well as a total score. For purposes of this research paper, only the total score was utilized.

The Beck Depression Inventory has been used widely for both clinical and research applications. The BDI was developed in order to help meet the problem of variability of clinical diagnosis and to provide a standardized and consistent measure of depression (Beck, 1967). In constructing the instrument, the authors sought to maximize the difference between depressed and nondepressed individuals (Beck, 1967).
The inventory was designed to include symptoms indicative of depression as well as to reflect the varying degrees of severity of depression (Beck, 1967). The items were clinically derived based upon attitudes, behaviors, and symptoms related to depressed persons, as well as on descriptions from the psychiatric literature. There are 21 categories, and each category is ranked from neutral to maximal severity (Beck, 1967). Numerical values from 0 to 3 are assigned to each statement. The total score is derived by summing the scores of the individual symptom categories (Beck, 1967).

The scores are normed from an outpatient counseling department of the Hospital of the University of Pennsylvania and Philadelphia General Hospital (Beck, 1967). The age concentration of the sample used was between 15 and 44, and there was a high frequency of individuals from lower socioeconomic groups in the sample.

The reliability and validity of the Beck Depression Inventory is reported as very adequate (Beck, 1967). Internal consistency studies yielded reliability coefficients of .86 and .93, respectively. Methods of estimating the stability of the instrument were also conducted indicating a consistent relationship
of the instrument to the individual's clinical state (Beck, 1967). In terms of concurrent validity, the highest correlation was between the Beck Depression Inventory and the Minnesota Multiphasic Personality Inventory (MMPI). Evidence of construct validity of this instrument has been established by several investigators (Gottschalk, et. al., 1963).

The inventory takes approximately 5 to 10 minutes to complete and may be administered to large groups. Depth of depression is categorized into four categories which are:

1. None
2. Mild
3. Moderate
4. Severe.

One advantage of this instrument is that it discriminates between anxiety and depression (Beck, 1967). This is important in that the constructs of anxiety and depression often share similar definition. The Beck Depression Inventory measures depression and Beck (1967) defines depression as:

Depression is conceived of as an abnormal state of the organism manifested by signs and symptoms such as low subjective
mood, pessimistic and nihilistic attitudes, loss of spontaneity, and specific vegetative signs.

3. **Substance Use Questionnaire:**

The questionnaire was developed to assess current usage and non-usage of substances, types of substances used, and the frequency of use. The questionnaire is a self report, paper-pencil instrument consisting of seventeen items and categorizes respondents into two groups which are labelled as user and non-user of substances. The categories of user and non-user were utilized as independent variables to test Hypotheses 3 and 4.

Select items on the questionnaire were utilized in Hypothesis 5 which compares current substance use to prior Job Corps survey results (National Drug Survey, Job Corps, 1973). (See Appendix A.)

The questionnaire defines seven major categories of substances which are:

1. Stimulants
2. Depressants
3. Opiates
4. Psychedelics
5. Inhalants
6. Alcohol
7. Marijuana.
Although alcohol and marijuana fall into the categories of Depressant and Psychedelic, respectively, both alcohol and marijuana were listed as additional categories as these have been found to be the most commonly used substances in the general population of Job Corps and are often considered as separate categories by the general population (Substance Use Training Manual, 1979).

In addition to assessment of substance use, frequency of use, and types of substances used, the instrument yields attitudinal and behavioral information. Several items on the questionnaire elicit responses which generate data describing attitudes and behaviors in terms of why and when substances are used. Data concerning availability of drug information and drug counseling is also incorporated in the questionnaire.

The items on the Substance Use Questionnaire were drawn from three categories of sources; these consist of:

1. Professionals in Job Corps
2. Questions and items utilized in the National Drug Survey, Job Corps, 1973
Professionals in Job Corps:
Mental Health, Educational, and Counseling professionals in Job Corps from numerous centers and regions throughout the United States were informally interviewed to ascertain the nature of information that would be useful in terms of enhancing the programs and services available in Job Corps in the areas of substance use information, education and counseling.

National Drug Survey:
The National Drug Survey (1973) assessed attitudes, behaviors, and knowledge regarding several categories of substances. The survey was conducted using a structured personal interview administered by trained interviewers. Items number 4, 5, 6, 7, 8, 16, and 17 in the Substance Use Questionnaire were modeled after similar items utilized in the oral interview in the 1973 study.

Substance Use Training Manual:
The Substance Use Training Manual was developed by the Job Corps National Health Office for purposes of information, education, and training of Job Corps staff by consultants in the area of substance use and policy toward substance use in Job Corps. The items
on the Substance Use Questionnaire pertaining to policy, categories of substances, and Job Corps were developed using the Training Manual as guideline.

The construction of the Substance Use Questionnaire was developed with consideration of the population to be studied in terms of topic, readability, objectivity, and confidentiality. The questionnaire was constructed so that Job Corps professionals could utilize the instrument in the future to gain descriptive information related to substance use.

The questionnaire was reviewed by two graduate students and three mental health professionals for readability and clarity of content and instructions. The questionnaire was also distributed to a group of adolescents involved in a counseling group at an outpatient mental health center for review and comment. Finally, the questionnaire was pretested utilizing volunteer Job Corps members at a residential Job Corps Center. To ensure that the volunteers pretesting the instrument would not be included in the sample for this study, a Job Corps Center was selected that is out of the region which was utilized for sample selection.
The Demographic Questionnaire:
The categories of demographic information used as the independent variables were the following:

1. Age
2. Sex
3. Marital Status
4. Length of time in Job Corps Program
5. Educational grade level or equivalent
6. Racial heritage
7. Urban or rural origin.

Participants were asked to check the item of each of the categories pertinent on the day of the testing. Additionally, the Demographic Questionnaire listed ten items of stress sources. Participants were asked to rank the three areas that were of most concern at the time of testing. The ten stress items were categorized into five major stress areas as identified by the Job Corps Mental Health Program (Substance Use Training Manual, 1979). The stress areas were labelled as:

1. Transitional stress
2. Situational stress
3. Personal stress
4. Peer group stress
5. Growth and maturational stress

(Substance Use Training Manual, 1979).

The Demographic Questionnaire insured complete confidentiality to all participants. The information generated was strictly for research purposes and identifying names or numbers were neither utilized nor necessary for this project.

Variable Categories

There were two sets of variable categories established for the study. The demographic variable set consisted of the categories of: age, sex, race, marital status, length of time in Job Corps, and urban-rural place of origin. The second set consisted of the stress categories of: personal stress, peer group stress, transitional stress, situational stress, and growth and maturational stress.

Anxiety and depression were the dependent variables in the study.

Variable categories and the source of these categories are presented in Table 5.
<table>
<thead>
<tr>
<th>Variable Type</th>
<th>Variable Label</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>Age</td>
<td>Demographic Questionnaire</td>
</tr>
<tr>
<td>Independent</td>
<td>Sex</td>
<td>Demographic Questionnaire</td>
</tr>
<tr>
<td>Independent</td>
<td>Marital Status</td>
<td>Demographic Questionnaire</td>
</tr>
<tr>
<td>Independent</td>
<td>Race</td>
<td>Demographic Questionnaire</td>
</tr>
<tr>
<td>Independent</td>
<td>Education Level</td>
<td>Demographic Questionnaire</td>
</tr>
<tr>
<td>Independent</td>
<td>Urban or Rural Origin</td>
<td>Demographic Questionnaire</td>
</tr>
<tr>
<td>Independent</td>
<td>Length of Time in Job Corps</td>
<td>Demographic Questionnaire</td>
</tr>
<tr>
<td>Independent</td>
<td>Transitional Stress</td>
<td>Demographic Questionnaire</td>
</tr>
<tr>
<td>Independent</td>
<td>Situational Stress</td>
<td>Demographic Questionnaire</td>
</tr>
<tr>
<td>Independent</td>
<td>Peer Group Stress</td>
<td>Demographic Questionnaire</td>
</tr>
<tr>
<td>Independent</td>
<td>Growth and Maturational Stress</td>
<td>Demographic Questionnaire</td>
</tr>
<tr>
<td>Independent</td>
<td>Personal Stress</td>
<td>Demographic Questionnaire</td>
</tr>
</tbody>
</table>
Table 5  
(continued)

<table>
<thead>
<tr>
<th>Variable Type</th>
<th>Variable Label</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>Substance User</td>
<td>Self-Report Substance Use Questionnaire</td>
</tr>
<tr>
<td>Independent</td>
<td>Substance Non-User</td>
<td>Self-Report Substance Use Questionnaire</td>
</tr>
<tr>
<td>Dependent</td>
<td>Depression</td>
<td>Beck Depression Inventory</td>
</tr>
<tr>
<td>Dependent</td>
<td>Anxiety</td>
<td>IPAT Anxiety Scale Questionnaire</td>
</tr>
</tbody>
</table>
Hypotheses

The seven hypotheses for this study are stated in the null form and are tested at the .05 level of significance.

$H_1$ There will be no significant relationship between the selected independent variables of age, sex, length of time in Job Corps, marital status, level of education, urban-rural home town of origin, race when compared to the dependent variable anxiety.

$H_2$ There will be no significant relationship between the selected independent variables of age, sex, length of time in Job Corps, marital status, level of education, urban-rural home town of origin, race when compared to the dependent variable depression.

$H_3$ There will be no significant difference between users and non-users of substances when compared to level of anxiety.
There will be no significant difference between users and non-users of substances when compared to level of depression.

There will be no significant difference between use of substances by Job Corpsmembers in 1973 to use of substances by Corpsmembers in 1980.

There will be no significant relationship between the selected independent stress variables of: transitional stress, situational stress, personal stress, peer group stress, maturational stress when compared to the dependent variable anxiety.

