THE EFFECTS OF CONSULTEE'S VERBAL CUES ON TRAINED AND UNTRAINED CONSULTANTS' VERBALIZATIONS, PROBLEM DESCRIPTION AND CONSULTATION SUCCESS

A DISSERTATION

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

IN THE GRADUATE SCHOOL OF THE

TEXAS WOMAN'S UNIVERSITY

COLLEGE OF EDUCATION

BY

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DENTON, TEXAS

AUGUST, 1982

Dedication

It is with greatest pleasure that I dedicate this dissertation to my parents, Charles and Mary Gumm, Jr. For without them my opportunities for personal and professional growth would not have been possible. It is with their love and devotion that I found the strength to complete my professional goals.

Acknowledgements

I want to thank with my deepest appreciation Dr. Jane Conoley for her inspiration and help concerning this project. Her openness and availability indicated a genuine desire and interest in the completion of this project. I would also like to thank Dr. David Marshall for his invaluable assistance and diligence in the analysis of the data. A special thanks and heartfelt appreciation goes out to Dr. Iris Campbell, Dr. Frank Virto, and Dr. David Aspy for their interest and support.

I give my warmest love and gratitude to my family, Charles, Mary, Charles, Gail and Laurie and their families, especially Mary Beth, Clayton, Carrie and Grayson for their support and encouragement throughout my doctoral training.

I feel deeply indebted to my fiancee, Ranee, for her persistent encouragement and patience throughout this study's high and low periods. She motivated me and perservered during times in which I was discouraged. Without her love and belief in my abilities this project would not have been successrully completed.

A special thanks goes out to Emily Popplewell and Susan Armey for their assistance in making this study successful.

Table of Contents

Table of Contents continued

List of Tables

List of Tables continued

List of Figures

Introduction

Consultation is an indirect service delivery model that can be defined as

> A problem-solving process that occurs between two professionals where one (the consultant) tries to help the other (the consultee) maximize the social-emotional development of the clients (i.e., students) under the consultee's care. (Meyers, 1981, p. 35)

Its use as a service delivery model in the mental health field has been occurring more frequently since Caplan popularized it in the 1940's (Caplan, 1970). Its importance as an intervention strategy significantly increased when the Community Mental Health Act of 1964 was enacted.

This act fostered the decentralization of mental institutions and sought ways to prevent mental health problems in the community. Mental health consultation was one of five mental health services seen as essential and in need of support to accomplish goals of this Act.

The growth of consultation services is a result of increased needs in the mental health field. As an indirect service, it offers a viable means to provide services to the most people for the least amount of cost (Reschly, 1976). Furthermore, consultation strategies have come in response to the growing concern regarding

the effectiveness of the mental health models (Sarason, 1981; Trachtman, 1961).

There has been increased interest and extensive application of consultation by school psychologists in schools (Reschly, 1976; Fine & Tyler, 1971; Lambert, 1974). The primary interest of this study involved the consultation process as it relates to schools and, therefore, the review of the literature will focus on the use of consultation. Schools represent an ideal setting for consultation because of their large population and the focus on helping children. Psychological, or mental health, interventions are not new to schools, but these services, as they exist in their present form of delivery, are failing to meet the needs of the teachers and children (Trachtman, 1981). Not only have these current roles of direct service providers failed, there has been growing interest in the prevention of mental health problems in school age children (Spivack, Platt & Shure, 1976). The prevention aspect of consultation results when a teacher generalizes problem-solving strategies from one incident to another. Many of these strategies not only eliminate unwanted emotional and behavioral problems, but they also have preventive qualities that reduce the frequency of unmanageable problems. In this way children can maximize

their school experience, and it is hoped this will lead to a more constructive personal development. Therefore, school psychologists implementing consultation methods can overcome manpower shortages while meeting the needs of teachers and students and simultaneously facilitate the prevention of mental health problems (Alpert, 1976; Trachtman, 1981).

The consultation process has been conceptualized by different theoretical positions. Although there are various approaches to consultation, mental health (Caplan, 1970), behavioral (Bergan, 1977), process (Schein, 1969), and advocacy consultation (Chesler, Bryand & Crowfoot, 1976; Conoley, 1981) appear to be the major theoretical models. All of these approaches have the mental health of school personnel as their ultimate goal, but each model emphasizes different targets for change. The mental health model (Caplan, 1970) targets the consultees, i.e., the teachers, for change in terms of their knowledge, skill, confidence and objectivity levels. The behavioral model (Bergan, 1977; Keller, 1981) focuses on increasing teachers' abilities to implement behavioral technology in the classroom. Process consultation (Schein, 1969) emphasizes changing organizational variables to improve conditions for consultees and clients, while advocacy

consultation (Conoley, 1981b) conceives of change in a broader social structure through political action. Each model's perspective brings with it its own way to effect change, and school psychologists applying consultation methods need a broad-based knowledge about different models in order to make appropriate diagnoses of the problem and constructive interventions (Conoley & Conoley, 1981c).

Despite consultations's popularity and apparent efficiency as a health service delivery model (Lambert, Sandoval & Corden, 1975), there remains little research that helps to understand its processes and outcome (Bergan & Tombari, 1976; Meyers, Friedman, Gaughan & Pitt, 1978). Consultation research appears to have problems in several areas, mainly in the proper use of control groups, in the adequate control of consultant-consultee variables and in the type of data collected. The data collected appear to be primarily self-report and behavioral outcomes (Medway, 1979). Overall, the study of consultation presents the same problems as found in psychosocial research; that is, the types of designs used. Quasi-experimental designs lend themselves well to consultation research, but their internal integrity can be questioned (Campbell & Stanley, 1966). Moving consultation research into the laboratory makes for better controls, but results of these studies

may not be generalized to actual conditions (Campbell & Stanley, 1966).

Current studies reflect conflicting results, which may be a function of research methods. However, successful outcome studies representing different theoretical positions may be more of a function of the consultant-consultee relationship than methodological flaws (Medway, 1979). Several studies have attempted to isolate the components involved in this relationship.

Fine, Grantham and Wright (1979), addressed eleven consultant characteristics which appeared significant for successful consultation. Their research suggests successful consultants are aware and have worked through their own personal issues. That they remain flexible and resourceful about a need for closure is helpful for successful interviews with consultees. In addition, they found that consultants who clarified their roles to consultees and who were not dogmatic about "right and wrong" ways to accomplish goals were more successful in the consultation process.

Curtis and Watson (1980) studied the differences between high and low skilled consultants in the consultation process. They found high skilled consultants were able to significantly improve teachers' problem clarification

abilities as well as pace consultation interviews so that rapid problem resolution did not occur too soon. Unskilled consultants, they found, attempted to resolve consultees problem rapidly. Alpert, Ballantyne and Griffiths (1981) looked at the success of consultation by varying consultees' attitudes. Their results showed successful consultants generally had consultees who were high on dogmatism and authoritarianism and who were in less need of assistance from experts. The overview of their study suggests that authoritative and dogmatic consultees make better use of consultation than do others. Another study by Bergan and Tombari (1976) showed that consultants who were able to clarify and define the consultees' problem in behavioral terms in interviews achieved the most in the consultative relationship. Bergan and Tombari (1975) developed a method by which the communication components between consultant and consultee could be evaluated.

The study of the process in the consultant-consultee relationship is important in the development and training of effective consultants. Knowing what makes a successful interaction can increase the efficiency of consultants' use of time. Two procedures, analogue techniques and content analysis methods, have contributed to the study of the consultative relationship.

Analogue Studies

Heller (1971) described analogue research methods as an alternative to observations in natural settings, and it is ". . . the buliding and testing of laboratory models that are abstractions or analogues of natural events" (p. 126). Analogue studies have been used extensively to investigate psychotherapeutic processes. The value of analogue methods, besides their convenience, is that they allow for tighter controls of experimental variables. Specific conditions can be manipulated to fit the types of research questions asked.

There are five types of analogue proceudres. Nay (1977) details the five major ones used. They are: (1) paper/pencil, (2) audiotape, (3) videotape, (4) role plays, and (5) enactment. For the purposes of this study, enactment procedures were used. This procedure involves one person (or persons) responding to another who elicits interaction from the respondent. Usually, the persons responding are asked to interact with the stimulus person in a manner that coincides with their natural settings. Definitions of the other methods can be found in Nay's (1977) review.

