

1983

The short term effects of a developmentally based substance abuse program with incarcerated youth

Everett Gerard McLaren Jr.
College of William & Mary - School of Education

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SUBSTANCE ABUSE PROGRAM WITH INCARCERATED YOUTH

The College of William and Mary in Virginia

Ed.D. 1983

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THE SHORT TERM EFFECTS OF A
DEVELOPMENTALLY BASED
SUBSTANCE ABUSE PROGRAM WITH
INCARCERATED YOUTH

A Dissertation
Presented to
The Faculty of the School of Education
The College of William and Mary in Virginia

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
Everett Gerard McLaren Jr.

July 1983

THE SHORT TERM EFFECTS OF A
DEVELOPMENTALLY BASED
SUBSTANCE ABUSE PROGRAM WITH
INCARCERATED YOUTH

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Dedication

This report is dedicated to my mother and father who, through their loving example and support, have provided the foundations on which these learnings and successes are built.

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The completion of the requirements for the Doctor of Education has involved the support and cooperation of many individuals. To these I offer my deepest thanks.

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I am very grateful to the Department of Corrections of the Commonwealth of Virginia for their support and cooperation in this project; in particular to the staff and youth at Barrett Learning Center and the Division of Program Development and Evaluation.

Thanks is also extended to John Lynch for his fine skills with the group.

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TABLE OF CONTENTS

	Page
DEDICATION.....	3
ACKNOWLEDGEMENTS.....	4
LIST OF TABLES.....	8
 Chapter	
1. INTRODUCTION.....	10
Statement of the Problem.....	10
Need For The Study.....	11
Theoretical Rationale.....	12
General Hypothesis.....	14
Sample And Data Gathering Procedures.....	14
Definition Of Terms.....	15
Limitations.....	17
2. REVIEW OF RELATED LITERATURE.....	18
An Introduction To Prevention.....	18
A Theoretical Overview Of The Developmental	
Task Model.....	22
Developmental Tasks And Alcohol And Drug	
Use In Adolescence.....	27
A Review of Related Research On Developmental	
Skills Prevention Programs.....	29
Educational Approaches In Drug Abuse Prevention	33
Affective Approaches In Drug Abuse Prevention..	34
Communication And Interpersonal Skill Training	
In Drug Abuse Prevention.....	35

Alternatives And Drug Abuse Prevention.....	37
A Review Of The Research Of Drug Abuse Prevention And Delinquent Youth.....	39
3. METHODS AND PROCEDURES.....	43
Population And Selection Of Sample.....	43
Procedures.....	43
Treatments.....	44
Ethical Safeguards And Considerations.....	46
Instrumentation.....	46
Design And Statistical Analysis.....	53
Specific Hypothesis.....	54
Summary.....	56
4. ANALYSIS OF RESULTS.....	57
Hypothesis One.....	57
Hypothesis Two.....	58
Hypothesis Three.....	60
Hypothesis Four.....	89
Hypothesis Five.....	101
Summary Of Findings.....	103
5. SUMMARY, CONCLUSIONS, DISCUSSIONS, AND RECOMMENDATIONS	104
Summary.....	104
Conclusions.....	105
Discussion.....	108
Recommendations.....	115
APPENDICES.....	
Appendix A. Developmental Skills Drug Abuse Prevention Program Manual.....-	117

Appendix B. Research Consent Statement.....	153
Appendix C. Request For Approval of Research..	154
Appendix D. Letter Of Endorsement From Department Of Corrections.....	155
Appendix E. Proposal For Research With Human Subjects, and Research Abstract The College of William and Mary...	156
Appendix F. Drug And Alcohol Inventory.....	160
BIBLIOGRAPHY.....	162
VITA.....	171
ABSTRACT.....	172

LIST OF TABLES

Table	Page
1. Drug and Alcohol Knowledge Test.....	59
2. Piers-Harris Children's Self Concept Scale.....	61
3. Self Direction, Adaptive Behavior Scale.....	63
4. Responsibility, Adaptive Behavior Scale.....	65
5. Socialization, Adaptive Behavior Scale.....	67
6. Aggressiveness, Adaptive Behavior Scale.....	69
7. Anti-Social vs Social Behavior, Adaptive Behavior Scale.....	71
8. Rebelliousness, Adaptive Behavior Scale.....	73
9. Trustworthiness, Adaptive Behavior Scale.....	75
10. Withdrawal vs Involvement, Adaptive Behavior Scale.....	77
11. Mannerisms, Adaptive Behavior Scale.....	78
12. Interpersonal Manners, Adaptive Behavior Scale....	80
13. Acceptability of Vocal Habits, Adaptive Behavior Scale.....	82
14. Acceptability of Habits, Adaptive Behavior Scale..	84
15. Activity Level, Adaptive Behavior Scale.....	86
16. Symptomatic Behavior, Adaptive Behavior Scale.....	88
17. Use of Medications, Adaptive Behavior Scale.....	90
18. Number of Favorable Adjectives Checked, The Adjective Checklist.....	92
19. Number of Unfavorable Adjectives Checked, The Adjective Checklist.....	94

20. The Self Concept Scale, The Adjective Checklist...	96
21. Personal Adjustment Scale, The Adjective Checklist.	98
22. Aggression Scale, The Adjective Checklist.....	100
23. Net Change Scores.....	102

CHAPTER ONE

Statement of the Problem

Alcohol and drug abuse among adolescents is increasing in frequency. Recent surveys note a decrease in age of first alcohol or drug use (Rachal, Williams, Brehm, Cavanaugh, Moore, and Eckerman 1975, Abelson, Fishbarne, and Cisin 1977). A recent survey by the National Institute of Drug Abuse in 1976 found that fifty percent of children ages 12 to 19 surveyed have smoked cigarettes, fifty-five percent of those youth have used alcohol and twenty-two percent of the youth have used marijuana. The data revealed by such surveys strengthen the significance and the need for effective prevention planning.

In the White Paper prepared by the Domestic Council Drug Abuse Task Force (1975), it was noted that "drug abuse does not occur in isolation and that drug abuse prevention programs involve many of the same elements which are required to prevent other kinds of destructive behavior." Youth engaged in other forms of self destructive behavior often find themselves in contact with the juvenile justice system. There generally is assumed to be a large percentage of youth involved in the juvenile justice system who have had some involvement with alcohol and other drugs. A study by Polonsky, Davis, and Roberts (1967) found delinquent youth become involved with drugs as part of their delinquent behavior rather than the involvement with drugs leading to delinquent behaviors. Jessor (1975) in a study of developmental behavior in adolescence, also notes the similarities in the patterns of deviant

behaviors in delinquent youth and youth who are involved in the use of alcohol and other drugs.

Smart and Fejer (1972) note an important association of parental use of medication and drugs and the subsequent modeling of this parental pattern in their study of adolescent drug use. Another factor of importance in adolescence is the element of environment, the effects of the peer group and community in which the youth lives, on the behavior and values of the adolescent. Generally the peer group of an adolescent who is involved in delinquent activity or in drug taking is supportive of those types of behaviors.

Need For The Study

A consideration of these factors suggests that youth committed to the juvenile justice system can be considered a "high risk" population in terms of the potential for further use of chemicals in such a manner that they may be harmful to themselves or others. The Federal government has also states its recognition of this increased potential for the development of drug abuse problems in juvenile offenders and has mandated LEAA to include drug and alcohol prevention efforts as part of the overall activities of its juvenile justice programs (P.L. 93-415). Glenn and Warner (1977) stress the relationship between skill deficits, for example in interpersonal and problem solving skills, and chemical use. They also state that individuals who exhibit deficit in one, several, or all of the following areas could be identified as being at risk; those areas are 1-identification with role models, 2-identification with and responsibility for family process, 3-faith in miracle solutions.

4-interpersonal skills, 5-intrapersonal skills, 6-systemic skills, 7-judgmental skills. Youth involved with the juvenile justice system exhibit deficits in these areas and are singled out of their respective communities as they are identified to be in conflict with the community norms. Social norms generally define what is acceptable in terms of behavior in the community and they require certain levels of functioning in each of the previously listed areas. Those youth who are committed through the juvenile justice system are not functioning at the level required by the community norms.

It is the purpose of this study to provide a group experience to a high risk population, a population of incarcerated youth, which addresses the problems of chemical use. The study will attempt to answer the research question of whether a developmentally focused prevention program can increase the range of developmental skills in a population of high risk adolescents. The changes will be demonstrated by self-ratings of self concept, staff ratings of behavior and by performance in the institutional program. The strengthening of these developmental skills, according to the literature cited and elaborated on in Chapter Two, should lessen the likelihood that those high risk adolescents become substance abusers.

Theoretical Rationale

A basic premise in a developmental task model is that an individual learns his way through life. As one masters particular tasks, he learns skills necessary to proceed in this growth process to a skill of greater complexity or importance. Some tasks arise from physical maturation such

as learning to walk. Other tasks have as their source cultural pressures of society such as dating and courtship. Personal values and aspirations of the individual are also a source of developmental tasks. However in most cases the source of a developmental task is a combination of all of these factors acting together. Havighurst (1952, p. 2) defined a developmental task as "a task which arises at a certain period in life, the successful achievement of which leads to happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by society and difficulty with later tasks." Glenn and Warner (1977) suggest that various developmental skills can serve as alternate ways of reducing needs. They further suggest that abuse of alcohol and drugs can be reduced by encouraging development of skills necessary to a given stage of development in the individual.

There are other factors which support a developmental skills orientation in addressing drug use in adolescence. These factors will be explored in greater detail in the review of the literature in Chapter Two. However, the information already presented suggests that a developmentally focused program can build upon the skills the adolescent has by expanding his behavioral repertoire in such a manner that he will have healthy and varied ways of meeting needs particular to adolescence and the transition to adulthood. As the adolescent learns skills needed at his stage of development to help him make the transition from childhood to more adult roles, he will experience the rewards and happiness of success. He will become better able to meet his needs in a healthy and growth-oriented manner and be less likely to engage in deviant or problem behaviors, including the use of drugs.

General Hypothesis

The formal hypotheses of this study are that the students who complete the developmentally oriented prevention program:

1. will demonstrate greater knowledge of drugs and alcohol as measured by responses to a questionnaire on the effects of alcohol and other drugs than a control group of students not participating in the program;
2. will show greater gains in self concept as measured by the Piers-Harris Children's Self Concept Scale than students in a control group;
3. will exhibit a greater frequency of appropriate interpersonal behaviors as reflected in ratings by counselors using the Adaptive Behavior Scale and selected scales of the Adjective Checklist than students in a control group;
4. will show greater improvements in their overall adjustment to institutionalization as reflected in weekly point earned averages than students in a control group.

Sample and Data Gathering Procedures

The subjects for this study are drawn from a population of young adolescent boys who have been committed by the juvenile justice system to the State Department of Corrections and subsequently placed at Barrett Learning Center. Boys who have been placed at Barrett Learning Center since November 1, 1981 will be eligible for participation in the study. Students who entered the Barrett population after February 1, 1982 will not be eligible for participation in this study. From this population boys will be selected at random and then randomly assigned to either a control group or one of two experimental groups. There will be eight boys in each group and participation in the study is voluntary.

Authorization to proceed with the study was obtained from the Research and Reporting Unit within the Division of Program Development and Evaluation of the Department of Corrections, in the Commonwealth of Virginia. The procedures used in this research are in adherence with the policies of that Division as stated in guidelines which are located in Chapter Ten of the Departmental Policy Manual, dated August 12, 1980. Approval for the study was also obtained from the Committee for Research with Human Subjects of the College of William and Mary.

Data will be gathered using the weekly average of points earned in the Learning Center behavior modification program, ratings by the counselors of the youth using the Adaptive Behavior Scale and Adjective Checklist. Also used in the study is an inventory of drug and alcohol knowledge developed for this project which will be completed at the end of the program by youth in both the experimental and control groups. The Piers-Harris Children's Self Concept Scale will be completed as a post-test by both the experimental and control groups.

Definition of Terms

Barrett Learning Center: Barrett Learning Center is an institution in the Commonwealth of Virginia of the Department of Corrections, Youth Region. The institution is located in Hanover County, and provides services for young adolescent males who have been committed to state care through the juvenile justice system for indeterminate sentences. The age range of youth placed at the facility is from twelve to fifteen and one-half years of age.

Adaptive Behavior Scale (ABS): The Adaptive Behavior Scale is a behavioral rating scale developed by the American Association on Mental Deficiency. It is primarily a descriptive tool which utilizes ratings by others of the performance and progress of an individual.

The Adjective Checklist (ACL): The Adjective Checklist was developed by H. Gough and A. Heilbrun Jr. It consists of a series of 300 adjectives which are commonly used to describe the qualities of a person. It may be administered to an individual for self evaluation or it may be used by raters as a method of recording personality attributes of those being studied. The Adjective Checklist contains twenty-four scales.

The Piers-Harris Children's Self Concept Scale (The Way I Feel About Myself): The Piers-Harris Children's Self Concept Scale is a self report instrument designed for a wide range of children. The scale was developed by Ellen Piers and Dale Harris. It was developed primarily for research on the development of children's attitudes towards themselves. The scale requires a third grade reading knowledge.

The Point System at Barrett Learning Center: The point system at the institution is part of a behavior modification program in which the students earn points for completion of school and cottage tasks. The points are used to determine levels within the program with each level allowing greater privileges. The points earned during a week are added, the total being referred to as the "weekly average."

Limitations

The focus of this study is on the short term effects of a drug abuse prevention program with a sample of high risk adolescent males.

Accordingly, the study is limited in the assessment of the long range effects that the program may ultimately have on future alcohol and drug use. The program is designed for the developmental needs of the young adolescent male: generalization to other age youth should be made with caution. The population is also one which is unique, a population of incarcerated male youth whose circumstances and needs may differ significantly from a population of non-incarcerated youth.

CHAPTER TWO

An Introduction to Prevention

The first significant inroads in the field of prevention were made in the public health field. It proved to be more cost effective to provide educational activities and immunization programs than to treat illness and disease. While these preventive efforts generally were successful, health care expenditures in the United States are estimated to be about ten percent of the entire output of goods and services, approximately \$550 a year per person (NIDA, 1977). According to statistics released by National Institute on Drug Abuse (NIDA, 1977) one percent annually spent for health care in the United States goes toward health education and prevention activities. Comparison of the estimated health care cost a year per person with the amount spent in prevention programming begins to establish a case for an increased emphasis and focus on preventive health care.

Caplan (1964) has identified three levels of prevention. The first, primary prevention, involves activities with specific goals that reduce the chance for a problem to occur in a specific population. Secondary prevention involves those activities which are designed to understand a problem after it occurs so as to prevent its reoccurrence. The final level of prevention, tertiary prevention, involves those activities designed to reduce the severity of a problem that has already occurred. The role of prevention is a dynamic one, the outcome goals shift as the needs of the target population shift. Strategies which are targeted

toward those needs must be flexible enough to shift with the changes in the characteristics of the target group. No single strategy then can address all three levels of prevention.

The early 1970's proved to be a turning point for prevention activities in the area of alcohol and drug abuse. There was a coming together of philosophies and political ideologies such as the humanistic movement in psychology, the human potential movement, an increasing sense of dissatisfaction with traditional forms of schooling, and a rising awareness of ethnic identity and civil rights. The concept of alternatives and the emphasis on affective education added to the realm of strategies that would be used in prevention programming. Also in the early 1970's there was a sense of urgency at the federal level to act quickly to intervene in what was perceived to be a crisis of drug use among the youth. Public Law 91-527 declared that drug abuse diminished the strength of the nation and it further identified the need for new and improved curricula on the problem of drug abuse. The problem of drug abuse was seen as a social one and the early strategies for intervention were based on emotions, rather than on factual information or science. In response to the findings that many early efforts at disseminating information about alcohol and other drugs had proven counterproductive, the federal government declared a moratorium on the production of drug information in 1973. After a thorough review of available drug information, new guidelines were subsequently released which encouraged the development of materials which reinforced drug free behavior (NIDA, 1977).

Most recently NIDA (1979) has defined prevention as "that part of the drug abuse service continuum that includes information, education,

alternatives, and early education." The goal of drug abuse prevention is to reduce substance abuse throughout the country in the most cost effective manner. To accomplish this goal the National Institute on Drug Abuse (NIDA, 1977) has suggested a number of guidelines, some of which are: (1) that the drug free experience should be reinforced; (2) that prevention activities should be targeted on that drug which is believed to have the highest social cost as well as on the general drug taking experience; and (3) that efforts should be targeted toward populations at risk which include individuals who are not yet using drugs as well as those who are experimenting or just beginning sustained drug use.

Historically, there have been four major strategies for prevention which have been applied in efforts to accomplish some of the aims cited earlier (Nowlis, 1976). The first strategy of prevention is based on a moral-legal model. This strategy assumes that punishments and threats will deter the undesirable behavior, in this case the behavior of drug taking. Early efforts by law enforcement agencies often involved lectures, displays of drugs, and accounts of drug-related arrests in an effort to deter drug taking behavior. A second strategy of prevention is based on a medical-public health model. This approach assumes that isolation of known users will help prevent the infection of others. Another tactic of this approach involves the use of drug education programs. The assumption in drug education programming is that most individuals will value health and wish to avoid disease. The third strategy of prevention is based on a psycho-social model of drug use. Generally this strategy involves dissemination of information as well as discussion of values, risk taking, and decision making. The concept of

alternatives as a method of prevention was developed from this strategy. The major focus of this strategy is toward the personal and social needs that drug use may serve. The fourth strategy of prevention involves strategies which stem from a socio-cultural model and look to the social context of behavior for major change. Community intervention programs are based on this model where efforts to focus on the particular needs of the community and social setting are used. While there are interventions based on only one of the four strategies, Nowlis (1976) has stated that any intervention which does not take all four parts or strategies into account will probably not be effective. Dr. John Ohlsen has defined drug abuse prevention as a "constructive process designed to promote growth toward full human potential while inhibiting or reducing impairment from the use of natural or synthetic substances" (Nowlis, 1976). The emphasis of his statements on promoting the physical, mental, and social growth also support the concept of prevention taking into account all four of the strategies and of approaching prevention with a developmental orientation.

Drug and alcohol prevention strategies can also be described as either specific or non-specific (National Institute on Alcohol Abuse and Alcoholism, 1976). Specific strategies are targeted directly at the drug and alcohol problems by attempting to affect the frequency or manner in which the chemical is used. Examples of drug specific strategies include legislative efforts to control the sale of drug paraphernalia or to increase the legal drinking age, and the dissemination of information about alcohol and drugs. Non-specific strategies are those which are focused indirectly on alcohol and drugs but are geared to affect the

intermediate variables assumed to be contributing factors in the development of a chemical problem. Non-specific strategies make the assumption that when an individual uses chemicals in such a manner as to be considered a problem, it is a maladaptive way of dealing with personal, interpersonal, and environmental stress (NIAA, 1976). Some non-specific strategies include the teaching of communication skills, alternative activities, values clarification, and increasing the range of coping behaviors. The non-specific prevention strategies could be readily integrated with a prevention program which operates with an orientation towards the teaching of developmental skills.

