An Experimental Study of the Effects of a Prescriptive Mental Health Consultation Approach on the Adjustment of Children Enrolled in the Blue Water Head Start Program St. Clair County, Michigan

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by

Michael J. Duffy, Jr.

A Dissertation Submitted to the Faculty of The Graduate College in partial fulfillment of the requirements for the Degree of Doctor of Education Department of Educational Leadership

Western Michigan University Kalamazoo, Michigan April 1986
AN EXPERIMENTAL STUDY OF THE EFFECTS OF A PRESCRIPTIVE MENTAL HEALTH CONSULTATION APPROACH ON THE ADJUSTMENT OF CHILDREN ENROLLED IN THE BLUE WATER HEAD START PROGRAM
ST. CLAIR COUNTY, MICHIGAN

Michael J. Duffy, Jr., Ed.D
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Head Start mental health services have the goal of primary prevention. The principal vehicles for achieving primary prevention are education and consultation. In St. Clair County, Michigan, the Blue Water Clinic's Early Intervention Program provides Blue Water Head Start participants with mental health services.

This study was concerned with mental health consultation as a service delivery vehicle for achieving the goal of primary prevention. More precisely, aspects of primary prevention were investigated particularly as they relate to the Blue Water Clinic's Early Intervention Program and the Blue Water Head Start Program and specifically, to two mental health consultation approaches used with Blue Water Head Start teachers.

The purpose of this experimental study was to investigate the effect of a prescriptive approach to mental health consultation on the adjustment of preschool children enrolled in the Blue Water Head Start Program, St. Clair County, Michigan. It was hypothesized that there would be a difference in adjustment between groups of Head Start children whose teachers were exposed to a prescriptive approach as opposed to those who were exposed to a traditional non-
prescriptive approach to mental health consultation.

Adjustment was measured by changes in adjustment ratings on the Child and Adolescent Adjustment Profile (CAAP). CAAP data were collected by 14 Head Start teachers on 196 children enrolled in the 1984-85 Blue Water Head Start Program.

Results of the hypothesis testing indicated that there were differences in measured adjustment of preschool children between the two mental health consultation approaches. The prescriptive consultation approach was less effective in producing positive change in adjustment than the non-prescriptive approach in the areas of peer relations and hostility.
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CHAPTER I

INTRODUCTION

The purpose of this study was to investigate the effect of a prescriptive mental health-consultation approach on the adjustment of preschool children enrolled in the Blue Water Head Start Program, St. Clair County, Michigan. It was hypothesized that there would be a difference in adjustment between groups of Head Start children whose teachers were exposed to a prescriptive as opposed to a traditional non-prescriptive approach to mental health consultation.

Background Information

Head Start is an early intervention program which serves low income families with preschool children. Head Start's approach to intervention is ecological, comprehensive, and focuses on the prevention of maladaptive adjustment in later life. There is a concerted effort to have an impact on every aspect of the preschool child's environment to help maximize the child's potential for adjusting adequately to later school and community life experiences. This effort is achieved through the coordination and integration of Head Start program components.

Blue Water Head Start (BWHS) program components include Social Services, Health, Parent Involvement, Education, Special Needs, and Mental Health. Mental health services are provided BWHS by the Early Intervention Program (EIP) of the Blue Water Clinic (BWC), Port
The EIP began, in 1978, as an agreement to commit the services of a BWC psychologist four hours per week to working with the BWHS program. Funding from the Innovation and Demonstration Division of the Michigan State Department of Mental Health in 1980 allowed an expansion of services through the St. Clair County Community Mental Health Services Board and the BWC in the form of the Early Intervention Demonstration Project (EIDP) with five full time staff. The demonstration portion of the project ended in the summer of 1982 concomitant with other general Michigan State Department of Mental Health funding reductions and culminated in an unpublished manuscript Early Intervention Demonstration Project: A Replication Manual (1982). The Early Intervention Program was continued at a reduced staffing level with funding from the St. Clair County Community Mental Health Services Board and Blue Water Head Start. At the time of this writing, the EIP consisted of two full time staff.

The EIP furnishes mental health prevention services to BWHS. Mental health prevention services have the purpose, according to Caplan (1964), of reducing "(1) the incidence of mental disorders of all types in a community ('primary prevention'), (2) the duration of a significant number of those disorders which do occur ('secondary prevention'), and (3) the impairment which may result from those disorders ('tertiary prevention')" (pp. 16-17). Lapides (1978) elaborated on the concept of primary prevention as the fostering of optimal levels of adjustment and the thwarting of possible obstacles to normal development. Mental health activities designated primary
prevention include the delivery of mental health education and consultation services. Mental health primary prevention services for Head Start staff and parents have the goal of facilitating optimal levels of social-emotional growth in children enrolled in Head Start (Lapides, 1978). Mental health consultation and education activities are mandated by and EIP services are designed to conform to the federal Performance Standards for Head Start (U.S. Department of Health & Human Services, DHHS Publication No. OHDS 84-31131, 1975).

Head Start's Performance Standards have always provided for mental health services with an emphasis on primary prevention. The objectives as they appeared in the Performance Standards (U.S. Department of Health & Human Services, OCD-HS Head Start Policy Manual, Publication No. OHDS 81-31131, 1984) were as follows:

(a) assist all children participating in the program in emotional, cognitive and social development toward the overall goal of social competence in coordination with the education program and other related component activities;

(b) provide handicapped children and children with special needs with the necessary mental health services which will ensure that the child and family achieve the full benefits of participation in the program;

(c) provide staff and parents with an understanding of child growth and development, an appreciation of individual differences, and the need for a supportive environment;

(d) provide for prevention, early identification and early intervention in problems that interfere with a child's development;

(e) develop a positive attitude toward mental health services and a recognition of the contribution of psychology, medicine, social services, education and other disciplines to the mental health program; and

(f) mobilize community resources to serve children with problems that prevent them from coping with their
environment. (pp. 33-34)

This study was concerned with aspects of primary prevention particularly as they relate to the Blue Water Clinic's Early Intervention Program and the Blue Water Head Start Program and specifically, to two mental health consultation approaches used with Blue Water Head Start teachers.

MacLennan, Quinn, and Schroeder (1975) defined mental health consultation as:

the provision of technical assistance by an expert to individual and agency caregivers related to the mental health dimensions of their work. Such assistance is directed to specific work-related problems, is advisory in nature, and the consultant has no direct responsibility for its acceptance and implementation. Consultation is offered by a mental health specialist either to other mental health workers less knowledgeable in some aspect of mental health, or to specialists in other fields who need assistance in the management of mental health and human relations problems. (pp. 4-5)

In this study the purpose of mental health consultation to Head Start teachers was to achieve improvement in the adjustment of children enrolled in the Blue Water Head Start Program. EIP mental health consultants were to accomplish improvement in adjustment in the children through the "spread-of-effect phenomenon" described by Shore and Mannino (1983). This phenomenon may be operationally expressed as follows: "change in the behavior of a consultee, such as a teacher, will spread to others in the consultee's social environment through the consultee's interactions and interrelationships" (p. 120). In other words, mental health consultation with the Head Start teacher was expected to produce change in the teacher's behavior which would in-turn produce
improvement in the measured adjustment of the children in the
teacher's classroom as a result of the teacher's interactions with
the children.

For the purpose of this study consultant refers to the mental
health consultant, specifically EIP staff. Consultee refers to the
Head Start teacher. The client is the child enrolled in the Head
Start program. It is the adjustment of the Head Start child that was
the dependent variable and the target for change in this study. In
this investigation mental health consultation was the vehicle by
which primary prevention was accomplished with the goal of
facilitating optimal levels of social-emotional growth or adjustment
in children enrolled in Blue Water Head Start.

The emphasis on primary prevention as outlined in Head Start's
Performance Standards was considered, in 1965 the year of Head
Start's inception, to be an innovative approach to the delivery of
mental health services. Previously, the emphasis had been on
secondary or tertiary prevention and, consistent with that emphasis,
the accepted and preferred method for the delivery of mental health
services had been to diagnose and treat children individually
(Weinberg, 1983). Shore and Mannino (1983), gave a rationale for the
potential positive contributions of primary prevention, consultation
services over the traditional 1:1 ratio of mental health counselor to
client. They contended that consultation was an effective method for
making important changes in the environment which enhance or
facilitate social functioning or adjustment with a limited number of
mental health personnel.
The primary prevention mental health activities of education and consultation permits mental health personnel to maximize the number of children served. That is, mental health personnel can reach every family enrolled in a Head Start program when mental health education and consultation activities directed at Head Start parents and staff are the focus of service delivery. If secondary or tertiary prevention were the emphasis in the delivery of mental health services only those children who could be seen for mental health counseling would be serviced. The significance of the difference in number of families benefiting from mental health services might be best understood with an example. In a program like the EIP, if only secondary or tertiary prevention services were delivered to Blue Water Head Start families, only 22 families would benefit from mental health services each year. In contrast, a primary prevention emphasis on mental health service delivery allows all enrolled families have the benefit of mental health services or approximately 243 families per year at the time of this writing.

Since this study was concerned with mental health consultation as a service delivery vehicle for achieving the goal of primary prevention, what follows is to establish the value of mental health consultation services and the need for more research regarding the most efficacious methods for conducting mental health consultation.

McClung and Stunderi (1972), in a review of the literature and a study of existing mental health consultation programs for children, found that there was a predominant preference for use of the medical model, that is, the mental health consultant was conceived of as a
trainer for others in the treatment of already maladjusted children. They also found that many consultants were of the opinion that the medical model was not appropriate for consultation purposes. As early as 1968, Bonkowski expressed the opinion, as a result of his experiences consulting with Head Start staff, that there were no models of consultation existing that provided effective guidance for mental health consultants to Head Start. Bonkowski concluded that "what was needed was a comprehensive theory of the social environment and its effects on behavior" (p. 772). Thus, there was early recognition of the need for mental health consultation model and theory development for consultation services for children especially for Head Start children.

What has been reported in the literature generally supports the contention that mental health consultation results in positive outcomes. However, a number of authors have noted the paucity of empirical support for this contention (Bergan & Tombari, 1976; Curtis & Watson, 1980; Hodges & Cooper, 1983; Mannino & Shore, 1975; Meyers, Pitt, Gaughan, & Freidman, 1978). Even the most authoritative, thoughtful, and well-respected works on mental health consultation, which might be used as references for practitioners and for training, lack empirical support. If the mental health consultation field is to mature and became a valued, indispensable service delivery modality, further experimental and field research will be required (Bergan & Tombari, 1976).

Some investigators have examined consultation as a service delivery vehicle for achieving primary prevention from the
Bergan and Tombari (1976) stated that: "Experimental research assessing the effects of training on such variables as consultant flexibility in the application of psychological principles, content relevance, interview focus, verbal processes used during consultation, and message control was also sorely needed" (pp. 12-13). Furthermore, Tombari and Bergan (1978) indicated a need for expansion of research on the effects of verbal cueing in consultation. Jason, Ferone, and Anderegg (1979), in a discussion of approaches to consultation, stated that:

Given the plethora of consultation approaches and the increasing prevalence of their use, a patent need exists to comprehensively evaluate effectiveness of disparate consultation approaches in bringing about salutary changes in problem children at risk for later life difficulties. (p. 104)

Significance of the Study

The Early Intervention Demonstration Project was considered successful. Had additional funding been available at the conclusion of the project it was thought that a next worthy demonstration would be to develop a prescriptive approach to mental health consultation and a complimentary training program for Head Start staff. A prescriptive approach to consultation would lend itself readily to replication (B. Tableman, personal communication, December 21, 1982). Mental health programs which focus on primary prevention have historically been vulnerable to funding cuts. In times of financial
hardship legislators and administrators have traditionally been reluctant to continue financially supporting primary prevention programs at the expense of traditional secondary or tertiary prevention, counseling programs. Shore and Mannino (1983) listed six reasons for these funding problems. First, the illness model or the treatment of mental illness has traditionally had funding priority over services focusing on the prevention of mental illness. Concomitantly, there has been a lack of national commitment to the prevention of mental illness and promotion of mental health. Second, there were, as of then, limited numbers of training programs and skilled practitioners available for the delivery of quality primary prevention services. Third, conducting research regarding the outcome of primary prevention services was innately more difficult than on secondary or tertiary prevention services. In this vein, measurement, methodological, and conceptual issues remain unresolved. Fourth, when budgetary reductions have had to be dealt with there has been a tendency to cut local primary prevention or consultation/education services in order to continue funding more conventional and accepted direct mental health counseling services. Fifth, potential consumers of consultation services are frequently not in a position to pay for the services. Legislators and administrators who may not be cognizant of the need and possible organizational benefits of mental health consultation services must be convinced to provide funding for primary prevention services. Sixth, insurance companies reimburse for direct treatment of mental illness rather than indirect or primary prevention services.
Mannino and Shore (1975), in a review of the literature from 1958 to 1972, suggested that more research was needed in the area of mental health consultation and that "the more we can delimit the population studied, specify the activities performed, and use multilevel outcome variables (client, consultee and system levels), the more meaningful, and therefore more valuable, the results" (p. 44).

This study was designed to conform to Mannino and Shore's recommendations for design in that: (a) the population used in the study was delimited, (b) two consultation approaches were examined, and (c) the outcome variables were measured.

Statement of the Problem

The preceding discussion supports the need for further research in primary prevention. Though difficult, research regarding the effects of consultation is possible.

This study examined two consultation approaches to primary prevention. More specifically, the question addressed in this study was: Did mental health consultation approach, that is, prescriptive or non-prescriptive, lead to differences in the measured adjustment of preschool children, enrolled in the 1984-85 Blue Water Head Start Program, over the course of the year?

Limitations of the Study

The study was limited to an examination of the effects of two consultation approaches on the population of children served by the
Blue Water Head Start Program, St. Clair County, Michigan. The study sample was limited by the number of enrolled children eligible for inclusion in the investigation, therefore the results of the study may not apply to other children using similar consultation approaches. The results of this study may only be generalized to the Blue Water Head Start Program.

This study did not examine teacher response to, perception of, or satisfaction with mental health consultation. These variables may have a bearing on student adjustment.

Teacher characteristics and mental health consultant characteristics may interact with mental health consultation approach and thereby affect student adjustment. Teacher and mental health consultant characteristics were not addressed in this investigation.