Critical to the use of analogue methods ie external validity. Although the analogue allows for tighter controls to study independent variables, its value is impaired if laboratory investigations cannot be generalized to natural settings (Nay, 1977). Nay (1977) reported that few studies have been directed toward this issue. Although Isaacson (Note 1, 1981) found no analogue validity studies in a review of psychological abstracts between 1967 to 1979, Kushner (1978) showed five such investigations in psychotherapeutic research. These studies, he noted, showed conflicting results, and in his research the validity between laboratory and field research depended on the experience of the therapist.

Few consultation analogue studies have been found in the literature. Bergan and Tombari (1978, 1979) have used analogue methods similar to enactment procedures to test the influence of consultants' verbalizations on consultees' verbal and performance behaviors. Conoley and Conoley (1982) used an analogue to study the effects of problem observation on consultants' skill in eliciting behavioral descriptions of a target behavior. Curtis and Rieke (1980) compared the similarities of consultants' interactions with teachers under simulated and actual conditions. Their results suggested a high degree of similarity between the

two settings. Supporting these findings was a study conducted by Isaacson (Note, 1981). She found consistent contents in the problem-solving verbalizations of consultants under laboratory and field conditions with consultees. These studies, though not conclusive, support the use of analogues for consultation research. Further research into the use of this method is necessary to determine what factors are influential.

Content Analysis

The other procedure, content analysis of verbalization, has provided for an objective method to evaluate the communication between persons. "Content analysis is a process by which raters examine verbalizations and systematically code them in accordance with some preset analytic scheme designed to assess the researcher's queries" (Isaacson, Note 1, 1981, p. 11). Content analysis is used extensively in various fields of studies (Budd & Throp, 1963), and its increasing use has paralleled its methodological improvements (Marsden, 1971).

The use of content analysis in the field of psychology began in the 1950's (Berelson, 1952). There have been basically three models of content analysis; namely, the classical, the pragmatic and the nonquantitative models. The classical model (Berelson, 1952) uses a frequency

count of verbal behavior. After the data are summarized statistically, assumptions about underlying psychological processes are made. The pragmatic model (Murray, 1954, 1956) codes verbal behavior immediately into inferential characteristics without drawing from pure statistical data. One weakness of both models is that the frequency with which a content area occurs in verbalization assumes the intensity of that message. The nonquantitative model (Carroll, 1955) evaluates content by the actual linguistic intensity in verbalization without necessarily needing to count the number of times a coded unit was recorded.

There are many approaches to the coding of verbalizations, though basically each scheme divides verbalizations into categories under which there are several subclassifications. The primary differences in schemes are their underlying theoretical position. What categories and units are used to classify verbal content will depend on one's theory (Marsden, 1971). For example, Gottschalk and Gleser (1969 a & b) developed a scheme for evaluating verbalizations in psychoanalytic therapeutic processes. Their work produced scales that examined anxiety, hostility and social alienation and personal disorganization.

One of the major problems using content analysis procedures is the validity and reliability of such

measures. The validity factor entails providing specific and discrete categories that are at the same time extensive enough to cover the range of responses. This will, in part, depend on the nature of the investigation. In addition, the unit of analysis must adequately reflect the superordinate categories, and the way the unit is scored must be specified. Generally, the classical model approach is used to score verbalizations, which involves frequency count (Marsden, 1971).

The establishment of reliability is a major issue in content analysis. Reliability needs to be established prior to and during content analysis. Generally, two raters are used and spot checks throughout the rating period are the typical procedures. Although many tests of reliability are used, Scott's pi (1955) appears to be the choice among most investigators (Marsden, 1971). Computing the percentages of agreement among raters for reliability has its disadvantages. It has been shown that the more categories raters can choose from in their scoring, the greater their chances to disagree (Scott, 1955). The Scott's pi (1955) reliability coefficient takes into account the number of categories used in its calculation. In this way the reliability coefficient reflects the true agreement among raters.

The present study focuses on the processes occurring in the consultant-consultee relationship in an analogue setting using content analysis of verbalizations. In particular, this study examined a variation of the Tombari and Bergan's (1978) research on effects of behavioral and medical cue words used by the consultant to influence a teacher's (consultee's) description of a problem-behavior child.

Bergan and Tombari (1976) perceive the consultant-consultee relationship ". . . as a problem-solving process in which the consultant and consultee assist the client to eliminate discrepancies between observed performance and desired performance" (Bergan & Tombari, 1976, p. 4). They conceive of the problem-solving process in four stages (Bergan & Tombari, 1975). The first step in the consultative relationship involves problem identification, which entails specifying and describing the problem behaviors. The second step focuses on problem analysis in which variables contributing to the problem are addressed. The intervention stage is next. This involves the implementation of an agreed upon strategy by the consultant and consultee. The last stage is entitled problem evaluation, which assesses the effectiveness of the intervention strategy. In analyzing these four stages, Bergan and

Tombari (1976) found that problem identification was the most crucial for the consultant. Obtaining an identification of the problem usually resulted in its solution. In a later study (Tombari & Bergan, 1978) they found beginning teacher's identification of a child's problem was dependent upon the types of verbal cues, medical or behavioral, given to them by the consultant. Furthermore, the teachers had a higher expectancy of solving the child's problem in the classroom when they were given behavioral verbal cues by the consultant. In another study (Bergan, Byrnes & Kratochwill, 1979), it was found that teachers were more willing to implement instructional objectives to modify academic problems when the consultants used behavioral language with task analysis.

These studies have shown that successful consultation is maximized when the consultants use behavioral terminology in the problem-solving relationship with the consultee, especially in the problem identification stage.

Tombari and Bergan's (1978) approach to studying processes in the consultant-consultee relationship comes from a linear cause-and-effect point of view. In essence, they have focused on the ways in which consultants influence a consultee to emit a particular response. In their study on the effects of verbal cues, it was shown

that the consultant using behavioral model cues elicited behavioral descriptions of the problem child, while the use of medical model cues caused the consultee to give dynamically oriented descriptions.

There has been some evidence in the field of systems theory that a linear, cause-and-effect perspective may be an incomplete view of the interaction process (Hoffman, 1981). Much of the systems theory view comes from the studies of family interactions (Jackson, 1968; Haley, 1971; Minuchin, 1978). Examining family interaction patterns, it was determined that family members affect each other in their communication processes (Hoffman, 1981; Haley, 1971; Watzlawick, 1967). Bateson (1972) perceived that all living matter was in joint concert, each having reciprocal influence upon one another. Lynn Hoffman (1981) incorporated these views into the therapeutic relationship, stating "The therapist can no longer be seen as 'impacting' on the client or family through personality, craft, or technique" (Hoffman, 1981, p. 8). She goes on to state:

> A circular epistemology forces the therapist to take account of the fact that he or she is inevitably part of a larger field, an inextricable element of that which he attempts to change (p. 9).

The nature of the consultative relationship may best be viewed as a system in which the consultant does

influence the consultee in a direction of change and the consultee influences the consultant. From Hoffman's view, it is impossible for consultants to view themselves separate from the consultee when both are a part of the process and "Part of this larger field . . . which he attempts to change" (Hoffman, 1981, p. 9). The systemic view of consultation has yet to be formalized in theory or systematically studied. Hughes and Falk's (1981) utilization of reactance theory and their application of paradoxical injunctions to reduce teacher resistance to consultation have come closest to systemic view of consultation. However, their methods and theory have gone untested and lack substantiation in research.

In the study conducted by Tombari and Bergan (1978), only one part of the interaction process was evaluated where they examined the effects of a consultant's verbal cues. The other side of the process operating is the effect consultees have on the consultants. Using a reversal of their procedures, this study examined the effects of verbal cues used by a consultee on consultants. In other words, it was hypothesized that a consultee using behavioral cue words would elicit behavioral terminology from beginning consultants, while medical cue words would influence new consultants to use dynamic or medical

language in the discussion and written description of a consultee's problem-behavior child. Furthermore, as in the Tombari and Bergan (1978) study, it was hypothesized that consultants would have a higher expectancy of problem solution when the consultee used behavioral model as opposed to medical model language.