There will be no significant relationship between the selected independent stress variables of: transitional stress, situational stress, personal stress, peer group stress, maturational stress when compared to the dependent variable depression.
Analysis of Data

Hypothesis 1 and Hypothesis 2 were each tested by multiple regression analysis. Multiple regression analysis analyzed the effects and the magnitude of the independent demographic variables of: age, sex, education level, marital status, length of time in Job Corps, and racial heritage on the respective dependent variables of anxiety and depression. Multiple regression was selected in order to determine the linear prediction of the independent demographic variables to the respective dependent variables of anxiety and depression.

Hypothesis 3 and Hypothesis 4 were each tested by factorial analysis of variance. The independent variables of: substance use, sex, race and age were compared to the respective dependent variables of anxiety and depression. Additionally, t tests were utilized to test significant differences in anxiety level and depression level between users and non-users of substances.

Hypothesis 5 was tested utilizing chi square tests to assess possible change and to make comparisons between 1973 and 1980 substance use among Job Corps members. Chi square tests were performed for
the drug categories of: alcohol, marijuana, stimulants, depressants, opiates, hallucinogens, and inhalants.

Hypothesis 6 and Hypothesis 7 were tested by multiple regression analysis to determine the predictive value of the independent stress variables to anxiety and depression. The independent variables were the five stress categories of: transitional stress, situational stress, personal stress, peer group stress, and maturational stress.

The data was tabulated and coded. Statistical analysis was performed by using the SPSS statistical package.
CHAPTER IV

DATA ANALYSIS

The purpose of Chapter IV is to present the analysis of each of the seven hypotheses under investigation. For clarity, the hypothesis-analysis-synthesis method of presentation will be utilized. With this method, the hypothesis is first articulated, followed by a presentation of the results in tabular form. The data is then explicated and concludes with a synthesis of the results. The hypothesis is either not rejected or rejected at the .05 level of probability.

Hypothesis I

\[ H_0 \] There will be no significant relationship between the selected independent variables of age, sex, length of time in Job Corps, marital status, level of education, origin, and race when compared to anxiety level.
Hypothesis 1 addresses the concept of anxiety being a function of a given set of independent variables. Further, it seeks to determine whether or not a participant's age, sex, length of time in Job Corps, marital status, level of education, origin and race can aid in predicting a participant's anxiety level with confidence.

To test this hypothesis, a multiple regression paradigm was chosen to analyze the data. The results of the regression analysis are presented in Table 6.

**Table 6**

Multiple Regression Analysis for Anxiety

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>B Value</th>
<th>F Value</th>
<th>Probability &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Level</td>
<td>-2.00</td>
<td>8.31</td>
<td>.0048</td>
</tr>
</tbody>
</table>

$r^2 = .074$

(The computer program utilized to analyze the data only provides the statistical analysis for those variables found to be significant in the
regression equation. Therefore, the F-ratio and probability levels of the non-significant variables are not shown in the summary tables.)

Inspection of Table 6 indicates that only a participant's educational level is significant in this regression model. The remaining six independent variables were not significant and did not account for the pattern of variance noted in the anxiety scores. Therefore, although educational level is related to anxiety level, $F, 8.31, p < .05$, this variable, interacting with the other six variables is insufficient to account for neither the pattern of anxiety scores found for the participants, nor are these variables predictive of any participant's level of anxiety.

Based on the results of these data, the null hypothesis of no significant difference is not rejected at the .05 level of probability.

**Hypothesis II**

$H_0$: There will be no significant relationship between the selected independent variables of age, sex, length of time in Job Corps, marital status, level of education,
origin, and race when compared to depression.

Hypothesis II addresses the concept of anxiety being a function of a given set of independent variables. Following the model established in Hypothesis I, if a participant's age, sex, length of time in Job Corps, marital status, level of education, origin and race are known, can degree of depression be predicted with confidence?

To test this hypothesis, the variables were entered into a multiple regression equation. The results of the regression analysis are shown in Table 7.

Table 7

Multiple Regression Analysis
of Dependent Variable of Depression

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>B Value</th>
<th>F Value</th>
<th>Probability &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of Time in</td>
<td>1.52</td>
<td>2.21</td>
<td>.14</td>
</tr>
<tr>
<td>Job Corps</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ r^2 = .021 \]
Inspection of Table 7 reveals that none of the predictor variables were significant in the regression equation, with "length of time in Job Corps" being the only independent variable showing any trend toward significance, $F_{2.21}, p < .14$. These findings suggest that knowledge of a participant's age, sex, length of time in Job Corps, marital status, level of education, origin and race are of little value in accounting for the pattern of variance noted in the depression scores. Further, the predictor variables chosen for this regression model do not provide sufficient data to allow for prediction of an individual participant's level of severity of depression. These results suggest that the independent variables which may be related to depression levels of the participant's remain to be identified.

Based on these results, the null hypothesis of no significant difference is not rejected at the .05 level of probability.

**Hypothesis III**

$H_0$ There will be no significant differences between users and non-users of substances when compared on anxiety level.
To determine if the participants differed in level of anxiety as a function of substance (drug) usage, a t-test for independent samples was performed on the data. The results of the t-test are shown in Table 8.

The results presented in Table 8 indicate that the participants do not differ in level of anxiety as a function of their use/non-use of substances (drugs), $t, 1.50, p = .1367$. Based on these results, the null hypothesis of no significant difference is not rejected at the .05 level of probability.

Additional analyses were performed to determine if significant differences in anxiety level would be noted as a function of the interaction of two or more variables acting in consort. Therefore, a four way factorial analysis of variance (user-non-user, age, sex, and race) was performed on the data. The results of the factorial analysis of variance are shown in Table 9. The results portrayed in Table 9 reveal a significant 2-way interaction between substance use/race, $F, 3.803, p < .05$. These results suggest that participants who use drugs and are non-white have significantly higher levels of anxiety than any of the other groups. No
Table 8

**t-Test for Difference in Anxiety Level**

*By Substance (Drug) Use/Non-use*

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of Subjects</th>
<th>Mean Anxiety Score</th>
<th>S.D.</th>
<th>S.E.</th>
<th>D.F.</th>
<th>t Value</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users</td>
<td>66</td>
<td>11.62</td>
<td>10.22</td>
<td>1.25</td>
<td>103</td>
<td>1.50</td>
<td>.1367 *</td>
</tr>
<tr>
<td>Non-Users</td>
<td>39</td>
<td>8.74</td>
<td>8.10</td>
<td>1.30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Critical value of t for significance at p < .05 with 103 Degrees of Freedom = 1.99
Table 9

Four-Way Factorial Analysis of Variance
Anxiety: Sex x Age x Substance Use x Race

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>S.S.</th>
<th>d.f.</th>
<th>M.S.</th>
<th>F</th>
<th>F Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>.008</td>
<td>1</td>
<td>.008</td>
<td>.000</td>
<td>.993</td>
</tr>
<tr>
<td>Age</td>
<td>105.496</td>
<td>1</td>
<td>105.496</td>
<td>1.145</td>
<td>.288</td>
</tr>
<tr>
<td>Substance Use</td>
<td>2.513</td>
<td>1</td>
<td>2.513</td>
<td>.027</td>
<td>.869</td>
</tr>
<tr>
<td>Race</td>
<td>142.956</td>
<td>1</td>
<td>142.956</td>
<td>1.552</td>
<td>.216</td>
</tr>
<tr>
<td>2-Way Interactions</td>
<td>1297.415</td>
<td>6</td>
<td>216.236</td>
<td>2.347</td>
<td>.038</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>57.146</td>
<td>1</td>
<td>57.146</td>
<td>.620</td>
<td>.433</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substance Use</td>
<td>.141</td>
<td>1</td>
<td>.141</td>
<td>.002</td>
<td>.969</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>29.251</td>
<td>1</td>
<td>29.251</td>
<td>.317</td>
<td>.575</td>
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</tbody>
</table>
Table 9 (continued)

<table>
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<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Way Interactions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age Substance Use</td>
<td>86.773</td>
<td>1</td>
<td>86.773</td>
<td>.942</td>
<td>.335</td>
</tr>
<tr>
<td>Age Race</td>
<td>42.484</td>
<td>1</td>
<td>42.484</td>
<td>.461</td>
<td>.499</td>
</tr>
<tr>
<td>Substance Use Race</td>
<td>350.399</td>
<td>1</td>
<td>350.399</td>
<td>3.803</td>
<td>.054</td>
</tr>
<tr>
<td>3-Way Interactions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex Age Substance Use</td>
<td>9.921</td>
<td>1</td>
<td>9.921</td>
<td>.108</td>
<td>.744</td>
</tr>
<tr>
<td>Sex Age Race</td>
<td>7.818</td>
<td>1</td>
<td>7.818</td>
<td>.085</td>
<td>.772</td>
</tr>
<tr>
<td>Explained</td>
<td>1592.344</td>
<td>12</td>
<td>132.695</td>
<td>1.440</td>
<td>.164</td>
</tr>
<tr>
<td>Residual</td>
<td>7739.471</td>
<td>84</td>
<td>92.137</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9331.814</td>
<td>96</td>
<td>97.206</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Table 9 (continued)

**Multiple Classification Analysis - Grand Mean = 33.43**

<table>
<thead>
<tr>
<th>Variable and Category</th>
<th>N</th>
<th>Unadjusted Deviation</th>
<th>ETA</th>
<th>Adjusted for Independent Deviation</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>47</td>
<td>-.11</td>
<td>.01</td>
<td>-.01</td>
<td>.00</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>.11</td>
<td></td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td><strong>Age:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-17</td>
<td>27</td>
<td>1.90</td>
<td>.12</td>
<td>1.70</td>
<td>.11</td>
</tr>
<tr>
<td>18-21</td>
<td>70</td>
<td>-.73</td>
<td></td>
<td>-.66</td>
<td></td>
</tr>
<tr>
<td><strong>Substance Use:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User</td>
<td>59</td>
<td>.21</td>
<td>.03</td>
<td>.13</td>
<td>.02</td>
</tr>
<tr>
<td>Non-User</td>
<td>38</td>
<td>-.33</td>
<td></td>
<td>-.20</td>
<td></td>
</tr>
<tr>
<td>Variable and Category</td>
<td>N</td>
<td>Unadjusted Deviation</td>
<td>ETA</td>
<td>Adjusted for Independent Deviation</td>
<td>Beta</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----</td>
<td>----------------------</td>
<td>-----</td>
<td>-----------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Race:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-White</td>
<td>85</td>
<td>.50</td>
<td>.13</td>
<td>.46</td>
<td>.12</td>
</tr>
<tr>
<td>White</td>
<td>12</td>
<td>-3.52</td>
<td></td>
<td>-3.25</td>
<td></td>
</tr>
<tr>
<td>Multiple R Squared</td>
<td></td>
<td></td>
<td></td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>Multiple R</td>
<td></td>
<td></td>
<td></td>
<td>.17</td>
<td></td>
</tr>
</tbody>
</table>
other two-way, three-way or main effect was determined.