This study did not examine teacher-student interaction or actual teacher implementation of plans developed through consultation. Teacher-student interaction and how or whether teachers implement plans developed through consultation may have an effect on student adjustment.

Adjustment may encompass many measureable variables. In this study adjustment was measured only in the areas of peer relations, dependency, hostility, productivity, and withdrawal.

The time of the year data were collected may be a limitation and influence measured adjustment level, however, data were collected on a fixed schedule predetermined by Blue Water Head Start for general student evaluation.
Definitions

What follows are definitions for some terms as they were used in this investigation.

Adjustment. Hansen and Himes (1980) described adjustment as follows:

an individual's general adaptation to his or her environment and the demands of life - including the way that he or she relates to other people, handles responsibilities, deals with stress, and meets personal needs. It is not a static condition; since life is constantly changing, the ability to revise attitudes and behavior is an essential ingredient in adjustment. (p. 47)

Client. For the purpose of this study, the clients were the Blue Water Head Start children whose adjustment was measured for change.

Consultant. For the purpose of this study, the consultants were the Early Intervention Program staff members who provided mental health consultation to Blue Water Head Start teachers.

Consultee. For the purpose of this study, the consultees were the Head Start teachers receiving mental health consultation regarding their students.

Environment. For the purposes of this study, the environment was primarily the Head Start classroom. Generally, preschool children have two major environments, the home environment and the classroom environment.

Mental Health Consultation. MacLennan, Quinn, and Schroeder (1975) defined mental health consultation as:

the provision of technical assistance by an expert to individual and agency caregivers related to the mental health dimensions of their work. Such assistance is directed to specific work-related problems, is advisory in
nature, and the consultant has no direct responsibility for its acceptance and implementation. Consultation is offered by a mental health specialist either to other mental health workers less knowledgeable in some aspect of mental health, or to specialists in other fields who need assistance in the management of mental health and human relations problems. (pp. 4-5)

Prevention. Prevention is the reduction of "(1) the incidence of mental disorders of all types in a community ('primary prevention'), (2) the duration of a significant number of those disorders which do occur ('secondary prevention'), and (3) the impairment which may result from those disorders ('tertiary prevention')" (Caplan, 1964, pp. 16-17).

Overview of the Study

In the next chapter a review of selected literature related to the study is presented and hypotheses are developed. Subsequent chapters give details of the design, instrumentation, methodological procedures, data analysis, results, and conclusions.
CHAPTER II

REVIEW OF SELECTED RELATED LITERATURE

Introduction

This study was concerned with mental health consultation as a service delivery vehicle for achieving the goal of primary prevention. According to Caplan (1964), primary prevention is the reduction of "the incidence of mental disorders of all types in a community" (p. 16). More precisely, aspects of primary prevention were investigated particularly as they relate to the Blue Water Clinic's Early Intervention Program and the Blue Water Head Start Program and specifically, to two mental health consultation approaches used with Blue Water Head Start teachers. The following review of selected and related literature provides a basis for an understanding of (a) primary prevention, (b) the development of mental health consultation as a vehicle for achieving the goal of primary prevention, and (c) the variables involved in this investigation.

Historical Overview

Interest in promoting mental health and preventing or reducing the incidence of mental disorders through environmental intervention can be traced to the early nineteenth century. At the time, American psychiatrists held the belief that environmental factors influenced
the mental health of individuals. Consequently, these psychiatrists began attempting to manipulate the environments of their hospitals and communities to enhance the mental health of hospital and community residents and reduce the incidence of mental disorders (Caplan, 1969).

This belief in the effect of environmental factors on the mental health of individuals was supported by the general thought at the time and was reflected in the literature of the day. Authors such as Sir Walter Scott, Dostoevski, Balzac, Dickens, and others wrote of the environment in a manner suggesting that it profoundly influenced the characters in their works (Caplan, 1969).

By the early twentieth century, recognition was being given to the idea that the overall reduction of the incidence of mental disorders in the community could be greatly augmented in the long term by focusing efforts on institutions serving children. Participants in the child guidance movement of the 1920s acknowledged the need for mental health consultation to schools and other institutions which were viewed as contributors to the adjustment problems of children. It was thought that mental health consultation on behalf of children would help institutions function more effectively and thus contribute positively to the mental health of the children they served. "For many reasons, however, the movement later oriented itself toward clinical treatment, and efforts to influence community agencies lost momentum" (Mannino & Shore, 1979, p. 99).

Revival of interest among mental health professionals in
providing mental health consultation to schools and other institutions serving children did not occur until the 1950s. Major contributors to this renewed interest were Caplan and Berlin.

The form that mental health consultation took at that time was really not different from mental health counseling services. According to Kurpius and Robinson (1978) "during the late 1940s to early 1950s, consultation was viewed as a direct service to clients or to client systems" (p. 321). The consultant was called upon to deal directly with the most complex problems presented by clients. In other words, the consultant served merely as a provider of mental health counseling to those clients who presented the most difficult problems. This approach did not enhance the consultee's ability to provide service to clients more effectively, it just allowed the consultee to provide services to clients with problems of lesser difficulty.

Consultation evolved through the 1950s and "it was recognized that it would be beneficial to include the consultee in the problem-solving process. Such inclusion would increase the consultee's ability to solve similar problems in the future" (Kurpius & Robinson, p. 321). This evolution was an important step in the direction of providing primary prevention services. The mental health consultant was beginning to be utilized in a manner that would maximize the number of clients benefiting from the consultation service. That is, as consultee ability increased there was a decreased need for consultant time and yet all the clients serviced by the consultee reaped the benefit of the consultee's increased ability.
The evolution of mental health consultation was given great impetus by federal legislation passed in the early 1960s. Priority was given to the development of consultation by legislation passed during the Kennedy administration. President Kennedy's advocacy for a change in mental health care from primarily institutional care to preventive community efforts culminated in the Community Mental Health Centers Act of 1963. This Act mandated a public health approach to "community planning for comprehensive programs to include prevention, treatment, and rehabilitation of mental disorders and to be coordinated with other community programs in the health and welfare fields" (Caplan, 1964, p. 10). In spite of this federal mandate acceptance of mental health consultation as a viable, legitimate approach to mental health service delivery has been slow in coming. Hodges and Cooper (1983) explained:

Orientation toward one-to-one psychotherapy as a way of handling a community's mental health problems has so embued our society that mental health professionals and community leaders have been reluctant to develop consultation services when the 'real' (familiar) intervention is available. Funding has been difficult when community members receive service only indirectly. Gerald Caplan's book (1970) formed the early organization of consultation. . . . Although some recent writings have gone beyond this conceptualization, most are summaries of Caplan's models. Conceptual development since that time has grown by bits and pieces. (p. 19)

Thus, although legislation has been passed mandating community mental health prevention services, local support and full development of these services, has not been generally realized. Furthermore, conceptual development of mental health consultation has remained sporadic since the early 1970s. Nevertheless, what mental health
consultation services have been developed have been associated with activities such as training, education, collaboration, and facilitation of the problem-solving process according to Kurpius and Robinson (1978).

This study was concerned with mental health consultation as a service delivery vehicle for achieving the goal of primary prevention with a Head Start program. Head Start is a federally funded program for low-income families with preschool children. As such, federal mandates for services are less affected by reluctance at the local level to deliver those services. Therefore, local Head Start programs may have a greater incentive to actually implement mandated mental health prevention services than has been realized in Community Mental Health programs or public schools.

Psychiatric or mental health consultation for Head Start teachers has been considered essential since Head Start's inception in 1965 (Brown, 1966). This emphasis was spawned by the growing interest in the early 1960s in prevention generated by the pioneering efforts of Caplan et al. (1961). Federal performance standards developed for Head Start included a mandate for mental health consultation services (U.S. Department of Health & Human Services, Publication No. OHDS 81-31131, 1975). These standards only generally outline what and how services are to be provided. A demonstration project that exemplified the detailed implementation of mental health prevention services in Head Start was The Child and Family Mental Health Project.

A national demonstration project, The Child and Family Mental
Health Project (CFMH), was developed and implemented in 1977 under an HEW contract (Lapides, 1978; Stone et al., 1982). The project serviced all children enrolled in designated Head Start programs (14 nationwide). Consistent with the notion of primary prevention, Stone et al. list project goals as follows:

Increasing emotional and social competence, coping skills, and positive self-concepts. . . . The expectation that these abilities will help the children to cope with environmental challenges and attendant stresses, and will serve a preventive mental health function through decreasing the children's vulnerability to subsequent stress. (p. 360)

Services provided by this program included orientation for staff and parents, training for staff, consultation for administrative and teaching staff, educational activities for parents, and counseling/crisis intervention for parents. Stone et al. reported that 50% of staff time was allocated to consultation for education staff.

Though a great deal of research has been conducted on the effects of Head Start on children and families served by the program, little research has been conducted on mental health services; especially in the area of mental health consultation. The Head Start Evaluation, Synthesis, and Utilization Project published its report (McKey et al., 1985), *The Impact of Head Start on Children, Families and Communities*, in June of 1985. The project collected 1,600 documents and analyzed 210 research reports on the effects of Head Start on children, families, and communities. The Executive Summary of this report states:

This project is distinguished from other reviews of the
Head Start evaluation literature in two ways. First, it includes all Head Start research, both published and unpublished, rather than focusing on a subset of studies related to a specific topic. Second, when possible it used the statistical technique known as "meta-analysis" to produce numerical estimates of Head Start's effects. (p. 1)

In the section of the Executive Summary devoted to Head Start's impact on the mental health on children, the report states "Although Head Start programs are required to include a mental health component, no studies were located that evaluate the effect of mental health services" (p. 15). Because of the paucity of reported research on mental health services in Head Start, most of the research reviewed for this study involved elementary school teachers and students.

Mental Health Consultation

This study investigated mental health consultation as a method for achieving primary prevention in Head Start program. Therefore, what follows will focus on mental health consultation.

Definition

MacLennan, Quinn, and Schroeder (1975) defined mental health consultation as:

the provision of technical assistance by an expert to individual and agency caregivers related to the mental health dimensions of their work. Such assistance is directed to specific work-related problems, is advisory in nature, and the consultant has no direct responsibility for its acceptance and implementation. Consultation is offered by a mental health specialist either to other mental health workers less knowledgeable in some aspect of mental health, or to specialists in other fields who need assistance in
the management of mental health and human relations problems. (pp. 4-5)

Berlin (1979) described the mental health consultation as basically problem-solving. An attempt is made to understand problematic behavior through the gathering of data, the generation of interventions, and the testing of those interventions.

Bergan and Tombari (1975) specified the four stages involved in mental health consultative problem-solving: problem identification, problem analysis, intervention, and evaluation. Problem identification entails specifying in behavioral terms a disparity between desired and observed performance and the measurement method to be used in assessing the status of the problem. Problem analysis is comprised of problem validation, identification of factors likely to have an impact on solution of the problem, and development of a plan for problem solution. Intervention is the stage in which the plan is implemented by the consultee. Problem evaluation refers to an assessment of the efficacy of the plan and whether resolution of the problem was attained. Bergan and Tombari's formulation served as the basis for the consultation approaches used in this investigation.

Consultation and Problem-Solving

Several studies have been based on Bergan and Tombari's (1975) description of the stages of mental health consultative problem-solving. In a study involving 806 elementary school children and 11 psychologist consultants Bergan and Tombari (1976) found that if problem identification was successfully accomplished, "problem
solution almost invariably resulted" (p. 12).

Using 24 volunteer classroom teachers and eight volunteer consultants, Curtis and Watson (1980) studied the effect of high and low consultant problem identification skill on teacher problem-solving. The results indicated that:

Teachers who worked with high-skilled consultants did improve significantly more in problem clarification skills following consultant contact than did the teachers who had worked with low-skilled consultants or those in control group who had no consultant contact during the experimental period. (p. 219)

An additional finding was that high-skilled consultants spent nearly twice as much time with their teachers than did low-skilled consultants.

These two studies indicate the importance of accurately clarifying and identifying the problem in the Problem Identification stage of mental health consultative problem-solving.

This investigation dealt with the Problem Analysis stage of mental health consultative problem-solving. The two consultation approaches used in this study differed in the way the Problem Analysis stage was executed. One approach used a prescriptive method and the other approach used a non-prescriptive method for developing a plan for solution of the identified problem. The review that follows focuses on the issues of prescription and non-prescription.

**Prescription/Non-Prescription**

**Prescription**

Blanco (1977), asserted that "Although school psychologists and
related professionals are often remarkably expert in diagnosis, they frequently have difficulty in formulating treatment plans. All too often recommendations are stereotyped, nonindividualized, intangible, and irrelevant" (p. 62). Blanco perceived the need for a manual of prescriptions which could be used for training students and by practitioners as a resource for making remedial recommendations. He surveyed Division Sixteen, School Psychology, members of the American Psychological Association and obtained 3,700 remedial recommendations which he used to write the first edition of *Prescriptions for Children With Learning and Adjustment Problems* (1972). Blanco refined and updated this work in light of subsequent prescriptions reported in the literature for the second edition (1982). Others have compiled similar works, an example is *A Taxonomy of Prescriptive Interventions* by Calvin D. Catterall (1977) in 1970.

These two documents served as resources for consultants in this study when applying the prescriptive mental health consultation approach. In the prescriptive approach consultants prescribed solutions to identified classroom problems to teachers.

The prescriptive approach to mental health consultation as used in this study has been called a behavioral approach or expert model in the literature. In this approach the consultee "abdicated some degree of control by admitting that he or she does not know what is wrong . . . and implicitly commits himself or herself to accepting some kind of prescription or remedial course of action" (Schein, 1978, p. 339).
Non-Prescription

Non-prescription, for the purposes of this investigation and as it relates to mental health consultation, refers to the avoidance of giving specific recommendations to the consultee or teacher for intervention with a client or client group. This approach and similar approaches have been termed in the literature variously as mental health consultation and process consultation. Consultants using this approach to mental health consultation interact with the consultee by "reflecting the consultee's feelings, supporting their efforts, and clarifying issues so as to enhance consultee skill and objectivity" (Medway & Forman, 1980, p. 338).