This study also examined the differences in the effects of a consultee's cue word upon trained and untrained consultants. It was hypothesized that untrained consultants would vary according to the consultee's cue words, while trained consultants would not. Trained consultants would likely focus on relevant behavioral issues and conduct the consultation interview that would lead to the most success, as Bergan and Tombari (1975, 1978) have shown.

This study enhances the data base of consultation research. By studying the consultant-consultee relationship systematically, this opens up a new area of investigation and research. In addition, this research is based on actual verbalization in the consultative process rather than depending solely on self-reports by the consultant which is subject to bias. Self-reports used in consultation research have been a point of criticism (Mannino & Shore, 1975). Moreover, this study

builds on existing research which has been suggested by Medway's (1979) review of consultation research. Finally, this study assists consultants in their training and application of consultative interventions. Consultants can facilitate the consultation process by knowing those ways in which successful problem-solving is assisted and impeded.

Methods

Subjects

Eighteen graduate students in a doctoral school psychology program at Texas Woman's University served as subjects. Nine experimental subjects, 7 females and 2 males, were trained in an advanced consultation course. Nine control subjects did not receive consultation training. Participants in this experiment were between the ages of 26 and 40. Control and experimental subjects were matched in terms of age and background.

The consultees, the teachers, were represented by two 33 year old, white males who are experienced mental health service providers. Each has had professional experience as a counselor, consultant and teacher. One served as consultee under pretraining conditions and the other under posttraining conditions.

Consultees' presentation of a problem behavior child to consultants were rated and checked for reliability according to the designated cue condition using the consultation analysis record (Bergan & Tombari, 1975), and across the time periods using a percentage index score. One interview for each cue condition, group and time was randomly selected to be rated. This made for a total of eight rated interviews. Analysis of the first five consultee statements which generally entailed problem identification showed an interrater reliability of the appropriate cue condition to be .91. The reliability between raters for the two consultees was established at .96. In sum, it can be stated with confidence that consultees were giving the appropriate cue conditions to subjects and there showed an agreement of cue condition for the pre and post interview periods.

Independent Variables

There are two independent variables. Two types of verbal cues, behavioral and medical, were given to each subject. The second independent variable is consultation training; half of the subjects were trained, the other half were untrained.

Cue Type. As in Tombari and Bergan's (1978) research, the same operational definitions were used for behavioral

and medical model cue words in this study; the difference being that the cue conditions will be given by the consultee instead of by the consultant. The medical model cue words were operationally defined as ". . . verbal behavior related to individual characteristics and to possible remote environmental and internal causes of current problems" (Tombari & Bergan, 1978). Tombari and Bergan (1978) add that cue words of this model are usually reflective of open-ended type questions.

Behavioral model cue words were operationally defined as words which relate to ". . . specific student behaviors and immediate antecedent and consequent events associated with them" (Bergan & Tombari, 1975). Tombari and Bergan (1978) further state that behavioral cue words generally reflect close-ended type questions.

Behavioral and medical model cues used during the consultation interview were adopted from the form used by Tombari and Bergan (1978). Their original form was changed to allow the consultee, instead of the consultant, to be in control of the cue words. For example, Tombari and Bergan have the consultant use the following behavioral cue: "Tell me about _____'s behavior in your class" (Tombari & Bergan, 1978, p. 214). For the present study this was altered by having the consultee say "I want to

tell you (the consultant) about _____'s behavior in my class." A medical model cue used by the consultant in Tombari and Bergan's (1978) study was "Which aspects of _____'s problem are you most concerned about?" This study altered this question for purposes of consultee cueing by saying "The aspects of _____'s problem I am most concerned about are _____." A complete list of the behavioral and medical model cues used by the consultee can be found in Appendix A.

Consultation training. Consultation training in this study was conducted over a 9 month period, two consecutive semesters, in an advanced doctoral level course. The course is taught by a highly experienced and widely published psychological consultant. The course consists of a wide range of consultation information and knowledge, part of which addresses the problem-solving consultation methods of Bergan and Tombari (1975, 1976). This course also required weekly practicum experiences at local public schools. A complete outline of course training and objectives is detailed in Appendix B.

Dependent Measures

Each criterion variable was measured before and after consultation training.

Consultation Analysis Record (CAR). The CAR was developed by Bergan and Tombari (1975) to evaluate the problem-solving process in a consultant-consultee relationship. In consultation problem solving, there are four areas in which each message is classified. They are: source, content, process and control. The source category reflects who made the statement, while the content category indicates what was said in the verbalizations. The process classification notes how the verbal message was transmitted, while the control category notes whether the verbalizations were intended to elicit information from the other or whether the verbalization was simply a statement of information. Each classification area has subclassification categories and each verbalization by consultant and consultee is scored on a CAR form (see Appendix C). An interrater reliability of 96% agreement was established for two raters coding 50 units of verbalizations on the CAR. For three types of interviews, the interrater reliability coefficients (Scott, 1955) across three message categories achieved levels between .87 and 1.00 (Bergan & Tombari, 1975).

This study used only the content classification category, and only the behavior, behavior setting, background environmental and individual characteristic

subcategories were evaluated. These are the same content analysis categories used in Tombari and Bergan's (1978) study. In that setting interrater reliability coefficients (Scott, 1955) for 100 randomized statements using two raters was .91.

Reliability among raters in this study showed an overall coefficient of .88 for 2,103 statements. The pretreatment coefficient was .87 while the posttreatment reliability measure was .89. Interrater reliability was established by dividing the number of agreements by the total number of statements. Scott's (1955) method for obtaining reliability coefficients was not used for methodological reasons. Tombari and Bergan (1978) used this method in their study, but it requires at least three areas of classification. This study used four classification areas, behavior, behavior setting, individual characteristics, and background environment. However, raters were coding behavior and behavior setting into the behavioral model category and individual characteristics and background environment into the medical model category. Because raters were not having to discriminate behavior setting or individual characteristics from background environment, this meant that the primary discrimination was among two categories, behavioral and medical. For

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For the self-report measure, raters achieved an interrater reliability of .95 for the pre-interview ratings. The post-interview ratings showed raters to agree 95% of the time, and thus they maintained a .95 interrater reliability on the self-report for the entire study.

Procedures

Pretest and posttest consultation interviews took place in an experimental room equipped with two chairs, a table and a one way glass behind which all interviews were audio recorded. Tape recorded interviews met the requirements for experimentation according to the Human Subject and Review Committee's guidelines.

Subjects were positioned fact-to-face with consultee. Before the interview each subject was greeted by the consultee with the following verbal instructions:

> You are a psychological consultant hired by the school district to help teachers in regular education with their problem-behavior children. I am a 5th grade teacher who has requested your help with one of my children. Your job, in this brief, 15-minute interview is to respond as a helpful consultant. When the interview is over, you will be given a questionnaire to complete outside the interview room and turn in to me before your leave.

The consultee rehearsed behavioral and medical model cues before their respective interviews. The problem child for each interview was hypothetical. The problem

behavior of the child was counterbalanced among all subjects for each cue condition, with a disruptive and inactive male and female child. The problem for each child was predetermined and it was presented the same to each consultant. In addition, the consultee responded with similar information about each child. Consultants requesting information unique to their interview were responded to in accordance with the criterion that meets conditions of the cue type. Consultants who requested information opposite cue type condition were responded to in a direct manner that was congruent to the requested information. However, there was no elaboration of this information unless the consultant asked for it. The consultee elaborated and expanded on information requested by the consultant when that information reflected the cue condition given.

Each interview was terminated at the end of a 15-minute period or before, depending on the consultant. All interviews were at least 10 minutes in length. Following the interview, each consultant was given the self-report questionnaire to complete. At the completion of the pretest interviews, 9 consultants were trained over the 9-month period, while 9 control subjects received training in other psychology courses. At the completion of the

9-month training period, all consultants were given post-test interivews.

Raters

Two female raters, ages 26 and 33, from the university graduate school in psychology, were compensated for their time. Each remained uninformed about the nature of the hypotheses of this study. Each was experienced in conducting clinical interviews.

Both raters were provided a detailed explanation of the Consultation Analysis Record (CAR) and a copy of the four content areas with definitions and examples. In addition, rules for coding were given to the raters (Appendix F).

A 3-hour training session was conducted using both didactic and experimental exercises. The didactic section included reviewing definitions and examples of each content area. After this session each rater was able to give two original examples of each area. The accuracy of these examples was judged by the trainer and other rater. Any disagreements concerning examples were discussed and reevaluated and new examples given, if needed.