For additional clarification, the anxiety scores of the participants in the study are presented in Table 10. The mean anxiety scores of the participants in the Job Corps study are compared to the two reference groups established for the IPAT Anxiety Scale Questionnaire (Krug, Scheier, and Cattell, 1976) are depicted in this table.

Table 10

Mean Anxiety Raw Scores for Participants and Reference Groups

<table>
<thead>
<tr>
<th></th>
<th>Job Corps Users of Substances</th>
<th>Job Corps Non-Users of Substances</th>
<th>High School Reference Group</th>
<th>College Reference Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>34.0</td>
<td>33.1</td>
<td>31.5</td>
<td>28.7</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>10.6</td>
<td>10.4</td>
<td>12.2</td>
<td>10.4</td>
</tr>
</tbody>
</table>
Comparison of the mean scores revealed a trend for the participants classified as substance users to display a slightly higher mean raw score in the anxiety level than participants classified as non-users, as well as participants utilized in the two age equivalent reference groups for the ASQ. The frequency distribution of the scores for anxiety level among the participants included in this study are displayed in Table 11.

Table 11

Frequency of Anxiety Raw Scores Range

<table>
<thead>
<tr>
<th>Range of Raw Score</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>11-21</td>
<td>11</td>
<td>10.4</td>
</tr>
<tr>
<td>22-32</td>
<td>32</td>
<td>30.1</td>
</tr>
<tr>
<td>33-43</td>
<td>48</td>
<td>45.3</td>
</tr>
<tr>
<td>44-54 *</td>
<td>8</td>
<td>7.4</td>
</tr>
<tr>
<td>55-65</td>
<td>4</td>
<td>4.0</td>
</tr>
</tbody>
</table>

* Raw scores of 44 and up are considered in the high anxiety level range.
Hypothesis IV

H There will be no significant differences between users and non-users of substances when compared to level of depression.

To determine if the participants differed in level of depression as a function of substance (drug) usage, a t-test for independent samples was performed on the data. The results of the t-test are shown in Table 12.

The results presented in Table 12 indicate that the participants do not differ in level of depression as a function of their use/non-use of substances (drugs), $t, .2798, p > .05$. Based on these results, the null hypothesis of no significant difference is not rejected at the .05 level of probability.

Additional analyses were performed to determine if significant differences in depression level would be noted as a function of the interaction of two or more variables acting in consort. Therefore, a four-way factorial analysis of variance (user-non-user, age, sex, and race) was performed on the data. The results of the factorial analysis of variance are shown in Table 13. The results presented in Table 13
Table 12

t-Test for Difference in Depression Level
By Substance (Drug) Use/Non-Use

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of Subjects</th>
<th>Mean Depression Score</th>
<th>S.D.</th>
<th>S.E.</th>
<th>D.F.</th>
<th>t Value</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users</td>
<td>66</td>
<td>33.73</td>
<td>10.67</td>
<td>1.31</td>
<td></td>
<td>103</td>
<td>.2798</td>
</tr>
<tr>
<td>Non-Users</td>
<td>39</td>
<td>33.13</td>
<td>10.47</td>
<td>1.68</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Critical value of t for significance at $p < .05$ with 103 Degrees of Freedom
  
  $t = 1.99$
Table 13

'Four-Way Factorial Analysis of Variance
Depression: Sex x Age x Substance Use x Race

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>S.S.</th>
<th>d.f.</th>
<th>M.S.</th>
<th>F</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>215.345</td>
<td>4</td>
<td>53.836</td>
<td>.810</td>
<td>.522</td>
</tr>
<tr>
<td>Sex</td>
<td>121.861</td>
<td>1</td>
<td>121.861</td>
<td>1.834</td>
<td>.179</td>
</tr>
<tr>
<td>Age</td>
<td>49.319</td>
<td>1</td>
<td>49.319</td>
<td>.742</td>
<td>.391</td>
</tr>
<tr>
<td>Substance Use</td>
<td>48.392</td>
<td>1</td>
<td>48.392</td>
<td>.728</td>
<td>.396</td>
</tr>
<tr>
<td>Race</td>
<td>2.567</td>
<td>1</td>
<td>2.567</td>
<td>.039</td>
<td>.845</td>
</tr>
<tr>
<td>2-Way Interactions</td>
<td>303.330</td>
<td>6</td>
<td>50.555</td>
<td>.761</td>
<td>.603</td>
</tr>
<tr>
<td>Sex Age</td>
<td>19.068</td>
<td>1</td>
<td>19.068</td>
<td>.287</td>
<td>.594</td>
</tr>
<tr>
<td>Sex Substance Use</td>
<td>46.381</td>
<td>1</td>
<td>46.381</td>
<td>.698</td>
<td>.406</td>
</tr>
<tr>
<td>Sex Race</td>
<td>84.225</td>
<td>1</td>
<td>84.225</td>
<td>1.268</td>
<td>.263</td>
</tr>
<tr>
<td>Source of Variation</td>
<td>S.S.</td>
<td>d.f.</td>
<td>M.S.</td>
<td>F</td>
<td>F Prob.</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------</td>
<td>------</td>
<td>-------</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td>2-Way Interactions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>152.982</td>
<td>1</td>
<td>152.982</td>
<td>2.303</td>
<td>.133</td>
</tr>
<tr>
<td>Age Substance Use</td>
<td>.264</td>
<td>1</td>
<td>.264</td>
<td>.004</td>
<td>.950</td>
</tr>
<tr>
<td>3-Way Interactions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex Age Substance Use</td>
<td>124.341</td>
<td>1</td>
<td>124.341</td>
<td>1</td>
<td>.175</td>
</tr>
<tr>
<td>Sex Age Race</td>
<td>34.760</td>
<td>1</td>
<td>34.760</td>
<td>1</td>
<td>.471</td>
</tr>
<tr>
<td>Explained</td>
<td>651.141</td>
<td>12</td>
<td>.817</td>
<td>.633</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>5580.117</td>
<td>84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6231.258</td>
<td>96</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
suggest that there are no significant three-way or two-way interaction effects, nor are there any significant main effects. No difference in level of depression could be determined as a function of the interaction of use-non-use, sex, age, and race.

The depression scores of the participants are presented in Table 14. Inspection of the raw scores obtained from the Beck Depression Inventory suggest that the scores of the majority of participants fell within the depression level ranges respectively labelled as none or mild.

Table 14

Frequency of Sample Scores from BDI for Depression Level

<table>
<thead>
<tr>
<th>Depression Label</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>0-9</td>
<td>59</td>
</tr>
<tr>
<td>Mild</td>
<td>10-15</td>
<td>24</td>
</tr>
<tr>
<td>Moderate</td>
<td>16-23</td>
<td>14</td>
</tr>
<tr>
<td>Severe</td>
<td>24-60</td>
<td>8</td>
</tr>
</tbody>
</table>
Hypothesis V

H₀ There will be no significant differences in substance use among Job Corps members in 1980 when compared to substance use among Job Corps members in 1973.

Substances or drugs were classified into one of the following categories:

1. Alcohol
2. Marijuana
3. Stimulants
4. Depressants
5. Hallucinogens
6. Opiates
7. Inhalants.

Usage of each drug category was compared for members of Job Corps in 1980 and 1973. To test this hypothesis, a chi-square for proportions was performed on each drug grouping. A synthesis of the chi-square analyses is presented in Table 15.
Table 15

Chi Square Analysis

1980 Substance Use x 1973 Substance Use for Drug Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Proportion of 1980 Users</th>
<th>Proportion of 1973 Users</th>
<th>Raw $x^2$</th>
<th>d.f.</th>
<th>Critical Value p &lt; .05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>54</td>
<td>53</td>
<td>.20098</td>
<td>1</td>
<td>3.84</td>
</tr>
<tr>
<td>Marijuana</td>
<td>56</td>
<td>29</td>
<td>14.91</td>
<td>*</td>
<td>3.84</td>
</tr>
<tr>
<td>Stimulants</td>
<td>17</td>
<td>6</td>
<td>5.94</td>
<td>*</td>
<td>3.84</td>
</tr>
<tr>
<td>Depressants</td>
<td>9</td>
<td>5</td>
<td>1.22</td>
<td>1</td>
<td>3.84</td>
</tr>
<tr>
<td>Hallucinogens</td>
<td>8</td>
<td>5</td>
<td>.7404</td>
<td>1</td>
<td>3.84</td>
</tr>
<tr>
<td>Inhalants</td>
<td>2</td>
<td>1</td>
<td>.3384</td>
<td>1</td>
<td>3.84</td>
</tr>
<tr>
<td>Opiates</td>
<td>3</td>
<td>1</td>
<td>1.02</td>
<td>1</td>
<td>3.84</td>
</tr>
<tr>
<td>PCP **</td>
<td>2</td>
<td>(No comparative analysis possible. See **)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant p > .05  ** Data re: use of PCP in 1973 not available.
Inspection of Table 15 indicates a general trend toward an increase of drug usage in the 1980 population. In particular, significant increases in the use of marijuana and stimulants were found. Based on the results of these data, null hypothesis of no significant difference is rejected at the .05 level of probability.