Differences Between Prescription and Non-Prescription

A number of authors have investigated and/or written about the differences between consultation models or approaches. Woody (1975), in a survey of consultants trained via Caplan's process model or a behavioral model, demonstrated that process trained consultants could be distinguished from behavioral consultants based on their perceived use of response types and by factors they attribute to desired change. He concluded that process and behavioral consultation are two distinct consultation models as perceived by their respective supporters. Woody was careful to point out that his conclusion resulted from the subjective responses of the subjects involved in his survey.

Medway and Forman (1980) asserted that "Two of the most widely
followed approaches to individual (as opposed to group or systems) consultation are mental health consultation and behavioral consultation" (p. 338). Medway and Forman elaborated on these approaches and indicated that the mental health approach was most closely associated with the works of Caplan. There is, in the mental health approach, a strong reliance on principles derived from client-centered counseling. Therefore, consultants using the mental health approach interact with the consultee by "reflecting the consultee's feelings, supporting their efforts, and clarifying issues so as to enhance consultee skill and objectivity" (p. 338).

Reschly (1976) identified three principal consultation models: mental health, organization development, and behavioral. He noted some distinctions between these approaches and characterized mental health consultation as (a) stemming from personality theory, (b) the consultant is the change agent, (c) the consultant-consultee relationship is democratic, and (d) the primary goal is to help the consultee overcome deficiencies. Behavioral consultation interventions, though mutually agreed upon, are generally suggested by the consultant and the consultee is considered the change agent.

A proponent of process consultation, Schein (1978), also advanced a discussion on the differences between what is termed in this investigation prescriptive and non-prescriptive consultation. He used the terms expert model and process model to describe the two approaches. One form of the expert model Schein characterized as "doctor-patient" in which "the client abdicates some degree of control by admitting that he or she does not know what is wrong . . .
and implicitly commits himself or herself to accepting some kind of prescription or remedial course of action" (p. 339). One variant of the process model Schein described as the:

facilitator model where the consultant may have ideas and possible solutions of his or her own but for various reasons decides that a better solution and better implementation of that solution will result if he or she withholds his or her own content suggestions and, instead consciously concentrates on helping the group or client system to solve their own problem. (p. 339)

Thus the behavioral consultant acts as expert and tends to prescribe solutions to problems as opposed to the mental health consultant who tends not to prescribe solutions but rather supports and facilitates the consultees' efforts at arriving at solutions to problems through an increased understanding of themselves and others. Using Bergan and Tombari's (1975) four stages of consultative problem-solving and for the purposes of this study, prescription refers to the giving of solutions for problems to the teacher or consultee at the culmination of the Problem Analysis stage. Similarly, non-prescription refers to the consultant's supporting the teacher's efforts to arrive at his/her own solutions for problems at the culmination of the Problem Analysis stage.

Adjustment

In this study the dependent variable used to measure the effects of the two consultation approaches was adjustment. What follows will focus on adjustment and its measurement.
Definition

As previously mentioned, primary prevention activities are intended to foster optimal levels of adjustment and thwart possible obstacles to normal development (Lapides, 1978). Hansen and Himes (1980) define adjustment as:

an individual's general adaptation to his or her environment and the demands of life -- including the way that he or she relates to other people, handles responsibilities, deals with stress, and meets personal needs. It is not a static condition; since life is constantly changing, the ability to revise attitudes and behavior is an essential ingredient in adjustment. (p. 47)

Measurement of Adjustment

Though a large number of measurement "instruments are available for use with older children, . . . those applicable to the preschool age range tend to be either standardized insufficiently or on a normal population only, or take too much time to allow for practical, widespread use" (Behar & Stringfield, 1974, p. 1). Reviews of 221 instruments were found in The Eighth Mental Measurements Yearbook (Buros, 1978) under the section entitled Personality. Twenty-four or approximately 11 percent of these reviews were of instruments for use with children of preschool age. None of the instruments reviewed purported to measure adjustment. The Child and Adolescent Adjustment Profile (Ellsworth, 1977) was not reviewed in The Eighth Mental Measurements Yearbook.

The Child and Adolescent Adjustment Profile

"The Child and Adolescent Adjustment Profile (CAAP) is a new
scale for measuring adjustment in a reliable, valid, and efficient manner" (Ellsworth, 1977, p. 1). This instrument was considered ideal for the purposes of this study for a number of reasons. First, it was recommended by the Michigan State Department of Mental Health for use with the Early Intervention Demonstration Project. Second, it has been utilized by the Blue Water Head Start Program (BWHS) since 1980 so there was familiarity with the instrument among BWHS staff. Third, the CAAP is a brief instrument, only 20 items long, and completing it places minimal additional burden on a staff that is already overburdened with paperwork. Fourth, the CAAP was designed to measure factors related to adjustment, the dependent variable under study in this investigation.

The five adjustment factors measured by the CAAP are listed in the manual as:

(A) Peer Relations — gets along with others, joins others freely, invites others to play, and laughs and smiles easily", (B) Dependency -- wants help for things could do on own, becomes discouraged when attempts things on own, asks for help when could have figured things out, and asks unnecessary questions instead of working on own, (C) Hostility -- flares up if can't have own way, becomes upset if others don't agree, picks quarrels, and not responsive to discipline, (D) Productivity -- works hard at tasks, stays with assignment, uses full abilities, and works carefully, and (E) Withdrawal -- sits and stares doing nothing, does things slowly, appears indifferent and uninterested, and daydreams. (p. 2)

A summary of the criteria used in item selection is provided in the manual:

(1) Judgment of clinicians regarding their importance for measuring adjustment, (2) Sensitivity to pre-post treatment change, (3) Sensitivity to differences between groups known to differ in adjustment, (4) Consistency in measuring adjustment factors relevant for different groups, as
indicated by stable and high factor loadings, and (5) Reliability as indicated by internal consistency and test-retest analyses. (p. 2)

The CAAP was designed for use by parents, teachers, counselors, probation officers and mental health treatment staff in the measurement of the adjustment of children and adolescents, 3 to 19 years of age. The rater, after observing the subjects, rates them on a four point scale and the scores are summed for each adjustment factor. These scores are then transferred to a profile sheet from which T scores can be derived (see Appendix A for protocol and profile sheet). The profile is divided into three sections, Poor Adjustment (T < 40), Average Adjustment (T = 40-60), and Good Adjustment (T > 60).

Change Norms were developed to reflect change in adjustment as compared to that expected of someone receiving individual counseling. "Change Norms help to determine whether a youngster has improved more or less than others who have received counseling in other community clinics" (Ellsworth, 1977, p. 10). These normative data were used to develop tables from which Change Scores are obtained using pre and post raw scores. The Change Norm Tables are provided in the manual and Change Scores are reported as "T" scores with a mean of 50 and a standard deviation of 10. "Change scores above 50 indicate more improvement than youngsters with similar pre scores. Change Scores below 50 indicate less improvement than youngsters have shown who received counseling elsewhere" (p. 10).

Change in adjustment through interventions other than individual counseling, such as consultation, relative to change in adjustment

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expected from traditional individual counseling can thus be demonstrated through the use of CAAP Change Scores. A basis for drawing conclusions about the relative effectiveness of consultation services with individual counseling services is provided by CAAP Change Norms.

Reliability is reported in the CAAP manual (Ellsworth, 1977). Coefficient Alpha, to determine internal consistency, ranged from .80 to .90 across the five factor analyzed areas. Test-retest correlations ranged from .78 to .89. Thus, there is evidence that the CAAP is a reliable instrument. Validity was demonstrated comparing pre and post treatment scores of children receiving mental health intervention services with "normal" children, younger subjects with older subjects, parent ratings with teacher ratings, sex and grade placement, and parent ratings with probation officer ratings.

Change, Approach, Counseling, and Time

Change in adjustment associated with two consultation approaches was under investigation in this study. Therefore, what follows is a review of relevant research reported in the literature.

Change and Consultation Approach

Research has been reported regarding consultation and change in elementary and middle school students. Jason, Ferone, and Anderegg (1979) investigated the comparative effectiveness of ecological, behavioral, and process consultation. Their study utilized subjects enrolled in four inner-city parochial elementary schools; ranging in
age from 6 to 9 years. The schools were randomly assigned one of the three consultation approaches and a control condition. The consultants were six graduate student interns. Consultation consisted of eight 50 minute sessions for each approach.

In the case of the behavioral consultants, the first two sessions consisted of identifying disruptive behavior and discussing principles of behavior modification with the teachers. Then, in subsequent sessions, the behavioral consultants prescribed a variety of behavioral techniques to be used by the teachers to eliminate identified disruptive behavior.

The ecological consultants spent the first two sessions discussing teacher ratings of real and ideal classroom environments. Subsequent sessions involved altering the classroom environment to minimize the opportunity for the exhibition of disruptive behavior while promoting task relevant behavior.

The process consultants concentrated on teacher identified problems exhibited by the children. They used a nondirective approach; responding to the teachers with verbal clarification, support, and reflection. Teacher expressions of frustration "... were accepted as genuine, and the consultants helped the teachers work through their feelings toward the children" (p. 106). Constructive teacher efforts were supported by consultant expressions of positive feelings.

Jason, Ferone, and Anderegg (1979) found that behavioral consultation resulted in improved deportment in elementary school children, process consultation led to academic gains, while few
changes were evidenced in ecological or control classes.

Using a behavioral consultation model based on the work of Tharp and Wetzel, Alpert, and Bergan and Tombari, Tyler (1981) developed an "Aggressive Approach" to consultation with middle school teachers. He used graduate and undergraduate students as consultants. Teachers earned college credits for participating in the study which lead to salary increases upon completion of the study. At the outset of the investigation, 29 teachers were participating; this figure dropped to 13 by the end of the study. The 13 who completed the program, reported the results of 64 projects with 47 individual children and 6 classroom behavior modification schemes.

Tyler found that:

Of 44 attempts to decrease specific undesired behaviors, 77% showed a decrease of 50% or more. Two undesirable behaviors increased by 8% and one did not change. The mean percent decrease of undesired behaviors was 61%. All 20 attempts to increase positive behavior rates produced increases of greater than 50%, with a mean increase of 2,543%. Of the six projects reported involving entire classrooms, three indicated 50%, 587%, and 10-600% increases in various positive behaviors; two reported working quite well, but . . . still too early to tell; and one classroom reported decreases in undesired behaviors of 13% and 37%. (p. 344)

Meyers (1975) reported a case study in which Caplan's consultee-centered consultation was utilized with an elementary school teacher. The teacher requested the consultant services as an aid in her management of disruptive student behavior. The procedure involved observation of the students the teacher was most concerned about, development of a behavioral treatment plan for one student, and three sessions with the teacher discussing "her attitudes and feelings" (p. 118).
Meyers (1975) noted that the study was limited and that the results should be interpreted with caution. He found that the combination of behavioral and consultee-centered consultation resulted in decreased disruptive student behavior in the classroom and an increase in the teacher's effectiveness in the classroom. Meyers attributed the decrease in disruptive behavior of the student for which a plan was developed to behavioral consultation. Generalized improvement in student behavior was attributed to improved teacher effectiveness resulting from consultee-centered consultation.

These investigations generally lend support to the effectiveness of both behavioral and process or consultee-centered consultation approaches in increasing teacher desired outcomes in elementary and middle school age children. The study by Meyers (1975) is an example of using a combination of approaches as being quite effective. Schein (1978) asserted, similarly, that: "Any given consultant inevitably ends up using . . . [different approaches] . . . at different times and with different clients" (p. 343).

Counseling, Consultation, and Change

In this section are two studies comparing counseling and consultation and their effect on change in elementary school students. Hume (1970) reported the results of an investigation she conducted in 1966 in which 20 elementary school students identified as having emotional problems were used as subjects. The subjects were assigned to four groups:
(a) subjects participating in play therapy once a week, primarily on a group basis, from November to June; (b) subjects whose teachers participated in a group consultation workshop throughout the academic year, but who received no play therapy; (c) subjects who participated in play therapy once a week primarily on a group basis from November to June and whose teachers were members of the consultation group; and (d) a control group in which no consultation or play therapy was provided. (pp. 4-5)

Hume found that weekly play therapy in combination with regular teacher consultation "showed sustained improvement in their mental health status over a two-year period following termination of the active intervention" (p. 5). Play therapy alone also produced improvement though with greater variability. Consultation alone was found to have a more limited and short term effect on the mental health status of the subjects. The control subjects did not show improvement in mental health status. "They did not outgrow their adjustment problems" (p. 4). Mental health status was rated by the teachers using an instrument designed for the study by Hume. The instrument covered three areas of mental health:

(a) a realistic self-concept and associated traits of self-acceptance and self-confidence (realistically adequate and accurate attitude toward self in harmony with inner and outer reality); (b) self-direction and associated traits of responsibility, independence, self-reliance, initiative, self-control, and creativity; and (c) ability to relate positively with others. (pp. 5-6)

It was hypothesized, in a study "of the short-term effectiveness of counseling and consulting techniques" (p. 4) by Marchant (1972) with fourth and fifth grade subjects enrolled in four elementary schools, that:

counseling and consulting techniques, used in concert, would be more effective than consulting techniques, which in turn would be more effective than counseling techniques.
It was further hypothesized that any of the three alternatives would be more effective in producing behavior change than no treatment at all. (p. 4)

Subjects were selected by their respective teachers on the basis of teacher reported problem behavior and a score of greater than 10 on the Walker Problem Behavior Identification Checklist (WPBIC). The selected students were then divided into 4 groups, each with 10-12 subjects.

The 4 groups were assigned different service conditions. In the first group, students were provided counseling and their teachers consultation by the same counselor. The second group was provided with consultation services only. The third group received counseling for the students only and the fourth group received neither counseling or consultation services. The study was conducted over a period of five weeks.

The counseling and consultation models used in the study by Marchant (1972) were based upon the work of Dinkmeyer, Dreikurs, and Caldwell. Briefly, these models focus on behavior occurring in the context of the current situation and environment. An attempt is made to help the client or consultee gain insight into how their behavior affects the situation and, in a collaborative effort, alternative behaviors are considered for implementation to effect desired change in the situation.

Marchant (1972) found no differences between the three groups receiving services as measured by pre-post differences in WPBIC ratings. The three service types, however, were all more effective than no service. Marchant concluded that "the techniques used in this
study have been shown to have relatively immediate, short-term impact" (p. 7).