Experiential exercises were conducted on 3 pilot study transcripts. Rater coded 30 statements on the first transcript, and an interrater reliability coefficient was

established by the percentage of agreement. Any coefficient above .85 indicated raters were trained. Coefficients lower than .85 meant 30 more statements on the transcript were to be coded. Training was to proceed until the .85 or higher criterion was achieved. Raters required only the first trail on 30 statements, in which an interrater reliability coefficient of .91 was achieved.

Raters were given 3 pilot, self-report forms to code on a CAR for the same four content areas as in coding verbalizations. Training with these forms continued until an .85 interrater reliability coefficient was achieved. Raters required 2 trials on the self-report exercises before they achieved an overall interrater reliability coefficient of .92.

Raters coded all messages on the CAR form from transcripts of consultation interviews. Raters coded independently, and spot checks for reliability were made. Interrater reliability coefficients remained above .87 throughout the rating period. Differences in agreement about a coded message were discussed among the raters until agreement was reached.

Analysis of Data

Thirty consultant and consultee statements were coded from each consultation interview. The 30 statements were

divided into 10 statements coded from the beginning, middle, and ent of the interview. For each consultant, two index scores were obtained for verbalizations and self-report. The behavioral and medical index scores were calculated by dividing the total number of content area statements, behavior plus behavior setting for behavioral content statements, background environment and individual characteristics for medical content statements, by the total number of coded units. The formulas for the behavioral verbalization index (BVI) and the medical verbalization index (MVI) were:

$$BVI = \frac{\text{Behavior \& Behavior Setting}}{\text{Total number of coded units}}$$

(Tombari & Bergan, 1978)

$$MVI = \frac{\text{Background Environment \& Individual Characteristics}}{\text{Total number of coded units}}$$

To control for differences of verbal production within consultants' statements, both BVI and MVI scores were correlated with the total number of coded units (Marsden, 1974). No significant correlation was found. The consultees statements were scored for BVI and MVI to determine congruency with the type cue condition.

The self-report forms had two scores. One was the measure of consultation success, and the other a

description of the problem, which was rated using the CAR for behavioral or medical content.

Design

Experimental Design

This is a quasi-experimental designed experiment. Specifically, it was a pretest-posttest intact, non-equivalent control group design. The two groups, experimental and control, were not randomized for treatment conditions. However, attempts were made to match subjects in both groups for age and background. Due to these preliminary pretreatment precaustions, the control group was not totally nonequivalent. This decreased this study's threat to internal validity (Huck, Cormier & Bounds, 1974).

Results

All data were computer analyzed according to the Statistical Package for the Social Sciences (SPSS) procedures using multiple dependent measures. A 2 x 2 x 2 multivariate analysis of variance (MANOVA) with repeated measures on the subject factor was computed for the 3 dependent variables, consultant verbalizations, problem description (self report), and consultants' ratings of helpfulness or success. However, the analysis revealed that problem descriptions and consultant ratings were linearly dependent on consultant verbalizations. Therefore,

A MANOVA proved to be an invalid method for evaluating the data. In Table 1 the correlation matrix and probabilities of behavioral verbalizations associated with the other dependent variables are shown.

Canonical Correlation Analysis

To evaluate the interdependence among the dependent variables, a post hoc analysis using canonical correlation analysis was computed. Collapsing across the subjct variable, an overall coefficient for the dependent variables was 0.95. The canonical correlation uses weighted totals between two variables to maximize their degree of relationship. In Table 2, significant findings can be interpreted from each canonical variable. Preinterview ratings for behavior cue (RPRB) and medical cue (RPRM) conditions were significant at the .005 level with coefficients of -0.56 and -0.68, respectively. These findings are interpreted as consultants rate themselves low in terms of helpfulness in the preinterviews situations regardless of cue condition. This same interpretation can be stated for the ratings given under the postinterview, medical cue (RPOM) condition in which the canonical coefficient was -0.72, significant at the .005 level. Significantly ($p = .005$) higher ratings of helpfulness were found for the postinterview, behavioral cue condition.

Table 1

Pearson Correlation Coefficients

	PREB	POSB	PREM	POSM	RPRB	RPRM	RPOB	RPOM	SPRB	SPOB	SPRM	SPOM
PREB	1.0000	0.1950	0.3988	0.3049	-0.2298	-0.1965	0.1977	0.1460	0.0612	0.3646	0.3475	0.3130
	P=****	P=.219	P=.051	P=.109	P=.179	P=.217	P=.216	P=.282	P=.405	P=.068	P=.079	P=.103
POSB	0.1950	1.0000	0.4308	0.2148	-0.0421	0.0899	-0.4641	-0.0737	0.1233	0.2583	0.1846	-0.2550
	P=.219	P=****	P=.196	P=.196	P=.434	P=.361	P=.026	P=.386	P=.313	P=.150	P=.232	P=.154
PREM	0.3988	0.4308	1.0000	0.4348	0.1400	-0.4016	-0.1170	-0.1815	-0.5122	-0.1950	0.1755	-0.4592
	P=.051	P=.037	P=****	P=.036	P=.290	P=.049	P=.322	P=.236	P=.015	P=.219	P=.243	P=.028
POSM	0.3049	0.2148	0.4348	1.0000	-0.4212	-0.6246	-0.1137	-0.3589	-0.2537	-0.2329	0.0562	-0.0228
	P=.109	P=.196	P=.036	P=****	P=.041	P=.003	P=.327	P=.072	P=.155	P=.176	P=.412	P=.464
RPRB	-0.2298	-0.0421	0.1400	-0.4212	1.0000	0.2236	0.0000	-0.0687	0.0000	0.3101	0.1768	-0.1768
	P=.179	P=.434	P=.290	P=.041	P=****	P=.186	P=.500	P=.393	P=.500	P=.105	P=.241	P=.241
RPRM	-0.1965	0.0899	-0.4016	-0.6246	0.2236	1.0000	0.2335	0.1141	0.4969	0.3407	-0.2259	0.0452
	P=.217	P=.361	P=.049	P=.003	P=.186	P=****	P=.175	P=.326	P=.018	P=.083	P=.184	P=.429
RPOB	0.1977	-0.4641	-0.1170	-0.1137	0.0000	0.2335	1.0000	0.4304	0.0000	-0.1943	-0.4924	0.3693
	P=.216	P=.026	P=.322	P=.327	P=.500	P=.175	P=****	P=.037	P=.500	P=.220	P=.219	P=.066
RPOM	0.1460	-0.0737	-0.1815	-0.3589	-0.0687	0.1141	0.4304	1.0000	0.3885	0.0852	-0.0971	0.1943
	P=.282	P=.386	P=.236	P=.072	P=.393	P=.326	P=.037	P=****	P=.056	P=.368	P=.351	P=.220
SPRB	0.0612	0.1223	-0.5122	-0.2537	0.0000	0.4969	0.0000	0.3885	1.0000	0.0877	0.0000	0.0000
	P=.405	P=.313	P=.015	P=.155	P=.500	P=.018	P=.500	P=.056	P=****	P=.365	P=.500	P=.500
SPOB	-0.3646	0.2583	-0.1950	-0.2329	0.3101	0.3407	-0.1943	0.0852	0.0877	1.0000	-0.0877	0.1754
	P=.068	P=.150	P=.219	P=.176	P=.105	P=.083	P=.220	P=.368	P=.365	P=****	P=.365	P=.243
SPRM	-0.3475	0.1846	0.1755	0.0562	0.1768	-0.2259	-0.4924	-0.0971	0.0000	-0.0877	1.0000	-0.5000
	P=.079	P=.232	P=.243	P=.412	P=.241	P=.184	P=.019	P=.351	P=.500	P=.365	P=****	P=.017
SPOM	0.3130	-0.2550	-0.4592	-0.0228	0.1768	0.0452	0.3693	0.1943	0.0000	0.1754	-0.5000	1.0000
	P=.103	P=.154	P=.028	P=.464	P=.241	P=.429	P=.066	P=.220	P=.500	P=.243	P=.017	P=****