A Theoretical Review of the Developmental Task Model

The period of adolescence marks the end of childhood and is a time of biological change as it is marked by an acceleration of physical growth with significant hormonal changes and the beginning of secondary sexual development. Psychologically, adolescence is marked by an acceleration of cognitive growth (Manaster, 1977). According to Piaget's cognitive theory of development, adolescence is characterized for some by a transition from concrete operations to the stage of formal operations or formal thought. In other words the adolescent may become increasingly capable of reasoning abstractly and mastering the process of formal operations which allows him to combine operations in such a way as to confirm or disprove his hypothesis about the world in which he lives. With the acquisition of formal operational thought comes the capacity for the adolescent to conceptualize or to take into account the thoughts of others. This can be confusing for the adolescent as it may be difficult

for him to distinguish between what others are thinking about and his own thoughts. The adolescent then makes the assumption that others are as obsessed with his behavior and appearance as he is. With these cognitive changes are accelerations of personality formation. The striving for independence from family, the firming of the self concept, and affirming of personal values are significant tasks in this area of personality. Socially, adolescence is a time when preparation for the assumption of an adult role intensifies. Through the process of dating, the adolescent begins to engage in roles relating to marriage and family. In the area of school the process of narrowing the choice of occupation intensifies. This may also be a time of vocational training for a specific career. Adolescence, then is simultaneously a biological, psychological, and social phenomena: it is a stage of transition (Eisenberg, 1969). It is transitional in that a youth passes through a series of socializing institutions which prepare him for adulthood. The youth is weaned from the dependent status of a child to the independence of adulthood.

Kenniston (1970) identifies several themes of adolescence which dominate the behavior of the adolescent. The feeling of tension between self and society grows as the adolescent struggles to define who he is. He further states that youth or adolescence is a time of estrangement and "omnipotentiality" as the adolescent feels a disconnectedness from the social and interpersonal worlds that were familiar as a child. Another theme identified by Kenniston is that of the need for movement and change. As he feels less connected to the other worlds of childhood, the adolescent senses an urgent need for change in the world

and his self as well. Optimal development in adolescence depends on successful resolution of these themes and of the other developmental tasks of adolescence.

Havighurst (1953) defines a developmental task as a task which arises at or about a certain time or period in life, the successful achievement of which leads to happiness and to success with other tasks. Failure at a developmental task leads to frustration and unhappiness in the individual; it can also lead to failure at future tasks and disapproval by society. Havighurst stated that the individual learns his way through life and that the principle lessons of adolescence are emotional, social, and physical maturation. Eisenberg (1969) also identified the biological, social, and psychological aspects of adolescence as the nucleus of tasks essential in adolescence. The sources of the tasks are varied. For example, a physical task for a young girl is adjusting to the onset of menstruation, whereas an example of a social task is adjusting to pressure from society and family to complete high school or to adopt the values of that society. The developmental tasks arise in most cases from a combination of the social, physical, and psychological factors.

Havighurst (1952) identified ten basic developmental tasks of adolescence. The first task, of achieving new and more mature relations with age mates of both sexes involves learning to work with others toward a shared goal. Learning to accept and to achieve socially approved masculine or feminine roles Havighurst cited as the second basic task of adolescence. The other basic developmental tasks which he identified include the task of accepting one's physique and using one's body effectively, the task of achieving emotional independence of

parents and other adults, of achieving assurance of economic independence, the task of selecting and preparing for an occupation, of preparing for marriage and family life, the task of acquiring a set of values and an ethical system as a guide to behavior, the desiring and achieving socially responsible behavior, and the task of developing intellectual skills and concepts necessary for civic competence.

Eisenberg (1969) lists four developmental tasks of adolescence. They include the task of social preparation which involved the adolescent preparing to assume an adult role in society; the task of establishing a personal identity through the process of individuation from the family and of moving toward peers; the task of learning sexual identity and sex role appropriate behavior; and the task of establishing and of searching for one's own identity. This final task is marked by the extensive influence of the peer group. Eisenberg suggests that if the adolescent has available to him constructive social groups which are able to provide creative outlets for adolescent energy, then the result will be a meaningful membership in the community and the identification with the larger goals of that community.

More recently, Manaster (1977) describes life tasks in six areas which are central to the process of adolescence. Manaster describes tasks of the adolescent in the area of sex and love which include the development of the capacity to function and enjoy oneself sexually, the development of the capacity to love, and an integrating aspect which involves developing the capacity to love someone with whom one enjoys sex. A second life task area identified by Manaster involves school. The tasks for adolescence in this area include developing the capacity

to achieve economic independence, developing socially responsible behavior, and choosing and preparing for an occupation. In the area of work, the tasks for the adolescent involve development of work-related skills, independence, and self-assurance. In adolescence movement is from the family being the most influential to the greater influence of friends and the larger community. The tasks for the adolescent in this area include achieving emotional independence from parents and other adults, achieving new and more mature relations with agemates of both sexes, and also the desiring and achieving of socially responsible behavior. In the area of self, the adolescent is faced with the potential for upsets in thoughts about himself as developmental changes occur. The task in the area of self involves the development of a good image of self, and an affirmation of beliefs about one's self. The final task area is that of religion which Manaster refers to as the "existential task." This task involves the adolescent in questions regarding the meaning of life and how that meaning is derived for him. For the adolescent, his movement toward independence from his family compels him to examine and reconstruct the religious beliefs given him by his family. His movement from his family brings him into contact with other points of view.

Havighurst (1953), Eisenberg (1969), and Manaster (1977) all stress the importance of a sense of competence that the actual experience of succeeding in a socially important task gives to the adolescent. The feeling of worth, of competence, is not acquired on the basis of reassurance. There must be an opportunity for the adolescent to exercise his competence and experience success. Every step forward in

growth, every successful completion of a developmental task, brings with it new gains as well as new problems. A change in any part of the organism, the adolescent, upsets the balance which was established earlier in life and new compromises have to be devised. These periods of change, of adjustment are periods of extraordinary stress due to the new growth and new steps in development. In adolescence these periods of change or normative crisis (Staff, 1978) are many. This stage, as the adolescent works on the mastery of developmental tasks, is a normal time of increased conflict (Erikson, 1959) which is characterized by a seeming fluctuation in ego strength. Yet as Erikson points out, it is also a period of high growth potential. To add further to this observation of adolescence and normative crisis, Anna Freud (1969) has described adolescence as being by nature an interruption of peaceful growth. She further states that upholding or maintaining a steady equilibrium during adolescence is in itself abnormal.

Developmental Tasks and Alcohol and Drug Use in Adolescence

Turning to the aspect of alcohol and drug use and the mastery of developmental tasks of adolescence, Glenn and Warner (1977) stress the intimate relationship between the dependencies of drug abuse and deficits in developmental skills. They suggest that various developmental skills can serve as alternate modes of reducing or of meeting needs. If these skills are not mastered then the attraction of chemical use increases as an alternate method of need reduction. Brehm and Black (1968) point out that conditions which influence drug use can best be summarized as a dissatisfaction with one's self and a lack of

restraint to use drugs as a means of change. In other words, in a situation in which one feels thwarted, frustrated, or does not have the necessary developmental skills to meet a need, then that individual is most likely to use drugs as a means of need reduction providing there is a lack of specific restraints regarding drug use. Also in reference to developmental skills, Jessor (1975) notes that much of what constitutes problem behavior in adolescence is relative to age graded norms.

Jessor states that engaging in such behavior can serve to mark for the adolescent a transition in status to more adultlike roles. It is this pattern and the interaction of several variables which constitute a proneness to engage in problem behavior. Some of these variables include areas of the family and degree of involvement with family, performance in school, religion, and social or interpersonal skills. Each of these relates closely to developmental tasks of adolescence cited earlier. Jessor (1975) found that the beginning use of marijuana related to the prevalence of other transition marking behaviors such as sexual intercourse and problem drinking.

Polansky, Davis, and Roberts (1967) support the findings of Jessor as they note that delinquent youth become involved in marijuana use as part of their delinquent behavior rather than drug use leading to delinquent behavior. These results suggest that when the adolescent develops skill deficits, he is more likely to use drugs as part of his pattern of behaviors to deal with need reduction and stresses of adolescence.

Kandel (1973) offers a social interpretation of adolescent drug use. She suggests that the use of a drug by an adolescent is a juvenile

manifestation of adult behavior. Kandel also points out the importance of the peer group in the use of drugs by the adolescents engaging in certain behaviors or skills in a developmental sequence.

A prevention program which addresses the building of skills related to the developmental tasks of adolescence may reduce the possibility of the adolescent engaging in drug abusing behaviors since he is learning skills that help him to cope with the stresses of this transitional period. As he gains a feeling of competence and experiences success in achievement of an age related developmental task, new ways of meeting needs are incorporated in his behavioral repertoire which in turn expand the list of alternatives available to him and further decrease the possibility of his engaging in drug abusing behaviors.

A Review of Related Research on Developmental Skills Prevention Programs

While a review of the literature reveals no formal evaluation of a comprehensive developmental skills program (Spoth and Rosenthal, 1980), several references are found which suggest the use of a developmental skills model in prevention programming. Gum, Tamminen, and Smaby, (1973) describe group oriented discussions which focus on an issue which is relevant to a developmental task of a given school age population. The group discussions, "structured developmental guidance experiences," are designed to encourage open and honest discussion about values and ethics of issues related to developmental tasks. The structured developmental guidance experiences are designed to help students become more aware of their feelings and to give them the opportunity to practice the skills. Student ratings of the structured developmental

guidance experiences indicated a high level of interest and the expression of positive feelings about the experience.

Schaps, Cohen, and Resnick (1975) suggest the use of a developmental model in drug abuse prevention programming. They cite that central to any effective prevention program is the developing of a sense of responsibility in the individual for his behavior. Schaps, Cohen and Resnick list five areas of need for youth which are essential to growth and development. They are, 1- self worth, 2- interpersonal skills such as communication skills, problem solving skills, and empathy, 3- self awareness and identity, 4- opportunities for self-actualization, and 5- intellectual skills. They integrated a series of strategies into a developmental framework. The model proposes the implementation of a comprehensive and coordinated program of prevention for kindergarten through adulthood which can be integrated in a school setting.

Norem-Hebeisen and Lucas (1977) suggest treating the causal factors in primary prevention. They suggest a developmental model which includes five dimensions in helping to build healthy persons and healthy social systems. Factors which Norem-Hebeisen and Lucas cite as highly correlated with drug use include parents' own chemical use, poor relationship with parents, and peer use of chemicals. They also note that drug users are more likely to report depression, despair, hopelessness, low expectations of success, low feelings of acceptance and capability, higher truancy, and that drug users tend to describe themselves as more rebellious and untrustworthy. The model which they propose includes the following five dimensions: (1) specific course

content which focuses on issues of mental health, drug information, human development, nutrition, and ethics and chemical safety;

(2) strategies which include a broad range of interventions such as values clarification, problem solving skills, and communication skills;

(3) competencies in human development, addressing interpersonal skills and issues of self esteem; (4) broad constructs of reality which include issues related to the nature of the world and of self; (5) characteristics of growth in that there is a progression or developmental sequence in growth. Norem-Hebeisen and Lucas state that developmental growth is characterized by an increasing adequacy of constructs to deal with life, increasing complexity in the nature of that understanding and the resulting behavior patterns, increasing universality of constructs and behavior and increasing integration of information and experience toward wholeness and balance of perspective.

In an evaluation of a program which took a self development approach to drug education, Jackson and Calysn (1977) found no significant treatment differences on measures of self-esteem between the experimental and control groups. The subjects for this study were chosen from two schools, one urban and one rural. The experimental group participated in the STRIDE program (Student, Teachers and Residents Involved in Drug Education). The STRIDE program consisted of fifty hours of training outside of the school classroom in a workshop setting. The components of the program were communication skills, values clarification, problem solving skills, and drug information and overdose training. Jackson and Calsyn did find significant differences between the experimental and control groups in empathy skills. They

suggested that the lack of set objectives by the STRIDE program and the fact that the program did not give a clear message about drugs accounted for the mixed results.

In another proposed program model, Kelner and Falco (1980) suggest a prevention program based on key competencies. The key competencies, similar to developmental skills cited earlier, are targeted toward several characteristics which have been identified in addicted youth. Some of these characteristics are poor self-image, improper or unclear set of values, and a lack of identity. One strategy that they suggest includes discussions which focus on the many things which affect behavior such as peer pressure, strained family relations, and the effect of different neighborhoods. Also included as a strategy are discussions and exercises which help the participant gain an understanding that life is not always happy and which help teach alternative ways of dealing with pain. Other strategies appropriate for youth in grades seven to nine include the following: to help students understand that drug and alcohol abuse cause problems for individuals and society, that people need a sense of identity, that they are part of a family, that they are part of a society, that they are individuals, that making decisions and facing consequences are part of growing up, and that carrying out responsibilities gives people more control over their lives. They have described competencies for various age youth and Kelner and Falco propose that the key competency program be integrated into the school curriculum.

Educational Approaches in Drug Abuse Prevention

As mentioned previously no comprehensive developmental program has been described in the literature. Various components of the developmental program have been researched however. In a study of the effectiveness of the New York State Drug Curriculum Guide, O'Rourke (1973) compared students in two schools who used the new curriculum and students in two other schools who followed the regular health education class. An evaluation was done after six months and the students who used the new curriculum guide received a higher score on a multiple choice drug knowledge test than did those students who followed the standard health curriculum.

In a study of attitudinal change, Leary (1972) found that following a drug education workshop, 135 participants demonstrated significantly different attitudes toward concepts related to drug abuse than did a control group of 112 participants. Studies have also reported negative findings relating drug knowledge and attitudinal change. Brehm et al. (1975) reported no significant change in attitude toward drug abuse in a study of 589 adult participants in a ten day drug education course suggesting that an educational component alone will not always have a significant effect on attitudes towards drugs.

Studies have also reported changes in knowledge unaccompanied by changes in attitude. Hanna (1973) using a randomly assigned sample of seventh grade students found that after a six week unit on drugs the experimental group had a significant increase in knowledge about drugs, though there was no significant difference between the experimental group and the control group in drug attitudes. In a recent evaluation

of the New York State alcohol education curriculum, Mascoll (1976) reviewed the impact of the program on attitude, knowledge and intent toward future use among a sample of eighth grade students. Using an instrument developed by the author, a comparison was done of a control group and an experimental group which had used the alcohol education curriculum. Statistical findings reveal that the alcohol education program significantly increased the students' knowledge about alcohol and its effects on the body. The alcohol education curriculum did not have as great an impact on attitudes toward alcohol. It had no significant effect on intended use as no significant difference was found between the control and experimental groups. Mascoll suggests that changes be made in the program which would encourage more student involvement such as activities which would encourage interaction and sharing among the students of their attitudes and values. Glenn and Warner (1977) after a review of research also emphasize the importance of programming which includes cognitive and affective tasks while also emphasizing experiential and skill learning.

Affective Approaches in Drug Abuse Prevention

Affective approaches to drug education very often have involved values clarification strategies. Piorkowski (1973) notes that drug information, while being useful, does not change attitudes or behavior. Piorkowski states that of more importance are the values and attitudes which govern relationships and goals in living. Children and adults need to learn the value of warm and intimate relationships with others, to learn the value of facing emotional problems squarely without

running away, and to learn the value of creative self-expression in the exercise of one's talents.

Byrne (1974) after a study of four modalities of drug education concluded that drug education programs which are strictly of a factual nature were not as effective as those using group interaction and affective procedures. The four modalities investigated in this study were (1) group counseling, (2) interaction groups led by teachers, (3) classroom instruction emphasizing drug information, and (4) classroom instruction emphasizing components of affective education. Pre and posttesting of attitudes occurred for experimental and control groups for each modality.

In an evaluation of an affective drug education with seventh and eighth grade students, Friedman (1973) found no significant differences in pretest scores in attitude between the experimental and control groups. At the completion of the fourteen session affective program the experimental group showed significant differences in attitudes with a shift toward more healthy attitudes toward drugs than the control group.

In a three year values clarification program for students in grades four to twelve, Carney (1971) compared the incidence of drug abuse of the values clarification group to a control group of students in drug education classes. The values clarification group tended to be lower in drug abuse than the group involved in the drug education classes.

Communication and Interpersonal Skill Training in Drug Abuse Prevention

Another component of the developmental program is the teaching of

communication and other interpersonal skills. Benberg (1973) noted the correlation of drug abusing behavior and ineffective communication skills and the correlation of effective communication and non-drug using behavior. Benberg, using a sample of fifth grade students, planned a curriculum of teacher inservice training, curriculum objectives content, learning strategies, and communication skills. In the comparison of the experimental group and the control group, the curriculum was not effective in changing the communication skills of the experimental group. The program was effective in increasing the cognitive knowledge of drugs of the students in the experimental group. Benberg suggests that greater time should have been devoted to the teaching of communication skills in the curriculum.

Horan, D'Amico, and Williams (1975) studied the relationship between assertiveness and patterns of drug use in undergraduates. The Rathert Assertiveness Schedule and a self report drug use questionnaire were used in this study. They found that the exploratory use of marijuana and hashish was the norm of this sample. Horan et al. found that current users and those who had never used such drugs were considerably less assertive than those who had experienced those drugs but no longer used them. Those students who were assertive tended to experiment with drugs but not become involved in regular use or abuse of drugs.

Another skill component is the teaching of decision making skills. Project Youth, a drug abuse prevention program in New York City, used groups run by both professional and trained para-professional counselors. The groups consisted of counseling sessions which included

unstructured discussions, role-playing, and decision making exercises. In an evaluation of this program, Ryan and Hettena (1976), using pre- and post-test evaluations found higher levels of group cohesiveness increased positive attitudes toward school, and increased levels of self-esteem at the completion of the program.

Alternatives and Drug Abuse Prevention.

Drug abuse can be considered a maladaptive response to problems, personal or interpersonal. The concept of alternatives in drug abuse prevention encourages the development of alternative options which emphasize meaningful, pleasure-giving involvements with another person or persons (Vista Hill Psychiatric Foundation, 1974). Alternatives to drug abuse should be developed and used early in education in order to avoid possible later involvements with drugs. Alternatives which are developed should be realistic and appropriate for the needs of the individual client. Dobner (1972) proposed that in order to offer meaningful alternatives certain realities of drug use must be accepted, primarily that drugs are pleasurable. Following that assumption alternatives must be meaningful, pleasurable, and exciting as they stimulate further growth.

Volpe (1977) in a review of literature on relaxation training for children notes that research supports the interrelation of low self-esteem and debilitating anxiety as significant factors in drug abuse. He suggests the use of relaxation training as a means of primary prevention to develop self-esteem, reduce anxiety, and reduce drug abuse.

A prevention project which encourages choosing alternatives to drug use such as music, work, and personal relationships, Project DARE (Drug Abuse Research and Education Services) used thirty teenagers and young adults to participate in peer groups which encouraged alternatives (Ungerleider and Burnford, 1972, Warner et al. (1973)) found significant results in a comparison of three approaches supporting the use of alternatives. In the study, ninth graders were assigned at random to either a behavioral counseling group which reinforced alternatives, a cognitive dissonance program which aroused dissonance between pro-drug values and other values, and a placebo group which focused on listening to and accepting the attitudes of other students in a non-judgmental fashion. The results of the study showed the greatest attitudinal improvement occurred in the alternatives program.

As noted earlier, the role of family and parents in adolescent drug use is significant (Kandel, 1973, Kandel et al. 1978, Norem-Hebeisen 1974, and Gold and Reimer, 1972). While a review of the literature does not reveal extensive prevention programming with a focus on family issues, there has been suggestion for treatment and prevention of alcohol and drug abuse in the context of the family (Hindman, 1975, Kellerman, 1974, Gottesfeld et al. 1972). One program to prevent drug abuse among the younger siblings of addicted adolescents had mixed results (Coleman, 1978). The program consisted of weekly group therapy sessions for subjects ages ten to thirteen. The concept for the program is an outgrowth of family systems theory which suggests that inter-generational addictive patterns might impose a significant risk of drug abusing behavior, similar to that shown by the older siblings, among

latency age children. After eighteen months, the results showed that severe in-group acting out had diminished yet some evidence of experimentation with alcohol emerged. The youth involved in the group reported no significant abuse of alcohol or drugs and expressed a desire to continue with the group.