The Hume (1970) investigation provided support for the effectiveness of the use of play therapy in concert with teacher consultation if long term change in mental health status is the goal. Play therapy alone improved mental health status but with greater variability than in combination with consultation. Consultation alone produced more limited short term improvement in mental health status. Marchant, on the other hand, found no difference between different combinations of counseling and consultation in teacher rated problem behaviors except when compared to a no service condition. Marchant's (1972) results were reported as short term in nature and therefore may not be comparable to the Hume study. Both studies were very limited in scope as subjects were few in number.

Thus, the evidence from the literature reviewed regarding counseling, consultation, and change was equivocal in that support was found for the use of consultation and counseling over no service in achieving change in students. Used in combination, these approaches have been shown to be effective, however, there was no evidence that the use of one would result in more positive results than the other over the course of one school year.

Consultation Approach and Time

Reported in this section are two studies concerned with consultation approach and time. Cole (1979) found, in a study with elementary school subjects enrolled in special education classes,
that a behavioral model of consultation provided to teachers on a regularly scheduled basis was more effective in improving individual education plan ratings than Caplan's consultee centered model of consultation.

Dorr and Cowen (1972) found that elementary school teachers involved in the Primary Mental Health Project were more satisfied with the program as professional availability of the consultant increased. Though this study had no control group the finding is consistent with the findings of others. Availability or the amount of time the consultant spent with the teacher was explored by Tyler and Fine (1974). They found that intensive consultation with teachers was superior to limited consultation. Likewise, limited consultation was superior to no consultation. Intensive consultation was defined in this study as:

(a) 15- to 24-minute preassessment psychologist-teacher contact, (b) a 30- to 40-minute interpretive, postassessment contact, and (c) a psychologist's report of at least three double-spaced typewritten pages detailing the psychologist's findings and itemizing specific recommendations. This report was submitted at the time of the final contact. (p. 9)

Limited consultation was defined as:

(a) a five- to ten-minute preassessment conference, (b) a ten- to 15-minute interpretive, postassessment conference, and (c) a one to one and one-half page summary report which included a nonelaborated listing of recommendations. (p. 9)

These findings lend support to the contention that individual education plan ratings are improved with regular teacher-behavioral consultant contact. Additionally, teachers may be more satisfied with consultation services with increased and regular availability of the consultant.
Discussion

This review provided a basis for the hypotheses investigated in this study. The studies by Cole (1979), Jason, Ferone, and Anderegg (1979), Meyers (1975), and Tyler (1981) provided evidence for the effectiveness of both behavioral and process or consultee-centered consultation in changing the behavior of students in the direction desired by elementary, elementary special education, and middle school teachers. Thus, to the extent that behavioral consultation is related to prescriptive problem-solving consultation as defined in this investigation, the prescriptive approach could be predicted to be found effective. Similarly, to the extent that process or consultee-centered consultation is related to non-prescriptive problem-solving consultation as defined in this study, the non-prescriptive approach could be predicted to be found effective.

Bergan and Tombari's (1976) finding that problem resolution almost invariably occurs if the Problem Identification stage is successfully completed provided a basis for predicting an outcome of this study. Since Problem Identification occurs prior to the development of a plan for intervention during the Problem Analysis stage, it could be predicted that there would be no difference found between the prescriptive and non-prescriptive approaches.

The studies reviewed did not measure change in adjustment. Therefore it was difficult to anticipate whether the prescriptive approach or the non-prescriptive approach would prove more effective in producing change in adjustment in the preschool children involved.
in this study.

If mental health status and teacher behavior ratings are comparable to teacher rated adjustment on the CAAP, then the studies by Hume (1970) and Marchant (1972) did not provide evidence to suspect that a difference would be found in change in adjustment when subjects are compared to other subjects who have received counseling. The findings of these two studies, however, were based on few subjects and Marchant's intervention only lasted five weeks. Thus, from these studies, it was difficult to predict whether the prescriptive or non-prescriptive approach would result in more measured change in student's adjustment over the course of a school year when compared to others receiving counseling.

Cole (1979), Dorr and Cowen (1972), and Tyler and Fine (1974) reported more positive outcomes with regularly scheduled teacher-consultant contact and increased consultant availability. Since teacher-consultant contact time increased over the course of the school year and consultants met regularly with teachers in the investigation of this research, it was anticipated that, to the extent that reported positive outcomes are related to positive change in adjustment, there would be a positive change in adjustment ratings for all subjects regardless of consultation approach used in the classrooms.

To summarize from the above discussion, prescriptive mental health consultation and non-prescriptive consultation might have differing effects on the adjustment ratings in preschool children.

It was difficult to predict whether a difference in change
between those receiving consultation over others who have received counseling would occur. As consultation time increases, outcomes for students should be more positive regardless of consultation approach.

Formulation of hypotheses for the research questions under study, when consideration is given to this summary, would indicate that there might have been differences between prescriptive and non-prescriptive approaches. Therefore, the following hypotheses were derived.

Research Hypotheses

The hypotheses investigated in this study are:

**Hypothesis 1.** Preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, differed in mean measured change in adjustment when compared to change in other children who had received counseling.

**Hypothesis 2.** Preschool children enrolled in the 1984-85 Blue Water Head Start Program, changed in measured adjustment over the course of the school year differentially with the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive.

Summary

This review highlighted some of the literature on mental health consultation. A brief history of mental health consultation was
presented. A concise overview of mental health consultation in a Head Start program was also presented. Definitions were given for mental health consultation and adjustment. Studies were reviewed in relation to problem-solving in consultation. The issues of prescription and non-prescription in consultation were presented. An instrument for measuring adjustment, the Child and Adolescent Adjustment Profile, was reviewed. Studies related to the variables and relationships involved in this study were presented.

Some conclusions are drawn from this review in relation to the current study and culminated in the statement of the research hypotheses for the investigation. Outlined in the next chapter is the design and methodology of the study. Subsequent chapters include a presentation of findings and conclusions.
CHAPTER III

DESIGN AND METHODOLOGY

Introduction

This study was concerned with mental health consultation as a service delivery vehicle for achieving the goal of primary prevention. According to Caplan (1964), primary prevention is the reduction of "the incidence of mental disorders of all types in a community" (p. 16). More precisely, aspects of primary prevention were investigated particularly as they relate to the Blue Water Clinic's Early Intervention Program and the Blue Water Head Start Program and specifically, to two mental health consultation approaches used with Blue Water Head Start teachers.

The two mental health consultation approaches were termed, for the purpose of this investigation, prescriptive and non-prescriptive. This investigation was an experimental study to explore the effectiveness of a prescriptive mental health approach to teacher consultation as compared with a non-prescriptive approach. Effectiveness was determined by measuring changes in teacher adjustment ratings of their respective students on the Child and Adolescent Adjustment Profile (CAAP). What follows is a description of the population, instrumentation, and procedures used in the study.

Population

The population targeted for study in this investigation
consisted of the 226 children enrolled in the Blue Water Head Start (BWHS) Program, St. Clair County, Michigan, in the 1984-85 school year. During the course of the year, 30 children moved, dropped from the program, or transferred classrooms within the program making their inclusion in the investigation impossible because of confused or lost data. This left 196 children, 87 females and 109 males, for inclusion in the study. The prescriptive group consisted of 97 children, 41 females and 56 males, while the non-prescriptive group consisted of 99 children, 46 females and 53 males.

Data describing the subjects included in the study by age in months, sex, and assigned group are presented in Table 1.

Table 1

<table>
<thead>
<tr>
<th></th>
<th>PRESCRIPTIVE</th>
<th></th>
<th>NON-PRESCRIPTIVE</th>
<th></th>
<th>TOTAL N</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean (Age)</td>
<td>SD</td>
<td>N</td>
<td>Mean (Age)</td>
<td>SD</td>
</tr>
<tr>
<td>Females</td>
<td>41</td>
<td>54.20</td>
<td>4.70</td>
<td>46</td>
<td>53.43</td>
<td>4.03</td>
</tr>
<tr>
<td>Males</td>
<td>56</td>
<td>54.21</td>
<td>4.83</td>
<td>53</td>
<td>54.49</td>
<td>4.83</td>
</tr>
<tr>
<td>TOTAL N</td>
<td>97</td>
<td>54.13</td>
<td>4.78</td>
<td>99</td>
<td>54.00</td>
<td>4.51</td>
</tr>
</tbody>
</table>

Instrumentation

The dependent variable measured in this study was adjustment. Adjustment was measured with the Child and Adolescent Adjustment Profile or CAAP (Ellsworth, 1977).
The CAAP is an instrument designed for use by parents, teachers, counselors, probation officers and mental health treatment staff in the measurement of the adjustment of children and adolescents. It is 20 items long and measures five factor analyzed areas of adjustment (Peer Relations, Dependency, Hostility, Productive, and Withdrawn). The rater, after observing the subjects, rates them on a four point scale and the scores are summed for each adjustment factor. These scores are then transferred to a profile sheet from which T-Scores can be derived (See Appendix A). The profile is divided into three sections, Poor Adjustment ($T < 40$), Average Adjustment ($T = 40-60$), and Good Adjustment ($T > 60$).

Change Norms were developed for the CAAP to reflect change in adjustment as compared to that expected of someone receiving individual counseling. "Change Norms help to determine whether a youngster has improved more or less than others who have received counseling in other community clinics" (Ellsworth, 1977, p. 10). This normative data was used to develop tables from which Change Scores are obtained using pre and post raw scores. The Change Norm Tables are provided in the manual and Change Scores are reported as T-Scores with a mean of 50 and a standard deviation of 10. "Change scores above 50 indicate more improvement than youngsters with similar Pre scores. Change Scores below 50 indicate less improvement than youngsters have shown who received counseling elsewhere" (p. 10).

Change in adjustment through interventions other than individual counseling relative to change in adjustment expected from traditional individual counseling can thus be demonstrated through the use of
CAAP Change Scores. A basis for drawing conclusions about the relative effectiveness of mental health consultation services as compared with individual mental health counseling is thus provided through the use of CAAP Change Norms.

Ellsworth (1977) explained Change Scores developed for the CAAP as follows:

Change scores are standardized residual scores, based on a mean of 50 and a standard deviation of 10. Since Pre and Post scores were correlated (between .42 and .63), Post scores can be predicted from Pre scores with some degree of accuracy. A residual score is the difference between a person's actual Post score and the Post score that was predicted for him or her by using the Pre score. If a person had a Pre score of 6 on Peer Relations, the predicted or typical Post score would be 9 as indicated by a Change score of 51. A person who had a Post score of 12 (rather than the predicted score of 9) would be 3 points higher than predicted. Thus, the raw residual score (difference between the actual and the predicted Post score) would be 3 for this person. A raw residual score of 3 converts to a Change score of 61, reflecting the fact that the amount of improvement for this person was about one standard deviation more than usual. (p. 10)

Reliability

Reliability is reported in the CAAP manual (Ellsworth, 1977). Coefficient Alpha, used to determine internal consistency, ranged from .80 to .90 across the five factor analyzed areas. Test-retest correlations ranged from .78 to .89. Thus, there is evidence that the CAAP is a reliable instrument.

Validity

Validity was demonstrated by Ellsworth (1977) through comparisons of pre and post treatment scores of children receiving
mental health counseling services with "normal" children, younger subjects with older subjects, parent ratings with teacher ratings, sex and grade placement, and parent ratings with probation officer ratings. Differences found between groups were all as expected. For example, when comparing normals with probationers and mental health clinic treatment (mental health counseling) groups, Ellsworth found that the pretreatment clinic group was the least well adjusted, while the probation group fell between the clinic group and the normal group which was the best adjusted.

Ellsworth compared normal group children by age. He found that the youngest group (3-5 years) was the least productive group, while the oldest group (13-19 years) was the least dependent. Ellsworth cites this finding as supportive evidence that the CAAP is valid with respect to age as it is consistent with what might be reasonably expected.

Comparing parent and teacher ratings, Ellsworth also found that differences in adjustment were as might be reasonably expected. Ellsworth expressed his findings as follows:

In the classroom, children were clearly different in that they scored lower on Peer Relations, Hostility, Productivity, and Dependency, and higher on Withdrawal than they did in the home as rated by parents. In general, the classroom situation reduces Peer interaction, Hostility, and Dependency, and encourages Withdrawal. These findings are generally in keeping with the student role and support the validity to the CAAP Scale as rated by teachers vs. parents. (p. 6)

Similar expected findings are reported in the CAAP manual for sex and grade, and parent and probation officer ratings. No differences were found between boys and girls as rated by parents. An
examination of teacher ratings revealed that girls were rated more productive than boys and children in lower grades were rated lower in the area of Peer Relations. Ellsworth found statistically significant correlations between parent and probation officer ratings "for the areas of Dependency, Hostility, and Withdrawal (r's .48 to .49). Less agreement was found in the ratings of Peer Relations (r = .28) and Productivity (r = .35)" (p. 7). The differences in ratings of parent and probation officer are as might be expected "since different people have different kinds of relationships with each other, and therefore perceive the same person somewhat differently" (p. 7). Thus, there is evidence that the CAAP is a valid instrument.

Procedures

This investigation was an experimental study to explore the effectiveness of a prescriptive mental health approach to teacher consultation as compared with a non-prescriptive approach. What follows is a description of the two approaches to teacher consultation used in the study and details of assignment of children to classrooms, assignment of consultants to classrooms, assignment of approach to classrooms, training and supervision of consultants, and data collection activities.

The Prescriptive Approach

Consultation followed the four stages outlined by Bergan and Tombari (1975), that is, problem identification, problem analysis, intervention, and problem evaluation. The prescriptive approach
consisted of a process of problem identification and selection of a detailed intervention strategy which the teacher implemented in the classroom. The identification of the problem was accomplished collaboratively with the teacher following observation of the classroom by the consultant. Then, after a discussion of the variables which may affect problem solution, the intervention strategy was chosen or prescribed by the consultant. The teacher implemented the intervention plan and problem evaluation was jointly accomplished. The difference between the two consultation approaches was a function of who made the choice of intervention strategy. This approach served as the experimental approach.

The Non-Prescriptive Approach

The non-prescriptive approach consisted of a process of problem identification and selection of a detailed intervention strategy which the teacher implemented in the classroom. The identification of the problem was accomplished collaboratively with the teacher following observation of the classroom by the consultant. The intervention strategy was selected by the teacher. Once problem identification occurred and variables which may affect problem solution were discussed, the consultant used a non-prescriptive approach; providing the teacher with empathetic support while clarifying relevant issues. The consultant did not give or prescribe the teacher intervention strategies but encouraged the teacher to select an appropriate strategy based on the discussion aforementioned. The teacher implemented the chosen plan and problem
evaluation was jointly accomplished.