Table 1

Pearson Correlation Coefficients

PREB	Behavioral Statements Preinterview, behavioral cue
POSB	Behavioral Statements Postinterview, behavioral cue
PREM	Behavioral Statements Preinterview, medical cue
POSM	Behavioral Statements Postinterview, medical cue
RPRB	Ratings, preinterview, behavioral cue
RPRM	Ratings, preinterview, medical cue
RPOB	Ratings, postinterview, behavioral cue
RPOM	Ratings, postinterview, medical cue
SPRB	Self Report Preinterview, behavioral cue
SPOB	Self Report Postinterview, behavioral cue
SPRM	Self Report Preinterview, medical cue
SPOM	Self Report Postinterview, medical cue

Table 2

Coefficients for canonical variables of the second set

	Canonical Variable 1
RPRB	-0.55536
RPRM	-0.67604
RPOB	0.47900
RPOM	-0.71732
SPRB	0.83308
SPOB	0.28656
SPRM	0.13662
SPOM	0.42786

Coefficients for canonical variables of the first set

	Canonical Variable 1
PREB	0.27614
POSB	0.02932
PREM	-0.93548
POSM	0.92807

RPRB	Ratings, preinterview, behavioral cue
RPRM	Ratings, preinterview, medical cue
RPOB	Ratings, postinterview, behavioral cue
RPOM	Ratings, postinterview, medical cue
SPRB	Self Report, preinterview, behavioral cue
SPOB	Self Report, postinterview, behavioral cue
SPRM	Self Report, preinterview, medical cue
SPOM	Self Report, postinterview, medical cue
PREB	Behavioral Statements, preinterview, behavioral cue
POSB	Behavioral Statements, postinterview, behavioral cue
PREM	Behavioral Statements, preinterview, medical cue
POSM	Behavioral Statements, postinterview, medical cue

The canonical analysis also revealed significant findings for the self report variables. There were significantly ($p = .005$) more behavioral descriptions than medical descriptions written under preinterview behavioral cue (SPRB) condition. The canonical coefficient for this variable was 0.83. At the same level of significance ($p = .005$), there were more behavioral than medical descriptions written under the postinterview, medical cue (SPOM) condition with a canonical coefficient of 0.43. Nonsignificant findings using the canonical correlation were indicated for the behavioral versus medical descriptions, postinterview behavioral cue (SPOB) condition and the preinterview, medical cue (SPRM) condition. Respectively, the canonical coefficients were 0.28 and 0.13 and they were not significant at the .005 level.

There were two significant canonical coefficients for consultants' behavioral verbalizations. There were significantly fewer behavioral statements, hence more medical statements, under the preinterview, medical cue (PREM) condition. The canonical coefficient for this variable was -0.94, significant at the .005. In addition, there were significantly ($p = .005$) more behavioral than medical statements under the postinterview, medical cue (POSM) condition, canonical coefficient of 0.93. There

were nonsignificant findings for behavioral statements under pre and post interview behavioral cue (PREB and POSB, respectively) conditions. Canonical coefficients for PREB was 0.28 and 0.02 for the POSB variable.

In summary of the canonical analysis, there results indicate that unhelpfulness ratings occur under preinterview behavioral and medical cues and postinterview medical cue conditions and these are associated with fewer behavioral verbalizations under the preinterview medical and behavior cue conditions. Also, unhelpfulness ratings occur under the postinterview medical cue conditions and these are associated with the significant number of behavioral verbalizations under the postinterview, medical cue condition. These findings were computed without taking into account the grouping variable. Due to the fact that there were no significant findings between experimental and control groups in other statistical analyses, collapsing the groups and interpreting these results appeared to be a viable procedure.

Due to problems involved in the MANOVA, to be computed, univariate analysis of variance (ANOVA) was conducted for each dependent variable, consultants verbalizations, problem descriptions and helpfulness

ratings across all three independent variables, time, group and cue words. Results of these analysis are presented according to the dependent measures.

Behavioral Interview Statements

In Table 3 is the ANOVA summary table for behavioral statements. Significant results were found for cue ($F(1,16) = 19.83$, $p = .001$) and time ($F(1,16) = 14.21$, $p = .001$). No significant differences were found for group ($F(1,16) = 1.44$, N.S.), time by group interaction ($F(1,16) = 0.49$, N.S.), cue by group interaction ($F(1,16) = 0.96$, N.S.), time by cue interaction ($F(1,16) = 0.11$, N.S.), or time by cue by group interaction ($F(1,16) = 0.01$, N.S.).

In Table 4 the cell and marginal means for behavioral statements are given while Figure 1 indicates the graph of the significant main effects for cue and time. There are significantly more behavioral statements given under behavioral cue than under medical cue conditions. In addition, there is a significant increase in behavioral statements from the pre to post interview times. No significant group differences or interaction effects among the independent variables were found.

Medical Interview Statements

As a result of the medical statement coding procedures (i.e., interview statements were either behavioral or

Table 3

ANOVA summary table: Behavioral statements for pre and post interviews by behavioral and medical cue

Source	Sum of Squares	Degrees of Freedom	Mean Square	F
Mean	246925.26754	1	246925.26754	451.25
Group	788.90539	1	788.90539	1.44
Error	8755.29416	16	547.20588	
Time	2670.95223	1	2670.95223	14.21*
TG	92.04984	1	92.04984	0.49
Error	3006.47321	16	187.90458	
Cue	3930.44557	1	3930.44557	19.83**
CG	190.54774	1	190.54774	0.96
Error	3171.42558	16	198.21410	
TC	25.83607	1	25.83607	0.11
TCG	2.37257	1	2.37257	0.01
Error	3772.78446	16	235.79903	

* Significant at the .002 level.
** Significant at the .001 level.