The components of the developmentally based prevention program reviewed generally have generated positive results in the areas of drug knowledge, attitudes towards drugs, and self-esteem. It is the premise of this research that, these components, when organized into and facilitated as a developmental skills model, a holistic approach will result in significant short term impact with a high risk population of incarcerated youth.

A Review of the Research of Drug Abuse Prevention and the Delinquent Youth

While research supports the correlation of delinquent behavior and drug use among adolescents (Jessor, 1975, Forslund, 1977, Polonsky, Davis, Roberts, 1967, Gold and Reimer, 1972), there appears to be limited prevention programming targeted to a population of delinquent youth.

Freidman et al. (1978) conceptualize delinquent behavior as a manifestation of situation-specific, social-behavioral skill deficits. Specifically he states that those youth who have gotten into legal trouble could be differentiated from a non-delinquent group based on their performance on specific tasks. Friedman suggests that the possibility of an individual being classified as a delinquent increases

as a function of at least three factors: it increases to the extent that the individual does not have the specific requisite skills to deal effectively with the everyday problem situations confronting him, it increases as a function of the frequency with which he encounters problem situations, and it increases as a function of the degree to which his incompetent solutions to the problem situations take the form of illegal behaviors. It would seem that an approach to the prevention of further drug abuse which focuses on developing interpersonal skills and problem solving skills would be appropriate for a population which has already demonstrated a deficiency or incompetence in certain social-behavioral skills.

In a study of drug abuse and criminal behavior in delinquent boys at a training school, Simonds and Kashani (1979), found that person offenders tended to abuse more drugs, have lower IQ's, to score higher on the asocial index of the Jesness Inventory, and to come from larger communities when compared to property offenders. Their data also showed that drug abuse, not drug use, was an important factor in differentiating training school delinquents who were person offenders from those who were property only offenders.

In a project run by a juvenile court for youth who were arrested for first time drug offenses (Pearson, 1971), youth were diverted from the court and placed in one of four groups, an educationally oriented counseling group, a psychodrama group, a transactional analysis group, or a control group. A comparison of recidivism rates support the educationally oriented counseling group as being most effective particularly when involving both the youth and their parents. From

questionnaire data, it appeared that there was not a significant impact on subsequent use but the youth appeared to be exercising more appropriate judgment and adopting a more flexible and temperate position.

In another court diversion project (Garger et al. 1976) a ten week training course in human behavior based on the concepts of transactional analysis was developed. Significant differences were found in the experimental group whose members showed greater positive changes in self concept and inner-directedness. No significant change was noted in the perception of relationships in the family by the youth in either the control or experimental groups. The authors suggest that an educational model is an appropriate means of altering self perception in delinquent boys.

Adams (1976) in an evaluation of an educational program of the juvenile court in Utah for juvenile alcohol offenders and their parents found that while the program was successful in reducing recidivism for alcohol offenses, attitudes of the youth were not altered. In this study youth and their parents were assigned at random to either an experimental group which was educationally oriented, or to a control group. Adams also notes that there was a negative relationship between increased knowledge and recidivism among the youth in the study. It appears that as the knowledge about alcohol and drugs of the youth increased the likelihood of rearrest for an alcohol related offense decreased.

A court intervention project designed for youth ages thirteen to seventeen who had been identified as having drug-related offenses and their parents, the Juvenile Intervention Program, included six working

sessions (Iverson et al. 1978). The sessions included such topics as drug knowledge, communication, issues of family, increasing awareness of one's emotions, and of interpersonal relations. The program goals included the reduction of juvenile contact with the criminal justice system, the reduction of contact with school officials for drug related problems, increase in self-esteem of the juveniles, and improvement of the content and openness of communication between youth and their parents. Following the program the juveniles showed no change in any of the criterion measures; the parents however showed significant gains in both communication and drug knowledge. The effect of the program on drug knowledge was to balance or equalize the levels of drug knowledge of the juveniles and their parents. Iverson et al. suggest that as the program had positive effects on the parents, that change would be found in the juveniles' communication patterns and self-esteem levels at a later follow-up providing the parents initiate changes learned from their involvement with the court program.

The lack of documented research on prevention programming for incarcerated delinquent youth indicates the great need for research with a population of such a high risk drug abuse. The research reported reflects the skill deficits in the developmental skills of high risk and delinquent youth. A model of prevention which is based on building developmentally important skills and other elements found to be essential to non-drug using behavior and lower rates of recidivism is proposed.

CHAPTER THREE

Population and Selection of the Sample

The subjects eligible for this study will be those students placed at Barrett Learning Center between November 1,1981 and February 1,1982. Students who have been placed at the Learning Center between these dates are most likely to remain on campus through the duration of the study, thus decreasing the possibility of subjects missing sessions due to home visits or other activities which would take them out of the regular population at Barrett Learning Center. The subjects will be drawn at random from this population. The size of the sample will be twenty-four students. There will be eight students randomly assigned to the control group and eight students randomly assigned to one of two experimental groups. Participation in the study is voluntary and written consent of both the student and superintendent of the institution will be obtained. Following obtaining of written consent, those subjects who have agreed to participate in the study will be randomly assigned to one of the three groups.

Procedures

Data will be gathered utilizing a posttest only design. Following the completion of the developmental skills prevention program by the experimental groups, students in both the experimental and control groups will be given a drug and alcohol knowledge inventory which was developed for this research. The students will also complete the Piers-Harris Children's Self Concept Scale at that time.

Also following the completion of the program, the institutional counselors who work with the subjects will evaluate them on the Adaptive Behavior Scale. The counselors will also complete the Adjective Checklist, rating the subjects by checking all those adjectives which best describe their perception of them at the end of the program.

Also, at the end of the treatment program, the weekly points earned totals will be averaged for the individual subjects in both the experimental and control groups and any group differences computed.

Treatments

The experimental group will participate in the Developmental Skills Drug Abuse Prevention Program. This program is a group-oriented approach which consists of ten one hour sessions. The group will run for five weeks, meeting two times per week. The Developmental Skills Drug Abuse Prevention Program has been adapted from a developmentally oriented alcohol prevention program proposed by Spoth and Rosenthal (1980). The program includes activities and exercises which have been chosen to help build skills and understanding relevant to developmental tasks of early adolescence (Havighurst, 1952, Manaster, 1977, Glenn and Warner, 1977). There has been no reported use of this developmentally oriented prevention program in the literature.

There will be two experimental groups in this study. The use of two experimental groups allows for the use of two different group leaders. The use of two group leaders will help in the controlling of treatment effect due to experimenter bias or due to other charac-

teristics of a group leader such as personality or charisma,

The group leaders in the project are both experienced in facilitating groups of adolescents. The leaders in the study were the author and another psychologist employed at Barrett Learning Center. Prior to the beginning of the project training was provided to the other leader which included a general theoretical orientation to the program and review of the individual sessions planned. The group leaders just met briefly following each of the ten sessions to review the progress of the previous session and to discuss the planned focus of the following session in the ten session sequence.

The ten session program consists of the two initial sessions which cover basic drug and alcohol information as well as role-playing of situations in which the students explore issues of peer pressure and personal choice related to drug use. The third and fourth sessions involve values clarification exercises which focus specifically on increasing awareness of personal values in the group. Sessions five, six, and seven will focus on interpersonal skills including decision-making skills, communication skills, and assertiveness training. Session eight of the program is devoted to the concept of alternatives. Each student will have the opportunity to explore alternatives which are meaningful for them. Techniques of relaxation and medication will also be presented. The ninth session is devoted to issues relating to family life including the examination of relationship issues within their own families and the role of the students in their respective families. In the tenth session the topic of family life will be completed as well as

an opportunity provided for the students to process and summarize the group experience. Students will be asked to make a personal plan to help them integrate information and newly acquired skills. A complete description of the program is found in the manual listed in Appendix A.

The control group will be involved in no special treatment activities apart from the activities which are part of the school and cottage life program at Barrett Learning Center.

Ethical Safeguards and Considerations

The research activities of this project were in compliance with the ethical standards of the American Psychological Association and the guidelines for research as established by the Department of Corrections of the Commonwealth of Virginia. Confidentiality of the subjects involved in this study was maintained and written consent of participation was obtained from both the students involved in the study and the superintendent of the Learning Center.

Prior to the beginning of the study, a research agreement was signed in conformance with the policy of the Virginia Department of Corrections, and with the Committee for Research with Human Subjects of the College of William and Mary.

Instrumentation

The Adjective Checklist

The Adjective Checklist(ACL) is an inventory which can be used for gathering staff observations of individuals for personality assessment (Gough and Heilbrun, 1965) or it can be administered to an individual to obtain a self evaluation. Five scales of the ACL are to be used in the

assessment by counselors of the students in this study. The five scales to be used are 1- the number of favorable adjectives checked, 2- the number of unfavorable adjectives checked, 3- self control, 4- personal adjustment, and 5- aggression. Test-Retest reliability of the scales is reported in the manual. The coefficients at a retest of ten weeks range from .45 to .86 for the various scales. The test-retest reliability coefficients, from the ten week interval in a sample of college age males, reported for the scales to be used in this study are .76 for the number of favorable adjectives checked, .84 for the number of unfavorable adjectives check, .78 for the self-control scale, .76 for the personal adjustment scale, and .80 for the aggression subscale.

Gough (1960) has stated that the goal of an adjective checklist is to ". . . present a library of descriptive terms, covering the widest possible range of behavior, self-conceptions, and personal values. The list should be organized in such a way that it can be filled in by an S (subject) himself, or by an observer who records his reactions to an S (subject)." Gough further supports the use of the Adjective Checklist as an assessment technique and rating instrument in the research setting. In a study of the Adjective Checklist as an assessment technique with children, Scarr (1966) found that the Adjective Checklist correlated systematically with both direct and indirect measures of twins' behavior. In her study Scarr used the Adjective Checklist with mothers of grade school age twin girls. The Adjective Checklist was used as a rating instrument of the twins' behavior by the mothers. Scarr stated that the study lends confidence on the use of the Adjective Checklist Scales with a population of young children.

In a study of personality characteristics of early termination in counseling, Heilbrun (1961) used the Adjective Checklist with a population of undergraduates to identify characteristics. He found that there was little difference in male and female subjects in characteristics of early termination. Male and female subjects who terminated early from treatment were found to be more need achieving, autonomous, dominant, and abasing than those subjects who remained in treatment.

In a study of the convergent and discriminant validity of the Adjective Checklist, Bouchard (1968) examined the convergent validity, discriminant validity and trait intercorrelation using a Self Rating Schedule, the Adjective Checklist and the Edwards Personal Preference Schedule. He found that all three of the variables studied of the instrument met the criterion of convergent validity. Two of the three variables met the criterion for discriminant validity. He suggested that the overlap among scales of the ACL and EPPS be reduced to increase the discriminant validity.

Item factor studies of the Adjective Checklist have shown that the factor structure was remarkably invariant between males and females (Parker and Veldman, 1969). In their study they examined over five thousand subjects and identified seven factors which supported and clarified the multidimensional characteristics of the instrument. Scarr (1966) also reports a factor analysis of the scales of the ACL. She found three factors, introversion-extroversion, social desirability, and personality traits. Scarr's study used a statistically simpler factor analysis with fewer rotations than Parker and Veldman which may account for the difference in factors identified.

The Adaptive Behavior Scale:

The Adaptive Behavior Scale, School Edition is a behavior rating scale which has many applications as a descriptive tool. First developed in 1966, the Adaptive Behavior Scale (ABS) School Edition was revised in 1981. In this study the ABS, School Edition will be used to obtain behavior ratings by the counselors of students participating in this study at the completion of this treatment program. The domains of the ABS, School Edition to be used in this study are domains VII, VIII, and IX of Part One which are the Self Direction scale, the Responsibility scale, and the Socialization scale respectively. All of the domains in Part Two will be used.

Part One of the ABS, School Edition measures skills and behaviors related to personal independence. Part Two measures maladaptive behaviors relating to difficulty in interpersonal and social settings. All items on the ABS are rating types in that the rater either selects one of several statements which most accurately describes the functioning of the student, checks multiple responses, or checks all items according to the frequency of their occurrence.

Adaptive behavior refers to the effectiveness of an individual to adapt to the natural and social demands of the environment (Nihara, 1969). The level of adaptation is determined by the degree to which the individual satisfactorily meets the imposed demands of personal and social responsibility. Jones and Lanyon, (1981) found a significant correlation between post treatment improvement and adaptive behaviors in a population of alcoholics. Their study focused on the relationship between the adaptive behavior and treatment outcome at a one year

follow up. They suggest that skill development programs be used in the treatment of the alcoholic to remedy deficits in adaptation skills.

Test-retest and interrater reliabilities were calculated for all domains of the ABS (Isett and Spreat, 1979). Part One domains demonstrated adequate estimates of both within and between rater reliabilities. The test-retest reliabilities for domains of Part One range from .80 to .97. Interrater reliabilities for Part One range from .42 to .93. Isett and Spreat found that the domains of Part Two were less reliable than those of Part One, particularly with reference to interrater reliability. The range of coefficients of test-retest reliabilities for Part Two domains are .60 to .97. Interrater reliabilities for the domains of Part Two range from .32 to .68.

Factor score reliabilities are reported in the manual by age level and by classification of regular, SMR, and TMR classes (Lambert, 1981). Factor score reliabilities for 13 year olds enrolled in regular classes range from .38 to .95 for the five factors. The lowest coefficient .38 was obtained on the Personal Adjustment factor. The author attributes the low coefficient to the idiosyncratic nature of the content of the items and the lack of related item variance within each age group and classification.

Spreat (1980) found that both domain scores and the ABS factor scores were reasonably valid for making estimates of group membership among groups of persons referred for discharge from institutions, persons who had not been referred for discharge, and persons who had already been discharged. In their study of 370 current and former residents of the Woodhaven Center, an institution for the retarded in

Pennsylvania, they found modest but significant correlations between the predictor variables and the criterion groups.

Several other approaches to validity are mentioned by the authors. Lambert and Nicoll (1976) identified four dimensions of the ABS which are relevant to the public school setting. They are: functional autonomy, interpersonal adjustment, social responsibility, and intrapersonal adjustment. Their results of a factor analysis of the ABS for elementary school children assigned to regular classes, classes for the trainable mentally retarded, and classes for educable mentally retarded supported these dimensions of adaptive behavior with both retarded and non-retarded children and they found the ABS able to distinguish among the three groups. A study of an ABS School Edition by Lambert 1976 also demonstrated that differences in domain scores were associated with the classification of regular and EMR children.

Other validity evidence cited in the manual supports the relationship of adaptive behavior and intelligence. The authors assume, on the basis of their findings, that children who are most advanced intellectually are able to function more independently. The children who are more intellectually advanced had higher domain scores on language development, and numbers and time domains.

The Piers-Harris Children's Self Concept Scale (The Way I Feel About Myself):

The Piers-Harris Children's Self Concept Scale is a self report instrument which can be used for a wide range of children as a third grade reading level is required when administered in group form. It was designed primarily as a research instrument and the authors recommend

that it be used cautiously for other purposes. It is being used in this study in a posttest comparison of the experimental and control groups to measure the effect of the developmental prevention program on self concept.

Reliability coefficients reported in the manual are satisfactory. The Kuder-Richardson Formula 21 for internal consistency range from .78 to .93. Test-retest reliability with a four month interval between testing yielded coefficients of .71, .72 and .72.

The manual reports appreciable correlations between the Piers-Harris, teacher ratings, and peer ratings of socially effective behavior (Cox, 1966). The validity coefficients reported in that study are .43 and .31.

Self concept as used in the Piers-Harris refers to a set of relatively stable self attitudes. While this definition of self concept emphasizes the stability of the self concept, the Piers-Harris has been used successfully to demonstrate changes in self concept following some treatment.

Stevens (1974) studied the effects of a didactic group counseling program on the self concept of potential school dropouts. He noted significant differences in the self concept of the non-dropout control group and the potential dropout group using the Piers-Harris. The non-dropout group had significantly higher scores than did the potential dropout group before treatment. Following treatment Stevens found a significant increase in self concept for those potential dropouts in the experimental when compared to those potential dropouts in the control group.

Kearney and Hines (1980) used the Piers-Harris in their evaluation of a drug education program in a midwestern elementary school system. In this project teachers in the experimental group were trained to teach the drug education a minimum of one hour per week throughout the school year. The control groups were to proceed with the classes as usual. At the end of the year greater gains were noted in the posttests of the experimental groups in self esteem as measured by the Piers-Harris.

Drug and Alcohol Knowledge Inventory

This inventory has been designed for this study. It consists of fourteen items of a true/false and multiple choice nature. It is designed to test basic understanding of alcohol, drugs, and their effects. The inventory is used in this study to determine the effects of the developmental prevention program on knowledge of drugs and alcohol. It is included in Appendix D.

The test was administered to two social studies classes in the school program at Barrett Learning Center. A total of twenty students were involved in these administrations of the test. None of the subjects participating in this study were involved in the standardization sample. The mean was 7.25, the variance equalled 3.285, and the standard deviation was 1.81. The split half reliability was determined using the Spearman Brown Formula. The coefficient obtained using that formula was .83.

Design and Statistical Analysis

A posttest-only control group design will be used in this study. Basic to this design is the assumption that randomization satisfactorily

assures the lack of initial differences between the experimental and control groups (Campbell and Stanley, 1963). The posttest-only design controls for testing since frequent testing is not a characteristic of the Learning Center. Also as the negative nature of school experiences of the youth is often a factor in their commitment to state care, the posttest-only design is desirable. The Piers-Harris Children's Self Concept Scale, the Adjective Checklist, Adaptive Behavior Scale, and the Drug and Alcohol Knowledge Inventory will be administered as posttests. The weekly point average score in the Barrett behavior modification program will be computed as a pretest-posttest change score and will be compared for the experimental and control groups. Comparisons will also be made for each of the experimental groups individually with the control group and the two experimental groups will be compared with one another.

In this study the effect of the independent variable, the developmental prevention program, on the selected dependent variables will be measured by the t-test to assess the differences between the control group and the experimental groups.

Specific Hypothesis

For the purpose of determining statistical significance, the null hypothesis is presented.

Hypothesis one:

Null hypothesis: There will be no difference found in the knowledge of drugs and alcohol as measured by responses to a questionnaire on the effects of alcohol and other drugs between the control and experimental groups.

Symbolically: $H_o : M_{1a} = M_{2a}$

Legend $M_1 =$ treatment group, $M_2 =$ control group

a = knowledge of alcohol and drugs

Hypothesis two:

Null Hypothesis: There will be no differences in ratings of self concept by the subjects in the control and experimental groups.

$H_{o2} : M_{1b} = M_{2b}$

$M_1 =$ treatment group, $M_2 =$ control group

b = student rating of self concept

Hypothesis three:

Null Hypothesis: There will be no difference between the control and experimental groups in frequency of appropriate interpersonal behavior as reflected in ratings by counselors of subjects on the Adaptive Behavior Scale.