This approach was characteristic of the consultation process that had been used over the past six years in the Blue Water Head Start program and it served as the comparison approach.

Assignment of Children to Classrooms

Children enrolled in the 1984-85 BWHS Program were placed in 14 center classrooms each with its own teacher according to BWHS procedures.

Assignment of Consultants

The 14 classrooms were randomly assigned, seven to each of two consultants. This was accomplished by the method suggested by Kerlinger (1973, p. 127), that is, the 14 classrooms were numbered from 1 to 14. The numbers 1 through 14 were drawn from a random number table (Kerlinger, 1973, p. 714-717). The classrooms corresponding to the first 7 numbers drawn were assigned to one consultant while the other 7 were assigned to the second consultant. This procedure provided the study with two random groups of 7 classrooms; each group with its own consultant.

Assignment of Consultation Approach

The two approaches were randomly assigned to the classrooms in the same manner that classrooms were assigned to the consultants. Both groups of classrooms were numbered from one to seven. The numbers one through seven were drawn from a random number table.
(Kerlinger, 1973, pp. 714-717), once for each group. The classrooms corresponding to the first four numbers drawn in one group were assigned the prescriptive approach. The classrooms corresponding to the first three in the other group were assigned the prescriptive approach. The rest of the classrooms were assigned the non-prescriptive approach. This procedure provided the study with random assignment of the two mental health consultation approaches (prescriptive and non-prescriptive) to each of the two groups of seven classrooms. Thus, the prescriptive mental health consultation approach was assigned to four classrooms in the first group of classrooms and to three classrooms in the second group of classrooms. The non-prescriptive mental health consultation approach was assigned to three classrooms in the first group of classrooms and to four classrooms in the second group of classrooms.

**General Consultation Schedule**

The consultants observed each of their assigned classrooms and met at least once every month with the teachers for consultation sessions. Consultation sessions were conducted in a manner consistent with the mental health consultation approach, either prescriptive or non-prescriptive, assigned each classroom.

**Training/Consultation Resources**

The consultation staff consisted of two master level social workers. The experiences of these consultants served as one source of expertise. The primary materials for the training/supervision of

**Training/Supervision of Consultants**

Training consisted of a review of the resource materials mentioned above, discussion of the relevant aspects of implementing each consultation approach, as well as modeling and practice. Supervision of each consultant consisted of at least one meeting per month with the program supervisor.

**Data Collection**

Data were collected via three methods. First, the CAAPs were completed by teachers. Second, teachers completed a questionnaire. Third, consultation sessions were recorded on audio tapes.

**CAAP**

The teachers completed the CAAP on each of their students in November, February, and again, in May as part of their regularly assigned overall assessment of the children. The instruments were then hand scored and the information was transferred to profile sheets. The data were then coded to protect confidentiality and
entered into a computer through a program written especially for this study (Duffy, 1985). T-Scores and Change Scores were determined from profile sheet and Change Norm table information in the CAAP manual. This information was incorporated into the computer program and for each administration the program assigned the appropriate T-Score and/or Change Score for final analysis of the data from raw scores.

Teacher Questionnaire

The teachers were administered a brief questionnaire (see Appendix B) to help insure that the two consultation approaches used in this study were applied as assigned. The questionnaire was administered on June 10, 1985; at the final Head Start staff meeting of the year. All CAAP data had been collected by that date.

The questionnaire was designed in a collaborative effort with two master level mental health consultants to elicit from the teachers their perceptions of the consultation approach used in their classrooms. The teachers were told that the questionnaire was part of the BWC annual consultation program evaluation. Similar evaluations had been conducted with the teachers to determine program needs and to evaluate EIP services every year for the past six years of the operation of the program.

Audio Tapes

A further check on the application of the assigned approach was audio tape recordings of monthly consultation meetings with the teachers. The tapes were reviewed and rated by two independent raters.
using an adaptation of a method for analyzing consultation interaction developed by Bergan and Tombari (1975). Verbalizations regarded as referring to a plan for change were identified as being made by the consultant. The verbalizations were then further classified in terms of whether they were plan specification elicitors or emitters. The consultant using the prescriptive approach should have been found to be using plan specification emitter verbalizations. Plan specification emitter verbalizations referred to verbalizations by the consultant that prescribed an intervention plan for the teacher to implement. The consultant using the non-prescriptive approach should have been found to be using plan specification elicitors. Plan specification elicitor verbalizations referred to verbalizations by the consultant that were intended to encourage and support the teacher in her efforts to come forth with her own plan for intervention that she would implement. Some examples of plan elicitors and plan emitters are listed in Table 2.

**Statistical Procedures**

Statistical inferences were drawn from testing the null form of the research hypotheses. The mean Change Scores for each group were used to perform a t-test for independent means (Hinkle, Wiersma, & Jurs, 1979, pp. 202-209) to determine whether or not null hypotheses 1-15 were tenable. An analysis of differences in T-Scores, using Analysis of Variance-Two-Way Classification (Hinkle, Wiersma, Jurs, 1979, pp. 296-330), over the course of the year and by consultation
Table 2
Examples of Plan Elicitors and Emitters

<table>
<thead>
<tr>
<th>PLAN ELICITORS</th>
<th>PLAN EMITTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you think that you could use other children to model the desired behavior?</td>
<td>I am wondering if reinforcement would alter the target behavior?</td>
</tr>
<tr>
<td>2. How would you reinforce desired behavior?</td>
<td>I would like you to ...</td>
</tr>
<tr>
<td>3. What plan do you have for this child?</td>
<td>I think ... would be helpful.</td>
</tr>
<tr>
<td>4. What kinds of ideas do you have to change this behavior?</td>
<td>Could you try ... ?</td>
</tr>
<tr>
<td>5. What kinds of things have worked for you in the past?</td>
<td>I think ... would be an appropriate intervention.</td>
</tr>
<tr>
<td>6. What would you like to do about?</td>
<td>I want you to ...</td>
</tr>
<tr>
<td>7. What kinds of interventions are you considering?</td>
<td>This is what I would like you to try.</td>
</tr>
</tbody>
</table>

approach was conducted. Specifically, the procedure for disproportionate cell frequencies, unweighted-means solution (pp. 322-324) was used. The rationale for using the unweighted means solution method was stated by Winer (1971) as follows:

If the original plan for an experiment calls for equal group size, but the completed experiment does not have equal group size because of conditions unrelated to the treatments per se, then an unweighted-means solution is the more appropriate. (p. 599)

This method was chosen because the original plan for this investigation was to have equal group sizes but children moved, dropped from the program, or transferred classrooms within the
program making their inclusion in the investigation impossible.

The two independent variables used in this analysis were consultation approach and time of data collection (November, February, or May). The interaction tested for was whether there were differences among cell means that were not attributable to differences in consultation approach, time of data collection, or both.

Level of significance was set at .05 for all tests. Data were stored and computations were performed on a personal computer using a program written especially for this study (Duffy, 1985).

The remainder of this chapter contains general statements of the research and their corresponding null and alternate hypotheses.

First Research Hypothesis

Preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, differed in mean change in adjustment in the areas of peer relations, dependency, hostility, productivity, and withdrawal, when compared to change in other children who had received counseling, as measured by CAAP Change Scores.

The null and corresponding alternate hypotheses for change occurring between November and February, February and May, and November and May followed the general form outlined in the next three subsections. A t-test for independent means was used to determine whether or not the null hypotheses were tenable.
General Statements of Null and Alternate Hypotheses November-February Change

The null hypothesis was that preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, did not differ in mean change in adjustment between November and February in each of the five areas of adjustment, when compared to change in other children who had received counseling, as measured by CAAP Change Scores. The alternate hypothesis was that the prescriptive group differed in mean CAAP Change Scores from the non-prescriptive group.

General Statements of Null and Alternate Hypotheses February-May Change

The null hypothesis was that preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, did not differ in mean change in adjustment between February and May in each of the five areas of adjustment, when compared to change in other children who had received counseling, as measured by CAAP Change Scores. The alternate hypothesis was that the prescriptive group differed in mean CAAP Change Scores from the non-prescriptive group.

General Statements of Null and Alternate Hypotheses November-May Change

The null hypothesis was that preschool children enrolled in the
1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, did not differ in mean change in adjustment between November and May in each of the five areas of adjustment, when compared to change in other children who had received counseling, as measured by CAAP Change Scores. The alternate hypothesis was that the prescriptive group differed in mean CAAP Change Scores from the non-prescriptive group.

First Research Hypothesis Summary

Table 3 summarizes the null and corresponding alternate hypotheses for the first research hypothesis.

Table 3
Summary of Null and Corresponding Alternate Hypotheses for the First Research Hypothesis

<table>
<thead>
<tr>
<th>CAAP Scale</th>
<th>H#</th>
<th>Nov.-Feb.</th>
<th>H#</th>
<th>Feb.-May</th>
<th>H#</th>
<th>Nov.-May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Relations</td>
<td>Ho₁</td>
<td>( u_P = u_{NP} )</td>
<td>Ho₂</td>
<td>( u_P = u_{NP} )</td>
<td>Ho₃</td>
<td>( u_P = u_{NP} )</td>
</tr>
<tr>
<td></td>
<td>Ha₁</td>
<td>( u_P \neq u_{NP} )</td>
<td>Ha₂</td>
<td>( u_P \neq u_{NP} )</td>
<td>Ha₃</td>
<td>( u_P \neq u_{NP} )</td>
</tr>
<tr>
<td>Dependency</td>
<td>Ho₄</td>
<td>( u_P = u_{NP} )</td>
<td>Ho₅</td>
<td>( u_P = u_{NP} )</td>
<td>Ho₆</td>
<td>( u_P = u_{NP} )</td>
</tr>
<tr>
<td></td>
<td>Ha₄</td>
<td>( u_P \neq u_{NP} )</td>
<td>Ha₅</td>
<td>( u_P \neq u_{NP} )</td>
<td>Ha₆</td>
<td>( u_P \neq u_{NP} )</td>
</tr>
<tr>
<td>Hostility</td>
<td>Ho₇</td>
<td>( u_P = u_{NP} )</td>
<td>Ho₈</td>
<td>( u_P = u_{NP} )</td>
<td>Ho₉</td>
<td>( u_P = u_{NP} )</td>
</tr>
<tr>
<td></td>
<td>Ha₇</td>
<td>( u_P \neq u_{NP} )</td>
<td>Ha₈</td>
<td>( u_P \neq u_{NP} )</td>
<td>Ha₉</td>
<td>( u_P \neq u_{NP} )</td>
</tr>
<tr>
<td>Productive</td>
<td>Ho₁₀</td>
<td>( u_P = u_{NP} )</td>
<td>Ho₁₁</td>
<td>( u_P = u_{NP} )</td>
<td>Ho₁₂</td>
<td>( u_P = u_{NP} )</td>
</tr>
<tr>
<td></td>
<td>Ha₁₀</td>
<td>( u_P \neq u_{NP} )</td>
<td>Ha₁₁</td>
<td>( u_P \neq u_{NP} )</td>
<td>Ha₁₂</td>
<td>( u_P \neq u_{NP} )</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>Ho₁₃</td>
<td>( u_P = u_{NP} )</td>
<td>Ho₁₄</td>
<td>( u_P = u_{NP} )</td>
<td>Ho₁₅</td>
<td>( u_P = u_{NP} )</td>
</tr>
<tr>
<td></td>
<td>Ha₁₃</td>
<td>( u_P \neq u_{NP} )</td>
<td>Ha₁₄</td>
<td>( u_P \neq u_{NP} )</td>
<td>Ha₁₅</td>
<td>( u_P \neq u_{NP} )</td>
</tr>
</tbody>
</table>

Note: NP = Non-prescriptive; P = Prescriptive
Second Research Hypothesis

Preschool children enrolled in the 1984-85 Blue Water Head Start Program, changed in measured adjustment, in the areas of peer relations, dependency, hostility, productivity, and withdrawal, over the course of the school year, as measured by mean CAAP T-Scores, differentially with the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive.

General statements of null and corresponding alternate hypotheses for consultation approach, time of year data were collected, and interaction are outlined in the next three subsections. An ANOVA was used to determine whether or not the null hypotheses were tenable.

General Statements of Null and Alternate Hypotheses for Consultation Approach

The null hypothesis was that the mean CAAP T-Score for the prescriptive mental health consultation group would not differ from the mean CAAP T-Score for the non-prescriptive group for each CAAP subscale. The alternate hypothesis was that the mean CAAP T-Score for the prescriptive group would differ from the mean CAAP T-Score for the non-prescriptive group for each CAAP subscale.

General Statements of Null and Alternate Hypotheses for Time of Year Data were Collected

The null hypothesis was that the mean CAAP T-Scores would not
differ for the November, February, and May collections of data for each CAAP subscale. The alternate hypothesis was that the mean CAAP T-Score for the May collection would be greater than the February collection which would be greater than the November collection for each CAAP subscale.

**General Statements of Null and Alternate Hypotheses for Interaction**

The null hypothesis was that there would not be an interaction effect related to the time of data collection and the consultation approach for each CAAP subscale. The alternate hypothesis was that there was an interaction between the time of data collection and the consultation approach for each CAAP subscale.

**Second Research Hypothesis Summary**

Table 4 summarizes the null and corresponding alternate hypotheses for the second research hypothesis.