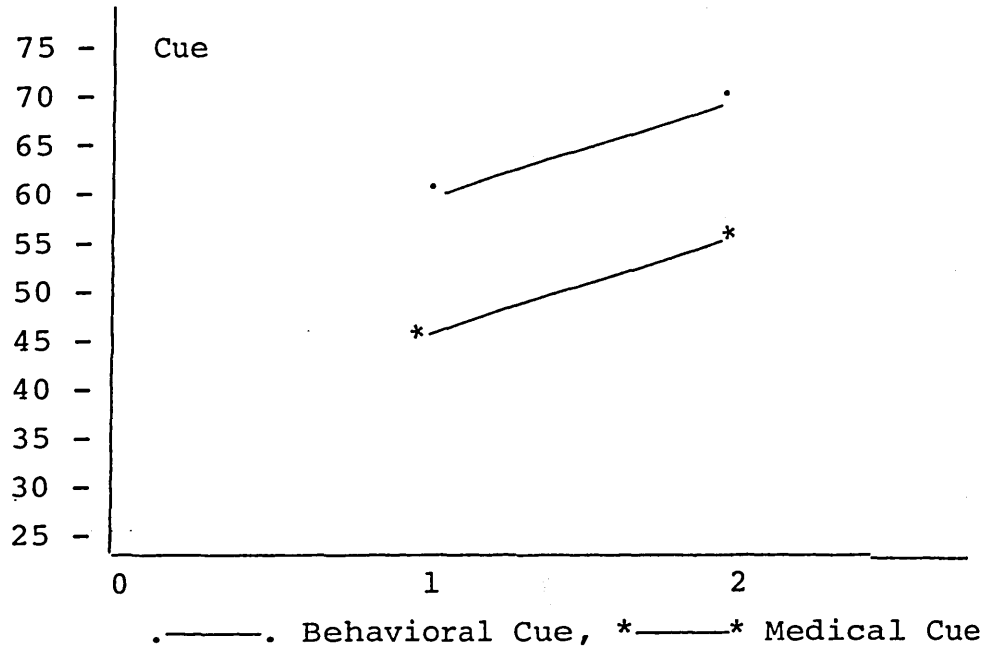
Table 4

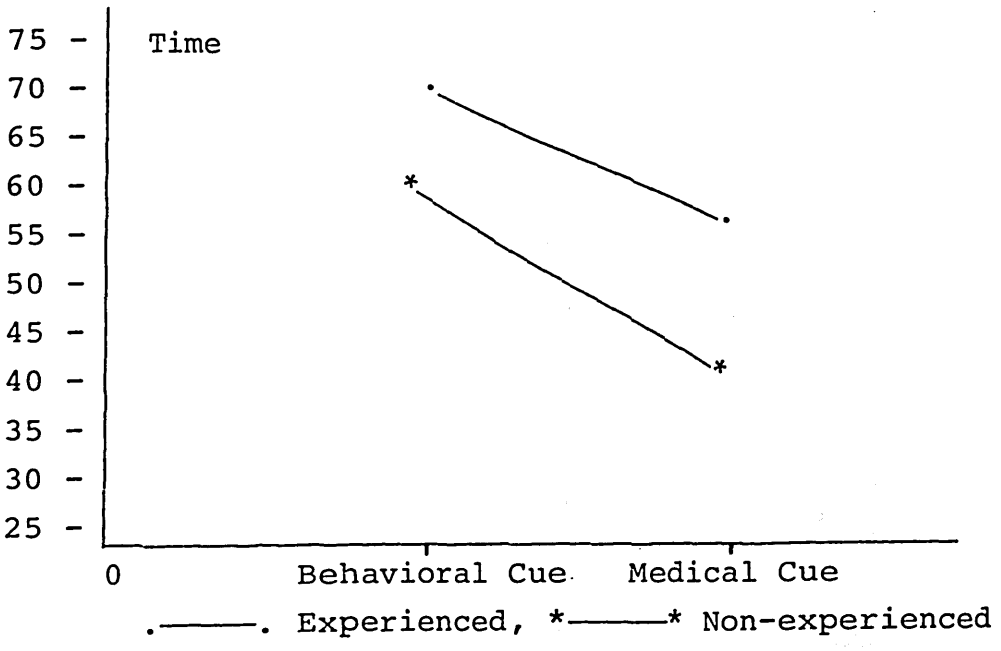
Marginal and cell means: Behavioral statements for pre and post interviews by behavioral and medical cue

	Time 1		Time 2		
	Behavioral Cue	Medical Cue	Behavioral Cue	Medical Cue	Marginal
Experimental Group	63.454	50.370	71.813	61.851	61.872
Control Group	57.463	38.598	71.071	53.876	55.251
Marginal	60.459	44.484	71.442	57.863	58.562

Figure 1

Plot of cue and time effect for behavioral statements across pre and post interviews by behavioral and medical cue





medical), medical statements are the inverse of behavioral statements, and thus the same significant differences were found. The results in Table 5 indicate significant differences for the effects of cue ($F(1,16) = 19.63$, $p = .001$) and the effects of time ($F(1,16) = 14.05$, $p = .001$). Likewise, as for behavioral statements, there were no significant differences for the training group ($F(1,16) = 1.44$, N.S.) nor for the interactions of time by group ($F(1,16) = 0.46$, N.S.), cue by group ($F(1,16) = 0.96$, N.S.), time by cue ($F(1,16) = 0.13$, N.S.), or time by cue by group ($F(1,16) = 0.01$, N.S.).

Cell and marginal means for medical statements are shown on Table 6. The plotting of the significant main effects, cue and time are shown as Figure 2. These data indicate there were significantly more medical statements under medical rather than behavioral cue conditions. In addition, there were significantly more medical statements under the preinterview versus postinterview conditions. Significant results were not found for the effects of the training group, nor were there any significant interaction effects.

Behavioral Self Report Descriptions

Self reports entailed the consultants to write a brief description of the problem as presented in the interview.

Table 5

ANOVA summary table: Medical statements for pre and post interviews by behavioral and medical cue

Source	Sum of Squares	Degrees of Freedom	Mean Square	F
Mean	123389.38857	1	123389.38857	225.07
Group	787.18507	1	787.18507	1.44
Error	8771.77595	16	548.23600	
Time	2643.97799	1	2643.97799	14.05*
TG	87.14200	1	87.14200	0.46
Error	3010.24733	16	188.14046	
Cue	3963.91239	1	3963.91239	19.63**
CG	193.55281	1	193.55281	0.96
Error	3230.95790	16	201.93487	
TC	29.40167	1	29.40167	0.13
TCG	1.84640	1	1.84640	0.01
Error	3748.63606	16	234.28975	

*Significant at the .002 level.
**Significant at the .001 level.

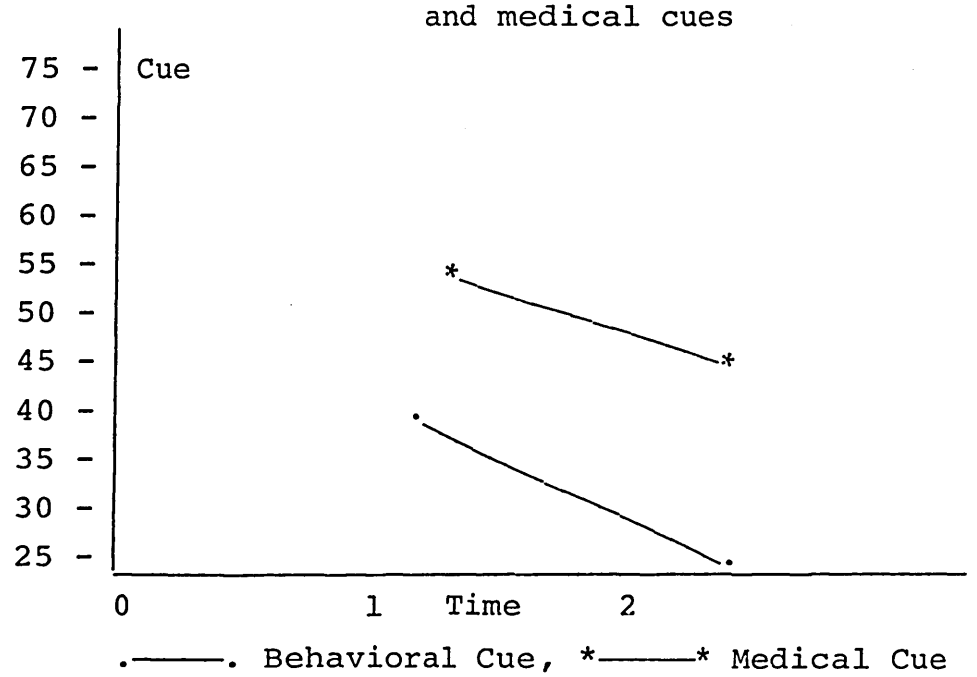
Table 6

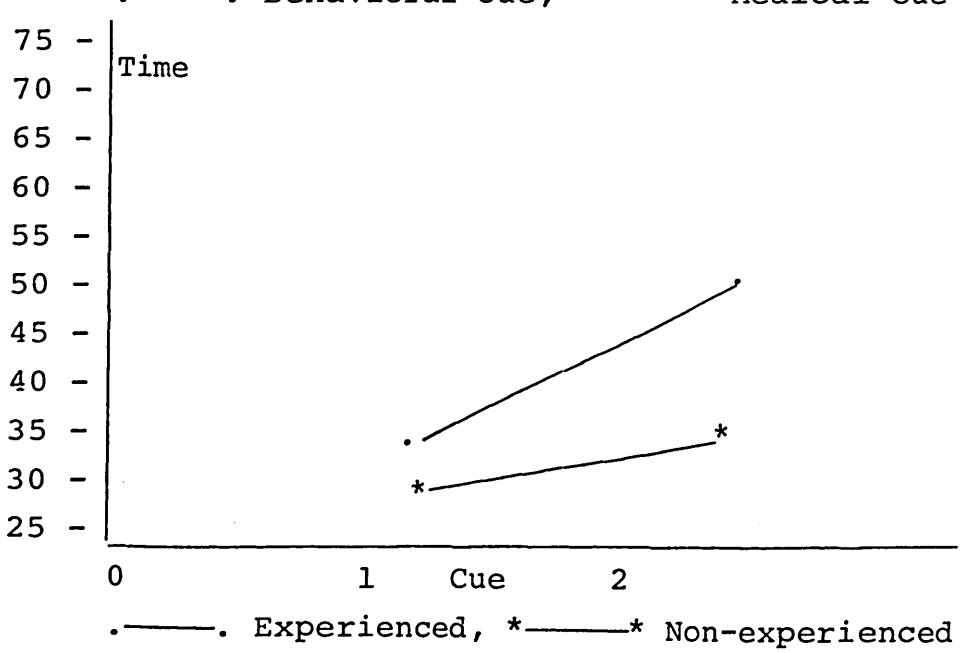
Marginal and cell mass: Medical statements for pre and post interviews by behavioral and medical cue

	Time 1		Time 2		
	Behavioral Cue	Medical Cue	Behavioral Cue	Medical Cue	Marginal
Experimental Group	36.471	49.630	28.150	38.112	38.091
Control Group	42.326	61.402	28.963	46.124	44.704
Marginal	39.398	55.516	28.557	42.118	41.397

Figure 2

Plot of cue and time effect for medical statements across pre and post interviews by behavioral and medical cues





The consultees manipulated behavioral and medical model cues and consultants' descriptions were rated as either behavioral or medical terminology. Table 7 represents the ANOVA summary table for behavioral descriptions across group, time, and cue. A significant finding was obtained for the effects of cue ($F(1,16) = 13.00$, $p = .002$). There were no significant main effects for the treatment group ($F(1,16) = 1.92$, N.S.), or for time ($F(1,16) = 0.04$, N.S.). There were no significant interactions, time by group ($F(1,16) = 0.39$, N.S.), cue by group ($F(1,16) = 0.08$, N.S.), time by cue ($F(1,16) = 0.05$, N.S.), or time by cue by group ($F(1,16) = 0.05$, N.S.).