Hypothesis VI

$H_0$ There will be no significant relationship between the selected independent stress variables of transitional stress, situational stress, personal stress, peer group stress and maturational stress when compared to level of anxiety.

This hypothesis addresses the concept of whether there is a functional relationship between various types of stress and anxiety level. To test this hypothesis, a multiple regression analysis was performed. The results of the regression analysis are shown in Table 16. Two of the stress predictor variables, peer group and situational stress, were found to be significant variables in this regression model, $F, 3.8, p= .05; f, 3.7, p= ..06$, respectively.
Table 16

Multiple Regression Analysis
for the Dependent Variable Anxiety

<table>
<thead>
<tr>
<th>Independent Stress Variable</th>
<th>B Value</th>
<th>F Value</th>
<th>Prob. - F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Group Stress</td>
<td>1.7</td>
<td>3.8</td>
<td>.05</td>
</tr>
<tr>
<td>Situational Stress</td>
<td>-1.3</td>
<td>3.7</td>
<td>.06</td>
</tr>
</tbody>
</table>

$r^2 = .09$

Transitional, personal and maturational stress were not found to be significant and were deleted from the regression equation. However, inspection of Table 16 indicates that together, peer group and situational stress only account for nine percent of the variance in the anxiety scores. This finding is insufficient to account for the pattern of variance noted in the participants' anxiety scores. In addition, knowledge of a participant's level of peer group stress and situational stress provides little predictive power of anxiety level. Based on these results, the null hypothesis of no significant relationship is not rejected.
at the .05 level of probability for this particular hypothesis.

An inspection of Table 17 provides a frequency analysis of rankings of the stress categories among participants.

Table 17

<table>
<thead>
<tr>
<th>Stress Variable Category</th>
<th>Percent of First Choice Ranking</th>
<th>Percent of Second Choice Ranking</th>
<th>Percent of Third Choice Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Stress</td>
<td>19.1</td>
<td>17.4</td>
<td>25.0</td>
</tr>
<tr>
<td>Situational Stress</td>
<td>19.0</td>
<td>28.0</td>
<td>16.3</td>
</tr>
<tr>
<td>Peer Group Stress</td>
<td>13.0</td>
<td>6.0</td>
<td>13.0</td>
</tr>
<tr>
<td>Transitional Stress</td>
<td>39.3</td>
<td>38.3</td>
<td>27.7</td>
</tr>
<tr>
<td>Maturational Stress</td>
<td>4.0</td>
<td>9.0</td>
<td>10.4</td>
</tr>
</tbody>
</table>

Hypothesis VII

H₀ There will be no significant relationship between the selected independent variables of transitional stress, situational stress,
personal stress, peer group stress and maturational stress when compared to level of depression.

This hypothesis addresses the concept of whether there is a functional relationship between various types of stress and depression. To test this hypothesis, a multiple regression analysis was performed. The results of the regression analysis are shown in Table 18.

Table 18

Multiple Regression Analysis
for the Dependent Variable of Depression

<table>
<thead>
<tr>
<th>Independent Stress Variable</th>
<th>B Value</th>
<th>F Value</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Stress</td>
<td>1.21</td>
<td>2.72</td>
<td>.10</td>
</tr>
</tbody>
</table>

$r^2 = .025$

None of the stress predictor variables was found to be significant in this regression model. Only the stress predictor variable 'personal stress,'
suggested a trend toward significance, $f, 2.72, p > .10$. However, inspection of Table 18 indicates that personal stress accounts for less than three percent of the variance in depression level between the subjects. This finding is insufficient to account to the pattern of variance noted in the participants' depression scores.

Also, knowledge of a participant's level of personal stress provides little predictive power of depression level. Based on these results, the null hypothesis of no significant relationship is not rejected at the .05 level of probability.

Summary of Results

The thrust of this research focused on four major areas:

1. The relationship of a given set of demographic variables and levels of anxiety and depression;

2. Difference in level of anxiety and depression as a function of the interaction of substance use/non-use, sex, age and race;
3. Trend of drug use from 1973 to 1980 among Job Corpsmembers; and

4. The relationship of a given set of predictor stress variables and levels of anxiety and depression.

The following major findings were determined from the various analyses performed:

1. The demographic variables age, sex, length of time in Job Corps, marital status, level of education, origin and race are insufficient to account for the pattern of variance noted in the participants' anxiety and depression scores.

2. Drug users who are non-white appear to display the greatest anxiety level while no difference was found for level of depression.

3. There has been a general increase in drug use among Job Corpsmembers between 1973 and 1980. In particular, there has been
a significant increase in the use of marijuana and stimulants.

4. The stress variables of transitional stress, situational stress, personal stress, peer group stress and maturational stress are insufficient to account for the pattern of variance noted in the participants' anxiety and depression scores.
CHAPTER V

DISCUSSION AND CONCLUSIONS

Introduction

A review of the purpose, procedures, hypotheses, and results is provided in Chapter V. Discussion, implications, conclusions, and recommendations for future research are discussed in this chapter.

Purpose of the Study

The overall objective of the study is to gain a better understanding of the disadvantaged youth reflected in the Job Corps Program. The investigation assesses and analyzes levels of anxiety, depression and substance use of Job Corps members for the purpose of generating data that further contributes to the repertoire of knowledge of helping professionals in Job Corps.
The study provides baseline, predictive, and comparative data from which the identification of present and projected mental health needs of Job Corps members are assessed. The assessment of levels of anxiety and depression of Job Corps members have not previously been investigated in Job Corps. Although substance use patterns are investigated in a prior study, the relationship of anxiety level and depression level to substance use is original to this study.

Procedure

The participants for the study were selected among Job Corps members currently enrolled in the Dayton Job Corps Center. The instruments utilized in the study were the IPAT Anxiety Scale Questionnaire, the Beck Depression Inventory, the Self Reprot Substance Use Questionnaire, and the Demographic Questionnaire.

The IPAT Anxiety Scale Questionnaire was used to assess level of anxiety. The selected independent stress variables and the selected independent demographic variables were tested to determine associations with anxiety level. The
anxiety levels of users and non-users of substances were also compared to determine if significant differences existed between these two groups.

The Beck Depression Inventory was used to assess depth of depression level among participants. The selected stress variables and the selected demographic variables were tested in relationship to depression level to determine which variables were significantly predictive of depression level. The depression levels of users and non-users of substances were also compared.

The Self Report Substance Use Questionnaire was constructed to assess frequency of substance use among categories of substances. The questionnaire was also used to determine the categories of substance user and substance non-user among participants. The Substance Use Questionnaire, which was developed for the study, can be used in the future by Job Corps professional staff to assess drug usage patterns as well as attitudes of Job Corps members toward substance use.

The Demographic Questionnaire was constructed to elicit demographic information from the participants. Additionally, the questionnaire contained stress items
from which the stress categories were identified. The independent demographic variables of age, sex, race, education level, length of time in Job Corps, marital status, and origin were elicited by the questionnaire. The independent stress variables of transitional stress, situational stress, personal stress, peer group stress, and maturational stress were also assessed.

Hypotheses

The seven hypotheses of the study were stated in the null form and were tested at the .05 level of significance. The following section provides a review of the statement of the hypotheses, the statistical procedures used to test the hypotheses, and the outcomes of the statistical analysis.

$H_1^\text{There will be no significant relationship between the selected independent demographic variables of age, sex, race, marital status, origin, length of time in Job Corps, and education level when compared to level of anxiety.}$
Multiple regression analysis revealed that the demographic variable categories were not predictive of anxiety level. Among the categories, a trend toward significance was found in the category of education level.

Hypothesis I was not rejected.

H$_2$ There will be no relationship between the selected independent demographic variables of age, sex, race, marital status, origin, length of time in Job Corps, and education level when compared to level of depression.

Multiple regression analysis revealed that the demographic variable categories were not predictive of depression level. Among the categories, a trend toward significance was found in the category of length of time in Job Corps.

Hypothesis II was not rejected.

H$_3$ There will be no significant differences between users and non-users of substances when compared to anxiety level.
t-Test analysis was utilized to test Hypothesis III. A four-way factorial analysis of variance was additionally utilized to test Hypothesis III where anxiety level was analyzed in relationship to substance use, age, sex, and race.

The t-test analysis and the four-way analysis of variance revealed that no significant differences in anxiety levels were found between users and non-users of substances. A trend toward higher anxiety levels was found among non-white substance users.

Hypothesis III was not rejected.

H₄ There will be no significant differences between users and non-users of substances when compared to depression level.

t-Test analysis and the four-way factorial anova revealed that no significant differences in depression level were found between users and non-users of substances or among the variables analyzed.

Hypothesis IV was not rejected.

H₅ There will be no significant differences between substance use in 1980 when compared to substance use in 1973.
Chi-square analysis was performed for the respective substance categories of alcohol, marijuana, stimulants, depressants, hallucinogens, opiates, and inhalants.

The results revealed that there were significant increases in substance usage in 1980 when compared to the prior 1973 Job Corps survey results.

Hypothesis V was rejected.

$H_6$ There will be no significant relationship among the selected stress variables of transitional stress, situational stress, personal stress, peer group stress, maturational stress when compared to anxiety level.