$H_{o3} : M_{1c} = M_{2c}$

$M_1 =$ treatment group, $M_2 =$ control group

c = student ratings by counselors using the ABS

Hypothesis four:

Null Hypothesis: There will be no differences between the control and experimental groups in ratings of students by counselors using the selected scales of the Adjective Checklist.

$H_{o4} : M_{1d} = M_{2d}$

$M_1 =$ treatment group, $M_2 =$ control group

d = ratings by counselors using the ACL

Hypothesis five:

Null Hypothesis: There will be no difference between the

control group and the experimental groups in the overall adjustment to institutionalization as reflected in the net gain scores of the subjects on the point system of the institution.

$$H_{05}: M_{1e} - M_{2e}$$

M_1 = experimental group, M_2 = control group

e = net gain score

Summary

The use of a posttest only control group design allows testing to be minimized in this study. The elimination of pretesting is possible with randomization and is suitable for a population which is not exposed to extensive testing as part of the institutional environment. The posttest only control group design also allows the study of the effect of a single independent variable, the developmentally oriented prevention program (the experimental treatment), on several dependent variables in a comparison with a no treatment control group. For statistical analysis, the T-test is well suited for this type of design.

Chapter Four

ANALYSIS OF RESULTS

In the analysis of the data, four comparisons of the two treatment groups and the control group were made. The two treatment groups were combined and compared with the control group, the two treatment groups were compared individually with the control group, and the two treatment groups were compared with one another. The t-test was used in the statistical analysis of the data (the program T-TEST of the Statistical Package for Social Sciences, SPSS was used). The .05 level of significance was chosen to determine the acceptance or rejection of the null hypothesis.

Hypothesis One:

The null hypothesis: There will be no differences found in the knowledge of drugs and alcohol as measured by responses to a questionnaire on the effects of alcohol and drugs between the control and the experimental groups.

The mean scores for the two treatment groups were 7.375 with a standard deviation of 2.06, and 8.50 with a standard deviation of 2.33. The mean score of the control group on the alcohol and drug knowledge test was 5.125 with a standard deviation of 1.65. The mean score of the two combined treatment groups was 7.93, the standard deviation was 2.20.

The comparison of the control group with the two treatment groups

combined yielded a t value of -3.18. The null hypothesis was rejected. The value of t for the comparison of the control group and treatment group #1 was -2.41, the null hypothesis was rejected. For the comparison of the control group and treatment group #2, the value of t was -3.55, the null hypothesis was rejected. In the comparison of the two treatment groups, the value obtained for t was -1.02, no significant difference in the two treatment groups was noted. Refer to Table 1 for additional information on the tests of hypothesis one.

The result of the statistical analysis of the data for hypothesis one support the research hypothesis. The subjects who participated in the developmental skills prevention program demonstrated a greater understanding of basic information on the effects of alcohol and other drugs than those subjects who were in the control group.

Hypothesis Two:

The null hypothesis: There will be no differences in ratings of self concept by the subjects in the control and experimental groups.

The Piers-Harris Children's Self concept scale was used to assess self concept. The mean scores for the two treatment groups were 51.0 with a standard deviation of 14.38, and 59.25 with a standard deviation of 12.79. The mean score for the control group on the Piers-Harris Children's Self Concept Scale was 46.25, the standard deviation 25.35. The mean score of the combined treatment groups was 55.12, the standard deviation was 13.82.

The comparison of the control group and the combined treatment

Table 1
Drug & Alcohol Knowledge Test

Group	Mean	Standard Deviation	t value	df	Probability
Control	5.125	1.642	-3.18	22	.004
Experimental Groups 1 & 2	7.937	2.205			

Group	Mean	Standard Deviation	t value	df	Probability
Control	5.125	1.642	-2.41	14	.030
Treatment Group 1	7.375	2.066			

Group	Mean	Standard Deviation	t value	df	Probability
Control	5.125	1.642	-3.35	14	.005
Treatment Group 2	8.500	2.330			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	7.375	1.642	-1.02	14	.324
Treatment Group 2	8.500	2.330			

$P < .05$

groups yielded a t score of -1.12. The null hypothesis failed to be rejected at the .05 level of probability. The comparison of the control group and treatment group #1 yielded a t value of -0.46, the null hypothesis failed to be rejected. The value of t in the comparison of the control group with treatment group #2 was -1.29, the null hypothesis failed to be rejected. The t value in the comparison of treatment group #1 and treatment group #2 was -1.21, again the null hypothesis could not be rejected. Table 2 contains additional information on the tests of hypothesis two.

The research hypothesis which stated that subjects who completed the developmentally oriented prevention program would show greater gains in self concept than subjects in the control group was not supported. While the difference in the mean of the control group, 46.12, and the mean of the combined experimental groups, 55.12, is considerable it failed to reach statistical significance.

Hypothesis Three:

The null hypothesis: There will be no difference between the control and experimental groups in the frequency of appropriate interpersonal behavior as reflected in ratings by counselors of the subjects. The Adaptive Behavior Scale, Domains 7 through 21, was used in the ratings by the counselors of the subjects. The results of this analysis will be presented for each individual domain.

Domain 7 - Self Direction

The mean of the control group was 15.25, the standard deviation

Table 2

Piers-Harris Children's Self Concept Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control	46.25	25.35	-1.12	22	.275
Treatment Groups 1 & 2	55.12	13.82			

Group	Mean	Standard Deviation	t value	df	Probability
Control	46.25	25.35	-0.46	14	.652
Treatment Group 1	51.00	14.38			

Group	Mean	Standard Deviation	t value	df	Probability
Control	46.25	25.35	-1.29	14	.216
Treatment Group 2	59.25	12.79			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	51.00	14.38	-1.21	14	.245
Treatment Group 2	59.25	12.79			

$P < .05$

4.02 on Domain 7 of the Adaptive Behavior Scale. The means of scores of the two treatment groups were a mean of 16.87, a standard deviation of 1.35, and a mean of 16.75, standard deviation 1.58. The mean score of the two experimental groups combined was 16.81, the standard deviation was 1.42.

The value of t was -1.41 in the comparison of the control group and the two experimental groups combined. The null hypothesis failed to be rejected at the .05 level of probability. For a comparison of the control group and the treatment group #1 the computed value of t was -1.08 , the null hypothesis failed to be rejected. The comparison of the control group and treatment group #2 yielded a t value of -0.98 . The null hypothesis failed to be rejected. No difference was found in the comparison of treatment group #1 and treatment group #2. The value of t was 0.17 . Table 3 contains the results of the statistical analysis of the data for Domain 7.

The statistical analysis did not support the research hypothesis that the subjects in the experimental groups would exhibit a greater frequency of appropriate interpersonal behaviors than subjects in the control group as reflected in ratings by counselors of the youths using Domain 7 - Self Direction of the Adaptive Behavior Scale.

Domain 8 - Responsibility

The mean of the control group was 5.37, the standard deviation 1.92 on Domain 8 - Responsibility. The mean score of treatment group #1 was 4.62, the standard deviation 0.91. The mean of treatment group #2 was 4.75, the standard deviation 1.38. The mean score of the two treatment groups combined was 4.68, the standard deviation 1.13.

Table 3

Domain 7 - Self-Direction, Adaptive Behavior Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control	15.25	4.02	-1.41	22	.172
Treatment Groups 1 & 2	16.81	1.42			

Group	Mean	Standard Deviation	t value	df	Probability
Control	15.25	4.02	-1.08	14	.298
Treatment Group #1	16.87	1.35			

Group	Mean	Standard Deviation	t value	df	Probability
Control	15.25	4.02	-0.98	14	.343
Treatment Group #2	16.75	1.58			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group #1	16.86	1.35	0.17	14	.868
Treatment Group #2	16.75	1.58			

$P < .05$

The t value obtained in the comparison of the control group and the two combined experimental groups was -1.41. The null hypothesis failed to be rejected in this test of Hypothesis Three. For the comparison of the control group and treatment group #1, the obtained value of t was -1.08. This value was not acceptable at the .05 level of probability and the null hypothesis failed to be rejected. The comparison of the control group and treatment group #2 yielded a t value of -0.98. The null hypothesis failed to be rejected in this comparison. The value of t obtained in the comparison of treatment group #1 and treatment group #2 was -0.21. The null hypothesis could not be rejected in this comparison also. The results of the statistical analysis of data for Domain 8 - Responsibility are found in Table 4.

The research hypothesis was not supported, no differences were found in the frequency of appropriate interpersonal behaviors between the control and experimental groups on Domain 8 - Responsibility of the Adaptive Behavior Scale. The subjects in the experimental groups were not rated by the counselors as more responsible than subjects in the control group.

Domain 9 - Socialization

The mean score of the control group was 19.37, the standard deviation 5.06 on Domain 9 of the Adaptive Behavior Scale. The mean score of treatment group #1 was 20.25, the standard deviation 2.31. The mean of treatment group #2 was 19.75, the standard deviation 3.69. The mean score of the combined treatment groups was 20.00, the standard deviation 2.98.

Table 4

Domain 8 - Responsibility, Adaptive Behavior Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control	5.37	1.92	1.11	22	0.281
Treatment Groups 1 & 2	4.68	1.13			

Group	Mean	Standard Deviation	t value	df	Probability
Control	5.37	1.92	1.00	14	0.336
Treatment Group 1	4.62	0.91			

Group	Mean	Standard Deviation	t value	df	Probability
Control	5.37	1.92	0.75	14	0.468
Treatment Group 2	4.75	1.38			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	4.62	0.91	-0.21	14	0.835
Treatment Group 2	4.75	1.38			

$P < .05$

The value of t obtained in the comparison of the control group and the two combined experimental groups was -0.38 . The null hypothesis could not be rejected in this test of hypothesis three. The obtained value of t was -0.44 in the comparison of the control group and treatment group #1. The value of t was -0.17 in the comparison of the control group and treatment group #2. The null hypothesis failed to be rejected in both of the comparisons with the control group and treatment groups individually. In the comparison of treatment group #1 and treatment group #2 the value of t was 0.32 , there was no significant difference and the null hypothesis failed to be rejected. The results of this analysis are found in Table 5.

No differences were found between the subjects in the control and experimental groups in the frequency of appropriate interpersonal behaviors in the area of socialization. The research hypothesis was not supported as counselor ratings of the subjects reflected no differences in the control group and experimental groups on Domain 9 - Socialization of the Adaptive Behavior Scale.

Domain 10 - Aggressiveness

The mean score of the control group on Domain 10 was 6.50 , the standard deviation 11.51 . Treatment group #1 had a mean score of 1.37 , standard deviation 1.50 . The mean score of treatment group #2 on Domain 10 was 2.50 , the standard deviation 3.16 . The mean score on Domain 10 of the combined treatment groups was 1.93 , the standard deviation 2.46 .

The comparison of the control group and the two combined

Table 5

Domain 9 - Socialization, The Adaptive Behavior Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control	19.375	5.06	-0.38	22	0.706
Treatment Groups 1 & 2	20.00	2.98			

Group	Mean	Standard Deviation	t value	df	Probability
Control	19.375	5.06	-0.44	14	0.664
Treatment Group 1	20.250	2.31			

Group	Mean	Standard Deviation	t value	df	Probability
Control	19.375	5.06	-0.17	14	0.868
Treatment Group 2	19.750	3.69			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	20.250	2.31	0.32	14	0.750
Treatment Group 2	19.750	3.69			

$P < .05$

experimental groups yielded a t value of 1.55. The null hypothesis failed to be rejected in this test of Hypothesis Three. The value of t obtained in the comparison of the control group and treatment group #1 was 1.25, the null hypothesis could not be rejected at the .05 level. In the comparison of the control group and treatment group #2, the value of t was 0.95, the null hypothesis failed to be rejected. The value of t in the comparison of treatment group #1 and treatment group #2 was -0.91. There was no statistically significant difference in the two experimental groups in this domain. The results of the statistical analysis of the data for Domain 10 - Aggressiveness are found in Table 6.

The research hypothesis was not supported as the subjects in the experimental groups were not rated by the counselors as acting in a significantly less aggressive manner than the subjects in the control group. A greater deviation was noted in the ratings by counselors of subjects in this domain of aggressiveness for the control group.

Domain 11 - Antisocial vs Social Behavior

The mean score of the control group on Domain 11 was 11.00, the standard deviation 12.375. The mean score of the treatment group #1 was 4.25, the standard deviation 2.81. The second treatment group had a mean score of 5.37, the standard deviation 5.78. The combined treatment groups had a mean score of 4.81, the standard deviation was 4.43.

In the comparison of the control group and the two combined experimental groups, the t score was 1.81. The null hypothesis failed to be rejected in this test of hypothesis three. The difference in the means

Table 6

Domain 10 - Aggressiveness, The Adaptive Behavior Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control	6.500	11.51	1.55	22	0.136
Treatment Groups 1 & 2	1.937	2.46			

Group	Mean	Standard Deviation	t value	df	Probability
Control	6.500	11.51	1.25	14	0.232
Treatment Group 1	1.375	1.50			

Group	Mean	Standard Deviation	t value	df	Probability
Control	6.500	11.51	0.95	14	0.359
Treatment Group 2	2.500	3.16			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	1.375	1.50	-0.91	14	0.379
Treatment Group 2	2.500	3.16			

$P < .05$

of the control group and experimental groups was considerable but failed to meet the .05 level of significance. In the comparison of the control group and treatment group #1, the obtained value of t was 1.50. This failed to meet the .05 level of significance and the null hypothesis could not be rejected. The value of t for the comparison of the control group and treatment group #2 was 1.16. The null hypothesis failed to be rejected at the .05 level. The comparison of treatment group #1 and treatment group #2 yielded a t value of -0.49. The null hypothesis failed to be rejected. The results of the statistical analysis of the data of Domain 11 are found in Table 7.

The research hypothesis was not supported as counselor ratings of the subjects did not reflect statistically significant differences between the control group and treatment groups. While there was a sizable difference in the means of the control group and the experimental groups, a greater variation was found in the ratings of those subjects in the control group than in ratings by counselors of those subjects in the experimental groups.

Domain 12 - Rebelliousness

The mean score of the control group on Domain 12 - Rebelliousness was 10.75, the standard deviation 11.72. The mean score of the treatment group #1 was 3.37, the standard deviation was 2.26. Treatment group #2 had a mean score of 5.25, the standard deviation was 6.38. The combined treatment groups had a mean of 3.31, the standard deviation was 4.72.

The t value for the comparison of the control group and the

Table 7

Domain 11 - Anti-Social vs Social Behavior
The Adaptive Behavior Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control	11.000	12.375	1.81	22	0.083
Treatment Groups 1 & 2	4.812	4.438			

Group	Mean	Standard Deviation	t value	df	Probability
Control	11.000	12.735	1.50	14	0.155
Treatment Group 1	4.250	2.816			

Group	Mean	Standard Deviation	t value	df	Probability
Control	11.000	12.735	1.16	14	0.264
Treatment Group 2	5.375	5.780			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	4.250	2.816	-0.49	14	0.628
Treatment Group 2	5.375	5.780			

$P < .05$

combined experimental groups was 1.94. The null hypothesis failed to be rejected. In the comparison of the control group and treatment group #1, the t value was 1.75, the null hypothesis failed to be rejected. The value of t in the comparison of the control group and treatment group #2 was 1.17. The null hypothesis failed to be rejected in this test of hypothesis three. The comparison of the treatment group #1 and treatment group #2 yielded a t value of -0.78. This value was not significant at the .05 level and the null hypothesis could not be rejected. Table 8 contains the results of the analysis of the data of Domain 12- Rebelliousness.

The research hypothesis was not supported as statistically significant differences were not found between the control group and the treatment groups in ratings of the subjects on Domain 12 of the Adaptive Behavior Scale. Differences in the ratings by counselors were reflected in the mean scores for the control group and experimental groups but the differences failed to meet the .05 level of significance chosen for this study.

Domain 13 - Trustworthiness

On Domain 13, the mean score of the control group was 2.75, the standard deviation was 3.32. The mean score of treatment group #1 was 1.75, the standard deviation was 1.99. Treatment group #2 had a mean score of 1.25, the standard deviation was 1.75. The mean score of the combined treatment groups was 1.50, the standard deviation was 1.86.

The comparison of the control group and the combined experimental groups yielded a t value of 1.20. The null hypothesis failed to be rejected in this test of hypothesis three. The t value in the comparison of the control group and treatment group #1 was 0.73, this value was not

Table 8

Domain 12 - Rebelliousness, The Adaptive Behavior Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control	10.750	11.720	1.94	22	0.066
Treatment Groups 1 & 2	4.312	4.729			

Group	Mean	Standard Deviation	t value	df	Probability
Control	10.750	11.720	1.75	14	0.102
Treatment Group 1	3.375	2.264			

Group	Mean	Standard Deviation	t value	df	Probability
Control	10.750	11.720	1.17	14	0.263
Treatment Group 2	5.250	6.386			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	3.375	2.264	-0.78	14	0.447
Treatment Group 2	5.250	6.386			

$P < .05$

statistically significant at the .05 level and the null hypothesis could not be rejected. The value of t was 1.13 in the comparison of the control group and treatment group #2. The null hypothesis failed to be rejected. In the comparison of the two treatment groups the value of t was 0.53. The null hypothesis failed to be rejected. The results of the analysis of the data of Domain 13 - Trustworthiness are contained in Table 9.

There was no difference in the perception or rating by counselors of the subjects in either the control or treatment groups in the areas of trustworthiness of behavior. The research hypothesis which stated that there would be differences in behavior as measured by ratings of counselors using Domain 13 of the Adaptive Behavior Scale was not supported.

Domain 14 - Withdrawal vs Involvement

The mean score of the control group on Domain 14 was 2.125, the standard deviation was 2.16. The mean score of the treatment group #1 was 1.875, the standard deviation was 1.80. Treatment group #2 had a mean score on Domain 14 of 2.00, the standard deviation was 1.41. The mean score of the combined treatment groups was 1.937, the standard deviation was 1.56.

The comparison of the control group and the two treatment groups combined yielded a t value of 0.24. The null hypothesis failed to be rejected. In the comparison of the control group and treatment group #1, the obtained value of t was 0.25, the null hypothesis failed to be rejected. The t value in the comparison of the control group and treatment group #2 was 0.14, the null hypothesis failed to be rejected. The

Table 9

Domain 13 - Trustworthiness, The Adaptive Behavior Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control	2.750	3.327	1.20	22	0.243
Treatment Groups 1 & 2	1.500	1.826			

Group	Mean	Standard Deviation	t value	df	Probability
Control	2.750	3.327	0.73	14	0.477
Treatment Group 1	1.750	1.982			

Group	Mean	Standard Deviation	t value	df	Probability
Control	2.750	3.327	1.13	14	0.278
Treatment Group 2	1.250	1.753			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	1.750	1.982	0.53	14	0.601
Treatment Group 2	1.250	1.753			

$P < .05$

value of t in the comparison of treatment group #1 and treatment group #2 was -0.15 , the null hypothesis failed to be rejected. Table 10 contains the results of the statistical analysis of the data from Domain 14.

The research hypothesis was not supported. There were no significant differences found in subjects in the control group and experimental groups. Participation in the developmental skills program did not effect behavior in this domain measuring withdrawal vs involvement in the anticipated direction.

Domain 15 - Mannerisms

The mean score of the control group was 0.25 , the standard deviation was 0.46 . The mean score of treatment group #1 was 0 , the standard deviation was 0 . The mean score on Domain 15 of the treatment group #2 was 0 , the standard deviation was 0 . The mean score of the combined treatment groups was 0 , the standard deviation was 0 .