In Table 8 the cell and marginal means for self report, behavioral descriptions were given. Figure 3 is a graph of the main effect of cue. There are significantly more behavioral descriptions under behavioral cue conditions than there were behavioral descriptions under medical cue conditions. There were no significant main effects for treatment or time. Also, there were no significant interactions.

Medical Self Report Descriptions

Consultants writing medical descriptions have the inverse results of behavioral descriptions. An ANOVA summary table on Table 9 denotes the medical descriptions

Table 7

ANOVA summary table: Self report behavioral description for pre and post interviews by behavioral and medical cues

Source	Sum of Squares	Degrees of Freedom	Mean Square	F
Mean	19.01389	1	19.01389	105.31
Group	0.34722	1	0.34722	1.92
Error	2.88889	16	0.18056	
Time	0.01389	1	0.01389	0.04
TG	0.12500	1	0.12500	0.39
Error	5.11111	16	0.31944	
Cue	2.34722	1	2.34722	13.00*
CG	0.01389	1	0.01389	0.08
Error	2.88889	16	0.18056	
TC	0.01389	1	0.01389	0.05
TCG	0.01389	1	0.01389	0.05
Error	4.22222	16	0.26389	

* Significant at the .002 level.

Table 8

Marginal and cell means: Behavioral descriptions, self report for pre and post interviews by behavioral and medical cues

	Time 1		Time 2		
	Behavioral Cue	Medical Cue	Behavioral Cue	Medical Cue	Marginal
Experimental Group	0.556	0.222	0.667	0.333	0.444
Control Group	0.778	0.444	0.778	0.333	0.583
Marginal	0.667	0.333	0.722	0.333	0.514

Figure 3

Plot of cue effect for behavioral descriptions, self report for pre and post interviews by behavioral and medical cues

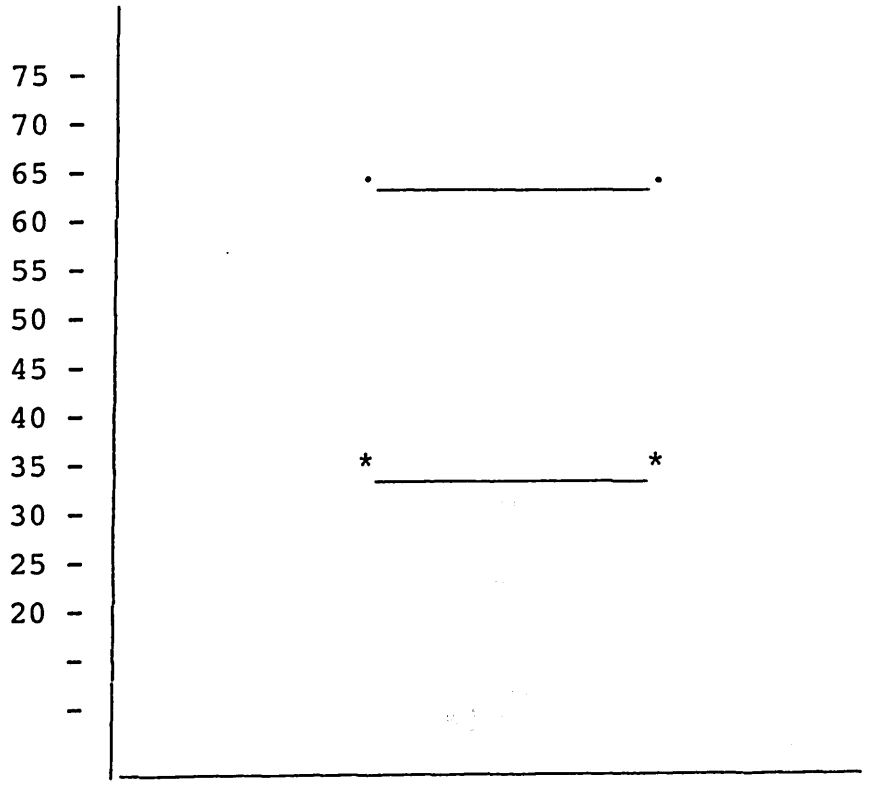


Table 9

ANOVA summary table: Self report medical descriptions for pre and post interviews by behavioral and medical cues

Source	Sum of Squares	Degrees of Freedom	Mean Square	F
Mean	17.01389	1	17.01389	94.23
Group	0.34722	1	0.34722	1.92
Error	2.88889	16	0.18056	
Time	0.01389	1	0.01389	0.04
TG	0.12500	1	0.12500	0.39
Error	5.11111	16	0.31944	
Cue	2.34722	1	2.34722	13.00*
CG	0.01389	1	0.01389	0.08
Error	2.88889	16	0.18056	
TC	0.01389	1	0.01389	0.05
TCG	0.01389	1	0.01389	0.05
Error	4.22222	16	0.26389	

* Significant at the .002 level.

across group, time, and cue. There was a significant cue effect ($F(1,16) = 13.00$, $p = .002$), but there were no significant treatment effects ($F(1,16) = 1.92$, N.S.) or effects for time ($F(1,16) = 0.04$, N.S.). There were no significant interactions, time by group ($F(1,16) = 0.39$, N.S.), cue by group ($F(1,16) = 0.08$, N.S.), time by cue ($F(1,16) = 0.05$, N.S.) or time by cue by group ($F(1,16) = 0.05$, N.S.).

In Table 10 the cell and marginal means medical descriptions are given. Figure 4 is a graph of the main effects of cue. These results indicate there were significantly more medical descriptions under medical cue conditions than there were medical descriptions under behavioral cue conditions. There were no significant main effects for treatment or time. In addition, there were no significant interactions.

Consultant Ratings of Helpfulness

In Tables 11 and 12 the summary table and cell and marginal means for the consultants' ratings are given. Data analysis show no significant findings on this dependent measure. A trend toward significance was found on the time factor by group interaction effect ($F(1,16) = 3.70$, $p = .073$). Nonsignificant findings were obtained for the main effects of group treatment ($F(1,16) = 0.19$,

Table 10

Marginal and cell means: Medical descriptions, self report for pre and post interviews by behavioral and medical cues

	Time 1		Time 2		
	Behavioral Cue	Medical Cue	Behavioral Cue	Medical Cue	Marginal
Experimental Group	0.444	0.778	0.333	0.667	0.556
Control Group	0.222	0.556	0.222	0.667	0.417
Marginal	0.333	0.667	0.278	0.667	0.486

Figure 4

Plot of cue effect for medical descriptions, self report for pre and post interviews by behavioral and medical cues