Multiple regression analysis revealed that the variable categories were not found to be predictive of anxiety level. The combination of peer group stress and situational stress, however, approached significance.

Hypothesis VI was not rejected.
H	extsubscript{7} There will be no significant relationship among the selected stress variables of transitional stress, situational stress, personal stress, peer group stress, maturational stress when compared to depression level.

Multiple regression analysis revealed that the variable categories were not found to be predictive of depression level. The personal stress category, however, indicated a trend toward significance.

Hypothesis VII was not rejected.

Discussion of Results

The study investigates anxiety and depression in relationship to selected stress and demographic variables. Substance usage among participants is also examined in terms of frequency of use and in relationship to anxiety and depression. The study generates predictive, descriptive, and comparative findings which are discussed in the following sections.
Predictive Findings

The overall predictive values of the selected stress and demographic variables are found to be weak predictors of both anxiety and depression. The amount of variance accounted for by these variables is minimal, indicating that numerous other independent variables need to be identified and analyzed to adequately predict anxiety or depression.

The findings from this study clearly suggest that additional stress and demographic variables, as well as the inclusion of psychological variables, need to be analyzed for a more comprehensive understanding of both adolescent anxiety and depression. The literature describes variables such as family relationships, self concept, problem solving styles, health status, or income as examples of a few among numerous significant variables potentially predictive of both anxiety and depression.

Although the variables in this investigation are found to be weak predictors of both anxiety and depression, the few variables with trends toward significance can be useful to professionals in Job Corps as possible signals reflecting a Corpsmember's need for specialized services. Specialized services
could range from direct counseling contacts to demonstrated empathy and concern from a staff person. The literature emphasizes that disadvantaged youth are often mistrustful and hesitant to seek and initiate contact with human service professionals. It is essential, therefore, that Job Corps staff consistently reach out to youth in Job Corps and be aware of factors which may be symptomatic of elevated anxiety or depression levels.

**Descriptive Results**

The findings reveal that no significant differences in either anxiety or depression levels are found between users and non-users of substances. This finding suggests that drug taking behavior may be a primarily sociocultural response among contemporary youth. The view that substance use and abuse may be a manifestation of anxiety or depression is neither confirmed nor refuted by the present study. Instead, the findings support the contention of the literature which attributes complex sociocultural, environmental, and psychological variables to the alarming increase in adolescent substance use.
The analysis of attitudes toward substance use reveals that over half of the participants view drugs as problematic for other Job Corpsmembers. Further, 12 percent of the participants view drugs as current personal problems. These findings raise several questions concerning the specific nature and extent of substance problems for Job Corpsmembers. Does substance use effect the academic or social functioning of Job Corpsmembers? Are Job Corpsmembers pressured by peers to use substances? Could substance use reflect boredom or lack of social and recreational activities on the centers? How knowledgeable are Corpsmembers in terms of the physiological and psychological effects of drugs?

The above questions reflect areas that need to be addressed further by Job Corps professionals. Additionally, the results of this study indicate that the majority of participants would be in favor of more education and information related to substances. The fact that only half of the participants knew where to seek assistance for drug problems raises concern regarding the efficacy of the existing preventive and remedial services in Job Corps. Services such as counseling exist in Job Corps, and the question as
to why these services are not fully utilized is raised. Are Job Corpsmembers aware of the services? Do the counseling services meet the needs of Job Corpsmembers?

**Comparative Results**

The comparative results are discussed according to the respective areas of substance use, anxiety, and depression.

The findings from the present study are compared to prior survey results which analyzed substance use in Job Corps. The comparison of results, however, must be discussed with caution since the studies used differing methodologies and research designs.

When comparisons are made between the two studies on the six drug categories, differences are obtained. The present study finds increased proportions of substance users in five categories. The proportion of users in the alcohol category is found to be similar in both studies. Alcohol is the substance of choice among participants in both studies.

The above findings substantiate the literature which describes the overall increase in substance use among the adolescent population. Further,
the youth in the study appear to model adult trends in substance use. As was previously stated, alcohol continues to be the drug of choice among the Job Corps sample as in the adult population. This generates concern regarding the extent of alcohol use in Job Corps. How many Job Corps members have serious drinking problems? Also, do the drinking patterns of Job Corps members interfere with the educational, vocational, or residential programs in Job Corps?

The present study finds highly significant increases in the proportion of users in the respective categories of marijuana and stimulants. The significant increase in marijuana users further reflects national trends among age equivalent adolescents as well as adults.

One unexpected result of the study is found in the increase in proportion of participants using stimulants. Participants also rank stimulants as the third most frequently utilized substance among Job Corps members. This finding may be unique to the Job Corps Center used for the study and raises questions as to what possible conditions on center may precipitate increased use of stimulants. Are
Corpsmembers using stimulants for educational or social reasons? Are the academic or vocational requirements too cumbersome for Corpsmembers, or are stimulants readily available and easy to obtain on center? An analysis of the above questions needs to be further addressed to fully understand the significant increase in stimulant users.

The findings related to anxiety reveal a trend toward elevated anxiety levels, particularly among participants classified as non-white substance users. Although this finding reflects a statistical trend and is reported with caution, questions are raised concerning ways in which Job Corps professionals may facilitate anxiety reduction training for Job Corpsmembers. Further, since the majority of participants rank either transitional or situational stress as major concerns, questions are raised regarding the total environment of Job Corps. Job Corps youth, for example, are often relocated when admitted into the program. Institutional living may be a totally new and, perhaps, difficult adjustment. Whether or not provisions are made to assist youth in the adjustment to residential living in a structured program remains speculative based upon the literature related to the Job Corps Mental Health
Program. The findings of this study additionally examine depression among participants. Although the majority of participants scored within mild range of depth of depression, this finding may not fully assess actual depression levels due to the nature of the instrument utilized.

The Beck Depression Inventory was initially developed for and normed on psychiatric outpatient clients involved in counseling treatment for depression. Normative data for age equivalent adolescents is not established for the BDI. Additionally, the items on the BDI may not fully represent the symptomatology reflective of adolescent depression.

The literature review reveals that few studies have assessed adolescent depression. The view that numerous maladaptive adolescent behaviors such as delinquency or substance abuse may be manifestations of depression is suggested in the literature. The youth represented in the Job Corps have generally experienced educational, vocational, or social failure prior to entry in Job Corps. In this respect, these youth may be high probability candidates for elevated depression. The findings
of the present study neither confirm nor refute the above view. Instead, the findings suggest that the overall mild depression ranges assessed from this study may not be fully representative of actual depression among participants.

Limitations

There are four major limitations in the study of anxiety, depression, and substance use in Job Corps. The primary limitation is the method utilized to obtain sample for the investigation. Since the sample could not be randomly selected, a purposive sample is selected. All attempts are made to select a sample that matched the general Job Corps population, however, the lack of true randomization poses a threat to the external validity of the study. The sample, therefore, must be considered as biased and generalizations are made with caution.

A second limitation deals with the extensive descriptive design of the study. The major objective of the study is to yield descriptive information related to Job Corps members that can be utilized by Job Corps professionals as baseline data from which to better understand the mental health needs of the
population of Job Corpsmembers. The results that are generated by the study are descriptive in nature and several inferences are made regarding anxiety, depression, and substance use among Job Corpsmembers. Neither causal nor predictive relationships are assumed from the results of this study since the basic design and methodology of descriptive research yields only inferential results that are not considered as conclusive or definitive.

A third limitation deals with the instrumentation utilized to gather data for the study. Although the IPAT Anxiety Scale Questionnaire and the Beck Depression Inventory are purported to be valid and reliable instruments that respectively measure anxiety and depression levels, the validity and reliability of the Substance Use Questionnaire is not established. The self report items on the questionnaire, as well as the potentially delicate nature of the items pertaining to substance usage, may be subject to responses that are intentionally or unintentionally biased. Although confidentiality is assured to all participants, the use of alcohol and drugs is prohibited in the Job Corps
Program, and participants may have been hesitant to fully report personal substance usage patterns.

The fourth limitation of the study involves the stress variable categories that were utilized in the study. The stress categories were both qualitative in nature and broad in scope which limits the reliability of the stress category assessment and subsequent findings.

The four major limitations of the study pose threats to both the internal and external validity of the investigation. Further, the lack of control inherent in descriptive research limits the generalizability of the study. The results and the inferences related to the results are, therefore, reported with caution.

Implications

The summary of the findings that are derived from the study support the importance of providing both preventive as well as remedial mental health services in Job Corps. There are a number of specific findings that are generated from the study that may provide practical implications for counselors, educators, and mental health professionals in Job Corps.
The specific findings and the subsequent implications are presented according to the areas of substance use, anxiety, and depression.

A major finding from the study is that substance use is viewed as a problem for Corpsmembers by over half of the participants. Participants additionally reveal that more education and information related to substances, as well as assistance for substance related problems are needed in the Job Corps program. These findings indicate that professionals in Job Corps need to further expand and promote the existing substance use education programs on the Job Corps centers. Additionally, the hiring of a full time Substance Use Coordinator for each respective center could facilitate a comprehensive and consistent substance education program for Job Corpsmembers. It is essential that Job Corpsmembers be aware of the program and have the opportunity to fully participate in the program.

The literature review reveals that youth, and particularly disadvantaged youth, are often hesitant to seek assistance and information. The area of substance use may be threatening to Job Corpsmembers in that potential fear of retribution as well as a
negative stigma toward seeking help or information may exist. Professionals, therefore, need to be especially aware and prepared for the preventive and remedial needs of Job Corpsmembers in the area of substance use.

The results of the study clearly indicate that professionals in Job Corps need to possess accurate information regarding substances as well as skill in disseminating information related to substances. Counselors and mental health professionals need to be particularly receptive and skilled in terms of listening, values clarification, and crisis intervention techniques in order to assist Corpsmembers with substance related concerns.