The results of the comparison of the control group and the combined treatment groups yielded a t value of 2.21 , the null hypothesis was rejected in this test of hypothesis three. The t value in the comparison of the control group and treatment group #1 was 1.53 , the null hypothesis failed to be rejected. The value of t was 0 in the comparison of the two treatment groups, the null hypothesis failed to be rejected. The results of the analysis of the data from Domain15 are contained in Table 11.

The research hypothesis was supported in the comparison of the control group and the two combined treatment groups. The hypothesis stated that those subjects who had completed the developmental skills program would be rated by counselors as engaging in more appropriated interpersonal

Table 10

Domain 14 - Withdrawal vs Involvement
The Adaptive Behavior Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control Group	2.125	2.167	0.24	22	0.810
Treatment Groups 1 & 2	1.937	1.569			

Group	Mean	Standard Deviation	t value	df	Probability
Control Group	2.125	2.167	0.25	14	0.806
Treatment Group 1	1.8750	1.808			

Group	Mean	Standard Deviation	t value	df	Probability
Control Group	2.125	2.167	0.14	14	0.893
Treatment Group 2	2.000	1.414			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	1.8750	1.808	-0.15	14	0.880
Treatment Group 2	2.000	1.414			

$P < .05$

Table 11

Domain 15 - Mannerisms, The Adaptive Behavior Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.250	0.463	2.21	22	0.038
Treatment Groups 1 & 2	0.0	0.0			

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.250	0.463	1.53	14	0.149
Treatment Group 1	0.0	0.0			

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.250	0.463	1.53	14	0.149
Treatment Group 2	0.0	0.0			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	0.0	0.0	0.0	14	1.00
Treatment Group 2	0.0	0.0			

$P < .05$

behaviors. Domain 15 - Mannerisms assesses stereotypical or peculiar behaviors at times associated with the more disturbed child. While generally the more severely disturbed youth was not placed at Barrett Learning Center, there have been exceptions and this domain was included in the rating by counselors. The counselors described those subjects who had not participated in the treatment program, those in the control group, as more frequently engaging in peculiar or inappropriate behavior than those subjects who had completed the treatment program.

Domain 16 - Interpersonal Manners

The mean score of the control group on Domain 16 was 0.25, the standard deviation was 0.70. The mean score of treatment group #1 was 0.125, the standard deviation was 0.35. The mean score for treatment group #2 was also 0.125, the standard deviation 0.35. The mean score of the treatment groups combined was 0.125, the standard deviation of the two combined groups was 0.34.

The results of the comparison of the control group and the two treatment groups combined was a value of 0.59, the null hypothesis could not be rejected in this test of hypothesis three. The value of t was 0.45 for the comparison of the control group and treatment group #1. The null hypothesis failed to be rejected. The value of t was 0.45 in the comparison of the control group and treatment group #2, the null hypothesis failed to be rejected. The value of t in the comparison of the two treatment groups was 0. The null hypothesis failed to be rejected. The results of the analysis of the data of Domain 16- Interpersonal Manners are listed in Table 12.

Table 12

Domain 16 - Interpersonal Manners, The Adaptive Behavior Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.250	0.707	0.59	22	0.561
Treatment Groups 1 & 2	0.125	0.342			

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.250	0.707	0.45	14	0.662
Treatment Group 1	0.125	0.354			

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.250	0.707	0.45	14	0.622
Treatment Group 2	0.125	0.354			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	0.125	0.354	0.0	14	1.00
Treatment Group 2	0.125	0.354			

$p < .05$

The research hypothesis was not supported in Domain 16. The counselor's ratings of the subjects in the treatment groups did not reflect a healthier or more adaptive adjustment in interpersonal manners than for subjects in the control group as was predicted by the research hypothesis.

Domain 17 - Acceptability of Vocal Habits

The mean score of the control group on Domain 17 was 0.875, the standard deviation was 1.35. The mean score of the treatment group #1 was 0.25, the standard deviation was 0.45. Treatment group #2 had a mean score of 0.50 in Domain 17, the standard deviation was 1.069. The mean score for the combined treatment groups was 0.375, the standard deviation was 0.80.

The value of t for the comparison of the control group and the combined treatment groups was 1.14. The null hypothesis could not be rejected in this test of hypothesis three. The t value for the comparison of the control group and Treatment group #1 was 1.23. This also was not acceptable at the .05 level and the null hypothesis failed to be rejected. In the comparison of the control group and treatment group #2 the obtained t value was 0.61. The null hypothesis failed to be rejected. The value of t for the comparison of treatment group #1 and treatment #2 was -0.61, the null hypothesis failed to be rejected. The results of the analysis of the data from Domain 17 are listed in Table 13.

The results of the comparisons of data in Domain 17 did not support the research hypothesis. The acceptability of vocal habits, for example tone of voice, distance between the speaker and the person spoken to,

Table 13

Domain 17 - Acceptability of Vocal Habits
The Adaptive Behavior Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.875	1.356	1.14	22	0.267
Treatment Groups 1 & 2	0.375	0.806			

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.875	1.356	1.23	14	0.238
Treatment Group 1	0.250	0.463			

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.875	1.356	0.61	14	0.549
Treatment Group 2	0.500	1.069			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	0.250	0.463	-0.61	14	0.554
Treatment Group 2	0.500	1.069			

$P < .05$

and loudness of voice, were not described as being different for those subjects who had completed the treatment program than for those subjects in the control group.

Domain 18 - Acceptability of Habits

The mean score of the control group was 0.125, the standard deviation was 0.354. The mean score of treatment group #1 was 0.50, the standard deviation 0.535. For treatment group #2 the mean score was 0.25, the standard deviation was 0.46. The mean score of the two treatment groups combined was 0.375, the standard deviation was 0.50.

The value of t for the comparison of the control group and the combined treatment groups was -1.26 . The null hypothesis failed to be rejected in this test of hypothesis three. The t value was -1.66 for the comparison of the control group and treatment group #1, the null hypothesis failed to be rejected. In the comparison of the control group and treatment group #2 the obtained value of t was -0.61 . The null hypothesis failed to be rejected. The value of t for the comparison of treatment group #1 and treatment group #2 was 1.00 , the null hypothesis could not be rejected. Table 14 contains the results of the statistical analysis of the data from Domain 18.

The research hypothesis was not supported as the ratings by counselors of subjects in both the control and treatment groups were not significantly different in the acceptability of habits of the subjects following the completion of the program.

Table 14

Domain 18 - Acceptability of Habits
The Adaptive Behavior Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.125	0.354	-1.26	22	0.221
Treatment Groups 1 & 2	0.375	0.500			

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.125	0.354	-1.66	14	0.120
Treatment Group 1	0.500	0.535			

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.125	0.354	-0.61	14	0.554
Treatment Group 2	0.250	0.463			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	0.500	0.535	1.00	14	0.334
Treatment Group 2	0.250	0.463			

Domain 19 - Activity Level

The mean score of the control group on Domain 19 - Activity Level was 0.75, the standard deviation was 1.165. The mean score for treatment group #1 was 0, the standard deviation was 0. The mean score for treatment group #2 on Domain 19 was 0.375, the standard deviation was 1.06. For the combined treatment groups, the mean score was 0.187, the standard deviation was 0.75.

The t value obtained for the comparison of the control group and the combined treatment groups was 1.44. There was no statistically significant difference and the null hypothesis failed to be rejected in this test of hypothesis three. The value of t was 1.82 in the comparison of the control group and treatment group #1, the null hypothesis failed to be rejected. The value of t in the comparison of the control group and treatment group #2 was 0.67, the null hypothesis failed to be rejected. In the comparison of treatment group #1 and treatment group #2, the obtained value of t was -1.00, the null hypothesis failed to be rejected. The results of the analysis of the data of Domain 19 are contained in Table 15.

The research hypothesis was not supported by data from Domain 19 - Activity Level. There was no significant difference in ratings by counselors of the subjects in the control and experimental groups on this index of level of activity.

Domain 20 - Symptomatic Behavior

The mean score of the control group on Domain 20 was 10.375, the standard deviation was 11.963. The mean score of the treatment group #1 was 4.375, the standard deviation 3.926. For treatment group #2 the

Table 15

Domain 19 - Activity Level, The Adaptive Behavior Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.750	1.165	1.44	22	0.164
Treatment Group 1 & 2	0.187	0.750			

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.750	1.165	1.82	14	0.090
Treatment Group 1	0.0	0.0			

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.750	1.165	0.67	14	0.512
Treatment Group 2	0.375	1.061			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	0.0	0.0	-1.00	14	0.334
Treatment Group 2	0.375	1.061			

$P < .05$

mean score in Domain 20 was 6.75, the standard deviation was 7.61. The mean score of the combined treatment groups was 5.562, the standard deviation was 5.977.

The value of t for the comparison of the control group and the combined treatment groups was 1.33. The null hypothesis failed to be rejected in this test of hypothesis three. The value of t for the comparison of the control group and treatment group #1 was 1.35, the null hypothesis failed to be rejected. The value of t obtained in the comparison of the control group and treatment group #2 was -0.78, the null hypothesis failed to be rejected. The results of the analysis of the data from Domain 20 are contained in Table 16.

The research hypothesis was not supported. The control group was not described by the counselors as engaging in more inappropriate or symptomatic behavior than those subjects who had completed the treatment program. The difference in the mean of the control group, 10.375, and the mean of the treatment groups, 5.62, was notable but failed to meet the .05 level of significance.

Domain 21- Use of Medications

The mean score of the control group was 0, the standard deviation was 0. The mean score of treatment group #1 was 0, the standard deviation was 0. Treatment group #2 had a mean of 0, the standard deviation was 0. The mean of the two combined treatment groups was 0, the standard deviation was 0.

Table 16

Domain 20 - Symptomatic Behavior
The Adaptive Behavior Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control	10.375	11.963	1.33	22	0.197
Treatment Groups 1 & 2	5.562	5.977			

Group	Mean	Standard Deviation	t value	df	Probability
Control	10.375	11.963	1.35	14	0.199
Treatment Group 1	4.375	3.926			

Group	Mean	Standard Deviation	t value	df	Probability
Control	10.375	11.963	0.72	14	0.482
Treatment Group 2	6.750	7.611			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	4.375	3.926	-0.78	14	0.446
Treatment Group 2	6.750	7.611			

The result of the comparison of the control group and the combined treatment groups was a t value of 0, the null hypothesis could not be rejected. The value of t was 0 for the comparison of the control group and treatment group #1, the null hypothesis failed to be rejected. The value of t was 0 in the comparison of the control group and treatment group #2. The null hypothesis failed to be rejected. In the comparison of the two treatment groups, the t value was 0, the null hypothesis failed to be rejected. Table 17 contains the results of the statistical analysis of the data for Domain 21.

The research hypothesis was not supported. There was no difference in the control and experimental groups in the use of medications. None of the subjects involved in the study were on medication or taken off of medication during the course of the project.

In reviewing the results of the tests of hypothesis three only one of the domains of the Adaptive Behavior Scale showed statistically significant differences between the control and treatment groups. However several of the domains were rated by the counselors in such a manner that differences could be noted, though not at the .05 level of significance. Domain 19 - Aggressiveness, Domain 11 - Antisocial vs Social Behavior, and Domain 12 - Rebelliousness were examples of such differences found between the control and experimental groups. Again caution must be used in the interpretation of such findings.

Hypothesis Four:

The null hypothesis: There will be no differences between the control

Table 17

Domain 21 - Use of Medications
The Adaptive Behavior Scale

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.0	0.0	0.0	22	1.00
Treatment Groups 1 & 2	0.0	0.0			

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.0	0.0	0.0	14	1.00
Treatment Group 1	0.0	0.0			

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.0	0.0	0.0	14	1.00
Treatment Group 1	0.0	0.0			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	0.0	0.0	0.0	14	1.00
Treatment Group 2	0.0	0.0			

$P < .05$

group and the experimental groups in ratings of the students by the counselors using several scales of the Adjective Checklist. The specific scales used in this study were the number of favorable adjectives checked, FAV; the number of unfavorable adjectives checked, UNFAV; the self concept scale, SCN; the personal adjustment scale, PER ADJ; and the aggression scale, AGG. The results of the test of hypothesis four are presented individually for each scale of the Adjective Checklist.

The Number of Favorable Adjectives Checked

The mean score of the control group on this scale was 15.50, the standard deviation was 9.72. Treatment group #1 had a mean score of 10.75, the standard deviation was 8.49. The mean score of treatment group #2 was 22.37, the standard deviation was 16.58. The mean score of the two combined treatment groups was 16.56, the standard deviation was 14.07.

The value of t in the comparison of the control group and the two combined treatment groups was -0.19 . The null hypothesis failed to be rejected in this test of hypothesis four. The value of t was 1.05 in the comparison of the control group and treatment group #1, the null hypothesis failed to be rejected. In the comparison of the control group and treatment group #2, the obtained value of t was -1.01 . The null hypothesis failed to be rejected. The value of t was -1.76 in the comparison of treatment group #1 and treatment group #2. The null hypothesis failed to be rejected. The results of the statistical analysis of the data of this scale are listed in Table 18.

The research hypothesis was not supported. No significant

Table 18

The Number of Favorable Adjectives Checked
The Adjective Checklist

Group	Mean	Standard Deviation	t value	df	Probability
Control	15.500	9.725	-0.19	22	0.850
Treatment Groups 1 & 2	16.56	14.076			

Group	Mean	Standard Deviation	t value	df	Probability
Control	15.500	9.725	1.04	14	0.316
Treatment Group 1	10.750	8.498			

Group	Mean	Standard Deviation	t value	df	Probability
Control	15.500	9.725	-1.01	14	0.329
Treatment Group 2	22.375	16.587			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	10.750	8.498	-1.76	14	0.09
Treatment Group 2	22.375	16.587			

$p < .05$

differences were noted in the number of favorable adjectives checked in the description by the counselors of subjects in the control group and experimental groups.

The Number of Unfavorable Adjectives Checked

The mean score of the control group was 12.12, the standard deviation was 12.81. The mean score of treatment group #1 was 5.50, the standard deviation was 3.66. Treatment group #2 had a mean score of 6.25, the standard deviation was 6.86. The mean score of the two combined treatment groups was 5.87, the standard deviation was 5.32.

The value of t in the comparison of the control group and the combined treatment groups was 1.71, the null hypothesis could not be rejected in this test of hypothesis four. The t value in the comparison of the control group and treatment group #1 was 1.41. The null hypothesis failed to be rejected. The value of t was 1.41 in the comparison of the control group and treatment group #2, the null hypothesis failed to be rejected. In the comparison of the two treatment groups the obtained value of t was -0.27 . The null hypothesis failed to be rejected. The results of the statistical analysis of the data from this scale are found in Table 19.

The research hypothesis was not supported. The subjects in the experimental groups were not described using significantly fewer unfavorable adjectives than were the subjects in the control group. The difference in the means of the control group and the experimental groups was considerable but failed to reach the .05 level of significance.

Table 19

The Number of Unfavorable Adjectives Checked
The Adjective Checklist

Group	Mean	Standard Deviation	t value	df	Probability
Control	12.125	12.811	1.71	22	0.102
Treatment Groups 1 & 2	5.875	5.328			

Group	Mean	Standard Deviation	t value	df	Probability
Control	12.125	12.811	1.41	14	0.181
Treatment Group 1	5.500	3.665			

Group	Mean	Standard Deviation	t value	df	Probability
Control	12.125	12.811	1.14	14	0.272
Treatment Group 2	6.250	6.861			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	5.500	3.665	-0.27	14	0.789
Treatment Group 2	6.250	6.861			

$P < .05$

The Self Concept Scale

The mean score for the control group was -3.70, the standard deviation was 7.12. The treatment group #1 had a mean score of 0.125, the standard deviation was 3.22. The mean score of treatment group #2 was 1.75, the standard deviation was 8.43. The mean score of the combined treatment groups was 0.937, the standard deviation was 6.22.

The value of t was -1.66 in the comparison of the control group and the two treatment groups combined. The value of t failed to reach statistical significance and the null hypothesis failed to be rejected. The t value of the comparison of the control group and treatment group #1 was -1.40, the null hypothesis could not be rejected. The obtained value of t was -1.41 for the comparison of the control group and treatment group #2. The null hypothesis failed to be rejected. The value of t for the comparison of treatment group #1 and treatment group #2 was -0.51, the null hypothesis failed to be rejected. Table 20 contains the results of the statistical analysis of the data from the Self Concept Scale of the Adjective Checklist.

The research hypothesis was not supported. The experimental program did not significantly effect the self concept of the subjects in the treatment groups as reflected by ratings by counselors of subjects on the Self Concept Scale of the Adjective Checklist.

The Personal Adjustment Scale

The mean score for the control group was 0.375, the standard deviation was 3.73. The mean score for treatment group #1 was 0.50, the standard deviation was 2.96. Treatment group #2 had a mean score on the Personal Adjustment Scale of 3.75, the standard deviation was 7.17. The

Table 20

The Self Concept Scale
The Adjective Checklist

Group	Mean	Standard Deviation	t value	df	Probability
Control	-3.750	7.126	-1.66	22	0.111
Treatment Groups 1 & 2	0.937	6.223			

Group	Mean	Standard Deviation	t value	df	Probability
Control	-3.750	7.126	-1.40	14	0.183
Treatment Group 1	0.1250	3.227			

Group	Mean	Standard Deviation	t value	df	Probability
Control	-3.750	7.126	-1.41	14	0.181
Treatment Group #2	1.750	8.430			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	0.125	3.227	-0.51	12	0.619
Treatment Group 2	1.750	8.430			

$P < .05$

mean score of the two combined treatment groups was 1.93, the standard deviation was 5.50.

The value of t in the comparison of the control group and the combined treatment groups was -0.72 . The null hypothesis failed to be rejected in this test of hypothesis four. The t value was -0.07 in the comparison of the control group and treatment group #1. The null hypothesis could not be rejected. In the comparison of the control group and treatment group #2 the obtained value of t was -0.07 , the null hypothesis failed to be rejected. The value of t in the comparison of the two treatment groups was -1.05 , the null hypothesis failed to be rejected. The results of the analysis of the data of this scale are found in Table 21.

The research hypothesis was not supported, the difference in the means was not significant. The subjects in the experimental groups were not described by counselors as having made more positive personal adjustments than subjects in the control group.

The Aggression Scale

The mean score of the control group was 4.25, the standard deviation was 10.88. The mean score of the treatment group #1 was -2.62 , the standard deviation was 5.18. Treatment group #2 had a mean of -2.12 , the standard deviation was 12.15. The mean score of the combined treatment groups was -2.37 , the standard deviation was 9.03.

The t value of the comparison of the control group and the combined treatment groups was 1.58, the null hypothesis failed to be rejected in this test of hypothesis four. The value of t in the comparison of the control group and treatment group #1 was 1.61, the null hypothesis could

Table 21

The Personal Adjustment Scale
The Adjective Checklist

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.375	3.739	-0.72	22	0.479
Treatment Groups 1 & 2	1.937	5.507			

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.375	3.739	-0.07	14	0.942
Treatment Group 1	0.500	2.976			

Group	Mean	Standard Deviation	t value	df	Probability
Control	0.375	3.739	-1.05	14	0.312
Treatment Group 2	3.375	7.170			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	0.500	2.976	-1.05	14	0.313
Treatment Group 2	3.375	7.170			

$P < .05$

not be rejected. The obtained value of t was 1.10 in the comparison of the control group and treatment group #2, the null hypothesis failed to be rejected. In the comparison of the two treatment groups, the obtained value of t was -0.11, the null hypothesis failed to be rejected. Table 22 contains the results of the statistical analysis of the data from the Aggression Scale.