**Summary**

Outlined in this section was the design and methodology proposed for this study. The population, instrumentation, and procedures were highlighted. Outlined in the next two chapters are the findings and conclusions of the study, and recommendations for further research.
Table 4
Summary of Null and Corresponding Alternate Hypotheses for the Second Research Hypothesis

<table>
<thead>
<tr>
<th>CAAP Subscale</th>
<th>Consultation Approach</th>
<th>Time of Collection</th>
<th>Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Relations</td>
<td>Ho_16: ( \mu_p = \mu_{NP} )</td>
<td>Ho_17: ( \mu_M = \mu_F = \mu_N )</td>
<td>Ho_18: all(( \mu_{CT} - \mu_C - \mu_T + \mu )) = 0</td>
</tr>
<tr>
<td>Dependency</td>
<td>Ha_16: ( \mu_p \neq \mu_{NP} )</td>
<td>Ha_17: ( \mu_M &gt; \mu_F &gt; \mu_N )</td>
<td>Ha_18: all(( \mu_{CT} - \mu_C - \mu_T + \mu )) \neq 0</td>
</tr>
<tr>
<td>Hostility</td>
<td>Ho_26: ( \mu_p = \mu_{NP} )</td>
<td>Ho_27: ( \mu_M = \mu_F = \mu_N )</td>
<td>Ho_28: all(( \mu_{CT} - \mu_C - \mu_T + \mu )) = 0</td>
</tr>
<tr>
<td>Productive</td>
<td>Ha_26: ( \mu_p \neq \mu_{NP} )</td>
<td>Ha_27: ( \mu_M &gt; \mu_F &gt; \mu_N )</td>
<td>Ha_28: all(( \mu_{CT} - \mu_C - \mu_T + \mu )) \neq 0</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>Ho_36: ( \mu_p = \mu_{NP} )</td>
<td>Ho_37: ( \mu_M = \mu_F = \mu_N )</td>
<td>Ho_38: all(( \mu_{CT} - \mu_C - \mu_T + \mu )) = 0</td>
</tr>
<tr>
<td></td>
<td>Ha_36: ( \mu_p \neq \mu_{NP} )</td>
<td>Ha_37: ( \mu_M &gt; \mu_F &gt; \mu_N )</td>
<td>Ha_38: all(( \mu_{CT} - \mu_C - \mu_T + \mu )) \neq 0</td>
</tr>
</tbody>
</table>

Note: NP = Non-prescriptive; P = Prescriptive; N = November; F = February; M = May; C = Consultation Approach; T = Month of Data Collection
CHAPTER IV

FINDINGS

Introduction

The findings of the analysis of Hypotheses 1-30 are presented in this chapter. Hypotheses 1-15 were tested using a t-test for independent means. Hypotheses 16-30 were tested using a two-way analysis of variance. The level of significance was set at .05 for all tests. The findings from the teacher questionnaire and the audio tape recordings are also presented in this chapter.

Hypothesized Findings

The findings from testing of hypotheses 1-15 using a t-test and of hypotheses 16-30 using an ANOVA are presented in the following section.

Hypothesis 1. Preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, would not differ in mean change in adjustment between November and February in the area of peer relations, when compared to change in other children who had received counseling, as measured by CAAP Peer Relations Change Scores. Based on the t-test for independent means presented in Table 5 this null hypothesis was not rejected at the .05 level of significance.
Table 5 contains summary data and test information for hypotheses one through three regarding the CAAP Peer Relations scale. The Prescriptive group had 97 subjects with mean Change Scores of 52.557, 51.876, and 53.330 for the November/February, February/May, and November/May periods respectively. The Non-Prescriptive group had 99 subjects with mean Change Scores of 51.303, 55.202, and 55.212 for the November/February, February/May, and November/May periods respectively.

Table 5
Pre-Post CAAP Mean Change Score Data and t Values for CAAP Peer Relations Scale

<table>
<thead>
<tr>
<th>Approach</th>
<th>Nov./Feb.</th>
<th>Feb./May</th>
<th>Nov./May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescriptive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>97</td>
<td>97</td>
<td>97</td>
</tr>
<tr>
<td>Mean Change (T)</td>
<td>52.557</td>
<td>51.876</td>
<td>53.330</td>
</tr>
<tr>
<td>S.D.</td>
<td>8.343</td>
<td>7.475</td>
<td>8.650</td>
</tr>
<tr>
<td>Non-Prescriptive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>99</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>Mean Change (T)</td>
<td>51.303</td>
<td>55.202</td>
<td>55.212</td>
</tr>
<tr>
<td>S.D.</td>
<td>9.633</td>
<td>7.906</td>
<td>8.940</td>
</tr>
<tr>
<td>t</td>
<td>-0.968</td>
<td>3.009*</td>
<td>1.490</td>
</tr>
</tbody>
</table>

Note: * value exceeds t = 1.960

Hypothesis 2. Preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either
prescriptive or non-prescriptive, would not differ in mean change in
adjustment between February and May in the area of peer relations,
when compared to change in other children who had received
counseling, as measured by CAAP Peer Relations Change Scores. Based
on the t-test for independent means presented in Table 5 this null
hypothesis was rejected at the .05 level of significance.

**Hypothesis 3.** Preschool children enrolled in the 1984-85 Blue
Water Head Start Program subject to the mental health consultation
approach used in their respective classrooms, that is, either
prescriptive or non-prescriptive, would not differ in mean change in
adjustment between November and May in the area of peer relations,
when compared to change in other children who had received
counseling, as measured by CAAP Peer Relations Change Scores. Based
on the t-test for independent means presented in Table 5 this null
hypothesis was not rejected at the .05 level of significance.

**Hypothesis 4.** Preschool children enrolled in the 1984-85 Blue
Water Head Start Program subject to the mental health consultation
approach used in their respective classrooms, that is, either
prescriptive or non-prescriptive, would not differ in mean change in
adjustment between November and February in the area of dependency,
when compared to change in other children who had received
counseling, as measured by CAAP Dependency Change Scores. Based on
the t-test for independent means presented in Table 6 this null
hypothesis was not rejected at the .05 level of significance.
Hypothesis 5. Preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, would not differ in mean change in adjustment between February and May in the area of dependency, when compared to change in other children who had received counseling, as measured by CAAP Dependency Change Scores. Based on the t-test for independent means presented in Table 6 this null hypothesis was not rejected at the .05 level of significance.

Table 6
Pre-Post CAAP Mean Change Score Data and t Values for CAAP Dependency Scale

<table>
<thead>
<tr>
<th>Approach</th>
<th>Nov./Feb.</th>
<th>Feb./May</th>
<th>Nov./May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescriptive</td>
<td>N 97</td>
<td>97</td>
<td>97</td>
</tr>
<tr>
<td>Mean Change</td>
<td>(T) 50.381</td>
<td>51.763</td>
<td>52.103</td>
</tr>
<tr>
<td>S.D.</td>
<td>6.553</td>
<td>7.700</td>
<td>8.945</td>
</tr>
<tr>
<td>Non-Prescriptive</td>
<td>N 99</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>Mean Change</td>
<td>(T) 50.768</td>
<td>51.414</td>
<td>51.394</td>
</tr>
<tr>
<td>S.D.</td>
<td>9.183</td>
<td>7.324</td>
<td>9.489</td>
</tr>
<tr>
<td>t</td>
<td>0.337</td>
<td>-0.323</td>
<td>-0.535</td>
</tr>
</tbody>
</table>

Table 6 contains summary data and test information for hypotheses four through six concerning the CAAP Dependency scale. The Prescriptive group had 97 subjects with mean Change Scores of 50.381,
51.763, and 52.103 for the November/February, February/May, and November/May periods respectively. The Non-Prescriptive group had 99 subjects with mean Change Scores of 50.768, 51.414, and 51.394 for the November/February, February/May, and November/May periods respectively.

**Hypothesis 6.** Preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, would not differ in mean change in adjustment between November and May in the area of dependency, when compared to change in other children who had received counseling, as measured by CAAP Dependency Change Scores. Based on the t-test for independent means presented in Table 6 this null hypothesis was not rejected at the .05 level of significance.

**Hypothesis 7.** Preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, would not differ in mean change in adjustment between November and February in the area of hostility, when compared to change in other children who had received counseling, as measured by CAAP Hostility Change Scores. Based on the t-test for independent means presented in Table 7 this null hypothesis was not rejected at the .05 level of significance.

**Hypothesis 8.** Preschool children enrolled in the 1984-85 Blue
Table 7
Pre-Post CAAP Mean Change Score Data and t Values for CAAP Hostility Scale

<table>
<thead>
<tr>
<th>Approach</th>
<th>Nov./Feb.</th>
<th>Feb./May</th>
<th>Nov./May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescriptive</td>
<td>N 97</td>
<td>97</td>
<td>97</td>
</tr>
<tr>
<td>Mean Change (T)</td>
<td>51.206</td>
<td>49.258</td>
<td>48.711</td>
</tr>
<tr>
<td>S.D.</td>
<td>9.724</td>
<td>8.781</td>
<td>9.349</td>
</tr>
<tr>
<td>Non-Prescriptive</td>
<td>N 99</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>Mean Change (T)</td>
<td>53.354</td>
<td>52.646</td>
<td>52.778</td>
</tr>
<tr>
<td>S.D.</td>
<td>9.829</td>
<td>8.447</td>
<td>9.816</td>
</tr>
<tr>
<td>t</td>
<td>1.529</td>
<td>2.740*</td>
<td>2.954*</td>
</tr>
</tbody>
</table>

Note: * value exceeds t = 1.960

The approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, would not differ in mean change in adjustment between February and May in the area of hostility, when compared to change in other children who had received counseling, as measured by CAAP Hostility Change Scores. Based on the t-test for independent means presented in Table 7 this null hypothesis was rejected at the .05 level of significance.

Table 7 contains summary data and test information for hypotheses seven through nine concerning the CAAP Hostility Scale. The Prescriptive group had 97 subjects with mean Change Scores of
51.206, 49.258, and 48.711 for the November/February, February/May, and November/May periods respectively. The Non-Prescriptive group had 99 subjects with mean Change Scores of 53.354, 52.646, and 52.778 for the November/February, February/May, and November/May periods respectively.

**Hypothesis 9.** Preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, would not differ in mean change in adjustment between November and May in the area of hostility, when compared to change in other children who had received counseling, as measured by CAAP Hostility Change Scores. Based on the t-test for independent means presented in Table 7 this null hypothesis was rejected at the .05 level of significance.

**Hypothesis 10.** Preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, would not differ in mean change in adjustment between November and February in the area of productivity, when compared to change in other children who had received counseling, as measured by CAAP Productivity Change Scores. Based on the t-test for independent means presented in Table 8 this null hypothesis was not rejected at the .05 level of significance.

**Hypothesis 11.** Preschool children enrolled in the 1984-85 Blue
Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, would not differ in mean change in adjustment between February and May in the area of productivity, when compared to change in other children who had received counseling, as measured by CAAP Productivity Change Scores. Based on the t-test for independent means presented in Table 8 this null hypothesis was not rejected at the .05 level of significance.

**Hypothesis 12.** Preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, would not differ in mean change in adjustment between November and May in the area of productivity, when compared to change in other children who had received counseling, as measured by CAAP Productivity Change Scores. Based on the t-test for independent means presented in Table 8 this null hypothesis was not rejected at the .05 level of significance.

Table 8 contains summary data and test information for hypotheses 10 through 12 concerning the CAAP Productive scale. The Prescriptive groups had 97 subjects with mean Change Scores of 54.897, 56.485, and 57.320 for the November/February, February/May, and November/May periods respectively. The Non-Prescriptive group had 99 subjects with mean Change Scores of 53.596, 57.525, and 57.263 for the November/February, February/May, and November/May periods respectively.
Table 8
Pre-Post CAAP Mean Change Score Data and t Values for CAAP Productive Scale

<table>
<thead>
<tr>
<th>Approach</th>
<th>Nov./Feb.</th>
<th>Feb./May</th>
<th>Nov./May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescriptive</td>
<td>N 97</td>
<td>97</td>
<td>97</td>
</tr>
<tr>
<td>Mean Change</td>
<td>(T) 54.897</td>
<td>56.485</td>
<td>57.320</td>
</tr>
<tr>
<td>S.D.</td>
<td>10.439</td>
<td>8.841</td>
<td>10.304</td>
</tr>
<tr>
<td>Non-Prescriptive</td>
<td>N 99</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>Mean Change</td>
<td>(T) 53.596</td>
<td>57.525</td>
<td>57.263</td>
</tr>
<tr>
<td>S.D.</td>
<td>10.258</td>
<td>10.609</td>
<td>11.671</td>
</tr>
<tr>
<td>t</td>
<td>-0.875</td>
<td>0.741</td>
<td>-0.036</td>
</tr>
</tbody>
</table>

Hypothesis 13. Preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, would not differ in mean change in adjustment between November and February in the area of withdrawal, when compared to change in other children who had received counseling, as measured by CAAP Withdrawn Change Scores. Based on the t-test for independent means presented in Table 9 this null hypothesis was not rejected at the .05 level of significance.

Hypothesis 14. Preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either
Table 9
Pre-Post CAAP Mean Change Score Data and t Values for CAAP Withdrawn Scale

<table>
<thead>
<tr>
<th>Approach</th>
<th>Nov./Feb.</th>
<th>Feb./May</th>
<th>Nov./May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescriptive</td>
<td>N 97</td>
<td>97</td>
<td>97</td>
</tr>
<tr>
<td>Mean Change</td>
<td>(T) 49.247</td>
<td>50.701</td>
<td>50.969</td>
</tr>
<tr>
<td>S.D.</td>
<td>7.119</td>
<td>6.471</td>
<td>7.673</td>
</tr>
<tr>
<td>Non-Prescriptive</td>
<td>N 99</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>Mean Change</td>
<td>(T) 48.444</td>
<td>50.475</td>
<td>49.636</td>
</tr>
<tr>
<td>S.D.</td>
<td>8.480</td>
<td>7.137</td>
<td>8.831</td>
</tr>
<tr>
<td>t</td>
<td>-0.714</td>
<td>-0.231</td>
<td>-1.121</td>
</tr>
</tbody>
</table>

Prescriptive or non-prescriptive, would not differ in mean change in adjustment between February and May in the area of withdrawal, when compared to change in other children who had received counseling, as measured by CAAP Withdrawn Change Scores. Based on the t-test for independent means presented in Table 9 this null hypothesis was not rejected at the .05 level of significance.

Hypothesis 15. Preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, would not differ in mean change in adjustment between November and May in the area of withdrawal, when compared to change in other children who had received counseling, as
measured by CAAP Withdrawn Change Scores. Based on the t-test for independent means presented in Table 9 this null hypothesis was not rejected at the .05 level of significance.

Table 9 contains summary data and test information for hypotheses 13 through 15 concerning the CAAP Withdrawn scale. The Prescriptive group had 97 subjects with mean Change Scores of 49.247, 50.701, and 50.969 for the November/February, February/May, and November/May periods respectively. The Non-Prescriptive group had 99 subjects with mean Change Scores of 48.444, 50.475, and 49.636 for the November/February, February/May, and November/May periods respectively.