Although the Job Corps Mental Health program guidelines define and recommend that all centers have a substance information program, the findings of the present study indicate that a significant number of participants are not aware of the program. This inconsistency needs to be further addressed by professionals in Job Corps.

The literature review reveals that substance use is a way of life in contemporary society. Evidence exists that the use of substances can be potentially hazardous especially to the developing
adolescent. It is essential, therefore, that adolescents be provided with information from which to make decisions regarding use of substances. The results of the investigation suggest that participants would like more information, and professionals have a responsibility to accurately and consistently provide the information.

The findings related to anxiety suggest that a trend among participants toward anxiety levels that fell within the upper limits of the range of average anxiety level. The implications of the above findings may be particularly useful to counselors in Job Corps. The findings indicate that both preventive and remedial anxiety management programs would be beneficial to Job Corps members. Counselors, therefore, need to be fully trained in methods of assessment, intervention, and management of anxiety.

The findings of the study additionally reveal trends of possible association among the variables of peer group stress, education level, substance use, and race to anxiety. The implications of these associations suggest that helping professionals in Job Corps become particularly aware of and sensitive to Corpsmembers found to demonstrate the above variables.
The results related to depression further indicate the importance of both preventive and remedial mental health services in Job Corps. The overall trend suggests that depression level among participants is found to be higher than expected. A slight trend is also found between substance use and depression. Further, the variables of length of time in Job Corps and personal stress are found to be possibly associated with higher levels of depression. Although the above trends are reported with caution in the analysis of the data, the information may be used by helping professionals as potential signals reflective of the need for further assessment of depression.

The literature review related to depression reveals the contention that the incidence of depression may be relatively high among contemporary youth. The review further identifies variables such as poverty, unemployment, and the unpredictability of modern life as potentially fostering and maintaining the feelings of hopelessness (Seligman, 1975). Although the findings from the present study reveal that depression levels among participants are not found to be alarmingly high, the trend toward mild
depression levels combined with the socioeconomic and demographic features reflective of the population under study make the group a potentially high risk group. Counselors and mental health professionals in Job Corps, therefore, require the training and skills necessary for the assessment and counseling treatment of depression. A depressed Corpsmember, for example, may require intensive, consistent, and long term counseling. It is essential that adequately trained counselors and mental health professionals be available to provide this service.

The findings that have been presented support the contention that the Mental Health program is a necessary component of the Job Corps Program. The findings reveal that both preventive programs and remedial services are necessary in the Mental Health Program in order to ensure comprehensive services to Job Corpsmembers. Finally, the findings clearly indicate that Job Corps counselors need to be fully trained in methods of assessment, intervention, and evaluation of substance use, anxiety, and depression in order to adequately serve the mental health needs of Job Corpsmembers.
Conclusions

The conclusions related to anxiety, depression, and substance use among the Job Corps participants in this study are:

1. Job Corps members are found to closely resemble the general age cohort population in the trend toward increased numbers using substances.

2. Drug use among Job Corps members appears to be a sociocultural norm rather than reflective of psychopathology or deviant social behavior.

3. Job Corps members report the need for more drug education and information, and generally view drug taking behavior as potentially problematic for themselves or others.

4. The stress and demographic variables analyzed in this study are not found to be significantly predictive of either anxiety or depression.
5. Trends toward elevated depression levels and anxiety levels are found among Job Corps participants. To conclude that Job Corpsmembers are highly anxious or highly depressed, however, is premature based upon the findings of this study.

6. There is a substantial increase in the number of current Job Corpsmembers using substances when compared to 1973 data.

Recommendations for Future Research

The investigation of anxiety, depression, and substance use in Job Corps has identified several areas for future research.

1. The results obtained from the analysis of the selected variables examined in relationship to both the constructs of anxiety and depression revealed that the variables did not account for a significant amount of the possible variance indicative of anxiety and depression. A future
study that identifies additional demographic, stress, and psychological variables as well as the examination of complex combinations of the above variables is highly recommended.

2. A second area of needed research is in the area of depression among disadvantaged youth. The contention that depression levels may be high among disadvantaged youth is supported in the literature; however, few research studies exist that examine either adolescent depression or depression among disadvantaged adolescents. It is highly recommended that an instrument be developed that contains items that specifically pertain to possible behavioral symptomatology that is indicative to adolescent depression. The instrument could be utilized to assess and further study adolescent depression.
3. The third area of necessary research identified from the study is in the areas of adolescent stress and anxiety. The present study analyzed anxiety in relationship to qualitative stress categories. There were ten possible stress items from which participants could rank in order of priority the stresses of most concern. The ten items were collapsed into five stress variable categories. The researcher contends that the five stress categories were possibly not specific enough to adequately identify adolescent stress. It is recommended that an adolescent stress scale be utilized in a study to further examine the relationship of the selected stressors to anxiety level among adolescents.

4. The fourth recommended area of investigation for future research involves the currently existing Job Corps substance education program. The results generated from the study combined with the findings from the literature reveal
that substance use and abuse is increasing among adolescents. The Job Corps Mental Health Program guidelines emphasize that each center is to have a substance coordinator as well as an education program for Job Corps members related to substance use and abuse. It is recommended that a study be conducted that examines the currently existing substance program in relationship to perceptions of Job Corps members, perceptions of staff members, and knowledge base of both staff and Job Corps members.

5. The fifth recommendation for future research pertains to the Self Report Substance Use Questionnaire that was developed and utilized in the present study. It is recommended that the instrument be further refined, and that the validity and reliability of the instrument be established.
6. The sixth recommendation for future research identified by the study is the need to replicate the study on a national level. Due to the relatively small sample size, and the lack of true randomization of the sample, the generalizability of the study is limited. It is recommended, therefore, that the study be replicated with a large sample size that includes Job Corps participants from all the geographic regions reflected in the Job Corps program.


Journals, Manuals, Publications


### Substance Use Questionnaire

#### Frequency of Response Analysis

<table>
<thead>
<tr>
<th>Item Statement</th>
<th>Frequency of Response</th>
<th>Percent of Response</th>
</tr>
</thead>
</table>

**Do you believe drugs and alcohol are a problem for Corpsmembers on this Center:**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>25</td>
<td>24</td>
</tr>
<tr>
<td>Yes</td>
<td>58</td>
<td>55</td>
</tr>
<tr>
<td>Unsure</td>
<td>22</td>
<td>21</td>
</tr>
</tbody>
</table>

**Are drugs or alcohol a problem for you at this time:**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>88</td>
<td>84</td>
</tr>
<tr>
<td>Yes</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Unsure</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Item Statement</td>
<td>Frequency of Response</td>
<td>Percent of Response</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td>-----------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Have drugs or alcohol been a problem for you in the past:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>79</td>
<td>75</td>
</tr>
<tr>
<td>No</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>Unsure</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Since enrolling in Job Corps has your drug use:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>increased</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>decreased</td>
<td>30</td>
<td>28</td>
</tr>
<tr>
<td>stayed the same</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>do not use drugs</td>
<td>50</td>
<td>48</td>
</tr>
<tr>
<td>Since enrolling in Job Corps has your alcohol use:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>increased</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>decreased</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>stayed the same</td>
<td>30</td>
<td>29</td>
</tr>
<tr>
<td>do not use alcohol</td>
<td>37</td>
<td>35</td>
</tr>
<tr>
<td>Item Statement</td>
<td>Frequency of Response</td>
<td>Percent of Response</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-----------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>In your opinion, why do people your age use drugs and alcohol:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to have a good time</td>
<td>44</td>
<td>42</td>
</tr>
<tr>
<td>to get attention</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>to be accepted</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>to socialize</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>to have a new experience</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>to belong</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>to relieve boredom</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>to rebel</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>to solve problems</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>to relax</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>to achieve</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>to gain confidence</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>to feel good</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>to be popular</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>to forget</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>to experiment</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>other</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Item Statement</td>
<td>Frequency of Response</td>
<td>Percent of Response</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Why do you use drugs or alcohol:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to have a good time</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>to get attention</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>to be accepted</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>to socialize</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>to belong</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>to relieve boredom</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>to rebel</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>to solve problems</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>to relax</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>to achieve</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>to gain confidence</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>to feel good</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>to be popular</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>to forget</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>to experiment</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>other</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>
What categories of drugs have you used in the past:

<table>
<thead>
<tr>
<th>Item Statement</th>
<th>Frequency of Response</th>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stimulants</td>
<td>47</td>
<td>44</td>
</tr>
<tr>
<td>Depressants</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>Opiates</td>
<td>26</td>
<td>24</td>
</tr>
<tr>
<td>Psychedelics</td>
<td>40</td>
<td>38</td>
</tr>
<tr>
<td>Inhalants</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>Marijuana</td>
<td>78</td>
<td>74</td>
</tr>
<tr>
<td>Alcohol</td>
<td>81</td>
<td>77</td>
</tr>
</tbody>
</table>

Check how often you currently use the following:

Alcohol (including beer and wine):

- 2 or more times a week: 33, 31.4%
- Once a week: 6, 6.0%
- 2 or 3 times a month: 16, 15.2%
- Once a month: 11, 10.4%
<table>
<thead>
<tr>
<th>Item Statement</th>
<th>Frequency of Response</th>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>have used once</td>
<td>13</td>
<td>12.3</td>
</tr>
<tr>
<td>have never used</td>
<td>15</td>
<td>14.2</td>
</tr>
</tbody>
</table>

Marijuana:

<table>
<thead>
<tr>
<th>Item Statement</th>
<th>Frequency of Response</th>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 or more times a week</td>
<td>32</td>
<td>30.4</td>
</tr>
<tr>
<td>once a week</td>
<td>11</td>
<td>10.4</td>
</tr>
<tr>
<td>2 or 3 times a month</td>
<td>16</td>
<td>15.2</td>
</tr>
<tr>
<td>once a month</td>
<td>11</td>
<td>10.4</td>
</tr>
<tr>
<td>have used once</td>
<td>15</td>
<td>14.2</td>
</tr>
<tr>
<td>have never used</td>
<td>20</td>
<td>19</td>
</tr>
</tbody>
</table>

PCP (angel dust):

<table>
<thead>
<tr>
<th>Item Statement</th>
<th>Frequency of Response</th>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 or more times a week</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>once a week</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2 or 3 times a month</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>once a month</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>have used once</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>have never used</td>
<td>79</td>
<td>75</td>
</tr>
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</table>
### Item Statement

<table>
<thead>
<tr>
<th>Item Statement</th>
<th>Frequency of Response</th>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Depressants (downers):</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 or more times a week</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>once a week</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2 or 3 times a month</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>once a month</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>have used once</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>have never used</td>
<td>66</td>
<td>62</td>
</tr>
<tr>
<td><strong>Stimulants (uppers):</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 or more times a week</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>once a week</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2 or 3 times a month</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>once a month</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>have used once</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>have never used</td>
<td>63</td>
<td>60</td>
</tr>
<tr>
<td><strong>Hallucinogens:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 or more times a week</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>once a week</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Item Statement</td>
<td>Frequency of Response</td>
<td>Percent of Response</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-----------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>2 or 3 times a month</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>once a month</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>have used once</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>have never used</td>
<td>71</td>
<td>68</td>
</tr>
</tbody>
</table>

**Inhalants**

<table>
<thead>
<tr>
<th>Item Statement</th>
<th>Frequency of Response</th>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 or more times a week</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>once a week</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2 or 3 times a month</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>once a month</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>have used once</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>have never used</td>
<td>89</td>
<td>85</td>
</tr>
</tbody>
</table>

**Ranking of substances most often used on center:**

- Alcohol: 61, 58
- PCP: 1, 1
- Inhalants: 0, 0
- Opiates: 0, 0
<table>
<thead>
<tr>
<th>Item Statement</th>
<th>Frequency of Response</th>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depressants</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Marijuana</td>
<td>45</td>
<td>43</td>
</tr>
<tr>
<td>Stimulants</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Do you know where to get help for yourself or a friend with a drug problem on this center:

- No: 34 (32%)
- Yes: 56 (53%)
- Unsure: 15 (14%)

Does this center have a drug information and education program:

- No: 36 (34%)
- Yes: 46 (44%)
- Unsure: 23 (22%)
<table>
<thead>
<tr>
<th>Item Statement</th>
<th>Frequency of Response</th>
<th>Percent of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you like more information and education on substance use:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>24</td>
<td>23</td>
</tr>
<tr>
<td>Yes</td>
<td>65</td>
<td>62</td>
</tr>
<tr>
<td>Unsure</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Do you feel marijuana should be legalized:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>31</td>
<td>30</td>
</tr>
<tr>
<td>Yes</td>
<td>56</td>
<td>53</td>
</tr>
<tr>
<td>Unsure</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Do you feel the Job Corps policy about use of substances (drugs) and alcohol is fair:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>38</td>
<td>36</td>
</tr>
<tr>
<td>Yes</td>
<td>41</td>
<td>39</td>
</tr>
<tr>
<td>Unsure</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Don't know Policy</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Item Statement</td>
<td>Frequency of Response</td>
<td>Percent of Response</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-----------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>When are you most likely to use alcohol:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>when you are bored</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>when you are at a party</td>
<td>59</td>
<td>56</td>
</tr>
<tr>
<td>when others are using</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>do not use alcohol</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>when you are depressed</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>when you are worried</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>other</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>When are you most likely to use marijuana:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>when you are bored</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>when you are at a party</td>
<td>26</td>
<td>24</td>
</tr>
<tr>
<td>when others are using</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>do not use marijuana</td>
<td>25</td>
<td>24</td>
</tr>
<tr>
<td>when you are depressed</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>when you are worried</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Inside this booklet there are forty statements about how most people feel or think at one time or another. There are no right or wrong answers. Just pick the one that is really true for you, and mark the a, b, or c answer.

You'll start with the two simple examples below, for practice. Read the first sentence and then put an X in the box that tells how you feel about walking. If you enjoy walking, you would put an X in the a box. If you don't, you'd mark the c box. If you enjoy walking once in a while, you'd mark the middle box. But mark the middle box only if it is impossible for you to decide definitely yes or no. But don't use it unless you absolutely have to.

1. I enjoy walking. 
   [a] yes, [b] sometimes, [c] no. ...................................  ..............
   a   b   c

Now do the second example.

2. I would rather spend an evening: 
   [a] talking to people, [b] uncertain, [c] at a movie. ............................  ..............
   a   b   c

Now:

1. Make sure you have put your name, and whatever else the examiner asks, at the top of this page.

2. Please answer every statement. Don't skip a single one. Your answers will be entirely confidential.

3. Remember, use the middle box only if you cannot possibly decide on a or c.

4. Don't spend time thinking over the statement. Just mark your answer quickly, according to how you feel about it now.

It will take only ten minutes or so to finish. Hand in the booklet when you're through, unless told to do otherwise. As soon as you're told to, turn the page and begin.

STOP HERE—WAIT FOR SIGNAL
1. My interests, in people and ways to have fun, seem to change quite fast.  
[a] true, [b] in between, [c] false.  

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

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

4. I am inclined to let my feelings of jealousy influence my actions.  

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

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

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

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

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

10. I need my friends more than they seem to need me.  

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

12. As a child I was afraid of the dark.  

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

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

15. I get upset when people criticize me even if they really mean to help me.  

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

17. I feel restless as if I want something but don’t know what.  

18. I sometimes doubt whether people I'm talking to are really interested in what I'm saying.  

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

20. In discussions with some people, I get so annoyed I can hardly trust myself to speak.  
21. I use up more energy than most people in getting things done because I get tense and nervous.  
   [a] true, [b] uncertain, [c] false. ....................................................  
22. I make a point of not being absent-minded or forgetful of details.  
   [a] true, [b] uncertain, [c] false. ....................................................  
23. No matter how difficult and unpleasant the snags and stumbling blocks are, I always stick to my original plan or intentions.  
   [a] yes, [b] in between, [c] no. ....................................................  
24. I get over-excited and “rattled” in upsetting situations.  
   [a] yes, [b] in between, [c] no. ....................................................  
25. I sometimes have vivid, true-to-life dreams that disturb my sleep.  
   [a] yes, [b] in between, [c] no. ....................................................  
26. I always have enough energy to deal with problems when I’m faced with them.  
   [a] yes, [b] in between, [c] no. ....................................................  
27. I have a habit of counting things, such as steps, or bricks in a wall, for no particular purpose.  
   [a] true, [b] uncertain, [c] false. ....................................................  
28. Most people are a little odd mentally, but they don’t like to admit it.  
   [a] true, [b] uncertain, [c] false. ....................................................  
29. If I make an embarrassing social mistake I can soon forget it.  
   [a] yes, [b] in between, [c] no. ....................................................  
30. I feel grouchy and just don’t want to see people.  
   [a] almost never, [b] sometimes, [c] very often. ....................................  
31. I can almost feel tears come to my eyes when things go wrong.  
   [a] never, [b] very rarely, [c] sometimes. ............................................  
32. Even in the middle of social groups I sometimes feel lonely and worthless.  
   [a] true, [b] in between, [c] false. ....................................................  
33. I wake in the night and have trouble sleeping again because I’m worrying about things.  
   [a] often, [b] sometimes, [c] almost never. ...........................................  
34. My spirits usually stay high no matter how many troubles I seem to have.  
   [a] true, [b] in between, [c] false. ....................................................  
35. I sometimes get feelings of guilt or regret over unimportant, small matters.  
   [a] yes, [b] in between, [c] no. ....................................................  
36. My nerves get on edge so that certain sounds, such as a screechy hinge, are unbearable and give me the shivers.  
   [a] often, [b] sometimes, [c] never. ....................................................  
37. Even if something upsets me a lot, I usually calm down again quite quickly.  
   [a] true, [b] uncertain, [c] false. ....................................................  
38. I seem to tremble or perspire when I think of a difficult task ahead.  
   [a] yes, [b] in between, [c] no. ....................................................  
39. I usually fall asleep quickly, in just a few minutes, when I go to bed.  
   [a] yes, [b] in between, [c] no. ....................................................  
40. I sometimes get tense and confused as I think over things I’m concerned about.  
   [a] true, [b] uncertain, [c] false. ....................................................  

STOP HERE. BE SURE YOU HAVE ANSWERED EVERY QUESTION.
APPENDIX C
On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY! Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. Be sure to read all the statements in each group before making your choice.

1 0 I do not feel sad.
   1 I feel sad.
   2 I am sad all the time and I can't snap out of it.
   3 I am so sad or unhappy that I can't stand it.

2 0 I am not particularly discouraged about the future.
   1 I feel discouraged about the future.
   2 I feel I have nothing to look forward to.
   3 I feel that the future is hopeless and that things cannot improve.

3 0 I do not feel like a failure.
   1 I feel I have failed more than the average person.
   2 As I look back on my life, all I can see is a lot of failures.
   3 I feel I am a complete failure as a person.

4 0 I get as much satisfaction out of things as I used to.
   1 I don't enjoy things the way I used to.
   2 I don't get real satisfaction out of anything anymore.
   3 I am dissatisfied or bored with everything.

5 0 I don't feel particularly guilty.
   1 I feel guilty a good part of the time.
   2 I feel quite guilty most of the time.
   3 I feel guilty all of the time.