While the difference in the means of the control group and the combined treatment groups is notable, it failed to meet the level of significance chose. The research hypothesis was not supported as the ratings by the counselors did not reflect the subjects in the experimental groups as significantly less aggressive than those subjects in the control group.

A review of the results of the tests of hypothesis four fails to reveal any statistically significant differences on any of the five scales of the Adjective Checklist. It is of interest to note that while the results were not statistically significant, several of the scales showed differences in ratings by counselors of the control group and the experimental groups. The subjects in the control group were described using more unfavorable adjectives than were subjects in the experimental groups. The subjects in the experimental groups were rated as having higher self concepts than those in the control group. On the Aggression Scale the subjects in the control group were described as being more aggressive than were the subjects in the experimental groups. Again these findings fail to meet the levels of statistical significance chosen for this study and the results must be interpreted with caution.

Table 22

The Aggression Scale
The Adjective Checklist

Group	Mean	Standard Deviation	t value	df	Probability
Control	4.250	10.886	1.58	22	0.128
Treatment Groups 1 & 2	-2.375	9.032			

Group	Mean	Standard Deviation	t value	df	Probability
Control	4.250	10.886	1.61	14	0.129
Treatment Group 1	-2.625	5.181			

Group	Mean	Standard Deviation	t value	df	Probability
Control	4.250	10.886	1.10	14	0.288
Treatment Group 2	-2.125	12.159			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	-2.625	5.181	-0.11	14	0.916
Treatment Group 2	-2.125	12.159			

$P < .05$

Hypothesis Five

The null hypothesis: There will be no difference between the control group and the experimental groups in overall adjustment to institutionalization as reflected in the net change scores of subjects on the point system of the institution. The point system of the institution is a behavior modification system in which the students are able to earn points for appropriate, on-task behavior in both the school and cottage life programs.

The mean net change score of the control group was 18.75, the standard deviation was 210.97. The mean net change score was -50.87 for treatment group #1, the standard deviation was 145.67. The mean net change score for treatment group #2 was 20.75, the standard deviation was 66.04. The combined treatment groups had a mean net change score of -15.062, the standard deviation was 115.35.

The value of t for the comparison of the control group and the combined treatment groups was 0.51. The null hypothesis failed to be rejected in this test of hypothesis five. The t value in the comparison of the control group and treatment group #1 was 0.77, the null hypothesis failed to be rejected. In the comparison of the control group and treatment group #2 the t value was -0.03, the null hypothesis failed to be rejected. The value of t for the comparison of the two treatment groups was -1.27. The null hypothesis could not be rejected.

The research hypothesis was not supported. Participation in the experimental program did not bring greater improvements in overall adjustment to institutionalization as reflected in weekly point averages.

Table 23
Net Change Scores

Group	Mean	Standard Deviation	t value	df	Probability
Control	18.750	210.978	0.51	22	0.614
Treatment Groups 1 & 2	-15.062	115.354			

Group	Mean	Standard Deviation	t value	df	Probability
Control	18.750	210.978	0.77	14	0.455
Treatment Group 1	-50.875	145.674			

Group	Mean	Standard Deviation	t value	df	Probability
Control	18.750	210.978	-0.03	14	0.980
Treatment Group 2	20.750	66.043			

Group	Mean	Standard Deviation	t value	df	Probability
Treatment Group 1	-50.875	145.674	-1.27	14	0.226
Treatment Group 2	20.750	66.043			

$P < .05$

Summary of Findings

Within the limits of this study and for this population of the study, statistically significant differences were found in the following area:

1. There was a significant difference in the performance of the control and experimental groups on a test of knowledge of alcohol and drugs following the completion of the project.
2. There was a significant difference in the ratings by counselors of subjects in the control and experimental groups on Domain 15 - Mannerism of the Adaptive Behavior Scale.

Within the limits of this study and the population of the study, statistically significant differences are not found in the following areas:

1. There was no significant difference in ratings of self concept by subjects in the control groups and experimental groups as measured by the Piers-Harris Children's Self Concept Scale.
2. No significant differences were found between the control group and experimental groups in the ratings by counselors on all but one domain of the Adaptive Behavior Scale used in the study.
3. There was no significant difference between the control group and the experimental groups in ratings of the subjects by counselors using specific scales of the Adjective Checklist.
4. There was no significant difference between the control and the experimental groups in overall adjustment to institutionalization as reflected in net change scores of the subjects on the point system of the institution.

Chapter Five

SUMMARY, CONCLUSIONS, DISCUSSION, AND RECOMMENDATIONS

Chapter Five provides an overview of the results of this investigation by summarizing the study, presenting the conclusions drawn, and describing implications and recommendations for future research in this area.

Summary

This study focused on the short term effects of a developmental skills drug abuse prevention program with incarcerated delinquent youth. A ten session group oriented program was adapted from a developmentally oriented alcohol prevention program designed by Spoth and Rosenthal (1980). The subjects for this study were 24 adolescent males incarcerated at Barrett Training Center. They were randomly assigned to one of three groups, a control group and two experimental groups. The control group received no specific treatment other than continued participation in the school and cottage life programs within the institution. The two experimental groups participated in the developmental skills drug prevention program which met for ten sessions of one hour each. Data was gathered using a posttest only control group design (Campbell and Stanley, 1963). Statistically significant differences were found in the performance of the control and experimental groups on a test of knowledge of alcohol and drugs following the completion of the

project. Statistically significant differences were also found in ratings of the subjects by counselor on an index which assesses stereotypical or peculiar behaviors. No statistically significant differences were found in ratings by counselors of the students in other ratings of adaptive behaviors and on the overall adjustment to institutionalization.

Conclusions

The results for each research hypothesis can be summarized as follows.

Hypothesis One

Statistically significant differences were found in knowledge of alcohol and drugs as measured by responses to a questionnaire on the effects of alcohol and drugs between the experimental and control groups. Subjects who participated in the developmental skills prevention program demonstrated a greater understanding of basic information on the effects of alcohol and other drugs than those subjects who were in the control group.

Hypothesis Two

No statistically significant differences were found between the control group and experimental groups in ratings of self concept. The mean score of subjects in the experimental groups on the Piers-Harris Children's Self Concept Scale, while higher than the mean score of the subjects in the control group, did not reach a statistically significant

difference. The research hypothesis was not supported, as the subjects who completed the developmentally oriented prevention program did not show greater gains in self concept than subjects in the control group.

Hypothesis Three

With the exception of one domain on the Adaptive Behavior Scale, Domain 15 - Mannerisms, there were no statistically significant differences between the control group and experimental groups in the frequency of appropriate interpersonal behaviors as reflected in ratings of the subjects by counselors using selected domains of the ABS. The statistically significant difference noted on Domain 15 - Mannerisms suggests that the subjects in the control group were rated by their counselors as engaging in significantly more stereotypical or bizarre behaviors than those subjects who had completed the developmental prevention program.

Several of the domains on the ABS revealed differences in the ratings by counselors of subjects in the control and experimental groups which while not statistically significant are worthy of note. Counselor ratings suggest the subjects as having been more aggressive (Domain 10), more rebellious (Domain 12), and as engaging in more anti-social versus social behavior (Domain 11) in the control group than in the experimental groups. The subjects in the experimental groups were rated as being more self-directed than were subjects in the control group. It is important to mention that the results of the ratings on these domains failed to reach the chosen level of statistical significance and must be interpreted with caution.

Hypothesis Four

The tests of hypothesis four failed to reveal statistically significant differences between subjects in the control and experimental groups in ratings by counselors of the subjects using the five scales of the Adjective Checklist selected for this study. The means on several scales reflect differences, though not at a level of statistical significance. The subjects in the control group were described as being more aggressive, having lower self concepts, and more unfavorable adjectives were used in the description of those subjects than were subjects in the experimental groups. Again caution must be used in the interpretation of these results as the statistics did not reach the chosen .05 level of significance. The results of the test of hypothesis four failed to support the research hypothesis which stated that the subjects who completed the developmentally oriented prevention program would exhibit a greater frequency of appropriate interpersonal behaviors as reflected in ratings by counselors using selected scales of the Adjective Checklist than students in a control group.

Hypothesis Five

The research hypothesis was not supported. There was no statistically significant difference in the overall adjustment to institutionalization between the control and experimental groups as reflected in the net change scores of subjects on the point system of the institution.

Discussion

It was the purpose of this study to evaluate the effectiveness of a developmental skills drug abuse prevention program with a population of high risk youth. The evaluation of the program focused specifically on the short term efforts of participation in the program.

The program had a significant effect on the youth's knowledge of alcohol and drug information. One of the findings of the facilitators of the two experimental groups was the extent of misinformation held by the subjects about alcohol and drugs. All of the youth in the study acknowledged using alcohol and other drugs prior to their incarceration. Few of the subjects were knowledgeable about the effects of such drugs. Alcohol was regarded by the youth as a "safe drug," if it was to be considered a drug at all. Initially many of the youth had some difficulty accepting the notion of alcohol being an addicting drug. Research has demonstrated that increases in knowledge about alcohol and drugs will not always bring about a positive effect in attitudes toward drugs when only an educational approach is used (Brehm et al., 1975). The developmental skills program combined affective approaches with the educational approach in this area. Many of the discussions and role playing situations placed the youth in situations dealing with issues important in drug use. For example in the lesson on decision making skills, the examples and role play involved the youth dealing with issues of peer pressure, limits set by others, and drug use. While no measure of attitude towards drugs and drug use was used in this study it is hoped that the use of such role playing and problem solving

situations offered the opportunity for the youth to examine their own attitudes towards drugs and drug use. A follow-up evaluation at intervals following the return to the community of the subjects would be helpful in determining whether the developmental skills program had an impact on attitude towards drug use and future use of alcohol and drugs.

No statistically significant differences were found in student ratings of self concept. Using norms given in the test manual (Piers, 1969), the mean of the experimental groups was in the 55th percentile. The mean of the control groups was in the 31st percentile. This mean reflects a low index of self concept for this high risk population. The low index of self concept for these youth is consistent with the characteristics reported by Norem-Hebeisen and Lucas (1977). They describe the troubled and drug using adolescent as also reporting feelings of despair, hopelessness, low feelings of acceptance, and as having low expectations of success. While not statistically significant the difference in means falling in the 31st percentile for the control group and in the 55th percentile for the experimental group is notable. Also the ratings by counselors of the subjects reflect lower self concepts of those subjects in the control group than in the experimental groups. The youth in the experimental groups became involved in the discussions and appeared to enjoy the opportunity to explore themselves through the values clarification exercises in the project. Simon, Howe and Kirschenbaum (1972) stressed the importance of becoming aware of one's values and beliefs in the development of a healthy and accurate concept of self.

With the exception of Domain 15 - Mannerisms on the Adaptive Behavior

Scale, the ratings of the students by counselors using the Adjective Checklist and the Adaptive Behavior Scale failed to show any statistically significant differences between the control and experimental groups. In comparing the counselor's ratings of the students on both the Adaptive Behavior Scale and Adjective Checklist several commonalities were noted. Both instruments reflected the counselor's description of the experimental groups as being less aggressive than the subjects in the control group. The Adjective Checklist Scale, Self Concept and Domain 7 - Self Direction of the Adaptive Behavior Scale supported the direction of higher ratings of self concept of subjects in the experimental groups. These findings must be approached with caution as the differences did not reach statistical significance. The direction of the findings is of interest to note. These Adjective Checklist scales and Adaptive Behavior Scale domains did appear to be sensitive to behaviors of the subjects. One possible reason the differences between the control and experimental groups failed to reach an acceptable level of significance may be in the small size of the sample. Increasing the size of the sample may yield estimates with greater precision than was possible with the limited size of this sample.

In addition to the size of the sample several other factors may offer suggestions why the experimental hypotheses were not supported. The instruments used in this research appeared to be sensitive to the areas measured. However, both the Adjective Checklist and the Adaptive Behavior Scale required the institutional counselors to rate the subjects. Steps were taken to uniformly familiarize the counselors with the instruments. The instructions provided and steps taken to instruct

the counselors in the use of the instruments were standardized for this project. However there appeared to be differences in their understanding the instructions and the instruments based on questions received at both the time of the training and during the completion of the ratings of the subjects by their counselors. These differences reflected a lack of familiarity with the use and nature of standardized instruments themselves. Within the institution the use of standardized instruments is generally limited to school personnel, psychologists, occupational therapists, and speech therapists. At the time of the training the counselors reviewed the instruments, and the instructions for their use. While examples were used to illustrate the use of these tests, it may have been more efficacious to provide a more thorough demonstration of their use through case presentation and role playing of their use as rating instruments.

Another area which may account for the failure to support the experimental hypothesis involved the makeup of the experimental groups. All the subjects in the study were required to give their consent to become involved in the research project. However there was not a prescreening of prospective group members. Prescreening and a careful selection process for participation in the treatment groups would increase the chances of the members benefiting from the treatment groups. Those subjects who are not motivated to change, are unwilling to participate in the discussions, who act out or are otherwise disruptive to the group process could be eliminated from participating in the groups. Efforts by the group facilitators of both treatment groups to deal with the disruptive or uninvolved subjects were time consuming and generally

slowed the movement of the whole group.

Some difficulty was encountered in scheduling the treatment groups at a time during the day when the groups would not conflict with school or cottage activities. The groups met at the end of the school day. It is at this time that the students in the school are most active and settling them into the group at the close of the school day was at times challenging. Participation in the project meant the subjects would miss recreational and other activities including canteen twice a week while they were in the groups. Efforts were made to minimize the conflict and to make arrangements for the subjects to receive canteen and participate in campus activities at the end of each session. This was not always possible however, and there were instances when the students missed those activities of the institutional program. It may be more advantageous to integrate the program within the school schedule in order for the students to attend the group at a time during the day which is more conducive and attentive to group processes. Incorporating the program into the school schedule would be most easily accomplished utilizing the health classes. The health curriculum covers a wide variety of topics related to mental health and developmental issues of adolescence. Meeting twice weekly at that time would be the least disruptive method to integrate the program into the school day.

For the facilitators of the group, the developmental skills program incorporated tasks and techniques which were familiar but none-the-less it was the initial use of this specific program by the facilitators. Time was spent in training and in review of the program both before and during the project. As with the learning of any new skill, the performance

improves with practice. Given the opportunity to have additional experiences with this developmental skills program the facilitators would work more competently and confidently in the groups. The confidence and added competence which previous experience would bring may also increase the impact of the program on the subjects.

The experimental nature of the treatment procedures themselves must be considered as a factor in the failure of the project to demonstrate significant impact in behavior of the youth. The developmental skills program which was used in this study was developed and adapted from developmental task theory and other proposed models for teaching developmental skills. As cited in previous chapters there has been no other research in the literature using this program. Further application and refinement of the developmental skills program may increase the power of the treatment.

The power of the treatment may be increased by lengthening the course of the prevention program. The differences noted in the treatment and control groups which failed to reach statistical significance may be more significant by increasing the length of the program. Increasing the number of sessions in the program would allow more time for learning and practice of the skills taught in the developmental program. Another means of increasing the potency of the program would be to encourage the generalization of the skills learned to settings outside of the group. One method to facilitate the generalization of the skills would be to provide training to the residential counselors and cottage staff in order to familiarize them with the developmental skills model and the specific skills taught. The institutional staff would then be

able to encourage and to reinforce the efforts of the youth to use the new skills in various settings. The youth might be paired with a cottage staff member as a "sponsor" with whom he would review and practice new skills outside of the treatment group. This too would increase the power of the treatment by facilitating the generalization of skills outside of the treatment groups.

There has been little research done with populations of incarcerated or delinquent youth in the area of drug abuse prevention. While this study examined the short term effectiveness of a program of prevention based on a developmental skills model, a study which evaluated the relative effectiveness of several models of prevention with this population would be valuable. In order to evaluate the relative effectiveness of particular components of the developmental skills model, a comparison of the developmental skills program with specific components would provide useful information. Integrated within the developmental skills program are units involving values clarification, decision-making skills, communication skills, basic alcohol and drug education, and several additional task areas. A comparison of the developmental skill program with models based on each particular unit would help assess and further refine the developmental skills program.

In summary, it appeared that the use of the developmental skills drug abuse prevention program had its most notable impact in the offering of factual alcohol and drug information to those subjects. However the response to the program by those youth in the skills program and the direction of many of the results offer promise in further use and research with the developmental skills model of prevention. Incarcerated

delinquent youth possess may deficits in developmental skills necessary to reach a healthy adjustment to adolescence and into adulthood. This program was able to make some slight impact on the skills and behavior of a high risk population.

Recommendations

With the above discussion in mind, several recommendations for further research are made.

1. Increase the length of the treatment program from the current ten session format.

2. Allow for additional follow-up studies to evaluate the long term effects of a developmental skills program with the high risk population. Follow-up studies at intervals of six months and one year from the completion of the treatment are recommended. This longer follow-up would include measures of current use of alcohol and other drugs after the youth has returned to his community, and reports of adjustment from both family and aftercare workers.

3. A comparison of the developmental skills program with other accepted models of prevention programs would yield information on the relative effectiveness of this program. Such a comparison may provide data on the type of program most effective with the high risk population.

4. The provision of training in the developmental skills model to the institutional counselors and cottage staff in order to provide follow-up and to encourage the youth to practice the skill outside of the group setting. Such follow-up outside of the sessions may aid in the ability of the subjects to generalize the skills to settings outside

of the treatment groups.

5. As a means to increase the precision of the statistical evaluation, and increase in the size of the sample is recommended. Such an increase in precision would be helpful in assessing the results which failed to reach statistical significance but showed movement in a positive direction by the subjects in the experimental groups.

6. The use of the developmental skills program with a population of non-incarcerated youth who are also considered to be at risk is recommended. A non-incarcerated group would have greater opportunity to practice and test the new behaviors in real situations. That way reinforcement could occur more quickly and difficulties the youth may have with a specific task could be identified more readily.

Appendix A

Developmental Skills Drug Abuse
Prevention Program Manual

UNIT I
DRUG AND ALCOHOL INFORMATION

Session one: An introduction, and some basic facts about alcohol and drugs.

Session two: Continuing Creative Alcohol and Drug Education.

Developmental Skills Targeted for Unit I

Basic interpersonal skills are introduced in this initial unit. These skills include such skills as listening, other skills of attending, of cooperating with others, of self-disclosure, and of sharing.

Information about alcohol and other drugs is presented. This information may provide the base for future actions as it relates to the use of judgmental skills.

SESSION ONE:

Introduction and Some Basic Facts About Alcohol and Drugs

Purpose: The purpose of this session is to provide a beginning of introductions to the group, to set ground rules for the group, to clarify expectations of group members, to begin a presentation and discussion of basic facts about alcohol and other drugs, and to begin the focus of increasing interpersonal skills such as communication and listening skills.

Goals:

1. that youth will demonstrate understanding by stating the basic purpose and ground rules of the group,

2. that youth will understand that the use of certain drugs such as alcohol, tobacco, and marijuana can cause problems in the life of a person,

3. that youth will understand the nature of the phenomena of tolerance to drugs,

4. that the youth will understand the difference between sedative, stimulant, and hallucinogenic drugs,

5. that the youth will explore issues of peer pressure and other problems relevant to the use of drugs,

6. that the youth will understand that alcohol and other drugs change the way a person feels.

Method:

1. Introduction of group members.

Each person in the group is given the opportunity to introduce themselves to the group giving their name and citing something that they

they like to do. The person who follows is to summarize or restate what the person before him has said before he can introduce himself. Any one in the group can challenge the accuracy of the summaries.