The critical value for t at the .05 level of significance with \[df = (97 + 99) - 2\] 194 degrees of freedom is 1.960 for two-tailed tests. Null hypotheses 1b, 3b, and 3c were rejected. The t Values for these hypotheses exceeded the critical value for t. The respective scales were Peer Relations for February to May mean Change Scores, Hostility for February to May mean Change Scores, and Hostility for November to May mean Change Scores. In these three cases the non-prescriptive group attained greater mean Change Scores than the prescriptive group.

Hypothesis 16. The mean T-Score for the prescriptive mental health consultation group would not differ from the mean T-Score for the non-prescriptive group for the Peer Relations CAAP Scale. Based on the ANOVA summarized in Table 10 this null hypothesis was not rejected at the 0.05 level of significance.
Table 10

Summary Two-Way ANOVA Using Mean T-Scores for the CAAP Peer Relations Scale

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Fcv</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation Approach</td>
<td>2.765</td>
<td>1</td>
<td>2.765</td>
<td>2.263</td>
<td>&gt;3.84</td>
</tr>
<tr>
<td>Month Data were Collected</td>
<td>3.014</td>
<td>2</td>
<td>1.507</td>
<td>1.233</td>
<td>&gt;3.00</td>
</tr>
<tr>
<td>Interaction</td>
<td>3.374</td>
<td>2</td>
<td>1.687</td>
<td>1.381</td>
<td>&gt;3.00</td>
</tr>
<tr>
<td>Within</td>
<td>582</td>
<td></td>
<td>1.222</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 17. The mean T-Scores would not differ for the November, February, and May collections of data for the Peer Relations CAAP Scale. Based on the ANOVA summarized in Table 10 this null hypothesis was not rejected at the .05 level of significance.

Hypothesis 18. There would not be an interaction effect related to the time of data collection and the consultation approach for the Peer Relations CAAP Scale. Based on the ANOVA summarized in Table 10 this null hypothesis was not rejected at the .05 level of significance.

Hypothesis 19. The mean T-Score for the prescriptive mental health consultation group would not differ from the mean T-Score for the non-prescriptive group for the Dependency CAAP Scale. Based on the ANOVA summarized in Table 11 this null hypothesis was not rejected at the .05 level of significance.
Hypothesis 20. The mean T-Scores would not differ for the November, February, and May collections of data for the Dependency CAAP Scale. Based on the ANOVA summarized in Table 11 this null hypothesis was not rejected at the .05 level of significance.

Hypothesis 21. There would not be an interaction effect related to the time of data collection and the consultation approach for the Dependency CAAP Scale. Based on the ANOVA summarized in Table 11 this null hypothesis was not rejected at the .05 level of significance.

Table 11
Summary Two-Way ANOVA Using Mean T-Scores for the CAAP Dependency Scale

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Fcv</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation Approach</td>
<td>3.162</td>
<td>1</td>
<td>3.162</td>
<td>2.211</td>
<td>&gt;3.84</td>
</tr>
<tr>
<td>Month Data were Collected</td>
<td>3.611</td>
<td>2</td>
<td>1.806</td>
<td>1.262</td>
<td>&gt;3.00</td>
</tr>
<tr>
<td>Interaction</td>
<td>3.766</td>
<td>2</td>
<td>1.883</td>
<td>1.316</td>
<td>&gt;3.00</td>
</tr>
<tr>
<td>Within</td>
<td>582</td>
<td></td>
<td>1.430</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 22. The mean T-Score for the prescriptive mental health consultation group would not differ from the mean T-Score for the non-prescriptive group for the Hostility CAAP Scale. Based on the ANOVA summarized in Table 12 this null hypothesis was not rejected at the .05 level of significance.

Hypothesis 23. The mean T-Scores would not differ for the
November, February, and May collections of data for the Hostility CAAP Scale. Based on the ANOVA summarized in Table 12 this null hypothesis was not rejected at the .05 level of significance.

Hypothesis 24. There would not be an interaction effect related to the time of data collection and the consultation approach for the Hostility CAAP Scale. Based on the ANOVA summarized in Table 12 this null hypothesis was not rejected at the .05 level of significance.

Table 12
Summary Two-Way ANOVA Using Mean T-Scores for the CAAP Hostility Scale

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Fcv</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation Approach</td>
<td>2.831</td>
<td>1</td>
<td>2.831</td>
<td>2.330</td>
<td>&gt;3.84</td>
</tr>
<tr>
<td>Month Data were Collected</td>
<td>3.016</td>
<td>2</td>
<td>1.508</td>
<td>1.241</td>
<td>&gt;3.00</td>
</tr>
<tr>
<td>Interaction</td>
<td>2.993</td>
<td>2</td>
<td>1.497</td>
<td>1.232</td>
<td>&gt;3.00</td>
</tr>
<tr>
<td>Within</td>
<td>582</td>
<td></td>
<td>1.215</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 25. The mean T-Score for the prescriptive mental health consultation group would not differ from the mean T-Score for the non-prescriptive group for the Productive CAAP Scale. Based on the ANOVA summarized in Table 13 this null hypothesis was not rejected at the .05 level of significance.

Hypothesis 26. The mean T-Scores would not differ for the November, February, and May collections of data for the Productive
Hypothesis 27. There would not be an interaction effect related to the time of data collection and the consultation approach for the Productive CAAP Scale. Based on the ANOVA summarized in Table 13 this null hypothesis was not rejected at the .05 level of significance.

Table 13
Summary Two-Way ANOVA Using Mean T-Scores for the CAAP Productive Scale

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Fcv</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation Approach</td>
<td>2.240</td>
<td>1</td>
<td>2.240</td>
<td>2.395</td>
<td>&gt;3.84</td>
</tr>
<tr>
<td>Month Data were Collected</td>
<td>2.364</td>
<td>2</td>
<td>1.182</td>
<td>1.264</td>
<td>&gt;3.00</td>
</tr>
<tr>
<td>Interaction</td>
<td>2.356</td>
<td>2</td>
<td>1.178</td>
<td>1.259</td>
<td>&gt;3.00</td>
</tr>
<tr>
<td>Within</td>
<td>582</td>
<td></td>
<td>0.935</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 28. The mean T-Score for the prescriptive mental health consultation group would not differ from the mean T-Score for the non-prescriptive group for the Withdrawn CAAP Scale. Based on the ANOVA summarized in Table 14 this null hypothesis was not rejected at the .05 level of significance.

Hypothesis 29. The mean T-Scores would not differ for the November, February, and May collections of data for the Withdrawn CAAP Scale. Based on the ANOVA summarized in Table 14 this null hypothesis was not rejected at the .05 level of significance.
hypothesis was not rejected at the .05 level of significance.

Table 14
Summary Two-Way ANOVA Using Mean T-Scores for the CAAP Withdrawn Scale

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Fcv</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation Approach</td>
<td>2.982</td>
<td>1</td>
<td>2.982</td>
<td>2.168</td>
<td>&gt;3.84</td>
</tr>
<tr>
<td>Month Data were Collected</td>
<td>3.469</td>
<td>2</td>
<td>1.734</td>
<td>1.261</td>
<td>&gt;3.00</td>
</tr>
<tr>
<td>Interaction</td>
<td>3.561</td>
<td>2</td>
<td>1.780</td>
<td>1.294</td>
<td>&gt;3.00</td>
</tr>
<tr>
<td>Within</td>
<td>582</td>
<td></td>
<td>1.375</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 30. There would not be an interaction effect related to the time of data collection and the consultation approach for the Withdrawn CAAP Scale. Based on the ANOVA summarized in Table 14 this null hypothesis was not rejected at the .05 level of significance.

Teacher Questionnaire

The results of the teacher questionnaire are presented in Table 15. All 14 teachers filled out questionnaires. Correct identification of the consultation approach used in the classrooms was made by six teachers, one in the prescriptive group and five in the non-prescriptive group. Four of the teachers incorrectly identified the consultation approach used in their classroom as non-prescriptive when it was assigned prescriptive. Four teachers, two in each consultation group, responded that neither approach was used in their
The four teachers who identified the mental health consultation approach used by their consultant as neither prescriptive or non-prescriptive provided descriptions of the approach they thought was used by their consultant. Their descriptions follow with the respective assigned approach in parentheses.

1. (Prescriptive) - The consultant "and I worked together on problem-solving. She made suggestions, checked how last plans worked, helped me rethink ways of doing things. We put our ideas together to come up with a particular solution for a particular problem."

2. (Prescriptive) - "We discussed our ideas together and chose which we felt might work best. So I would say that we
did our problem-solving together."

3. (Non-Prescriptive) - "The consultant and I both discussed various approaches which we felt best suited the child - before deciding what action to take."

4. (Non-Prescriptive) - "He observed and told me what he saw on certain children then we problem-solved (brain-storm) together."

Seven of the teachers took the opportunity to make comments in the last section of the questionnaire, including all four of the teachers who responded that the approach was neither prescriptive or non-prescriptive. Their comments follow with the assigned consultation approach in parentheses.

1. (Prescriptive) - "We enjoyed her very much along with her ideas. She was a good listener and always had suggestions for us to try. Enjoyed working with her."

2. (Prescriptive) - "I've enjoyed working with each of you and thank you for the help you've been in all areas."

3. (Prescriptive) - the consultant "was extremely thoughtful and lended a welcomed hand to mental health dilem[m]as; very supportive!"

4. (Prescriptive) - "I appreciated the way" the consultant "gave suggestions to solve our problems but was also concerned about how well we could carry out the solutions."

5. (Non-Prescriptive) - The consultant "was very helpful and cooperative. Many times she arrived to observe mealtime rather than an activity going on in the room. Perhaps a different time would be better next year."

6. (Non-Prescriptive) - "Sometimes" the consultant "helped me realize that some problems were not 'just in my head' -- sometimes it was! It's nice to have a second opinion!"

7. (Non-Prescriptive) - "A consultant coming in every month was very helpful to me. It's hard to take the time every week or even every day to stop and reflect on the things that happened in the classroom. Sitting and talking to someone once a month help[ed] me to see how I reacted to the children as well as how they reacted to me. It helped me to take the time to make the improvements I needed to help each individual child."
Audio Tapes

Audio tape recordings were made of monthly consultation meetings with the teachers. The tapes were reviewed and rated by two independent raters using an adaptation of a method for analyzing consultation interaction developed by Bergan and Tombari (1975). Verbalizations were then further classified in terms of whether they were plan specification elicitors or emitters. The results of this process is presented in Table 16.

Table 16

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<th>Assigned Approach</th>
<th>Plan Elicitors</th>
<th>Plan Emitters</th>
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<td>47</td>
<td>48</td>
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<tr>
<td>Non-Prescriptive</td>
<td>41</td>
<td>0</td>
<td>41</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>47</td>
<td>89</td>
</tr>
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</table>

A total of 89 useable consultant references to intervention plans were recorded on audio tape. In the Prescriptive group the consultants used Plan Emitters according to plan in 47 of the 48 references to intervention plans. In the Non-Prescriptive group the consultants used Plan Elicitors according to plan in 41 of the 41 references to intervention plans.
CHAPTER V

CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS

Introduction

This chapter contains a summary of Chapters I through IV, interpretation of and conclusions drawn from the findings presented in Chapter IV, limitations of the investigation, and recommendations for future research.

Summary

Outlined in Chapter I was background information regarding Head Start mental health services. In St. Clair County, Michigan, the Blue Water Clinic's Early Intervention Program provides mental health services for Blue Water Head Start.

Head Start mental health services have the goal of primary prevention. The primary vehicles for achieving primary prevention are education and consultation.

This study was concerned with mental health consultation as a service delivery vehicle for achieving the goal of primary prevention. According to Caplan (1964), primary prevention is the reduction of "the incidence of mental disorders of all types in a community" (p. 16). More precisely, aspects of primary prevention were investigated particularly as they relate to the Blue Water Clinic's Early Intervention Program and the Blue Water Head Start...
Program and specifically, to two mental health consultation approaches used with Blue Water Head Start teachers.

Mental health consultation has been advocated as an effective method for delivering mental health services. That is, what is reported in the literature regarding the outcomes of mental health consultation is generally positive.

Mental health consultation is an efficient method for delivering mental health services. Mental health consultation provided a school or institution, by even one mental health consultant, has the potential of having positive effects on all the people served by that institution. Traditionally, mental health personnel have delivered counseling services on a one to one basis to clients. The positive effects of this kind of individual counseling services have their impact on only those people who the mental health counselor can see in any given time. Thus, more people who could benefit from mental health services can be reached through mental health consultation than through traditional mental health counseling. Additionally, consultation serves to prevent maladjustment in the population and thereby reduces the number of people in need of individual mental health counseling services.

Much has been written regarding the theory and practice of mental health consultation. What is in the literature is derived primarily from the experiences of consultants. There is a scarcity of research demonstrating, empirically, the efficacy of mental health consultation. This is particularly true in the case of mental health consultation with Head Start programs.
Community agencies providing mental health consultation services to schools and other organizations serving children have traditionally dealt with economic hardships by diverting funds away from consultation services to more traditional mental health counseling programs. Thus, there is a reduction in staffing and in the amount of mental health consultation services available for schools and other community organizations serving children. Consequently, resources devoted to the prevention or reduction of mental health disorders in the community are diminished.

It seems contradictory to divert funding from or fail to support mental health consultation programming in the community because removing consultation services from community organizations places a greater burden on mental health counseling facilities. That is, as programming for the prevention of mental health disorders diminish, those people in the community who would not have developed serious disorders had they had the benefit of mental health prevention services, often do develop serious disorders. Such disorders in turn require the more intensive services provided by individual mental health counseling. The result is that fewer people in need obtain mental health services.

Mental health counseling services have a long history of empirical research which supports decisions to divert funding to them when funding shortages occur. Consultation services do not have such a history of empirical research. There is a need for further research regarding mental health consultation to provide empirical support for theory, improved consultant training, and consequently, a rationale
for giving mental health consultation a higher funding priority.