6 0 I don't feel I am being punished.
   1 I feel I may be punished.
   2 I expect to be punished.
   3 I feel I am being punished.

7 0 I don't feel disappointed in myself.
   1 I am disappointed in myself.
   2 I am disgusted with myself.
   3 I hate myself.

8 0 I don't feel I am any worse than anybody else.
   1 I am critical of myself for my weaknesses or mistakes.
   2 I blame myself all the time for my faults.
   3 I blame myself for everything bad that happens.

9 0 I don't have any thoughts of killing myself.
   1 I have thoughts of killing myself, but I would not carry them out.
   2 I would like to kill myself.
   3 I would kill myself if I had the chance.

10 0 I don't cry anymore than usual.
    1 I cry more now than I used to.
    2 I cry all the time now.
    3 I used to be able to cry, but now I can't cry even though I want to.

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11 0 I am no more irritated now than I ever am.
  1 I get annoyed or irritated more easily than I used to.
  2 I feel irritated all the time now.
  3 I don't get irritated at all by the things that used to irritate me.

12 0 I have not lost interest in other people.
  1 I am less interested in other people than I used to be.
  2 I have lost most of my interest in other people.
  3 I have lost all of my interest in other people.

13 0 I make decisions about as well as I ever could.
  1 I put off making decisions more than I used to.
  2 I have greater difficulty in making decisions than before.
  3 I can't make decisions at all anymore.

14 0 I don't feel I look any worse than I used to.
  1 I am worried that I am looking old or unattractive.
  2 I feel that there are permanent changes in my appearance that make me look unattractive.
  3 I believe that I look ugly.

15 0 I can work about as well as before.
  1 It takes an extra effort to get started at doing something.
  2 I have to push myself very hard to do anything.
  3 I can't do any work at all.

16 0 I can sleep as well as usual.
  1 I don't sleep as well as I used to.
  2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
  3 I wake up several hours earlier than I used to and cannot get back to sleep.

17 0 I don't get more tired than usual.
  1 I get tired more easily than I used to.
  2 I get tired from doing almost anything.
  3 I am too tired to do anything.

18 0 My appetite is no worse than usual.
  1 My appetite is not as good as it used to be.
  2 My appetite is much worse now.
  3 I have no appetite at all anymore.

19 0 I haven't lost much weight, if any lately.
  1 I have lost more than 5 pounds.
  2 I have lost more than 10 pounds.
  3 I have lost more than 15 pounds.

20 0 I am no more worried about my health than usual.
  1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation.
  2 I am very worried about physical problems and it's hard to think of much else.
  3 I am so worried about my physical problems, that I cannot think about anything else.

21 0 I have not noticed any recent change in my interest in sex.
  1 I am less interested in sex than I used to be.
  2 I am much less interested in sex now.
  3 I have lost interest in sex completely.
APPENDIX D
SUBSTANCE USE QUESTIONNAIRE

1. Do you believe drugs and alcohol are a problem for Corpsmembers on this center? (circle one response)

   yes  no  unsure

2. Are drugs or alcohol a problem for you at this time? (circle one)

   yes  no  unsure

3. Have drugs or alcohol been a problem for you in the past? (circle one)

   yes  no  unsure

4. Since enrolling in Job Corps has your drug use: (circle one)

   increased  stayed the same
   decreased  do not use drugs

5. Since enrolling in Job Corps has your alcohol use: (circle one)

   increased  stayed the same
   decreased  do not use alcohol
6. In your opinion, why do people your age use drugs and/or alcohol: (circle one response only)

- to have a good time
- to get attention
- to be accepted
- to socialize
- to have a new experience
- to belong
- to feel good
- to forget
- other ____________________________

7. Why do you use drugs and/or alcohol: (circle the response that most applies to you. If you do not use drugs/alcohol, you may skip this question)

- to have a good time
- to get attention
- to be accepted
- to socialize
- to have a new experience
- to belong
- to feel good
- to forget
- other ____________________________
8. What have you used? (Check all that apply)

<table>
<thead>
<tr>
<th>Stimulants</th>
<th>Psychedelics</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Benzedrine (bennies)</td>
<td>[ ] Hashish</td>
</tr>
<tr>
<td>[ ] Dexedrine (dexies)</td>
<td>[ ] LSD</td>
</tr>
<tr>
<td>[ ] Methedrine (speed)</td>
<td>[ ] Belladonna</td>
</tr>
<tr>
<td>[ ] Cocaine (coke)</td>
<td>[ ] Psilocybin</td>
</tr>
<tr>
<td>[ ] Other (Specify):</td>
<td>[ ] PCP (Angel dust)</td>
</tr>
<tr>
<td></td>
<td>[ ] Mescaline (peyote)</td>
</tr>
<tr>
<td></td>
<td>[ ] Other (Specify):</td>
</tr>
<tr>
<td></td>
<td>___________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Depressants</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Amytal Sodium (blue heavens)</td>
</tr>
<tr>
<td>[ ] Nembutal (yellow jackets)</td>
</tr>
<tr>
<td>[ ] Seconal (reds)</td>
</tr>
<tr>
<td>[ ] Phenobarbital</td>
</tr>
<tr>
<td>[ ] Tuinal (rainbows)</td>
</tr>
<tr>
<td>[ ] Other (Specify):</td>
</tr>
<tr>
<td>___________________________</td>
</tr>
<tr>
<td>___________________________</td>
</tr>
<tr>
<td>Opiates</td>
</tr>
<tr>
<td>---------------------------------</td>
</tr>
<tr>
<td>_ Opium</td>
</tr>
<tr>
<td>_ Heroin</td>
</tr>
<tr>
<td>_ Methadone</td>
</tr>
<tr>
<td>_ Morphine</td>
</tr>
<tr>
<td>_ Codeine</td>
</tr>
<tr>
<td>_ Other (Specify):</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

| _ Tranquilizers (Specify):      |                            |
|                                 |                            |

| _ Marijuana                     |                            |

| _ Alcohol                      |                            |

| _ Other (Specify):             |                            |
|                                 |                            |
9. The following is a list of categories of substances. Check how often you use the following: (circle one in each category)

a. Alcohol (including beer and wine)

2 or more times a week
once a week
2 or 3 times a month
once a month
have used once
have never used

b. Marijuana

2 or more times a week
once a week
2 or 3 times a month
once a month
have used once
have never used

c. PCP (angel dust)

2 or more times a week
once a week
2 or 3 times a month
c. PCP (angel dust)

once a month
have used once
have never used

d. Depressants (downers)

2 or more times a week
once a week
2 or 3 times a month
once a month
have used once
have never used

e. Stimulants (uppers)

2 or more times a week
once a week
2 or 3 times a month
once a month
have used once
have never used

f. Hallucinogens (LSD)

2 or more times a week
once a week
f. Hallucinogens (LSD)

2 or 3 times a month
once a month
have used once
have never used

g. Inhalants

2 or more times a week
once a week
2 or 3 times a month
once a month
have used once
have never used

10. Of these categories of substances, which do you believe are the three most used on this center by Corpsmembers: (Please rank the 3 most used in order, with 1 being the most used on center.)

Alcohol
PCP
Inhalants
Opiates
Depressants
Marijuana
Stimulants
Other (name other)
11. Do you know where to get help for yourself or a friend with a drug problem on this center: (circle one answer)
   yes    no    unsure

12. Does this center have a drug information and education program: (circle one response)
   yes    no    unsure

13. Would you like more information and education on substance (drug) and alcohol use: (circle one)
   yes    no    unsure

14. Do you feel marijuana should be legalized: (circle one)
   yes    no    unsure

15. Do you feel the Job Corps policy about use of substance (drugs) and alcohol is fair: (circle one)
   yes    no    unsure
don't know Job Corps policy

16. When are you most likely to use alcohol: (circle one)
   when you are bored
   when you are at a party
16. When others you are with are using alcohol
when you are depressed
when you are worried about something
you do not use alcohol
other _______________________

17. When are you most likely to use marijuana (circle one)
when you are bored
when you are at a party
when others you are with are using marijuana
when you are depressed
when you are worried about something
you do not use marijuana
other _______________________

DEMOGRAPHIC QUESTIONNAIRE

(Please do not write your name any place on this test packet.)

1. Your age: (circle your age at your last birthday)

   16  17  18  19

   20  21  22  Other ______

2. Your sex:

   Female       Male

3. The last grade you have completed in school:
   (circle one)

   6th grade       12th grade

   7th grade       High School

   8th grade       1 year college/

   9th grade       community

   10th grade      college

   11th grade      Other ______
4. Your marital status: (circle one)
   single            married
   divorced          separated
   widowed

5. How long have you been enrolled in Job Corps: (circle one)
   1 month or less     More than 1 year
   2 to 6 months      More than 2 years
   6 months to a year

6. Where have you lived most of your life: (circle one)
   a city           a farm
   a town           Other

7. What is your racial heritage: (circle one)
   Black            White
   Latino           Asian
   American Indian  Other

8. The following is a list of possible concerns you may have. Choose the 3 that concern you the most and rank these in the order of which concern you
the most at this time: (i.e., #1 concerns you the most; #2 concerns you the second most; #3 concerns you the third most)

a. Family problems

b. Making friends and being accepted by Corpsmembers.

c. How you look and act with others

d. Sexual concerns

e. Making it through the Job Corps Program

f. Missing family and friends back home

g. Relationships with the opposite sex

h. Living on center

i. Concerns about the future and when you leave Job Corps

j. Concerns about who you are and what you want
k. Other

(Describe other) ____________________

______________________________

______________________________

______________________________

______________________________
The dissertation submitted by Gloria Litos Donaldson has been read and approved by the following committee:

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The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of

April 23, 1981

Date

[Signature]