2. Setting of ground rules.

Introduce the idea of ground rules to the group. Essential to the group are the following rules: that everyone has the right to talk and be heard, that we respect the person who is talking and not speak while someone else is talking, everyone will have the chance to talk if they choose to, and that there is no fighting or horseplay during the group. The idea of confidentiality in the group is also to be discussed. Group members should be allowed to discuss the above rules as well as introduce rules of their own for discussion by the group. All rules must be agreed to by the group before final acceptance as rules that will be adhered to in the group.

3. Discussion about drugs and alcohol.

The students are to offer a definition of a "drug." Explore various definitions presented. The definition should basically state that a drug is any substance, other than food, that alters the body or its functions. The youth should then be asked to list the names of drugs with which they are familiar, the drugs mentioned by the youth are to be listed by the leader. Assist the members in differentiating between drugs which are "uppers" (stimulants) and those which are "downers" (depressants). From this point the leader is to lead a discussion which goes into greater detail specifics of drugs such as the difference between sedative, stimulant, and hallucinogenic drugs, etc. This basic information for this discussion is found in the appendix of this guide.

SESSION TWO

Continuing Creative Alcohol and Drug Education

Purpose: The purpose of this session is to continue the discussion of drugs and alcohol, presenting factual information regarding drugs and alcohol as well as to provide role playing situations which explore other factors of use such as peer pressure and family problems.

Goals:

Refer to goal section of session one.

Method:

The discussion which was begun in session one is to be continued. The focus is to be broadened to include alcohol as one of the drugs discussed in the group. Presentation of the concepts of tolerance, dependence, addiction, and the way drugs change the way a person feels is to be done in this session. The leader should encourage the members of the group to share information and knowledge which they have in the group. The leader should clarify any misinformation which is presented in such a manner that the sharing by that group member is reinforced. The leader should be wary of members telling "war stories" about drugs and drug use, and the leader should keep the focus of the session on presenting and sharing factual information.

Role Play - The group members are to be given specific roles to play. The scene is one in which the main character, a student, encounters a group of friends who are going to drink beer before going to a party. The roles are the main character, a probation officer, two parents, two friends who use drugs (alcohol), and two friends who do not use drugs (alcohol). The scene begins with the main character

talking to his parents about their rule which states that he cannot drink and to not hang around with those two hoodlums who are always causing trouble. The probation officer enters and states the probation rule forbidding the use of alcohol and other drugs. The main character then encounters his two groups of friends. What is he to do? After the role playing the discussion should highlight the push/pull feelings the main character felt from the various characters as well as the feelings of the other characters toward each others' roles.

UNIT II
AFFECTIVE GROUP WORK
GETTING TO KNOW MYSELF

Session three: Values clarification. A personal coat of arms.

Session four : Values clarification continued. Who am I?

Developmental Skills Targeted for Unit II

The sessions address intrapersonal skills such as self-assessment, and knowledge of self.

The group experience encourages practice of interpersonal skills of listening, sharing and cooperating. These skills are necessary skills to build relationships with others.

The clarification of personal values which may serve as a guide to future behaviors are targeted in this unit.

SESSION THREE

Values Clarification - A Personal Coat of Arms

Purpose: The purpose of this session is to provide an experience in which the students have an opportunity to examine their present values, to gain experience with certain intrapersonal skills such as self assessment and self-disclosure, to gain experience in interpersonal skill of communication, listening, and cooperation.

Goals:

1. that through self reflection and peer interaction exercises the students will increase their awareness of certain personal values,
2. to increase range of intrapersonal skills of self assessment and self disclosure,
3. to increase the range and competency of such interpersonal skills as listening and other attending behaviors, and cooperation.

Method:

Each student is to be given a precut coat of arms divided into four sections. The student is asked to answer each of the following questions by drawing in the appropriate area on his coat of arms a picture, design, or symbol which best answers the particular question asked. The questions for each section are as follows:

- 1 - draw a picture, design, or symbol which shows you and your family,
- 2 - in this section show something which you are good at doing
- 3 - in this section illustrate what is the one thing others can do to make you happy, and
- 4 - depict something that you like to do.

The students may then share in a group the drawings on their

coats of arms. Encourage good listening and attending behavior of the group members. The leader should ask the students to comment on similarities and differences of their coat of arms and that of the other group members. The leader should make every effort to model effective listening/attending behaviors as well as reinforce sharing and appropriate interaction among members of the group.

SESSION FOUR

Value clarification continued. "Who Am I?"

Purpose: Refer to the Purpose section of session three.

Goals: Refer to Goal section of session three.

Method:

"Who Am I?"

Each student is to make a collage answering the question "Who Am I?" The student can cut out, paste etc. pictures or items which he feels describes him as a person. The student is to use no written words.

The discussion which follows will follow the format of the leader gathering up the collages of the students and subsequently holding up a collage for the group to describe. The description of the collage by the group should focus on the characteristics of the person who did the collage as is reflected in the art work. What can they guess about the person from the way the collage looks?

The leader should also allow reflection by group members of how they felt receiving feedback and descriptions from the other members as their collages were described.

UNIT III

Communication and Interpersonal Skills

Session five: Decision Making Skills

Session six: Communication Skills

Session seven: Assertiveness

Session eight: Families and Parents

Development skills targeted for Unit III

Interpersonal skills of attending, such as listening, restating, and the maintenance of eye contact are covered in this unit.

Systemic skills of decision making and assertiveness.

Exploration of family roles and family process.

Interpersonal skills including the ability to give and receive feedback, to share with others, to cooperate with others are also addressed in this unit.

SESSION FIVE

Decision Making Skills

Purpose: to present a model for generating and exploring alternatives and making decisions.

Goals:

The student is to demonstrate an understanding and use of a decision making model as evidenced by role playing in group and the completion of assigned homework.

Method:

The group leader is to introduce a method of decision making in this session. Basic to the teaching of these skills and other skills in Unit III are the use of modeling by the leader, of role playing, of reinforcement and feedback, and transfer of learning by the use of homework.

Presentation of Decision Making Model:

The following is to be read to the group.

A problem situation - "Pete has a group of friends who have broken into some old buildings. They have never been caught before while in the buildings. Pete is currently on probation as he has had problems in school and at home. His friends ask him to go with them this time and break in with them. He wants to be their friend but does not want to get in trouble. What can Pete do?"

The leader is to ask the group for their observations about the situation. Encourage the group to discuss and generate ways Pete could handle the situation. The group should explore the possible consequences of their suggested options. The leader should reinforce the suggestion

and interaction among group members in this discussion. The students should be encouraged to share with the group how they arrived at their suggestion/option for Pete. How did they decide what Pete should do in this situation?

The leader is to use this problem situation of Pete's to illustrate a seven step decision making model. The model is as follows:

Step 1) Define the Problem.

What is Pete's problem?

Step 2) Identify all the possible alternative courses of action.

What are some of the ways Pete can handle this situation?

Step 3) Identify the risks and benefits of each alternative.

If Pete does this . . . , then what will happen?

Step 4) Clarify relevant personal values.

Does doing this feel right to Pete? Does he believe in the way he is considering handling this situation?

Step 5) Select the alternative or plan of action which involves the least risk and is most consistent with your personal values.

Which choice is best for Pete?

Step 6) Take the course of action.

Do it, Pete!

Step 7) Evaluate the choice that you made.

How did it work out for Pete?

The leader is to then hand out the work sheets to the students. The work sheet can be found in Appendix B of this guide. These sheets will be used in this session as an outline or guide to the decision making process. They will be used outside of the group for the students

to record their use of the model. This task is the homework which is to be done prior to the next session. The leader is to now present the following problem situation to the group and facilitate their use of the model following the steps listed on the outlines.

Problem situation: the leader is to offer a problem situation based on situations offered by the group in their discussion.

SESSION SIX

Communication Skills

Purpose: To help the students learn skills which will help them communicate more effectively.

Goals:

1) the students will be presented and will experience basic non-verbal techniques of communication, for example maintaining eye contact, the use of passive listening or silence while another is speaking,

2) the students will be presented with and will experience a model of basic verbal communication skills, for example, the use of "I messages."

Method:

Review: The leader is to review with the students the decision making model and their experiences using the model as assigned in the previous session.

Discussion: The leader is to begin the session with an introduction to some of the basic characteristics and importance of effective communication. To be included in this introduction are:

1 - communication is a process of giving and receiving information,
2 - that skills for effective communication must be learned, we are not born with these skills,

3 - that one cannot not communicate; the giving and receiving of information involves not only words but action, facial expression, tone of voice, gestures, mood, etc.

4 - that sometimes the message we send is not the same message that is received . . . we need to stop and check whether the communication

is received, whether we are understood. No two people see things exactly alike or in the same way.

Listening Skills:

Basic Steps for Effective Listening

1. Look at the person who is talking, maintain eye contact. The leader should be sure that the subjects are looking at or facing each other.
2. Think about what is being said. You can show this by nodding your head or by saying "um hmm."
3. Wait your turn to talk.
4. Say what you want to say.

"I messages"

The use of "I messages" are important because they let another know what is going on with you. You are letting him know how you feel.

Examples: "You messages"

You stop that right now!

You should know better.

You are a pain in the neck.

"I messages"

I cannot watch TV while you are talking so loudly.

I don't feel like playing now, I am tired.

The leader should use examples to highlight and demonstrate the concepts of listening and communicating. An example of an exercise which can be used to demonstrate the use of eye contact is to get two volunteers from the group and have them sit facing each other and talk

about a show that they watched on TV. After a minute or two have the students turn their chairs around and sitting back to back continue the discussion. The two should process the experience describing to the rest of the group how they felt in each of the stances. Comments and feedback can also be solicited from the group.

Exercise:

The students in the group are to pair off to practice effective listening skills and the use of "I messages." Each student will take a turn being the listener and then being the speakers. The student talking will speak for two minutes about something that he likes to do. The listener is to use the basic attending skills while he is speaking and the listener is to restate or summarize what the speaker said at the end of the two minutes. The students should then switch roles. The leader should monitor the pairs, reinforcing effective skills and modeling appropriate listening and communication for those students who may be having difficulty. The leader should also allow ample time at the end of the session for the group to discuss their experiences. The group members should be encouraged to practice the skills and report back to the next meeting what their experience has been.

SESSION SEVEN

Assertiveness

Purpose: to introduce a problem solving and assertiveness model to the students, focusing on increasing understanding and mastery of systemic and interpersonal skills.

Goals:

1. that the students will understand and experience the use of an assertiveness, problem solving model.
2. that the youth will have the opportunity to learn the differences between assertive, non-assertive, and aggressive behaviors.
3. that the youth will have the opportunity to experience the use of assertive, problem-solving skills both verbal and non-verbal, through exercises, role play, and practice outside of the group.

Method:

The leader is to review the problem solving/decision making model which was presented in session five. The leader should inquire as to the experiences of the members using the model. Examples of how and when the model was used should be solicited from the group. The leader is to offer reinforcement to those members who used the model and reinforce those members of the group who share specific examples with the group. The leader is to highlight the step-wise process of the model as examples are given in the group by the students.

Introduction to Assertiveness:

Assertiveness is- the group is to be asked to offer a definition of assertiveness. The leader is to then offer examples to the group of

assertive, non-assertive or passive, and aggressive behaviors.

The following chart will be used as a guide.

	Non-Assertive	Assertive	Aggressive
Characteristics of the Behavior	indirect, self-denying; inhibited	emotionally honest, direct, expressive; lets others know where you are at!	emotionally honest, but is so at the expense of others; I'll get him before he gets me!
Your Feelings	hurt, anxious at the time; may get angry later	confident, self-respect; feel good about yourself for handling things	superior, "I'm better & tougher than others" may feel guilty later
Feelings of others (about themselves)	guilty or superior	valued "You respect me"	hurt, humiliated, made fun of . . .
Feelings of others (about you)	pity, irritation	I respect you because you respect me!	angry . . . "I'll get even."

The DECS script or How to Be Assertive:

1. Describe - describe the other person's behavior objectively
describe the action, not the reason for doing it.
2. Express - express your feelings, express them calmly
focus on the specific behavior, not on the whole person.
3. Specify - ask explicitly for a change in that behavior
request a small change, state clearly what behavior you want changed
and what you want to see happen, state clearly what behavior you

are willing to change to come to some agreement.

4. Consequences - be specific, give a reward/reinforcement for change in a position or a direction, do not make threats or offer a reward which you can't or do not want to delivery.

Exercise:

SESSION EIGHT

Parents and Families

Purpose: To introduce the concepts of family. More specifically family and parent issues particular to the young adolescent in order to facilitate a greater understanding of their families and their roles in the families.

Goals:

1. The students will increase their awareness of how they respond to family and parent issues.
2. The students will experience the use of skills through role-play which may be helpful in building healthy relationships with family and parents.

Method:

Exercise: The leader is to introduce the topic of family and share a little about his/her own family, i.e., the number of brothers and sisters, something about their parents, the birth order, etc. Each member is encouraged to share with the group in a similar manner. The focus of the discussion following the brief introductory statements by the group members is to discuss problems which occurred in their lives as a result of their sibling position. The leader is to highlight the similarities and the differences of the problems mentioned particular to the place in the birth order. What were the common problems of the oldest child, of the youngest? How were the problems of each different? From this discussion the students should gain a beginning awareness of the universalities of the family experience and of the variety of ways which people can and do respond to this experience.

Discussion: The leader is to lead a discussion with the group following the format given in the following paragraphs.

Living as part of a family is not always an easy process. It takes work. There are times when problems do exist. As demonstrated in the previous exercise no one is always free from problems in the family, not parents, brothers or sisters, not the youngest or the oldest. What are some of the ways that have worked for the members of the group in solving problems in their family? The leader should try to use an example of a problem which was stated previously by the group. The leader should ask how the problem is generally dealt with in the family. Encourage continuing discussion and role playing of situations in which the group can practice skills of identifying problems and using skills learned in previous sessions to deal with these presented problems.

Growing Up In A Family: As you move from childhood to adulthood it is necessary to begin to separate yourself from your parents and family. You do not need as much direct supervision from your parents but their caring is important and we often know that they do care for us when they set limits with us. The process of separating or of distancing is called differentiation. This simply means to be different from. As we grow older we find ways in which we are different than our parents. Can anyone in the group share with us some way in which you are different than your parents. If the group is slow to share, the leader is to offer some examples, i.e., being different in taste of clothes, in music, ideas about church, etc. The sharing process is to be reinforced by the leader. Efforts are to be made to highlight the similar ways in

which the members see differences between themselves and their parents, and of the feelings the members have about being different from their parents. It may be of interest to explore with the group how the process of differentiation poses problems for the group members and their parents, for example with curfews, rules about dress, telephoning, school, and household chores.

UNIT IV

Making It Work For Me

Session nine: Alternatives and relaxation.

Session ten: Closing and Making a Personal Plan.

Developmental skills targeted for Unit IV

Judgmental skills, including the ability to recognize stress and seek alternatives in or to relax, and the judgmental skills of planning.

Intersonal skills which are integral to the group process such as cooperation, listening, and communication continues to be addressed in this final unit.

SESSION NINE

Alternatives - Coping with stress

Purpose: to present methods of recognizing and of dealing effectively with stress thus enabling the students to use alternative methods of relaxation to reduce stresses which might have previously been dealt with through the use of alcohol and other drugs.

Goals:

1. Each student will have the opportunity to learn and identify personal signals of stress.
2. A method of relaxation will be presented to the group and each member will experience the method.
3. Other alternatives for dealing with stress will be explored.

Methods:

The leader is to introduce the concept of stress and tension to the group.

Tuning In: Becoming aware of stress

The following is a procedure which is helpful in identifying when you are feeling stress.

1. Tune into what is going on inside you. What is going on in your body that helps you know that you are going to or are just about to lose control or that you are feeling uptight?
2. Decide what happened to make you feel this way. What is happening around you? Are you with people who are mad with each other? Are you thinking of something which is upsetting?
3. Think about ways in which you might control yourself. Slow down,

take a deep breath, assert yourself, leave, do something else, count to ten. There are a lot of things that you can do. Can you think of some others? Are there ways which work best for you?

4. Now choose the best way to deal with the stress and DO IT.

Progressive Relaxation:

Progressive relaxation is one alternative, one way of dealing with stress. It is a good method for relaxing when we are uptight.

Meditation and relaxation are alike in a lot of ways. Most importantly they are ways of telling our bodies to relax, to take time to regroup and rest. A neat thing about relaxation or mediation is that the more often that you do them, the easier they are to do. It also does not take long to relax after you practice and each time that you relax or meditate you become more and more relaxed. In other words, meditation or relaxation can work better each time that you do them. (At this point the leader should ask if any member of the group has ever meditated or practiced relaxation. If anyone has, encourage them to share what the experience was like with the group.)

The leader is to lead the group in an exercise of relaxation. It is suggested that the leader review the instructions for the exercise prior to the group in order to become familiar with the procedure.

The exercise used is taken from The Centering Book.

Following the exercise, the leader is to encourage the students to practice the method during the coming week. Suggesting that they can use the method when uptight, or at night before they fall to sleep may be helpful.

RELAXING THE BODY: DEEP RELAXATION

"This is an activity that can help us learn to relax our bodies and minds by tensing and relaxing muscles. We cannot be tense and relaxed at the same time, so if we learn to relax we can avoid wasting energy through muscle tension. If you ever feel tense, while taking a test or anytime, you can use the feeling of relaxation to feel better."

"Let's begin by lying on our backs on the floor and not touching anyone else. Wiggle around a little until you find a way of lying down that is completely comfortable. Now close your eyes and think of your hands. Feel the bones inside them, feel the muscles that move the bones, feel the weight of them on the floor. Now make a fist with your hands and clench tightly. Hold your hands tightly (ten seconds) now relax and feel the soothing tingling feeling of relaxation come into your hands."

Pause (ten seconds or so between instructions).

"Now draw up your arms and tighten your biceps as tight as you can. Hold them tightly (ten seconds). Now relax and feel the tension drain out of your arms."

Pause.

"Shrug your shoulders now, pushing them as if to push them through your ears. Hold them there (ten seconds). Now let them go and feel all the tension drain out of your body."

Pause.

"Continuing to keep your eyes closed, open your mouth as far as it will go, stretching the muscles at the corners of your mouth. Hold it tightly (ten seconds). Relax and enjoy the tingling feeling as the

tension dissolves in your mouth."

Pause.

"Now press your tongue against the roof of your mouth and tighten your jaw muscles. Press tightly and hold it (ten seconds). Now relax and let the peaceful feeling of relaxation flow through your body."

Pause.

"Now wrinkle your nose and make a face. Scrunch up your face tightly and hold it (ten seconds). Relax now, feeling the tension flow out of your face."

Pause.

"Now tighten the muscles of your chest, stomach, and abdomen. Draw all of the muscles in tightly and hold them tense (ten seconds). Now let them go, feeling the soothing feeling of relaxation pour in."

Pause.

"Now tense the muscles of your thighs by straightening your legs. Hold them tightly (ten seconds). Now relax your thighs - let all of the tension drain out of them."

Pause.

"Now tense the backs of your legs by straightening your feet. Hold your legs tensely (ten seconds). Now relax them and let go of all the tension."

Pause.

"Now tense your feet by curling your toes. Keep them curled tightly (ten seconds). Now relax your toes and feel the delicious feeling of relaxation come into your feet."