The purpose of this experimental study was to investigate the effect of a prescriptive mental health consultation approach on the adjustment of preschool children enrolled in the Blue Water Head Start Program, St. Clair County, Michigan. It was hypothesized that there would be a difference in adjustment between groups of Head Start children whose teachers were exposed to a prescriptive approach as opposed to a traditional non-prescriptive approach to mental health consultation.

Adjustment was measured by changes in adjustment ratings on the Child and Adolescent Adjustment Profile (CAAP). CAAP data were collected by 14 Head Start teachers on 196 children enrolled in the 1984-85 Blue Water Head Start Program (BWHS), St. Clair County, Michigan.

The two major research questions were:

1. Did mental health consultation approach, that is, prescriptive or non-prescriptive, lead to differences in the measured adjustment of preschool children enrolled in the 1984-85 Blue Water Head Start Program when compared to children who had received counseling services?

2. Did mental health consultation approach, that is, prescriptive or non-prescriptive, lead to differences in the measured adjustment of preschool children, enrolled in the 1984-85 Blue Water Head Start Program, over the course of the year?

The t-test and two-way ANOVA were used to test null hypotheses at the 0.05 level of significance.
Results of the hypothesis testing indicated that there were differences in measured adjustment of preschool children between the two mental health consultation approaches. The prescriptive consultation approach was less effective in producing positive change in adjustment than the non-prescriptive approach in the areas of peer relations and hostility when compared to changes in adjustment of others who had received counseling.

Interpretations and Conclusions

A total of 30 operational null hypotheses were tested. The first 15 were tested using a two-tailed t-test and the final 15 were tested using an ANOVA. The .05 level of significance was used for all statistical tests. The null hypotheses were not rejected in all but three cases. All three cases were related to the first research question in the areas of peer relations and hostility.

Hypotheses Related to the First Research Question

Hypotheses 1-15 were tested to determine whether the group exposed to the prescriptive mental health consultation approach differed in change in measured adjustment from the group exposed to the non-prescriptive mental health consultation approach when compared to others who had received individual mental health counseling. Mean CAAP Change Scores for each group were used in this analysis. CAAP Change Scores were designed to reflect change as compared to that expected of someone receiving individual counseling in five factor analyzed areas of adjustment: peer relations,
dependency, hostility, productivity, and withdrawal. CAAP Change Scores are reported as T-Scores with a mean of 50 and a standard deviation of 10. A change Score greater than 50 indicates change greater than that expected of someone receiving individual counseling while a Change Score of less than 50 indicates change less than that expected of someone receiving individual mental health counseling. The first 15 hypotheses were tested to determine comparative change in adjustment associated with the consultation approach used relative to change in adjustment expected from individual or traditional mental health counseling.

Null hypothesis two which dealt with peer relations, and hypotheses eight and nine which dealt with hostility were rejected. The findings of these three tests follow.

Peer Relations

Hypothesis two was tested to determine whether preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, differed in mean change in adjustment between February and May in the area of peer relations, when compared to change in other children who had received counseling, as measured by CAAP Peer Relations Change Scores. The null hypothesis was rejected at the .05 level of significance based on the t-test. It was concluded that the non-prescriptive group made more positive change than the prescriptive group in the adjustment area of peer relations during
the second part of the school year, between February and May.

_Hostility_

Hypothesis eight was tested to determine whether preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, differed in mean change in adjustment between February and May in the area of hostility, when compared to change in other children who had received counseling, as measured by CAAP Hostility Change Scores. The null hypothesis was rejected at the .05 level of significance. It was concluded that the non-prescriptive group made more positive change than the prescriptive group in the adjustment area of hostility during the second part of the school year, between February and May.

Hypothesis nine was tested to determine whether preschool children enrolled in the 1984-85 Blue Water Head Start Program subject to the mental health consultation approach used in their respective classrooms, that is, either prescriptive or non-prescriptive, differed in mean change in adjustment between November and May in the area of hostility, when compared to change in other children who had received counseling, as measured by CAAP Hostility Change Scores. The null hypothesis was rejected at the .05 level of significance based on the t-test. It was concluded that the non-prescriptive group made more positive change than the prescriptive group in the adjustment area of hostility over the course of the
entire school year, between November and May.

Conclusions Related to the First Research Question

The conclusion drawn for the first research question was that the non-prescriptive mental health consultation approach had a greater affect than the prescriptive approach on positive change in the adjustment areas of peer relations and hostility when compared to change expected of others receiving individual counseling. Differences were not found between the prescriptive and non-prescriptive approaches on measured change in adjustment in the areas of dependency, productivity, and withdrawal when compared to change in adjustment expected of others receiving individual counseling.

Hypotheses Related to the Second Research Question

Hypotheses 16-30 were tested to determine whether the group exposed to the prescriptive mental health consultation approach differed in measured adjustment from the group exposed to the non-prescriptive mental health consultation approach over the course of the school year. Mean CAAP T-Scores for data collected in November, February, and May were compared for each consultation approach using an ANOVA. The .05 level of significance was used for the hypothesis testing. None of the 15 null hypotheses were rejected.

Conclusion Related to the Second Research Question

The conclusions drawn for the second research question from the hypothesis testing was that (a) there were no differences between the
prescriptive and non-prescriptive approaches as measured by CAAP T-Scores in five areas of adjustment, peer relations, dependency, hostility, productivity, and withdrawal, (b) the expected positive changes in adjustment as a function of the time of year data were collected were not found, and (c) an interaction between consultation approach and time of year data were collected did not occur.

Conclusions from Hypothesized Findings

The conclusions drawn from the hypothesized findings were that the prescriptive mental health consultation approach did not differ from the non-prescriptive approach except in two areas of measured adjustment. The non-prescriptive mental health consultation approach had a greater affect than the prescriptive approach on positive change in the adjustment areas of peer relations and hostility when compared to change expected of others receiving individual mental health counseling. The greatest difference in change was evidenced in the second half of the school year. Thus, it would appear, that more positive student adjustment in the areas of peer relations and hostility is realized when the mental health consultant uses a non-prescriptive approach with the Head Start teacher. Furthermore, student adjustment does not appear to be affected differentially by the mental health consultation approach, either prescriptive or non-prescriptive, in the areas of dependency, productivity, or withdrawal.
Difference Between Consultation Approaches

Two methods were used to insure that the two mental health consultation approaches were different and applied as assigned: teacher responses to a questionnaire and ratings of audio recordings of consultation sessions.

Teacher Questionnaire

The questionnaire required the teacher to identify the mental health consultation approach used by his/her consultant. The seven teachers assigned the prescriptive approach incorrectly identified the approach used in six cases. Only one of the teachers assigned the prescriptive approach correctly identified the approach as the one used by the consultant. Four of the teachers assigned the prescriptive approach identified the approach used by their consultant as non-prescriptive and two identified the approach used by their consultant as neither prescriptive or non-prescriptive and described the approach as mutual problem-solving.

The seven teachers assigned the non-prescriptive approach correctly identified the approach used by their consultant in five cases while two of the teachers identified the approach used by their consultant as neither prescriptive or non-prescriptive. The two teachers who identified the mental health consultation approach as neither prescriptive or non-prescriptive described the approach used with them as mutual problem-solving. None of the teachers assigned the non-prescriptive approach identified the mental health...
consultation approach used by their consultant as prescriptive.

Overall, only six of the 14 teachers correctly identified the consultation approach used by their consultants. This finding did not provide evidence that the prescriptive mental health consultation approach was different from the non-prescriptive approach. Nor did it provide evidence that the two mental health consultation approaches were applied as assigned.

There may have been a number of reasons for the findings from the teacher questionnaire. Since Bergan and Tombari's (1975) consultative problem-solving was used as the basis for the two consultation approaches used in the study and since the two approaches differed only in one aspect of the consultation process, the distinction may have been too fine for the teachers to perceive without instruction. Perhaps the teacher's perceptions were affected by their expectations about the mental health consultation program. That is, from 1978 through the 1983-84 school years a non-prescriptive approach was used with the teachers. The teachers may have expected the mental health consultants would continue to use this approach during the 1984-85 school year and, as a result, tend to selectively perceive their interactions with the consultant as indicative of a non-prescriptive approach. Another possibility might have been that the teachers may have had a need to see themselves as solving their own classroom problems or at least sharing in the selection of solutions for problems and therefore tend to perceive the consultation approach as non-prescriptive or mutual problem-solving.
Audio Recordings

Ratings of consultant verbalizations from audio tape recordings of consultation sessions yielded results quite different from those of the teacher questionnaires. Since only one of the consultant verbal references to intervention plans was not rated as consistent with the assigned approach, a clear distinction between the two approaches was evident. This finding also provided evidence that the two mental health consultation approaches were applied as assigned. That the two approaches were actually different and applied as assigned lend validity to the hypothesized findings.

Overall Conclusions of the Investigation

It was concluded that the prescriptive approach was different than the non-prescriptive approach. Additionally, the prescriptive mental health consultation approach was not found to affect changes in preschool children's measured adjustment differently than the non-prescriptive approach except in the areas of peer relations and hostility. The non-prescriptive approach had a greater positive effect on measured adjustment in the areas of peer relations and hostility when the change was compared to that expected of others who had received individual counseling. The differences between the two approaches did not become evident until the second half of the school year.

This study provided support for Bergan and Tombari's (1975) findings that consultative problem-solving is an effective
conceptualization of the consultation process. Bergan and Tombari investigated the process in terms of problem resolution. They found that once problem identification was adequately accomplished problem resolution almost invariably occurred. This study investigated the effect of consultation on the adjustment of Head Start children using Bergan and Tombari's stages of consultative problem-solving as a basis for consultant interaction with the Head Start teachers. In the second stage of the problem-solving process outlined by Bergan and Tombari, problem analysis, the consultant either prescribed a solution to the identified problem or encouraged the teacher to select her own solution depending on the assigned approach for that teacher. The finding that there were differences in adjustment between the prescriptive and non-prescriptive groups in two areas of adjustment, peer relations and hostility, suggests that it may be useful to investigate other aspects of the consultative problem-solving process.

Limitations

This investigation was limited by the small number of consultants and classrooms used. Furthermore, only one Head Start program was used which was located in a small rural county. Though the original plan called for the inclusion of 226 preschool children 30 had to be excluded because of transfers to other classrooms, moves out of county, or withdrawals from the Head Start Program. Generalizing the findings of this investigation beyond the Blue Water Head Start Program may not be warranted or done only with great
A great number of factors which may be related to change in adjustment by preschool children were not investigated in this study. Teacher and consultant perceptions and satisfaction were not considered. Neither were teacher and consultant characteristics considered. These factors might have an effect on the consultation process and consequently, on the adjustment of children.

Actual behavior was not used as a measure of change in adjustment in this investigation. Systematically, observed and recorded behavior might yield different results than teacher ratings on an instrument such as the CAAP.

Recommendations

The conclusions drawn from this study suggest the need for further research regarding the efficacy of mental health consultation. This study demonstrated that the method used by the mental health consultant to help the Head Start teacher arrive at a plan for intervention, during the problem analysis stage of consultative problem-solving in the classroom, can have an effect on teacher ratings of student adjustment. There may be other factors in the consultation process which also affect the outcomes for students in stages beyond problem identification, in the problem analysis, implementation, and/or evaluation stages. For example, it may be of interest to study how or whether teachers implement plans developed through mental health consultation. Changes in teacher-student interaction might also be examined.
There are programmatic considerations which might lead to more generalizable results. Greater financial resources would allow an investigator to utilize a larger number of people for subjects, data collection, and conducting experimental procedures. Changes in the observed behavior of children could be measured as opposed to teacher ratings of adjustment. Actual consultant and teacher behavior could be observed, providing a wealth of information about the consultation process itself that may have an effect on the adjustment of preschool children.

Head Start programs, in efforts to provide comprehensive services, utilize a multidisciplinary approach to the determination of service need and service delivery. Mental health consultation at the multidisciplinary team level might be investigated.

It would be of interest to study the comparative, short and long term effects of actual mental health counseling and mental health consultation on the adjustment of children enrolled in Head Start programs over a large geographic area. Since Head Start offers a wide range of services to families enrolled in the program, it would be of interest to investigate the comparative effects of other services with mental health consultation on the adjustment of children and other family members. This kind of approach would give greater empirical support for the efficacy of consultation services. Comparable studies might be conducted in elementary, middle, and high schools or in other settings in which mental health consultants are utilized such as group homes for delinquent or handicapped children, adolescents, and adults. The accumulation of quality research on all
aspects of mental health consultation could lead to more stable funding for and greater use of mental health consultation services in the community.

A question not addressed in this study is whether organizational mental health consultation would have a positive impact on the adjustment of Head Start children. Consultation on an organizational level may increase consultant efficiency and increase effectiveness in accomplishing goals with teachers and other staff resulting in desired outcomes for Head Start children and their families.

Multiple base line designs might be used to overcome problems encountered in implementing field research, such as the problems involved in not providing service to any group for control purposes. Human service organizations such as Head Start have a natural reluctance to withholding service from any enrollee or group of enrollees since the provision of service is primary to Head Start's mission and not providing service raises serious ethical questions for Head Start staff and other service providers.

An implication for mental health consultation practice that might be drawn from this study is that when client (Head Start child) adjustment in the areas of peer relations or hostility are of concern, a non-prescriptive mental health consultation approach with the consultee (Head Start teacher) may be more effective than a prescriptive approach.
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APPENDICES
APPENDIX A

The Child and Adolescent Adjustment Profile:
Protocol and Profile Sheet
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<th>REPORT</th>
<th>ADJUSTMENT AND FUNCTIONING</th>
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APPENDIX B

Mental Health Consultation Approach Questionnaire
MENTAL HEALTH CONSULTATION APPROACH QUESTIONNAIRE

CENTER: ___________________ A.M. or P.M. CLASS (circle one)

YEARS EDUCATION: _____________ YEARS TEACHING EXPERIENCE: ______

Please check the consultation approach you think your Blue Water Clinic consultant used when consulting with you.

1. ____ My consultant tended to provide me with solutions to mental health problems in my classroom rather than encourage me to solve problems myself.

2. ____ My consultant encouraged me to solve mental health problems in my classroom myself rather than provide me with solutions.

3. ____ My consultant used neither of the above approaches. (Please describe the approach you think your consultant used if it was not one of the first two above.)
4. Were you satisfied with the consultation service you received? (Circle one)

Very satisfied  Satisfied  Indifferent  Dissatisfied

Comments:


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