"Your whole body is feeling loose and relaxed now. Feel yourself

completely supported by the floor and breathe deeply, and as you breathe in, let each breath fill your body with deeper and deeper feelings of relaxation."

Pause.

"See if there are any places of tension left in your body. If you feel tense in some area, take a deep breath and send the breath to that place. Fill that tense area with breath and let the feeling of tension leave your body."

Pause.

"Let the soothing feeling of relaxation fill your body. Each breath takes you deeper and deeper into relaxation."

Pause.

"And now as your body quiets down, let your mind become quiet also. Imagine that your mind is quiet and peaceful, slowing down to a soothing pace . . . and as your mind becomes quiet, we will go in our minds to a place where we feel completely safe and secure. This can be a place you already know about, perhaps a room in a house, or it can be a place you build in your mind, but wherever it is, go there now and arrange it just the way you want it to make you feel safe, solid and secure."

Pause (one to two minutes).

"And now that you have that place, you can go there whenever you want. You can go there to think, to be by yourself even if you are with others, to feel good no matter where you are. Now let's return to the present, knowing that our place will be there when we want it. Now you will be coming out of relaxation in a moment, and you will feel rested and alert. I will count backward from ten to one and as I do, feel your

body becoming alert at your own rate. Ten, nine, eight, feel the alertness returning to your body. Seven, six, five, feel your toes and fingers begin to move. Four, three, move your arms and legs. Two eyes. One wake up slowly, feeling completely rested and alert."

SESSION TEN

Putting It Together for Me, Making a Personal Plan

Purpose: The purpose is to provide an opportunity for the students to discuss and sum up the group experience, focusing on aspects of the group which have been helpful to them. All the students will be required to put together a personal plan which will follow the outline attached to this section. The plan is to incorporate areas of new learnings of the student including new awarenesses of his own behavior and of ways to put the various skills to work.

Goals:

1. That each student will have the opportunity to discuss and sum up the group experience for themselves and share this with the group.
2. That each student will complete a personal evaluation plan of action which specifies how new learnings will be worked on following the group.

Method:

The leader is to lead a discussion with the group addressing issues of summing up the experience, talking about tasks or activities of the group which were particularly helpful to them, and developing a plan to help them put the new learnings into action.

APPENDIX A

Basic Drug Information:

I. Definition of a Drug

A drug is any substance other than food, that alters the body or its functions.

A drug most importantly changes the way we feel.

Drugs can be taken:

- 1) by mouth - orally
- 2) inhaled or smoked
- 3) injection into tissue, muscle, or vein

There are essentially six major categories of drugs or alcohol.

They are:

- 1) Central Nervous System depressants
- 2) Central Nervous System stimulants
- 3) opiates or narcotics
- 4) alcohol
- 5) psychedelic or hallucinogenic drugs
- 6) inhalants

Any drug may be harmful when taken in excess. (Some drugs can be harmful if taken in combination with other drugs, such as alcohol or barbiturates.)

II. Central Nervous System Depressants

Depressant drugs have the ability to temporarily depress a bodily function or nerve activity. Depressant drugs can induce sleep or decrease mental and physical activity.

Some different types of CNS depressants:

- 1) Barbiturates: Barbiturates can be either short acting which means that the effects set in sooner and wear off quicker. Nembutal and seconal are short acting barbiturates. Long acting barbiturates take longer to work and last longer. Phenobarbital is a long acting barbiturate. (Barbiturates are very addicting. Withdrawal from these drugs can be dangerous and should be done with medical supervision.)
- 2) Tranquilizers: A major difference between tranquilizers and barbiturates is that a dose of a tranquilizer produces less sleepiness and interference with motor activities than does a dose of barbiturate.

Some examples of minor tranquilizers are valium, librium and dalmane.

Possibility of the development of dependence or addiction exists with tranquilizers.

- 3) Methaqualone - qualude
- 4) major tranquilizers - thiorazine, mellaril, stellazine

III. Central Nervous System Stimulants

Stimulants have the ability to temporarily increase body or nerve activity. They increase mental and physical activity.

The CNS stimulants may with prolonged use lead to development of dependency, possibly addiction as there are observable withdrawal symptoms when one stops use of these drugs.

Some types of stimulants are:

- 1) Amphetamines: These are synthetic or man made drugs, often referred to as speed. Some names of amphetamines include dexidrine, benzedrine, methedrine, escatrol.
- 2) Cocaine
- 3) Caffeine - this is the most widely used CNS stimulant
- 4) Nicotine - cigarette smoking is the most common form of drug abuse in the United States. Smoking has been directly linked with cancer, cardio-vascular diseases, and respiratory diseases such as bronchitis and emphysema.

IV. Opiates or Narcotics

Narcotics are widely abused throughout the world. They work by depressing the central nervous system of the body. Individuals abusing narcotics develop a physical dependence to the drug and are often then addicted to the narcotics. If the supply of the drug is cut off after the development of tolerance, then withdrawal can occur.

Some different kinds of narcotics are: opium, heroin, morphine, methadone, codeine, dilandid, and demerol.

A narcotic is a drug which relieves pain and induces sleep.

V. Alcohol

Alcohol is a drug and it is an addictive drug. Alcohol is a depressant drug, not a stimulant. It anesthetizes the brain from top to the bottom levels. It affects the most newly developed part of the brain first, then with increased use alcohol affects that part of the brain which controls our bodily functions.

Alcohol is the most widely abused drug in our country.

VI. Hallucinogens or Psychedelic Drugs

These are drugs which create vivid distortions of the senses without greatly disturbing the individual's consciousness. They affect how the brain interprets information or incoming stimuli.

Marijuana is a mild hallucinogenic drug, other hallucinogens include LSD, peyote, mescaline, psilocybin and PCP.

Recent research on marijuana suggests that heavy use may affect the production of sex hormones in males and females so the drug tends to deposit itself in reproduction organs. It is a fat soluble drug and it is harder for and takes longer for the body to get rid of the drug after use. Marijuana also affects memory and learning and it also affects motor skills and judgment.

VII. Inhalants:

These are drugs which are inhaled or sniffed. The inhalation of these drugs can be extremely dangerous and may cause brain damage, damage to bone marrow, to kidneys, lungs, and may also cause temporary blindness.

ATTACHMENT #1

RESEARCH CONSENT STATEMENT

Description of the project: The project involves the
participation in a 5 week, 10 session group counseling
experience. You will be assigned at random to either
participate in the group or be part of a control group
which will not meet. All members will be required to
complete some paper & pencil questionnaires at the end of the
project

I have read the above paragraph and have had an opportunity to ask questions about my participation in the project. The description of the study identified any discomforts or risks I might expect during and/or after the project. I understand that my identity will be kept confidential. My participation is entirely voluntary and should I decide at any time during the project to end my participation I am free to do so.

() I agree to participate in the project conducted by
EVERETT G. McLAREN representing
THE COLLEGE OF WILLIAM AND MARY

() I do not wish to participate in the project.

Date

Signature of Participant

Date

Signature of Witness



Appendix C

COMMONWEALTH of VIRGINIA

JAMES H. BALL, JR.
SUPERINTENDENT

DEPARTMENT OF CORRECTIONS
DIVISION OF INSTITUTIONAL SERVICES
BARRETT LEARNING CENTER
HANOVER, VIRGINIA 23089

TELEPHONE
746 2115
FAX
634 3990

October 6, 1981

Mr. Thomas Foster, Manager
Research & Reporting Unit
Central Office
4015 West Broad Street
Richmond, Virginia

Dear Mr. Foster:

I am submitting to your office for approval an abstract of a research proposal. The project, "The Short Term Effects of a Developmentally Oriented Substance Abuse Prevention Program with Incarcerated Youth" is a prevention project which utilizes non-specific intervention strategies which are based on the concept of developmental tasks. The strategies are focused on the developmental tasks appropriate for early adolescence as I wish to conduct the research at Barrett Learning Center. The research is to be done in partial fulfillment of the requirements for a doctoral degree in Counseling from the College of William and Mary. The chairman of my doctoral committee is Mr. Charles Matthew, Ph.D of the College of William and Mary.

At the present time I am employed by the Behavioral Services Unit on a part-time basis as a Psychologist at Barrett Learning Center.

I am looking forward to beginning the project in the near future pending approval from your office. I also would appreciate correspondence regarding this project be sent to my home address which is listed on the research abstract.

Thank-you for your time. I am looking forward to hearing from your office and if you desire any further information please do not hesitate to contact me.

Sincerely,

Everett McLaren, M.ED., A.C.G.S.
Psychologist, Behavioral Services Unit

EM/dlm



Appendix D

COMMONWEALTH of VIRGINIA

Department of Corrections

COMMONWEALTH of VIRGINIA

EVERETT DON HUTTON
DIRECTOR

OFFICE OF THE DIRECTOR
DEPARTMENT OF CORRECTIONS
1000 EAST MAIN STREET
RICHMOND, VIRGINIA 23219

October 16, 1981

MEMORANDUM

TO: Mr. James Ball, Jr. Superintendent
Barrett Learning Center

FROM: Stan Orchowsky, Researcher
Research and Reporting Unit

SUBJECT: Proposal for Research at Barrett Learning Center

The attached abstract has been submitted to this office by Everett McLaren, a part-time psychologist at Barrett. The research involves using standardized tests and staff ratings to examine the effectiveness of a five week Developmental Skills Drug Abuse Prevention Program.

I have reviewed the proposal and spoken to Mr. McLaren. From this unit's perspective, the study appears to be a useful whose procedures meet the Departmental guidelines for research. The project therefore has our endorsement, pending your approval.

If you have any objections to the research being conducted or to specific procedures being used, please contact me as soon as possible. Thank you for your cooperation in this matter.

/jp

cc: Mr. Everett McLaren
Mr. Thomas Foster, Manager
Research and Reporting Unit

*Copies have also been sent to the
Regional Office for Virginia Corrections.*

Appendix E

Proposal for Research with Human Subjects

Name: EVERETT G. McLAREN

Department: Education

Status: DOCTORAL Candidate

If student, faculty advisor Mr Charles MATTHEWS

1. In a 2 to 3 page precis, provide a general description of the research project, noting (a) the research question, (b) the scientific or educational benefits of the work, (c) the potential risks to the participants, (d) the investigator responsible (must be a faculty member), and (e) a clear statement of the research methodology.
2. Provide copies of (a) all standardized tests to be used, (b) any questionnaires to be administered, (c) any interview questions to be asked.
3. Provide copies of consent forms (one form for each different class of subjects). If the subject is a minor (under 18), parental permission must be obtained in writing. The consent form should contain (a) the researcher's name, (b) the title of the project, (c) a statement about whether or not the results will be anonymous (and if not, what will be done to protect the subject's confidentiality), (d) a brief description of what the subject will be asked to do, with this statement indicating in a general fashion what risks are involved, and what procedures either will be employed or have been employed. If the consent is obtained after the data have been collected, it must include a release for the researcher to include the data in any subsequent analysis. If no consent form is possible, the general description above (1) must include a justification for that procedure.
4. Describe the intended participants, the procedures that will be used to recruit those subjects, any payments for participation that will be provided, and an indication of whether the results will be made available to interested subjects (and a description of how that will be accomplished).
5. Will the subjects be: (check one)
 yes ___ no (a) fully informed.
___ yes ___ no (b) partially informed.
___ yes ___ no (c) deceived.
6. Will subjects be told that they may terminate participation at any time?
 yes ___ no
Will subjects be informed that they may refuse to respond to particular questions or refuse to participate in particular aspects of the research?
 yes ___ no
7. Does the research involve any physically intrusive procedures or pose a threat to the subjects' physical health in any way? If so, please explain.

No

Proposal for Research with Human Subjects

Page 2

8. Will the research involve:

- yes no (a) physical stress or tissue damage?
 yes no (b) likelihood of psychological stress (anxiety, electric shock, failure, etc.)?
 yes no (c) deception about purposes of research (but not about risks involved)?
 yes no (d) invasion of privacy from potentially sensitive or personal questions?

If any of the above is involved, explain the precaution to be taken. Also, if any of the above is involved and the research is conducted by a student, explain how the faculty advisor will supervise the project.

9. If any deception is involved, explain the debriefing procedure to be followed.

RESEARCH ABSTRACT

Name: Everett McLaren, M. ED. A.C.G.S.
Title: Psychologist, Behavioral Services Unit
Address: 2300 Wedgewood Avenue, Richmond, Virginia 23228
Phone Number: (W) (804) 746-2135 (H) (804) 266-1431

Project Title: The Short Term Effects of a Developmentally Oriented Substance Abuse Prevention Program with Incarcerated Youth.

Statement of Purpose: The purpose of this research is to provide a group experience to a population of incarcerated youth which addresses the problems of chemical use. This population is considered a high risk population regarding their potential for use or abuse of drugs and alcohol. This program is based on the concept of developmental skills. The objective of this research is to answer the question of whether a prevention program based on the concept of developmental skills can cause significant change in the knowledge of alcohol and drugs and in the ratings of self concept of the youth in the study, and in evaluation of those youth by staff using ratings of personality and adaptive behavior.

Methodology and Statistics: A post test only control group design will be used in this study. The subjects will be selected at random from the population at Barrett Learning Center. Participation in the study is voluntary and written consent will be obtained prior to the beginning of the project. Only subjects who have entered the Learning Center population within 90-days from the start of the project are eligible for the study. Those students who have agreed to participate in the study will be then randomly assigned to either the experimental or a control group. There will be eight subjects in each group. There will be two experimental groups which will run consecutively. A total of twenty-four youth will be involved in the study. Students in the experimental group will participate in the Developmental Skills Drug Abuse Prevention Program. This is a ten session program which will meet twice weekly for five weeks. At the completion of the program students in the control and experimental groups will complete an alcohol and drug knowledge inventory, and the Piers-Harris Children's Self Concept Scale. Also at the completion of the program, the institutional counselors who work with the subjects will evaluate them using the Adaptive Behavior Scale and with the Adjective Checklist. Also at the end of the program the weekly points earned totals will be computed as a pretest - post test change score and the scores of the control and experimental groups will be compared. The T-Test will be used to assess the difference between the control group and experimental groups.

Project Timetable: Four months, beginning November 1, 1981 and ending February 28, 1982.

Nature of Departmental Resources Required: Access to Barrett population, permission to conduct research, and the complete ten session proposed Prevention Programs. Also, the evaluation of the subjects by the institutional counselors at the completion of the program will be necessary. This evaluation will require approximately fifteen minutes per subject of the counselor's time.

Everett McLaren

Addendum to Research Abstract:

Issue of Potential Risk:

The study uses non-specific intervention strategies based on the concept of developmental tasks. The individual strategies and the total program involve minimal risk to the participants. There are no strategies or procedures used which subject the participants to undue stress or conflict. The subjects are fully informed as to the nature of the study and are free to terminate from the study at any time. The ten session program is designed to be supportive and educational in nature.

Scientific and Educational Benefits of the Research:

The use of a developmental skills approach to prevention in an organized and structured manner is unique to this study. While the use of such a model has been suggested, there appear to be no reports of the use of such a model in the literature.

The targeted population, a population of incarcerated youth, can be considered a high risk population for use or abuse of chemicals. The unique population and strategy of this project offer the potential to evaluate the use of a developmental skills model to prevention in a population considered at risk for abuse of chemicals. There are few reported interventions targeted toward this type of population at risk.

Investigator Responsible:

Charles Matthews, Ph.D. of the Department of Counseling, the School of Education is the chairman of my doctoral committee and will be supervising the research.

Participants:

The participants in the study are youth, young adolescent males, who are committed by the courts to the Department of Corrections. The subjects in this study are those youth who have been placed at Barrett Learning Center, Hanover, Virginia. Those students who have entered the Barrett population within ninety days of the start of the project are eligible. Students will be selected at random and then randomly assigned to either treatment or control groups. Participation in the study is voluntary and consent of the participants will be obtained prior to the start of the project.

Appendix F
DRUG & ALCOHOL INVENTORY

1. How often do you and your friends talk about drugs or alcohol? (check one)

- 1. about every day
- 2. once or twice a week
- 3. once or twice a month
- 4. never or hardly ever

2. From which of the following sources have you learned most of what you know about drugs and alcohol? (check only one)

- 1. brothers or sisters
- 2. parents
- 3. best girl friend
- 4. best male friend
- 5. other friends
- 6. school
- 7. TV, radio, newspapers
- 8. your own experience with drugs

TRUE/FALSE: Circle the correct response.

- 3. Drinking is safer than taking drugs. True False
- 4. A person's mood can influence the way alcohol and other drugs effect him or her. True False
- 5. Alcohol has the same effect on the mood as an upper or stimulant drug. True False
- 6. Some people are better drivers after they drink or do drugs because they drive more carefully. True False
- 7. Alcohol is not an addicting drug. True False

Check the right answer for each of the following questions.

8. Eating a healthy diet is important for:

- 1. growing
- 2. staying healthy
- 3. being fit, achieving total fitness
- 4. all of the above

9. Cocaine is what kind of drug?

- 1. a depressant or "downer"
- 2. a stimulant or "upper"
- 3. a narcotic

10. A Tolerance to a drug means that:

- 1. it takes less of the drug to get high
- 2. it takes more of the drug to get high
- 3. you can never get high, no matter how much of the drug you take

11. If two people take the same amount of a drug, it will:

- 1. effect them both in the same way
- 2. effect each one in different ways

12. Addiction to a drug happens when:

- 1. a person feels good when they do not get the drug
- 2. a person decides that they want to use a drug another time, or all of the time
- 3. a person is dependent on that drug and physically gets sick when he can't get the drug

13. Marijuana is what kind of drug?

- 1. a stimulant
- 2. a depressant
- 3. a narcotic
- 4. a mild hallucinogen

14. Cigarettes have the drug nicotine in them, it is:

- 1. an addicting drug
- 2. a safe drug
- 3. a depressant drug

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Abstract

THE SHORT TERM EFFECTS OF A DEVELOPMENTALLY BASED SUBSTANCE ABUSE PREVENTION PROGRAM WITH INCARCERATED YOUTH

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The purpose of this study was to provide a group experience to a high risk population which addressed the problems of chemical use. The study attempted to evaluate the impact of a developmentally focused prevention program on the range of developmental skills in a population of high risk youth.

The subjects for this study were drawn from a population of young adolescent boys who had been committed to the State Department of Corrections and placed at Barrett Learning Center. Subjects were randomly selected from those youth who entered the institutional population between November 1, 1981 and February 1, 1982.

Twenty-four subjects were randomly selected from the population and randomly assigned to one of three groups, two treatment groups and a control group. The subjects in the treatment groups participated in the developmental skills program, the eight subjects in the control group received no treatment other than participation in the regular program of the institution.

It was hypothesized that the subjects who had completed the developmentally oriented prevention program would show a greater knowledge of alcohol and drugs, would show greater gains in self concept; would exhibit a greater frequency of appropriated interpersonal behaviors as reflected in ratings by the institutional counselors using the Adaptive Behavior Scale and selected scales of the Adjective Checklist, and would show greater improvements in overall adjustment to institutionalization than those subjects in the control group.

It was concluded that the subjects who participated in the developmental skills program demonstrated a greater understanding of basic information on the effects of alcohol and other drugs than those subjects in the control group. A significant difference was found in ratings by counselors of the subjects on Domain 15- Mannerisms of the Adaptive Behavior Scale. The data did not support the other hypothesis conclusively.

Further study is recommended to evaluate the relative effectiveness of this model of prevention in comparison with other selected prevention models. Evaluation of the long term effects of the program, the application of this program to other high risk populations of youth, and additional suggestions for further research are proposed.