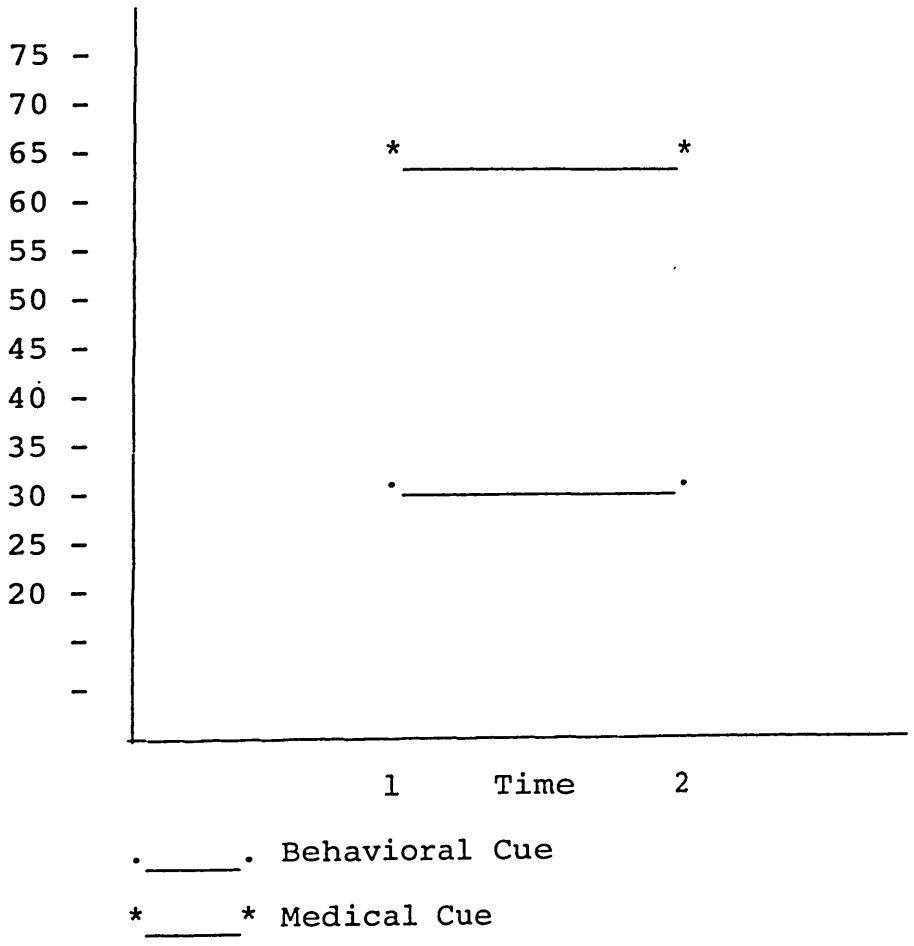


Table 11

ANOVA summary table for ratings

Source	Sum of Squares	Degrees of Freedom	Mean Square	F
Mean	1334.72222	1	1334.72222	115.90
Group	0.22222	1	0.22222	0.19
Error	18.55556	16	1.15972	
Time	0.00000	1	0.00000	0.00
TG	2.72222	1	2.72222	3.70
Error	11.77778	16	0.73611	
Cue	0.88889	1	0.88889	1.88
CG	0.05556	1	0.05556	0.12
Error	7.55556	16	0.47222	
TC	0.50000	1	0.50000	0.89
TCG	0.00000	1	0.00000	0.00
Error	9.00000	16	0.56250	

Table 12

Marginal and cell means for ratings

	Time 1		Time 2		
	Behavioral Cue	Medical Cue	Behavioral Cue	Medical Cue	Marginal
Experimental Group	4.222	4.111	4.778	4.333	4.361
Control Group	4.444	4.444	4.222	3.889	4.250
Marginal	4.333	4.278	4.500	4.111	4.306

N.S.), time ($F(1,16) = 0.00$, N.S.), and cue ($F(1,16) = 1.88$, N.S.). Other analysis showed nonsignificant findings for interaction effects, cue by group ($F(1,16) = 0.12$, N.S.), time by group ($F(1,16) = 0.89$, N.S.) and time by cue by group ($F(1,16) = 0.00$, N.S.). Although there were no findings with this dependent variable with a probability less than p .005, there was an apparent trend that suggests trained consultants felt more successful and helpful in the consultation interviews than did untrained consultants.

Discussion

The results of this study have supported the major hypothesis that consultee's cue words would influence consultants' verbal and written description about a problem behavior child. It was demonstrated in the univariate and canonical analysis that behavioral cue words elicited significantly more behavioral, verbal and written statements than did medical cue words. Results supported the opposite position that medical cue words tended to elicit more medical statements for both verbal and written statements. For example, when consultees used medical terms such as "shy," "depressed," "explosive," or "bad," consultants were more likely to use these same type of words in their verbal interchange with the consultee and also would have a greater tendency to use these words when they wrote a brief

description of the problem. As for behavioral terminology, consultees' use of "out of seat," "poking and taking things of other children," "never talks and responds only when asked," or "never smiles and keeps her head on her desk" tends to elicit from consultants these same type of behavioral phrases, verbal and written. It was shown, however, that cue influence was reduced over time as behavioral statements increase while medical statements were reduced significantly at the postinterview. In fact, the canonical analysis revealed there were significantly more verbal and written behavioral statements under medical cue conditions in the postinterview period than behavioral statements under behavioral cues in the same interview period. These results suggested that experienced consultants have a desire to use behavioral terminology and if consultees conceptualize childrens problems in a medical framework, experienced consultants tended to increase their output of behavioral terms in order to understand the problem. That there was not a significant number of behavioral statements under behavioral cues in the postinterview period tends to support the contention of consultants' desire to use behavioral language. This is due to the fact that consultees' use of behavioral terms does not necessitate further need for consultants to use

more behavioral terminology. For example, consultees' use of the medical model term "bad" to describe a child increases the likelihood that experienced consultants respond to this with behavioral statements such as "What do you mean by 'bad'." "Does he hit and take things of other children?" If the consultee had used the phrase "he is up and out of his seat, poking and taking things of other children most of the day" to describe a child's behavior, this would not require the consultant to respond to the consultee with increased behavioral statements to clarify the problem. Therefore, experienced consultants did not need to use a high frequency of behavioral statement and, hence the number of behavioral statements under the behavioral cues, postinterview condition would not be significant.

The overall effects of cue indicated that it does influence the terminology, written and verbal, of consultants, but that its influence decreases over time. The significant overall effect of cue may be explained in the preinterview period in which the cue influence may have outweighed the lack of influence in the postinterview period. Thus, the overall influence of the cue manipulation remained intact, but across time, the influence of the cue did not show to be as impactful. It should be noted that univariate and canonical analysis did not reveal exactly the

same results regarding cue effects for verbal and written descriptions. The univariate analysis for verbal behavioral and medical statements indicated only the effect of cue and time. This meant that their were significantly more behavioral and medical statements under their respective cues, and that at the second interview period, there were significantly more behavioral statements and significantly fewer medical statements. It was the canonical analysis which detected the relationship between cue and time in regards to the statements made. In fact, for written descriptions, the ANOVA failed to find any effects of time, while the canonical analysis showed the relationship between time and cue which was the same for verbal statements. The canonical analysis is a method by which small differences can be detected because the variables are weighed before compared. In addition, the canonical correlation establishes a relationship between variables instead of attempting to show a high probability of cause between variables as in univariate analysis.

The findings tend to support, in part, the hypothesis about the effects of cue on trained consultants. It was hypothesized that trained consultants would have significantly more behavioral statements, verbal and written,

under the postinterview period than untrained consultants. The rationale was that trained consultants would maintain a behavioral orientation because this has been shown to be most effective in problem identification and problem resolution (Tombari & Bergan, 1978) of behavioral problems. These results pointed out, however, that there were no differences in the groups in terms of the effects of cue in either interview period. Experimental as well as control subjects before training were conforming to the original hypothesis that there would not be any differences between the groups and that each would be as likely to be influenced by the type of cue used. But, the results indicated that differences between groups did not occur following consultation training of the experimental subjects. As was stated earlier, under the postinterivew condition, there were significantly more written and verbal behavioral statements by all consultants, with no group differences. This included the finding showing a significant use of written and verbal behavioral statements in the postinterview, medical cue condition. By comparing cell and marginal means of behavioral (see Table 4) and medical (see Table 6), verbal statements, there does appear to be a trend toward a predominate use of behavioral statements by trained consultants, especially under the postinterview,

medical cue conditions. The fact that significance was not found may be attributed to the small number of subjects in this study. In addition, the use of intact groups could have hindered detecting significant group differences. Another plausible explanation may have been the effects of the control subjects' training during the school year. It was remarked to one of the consultees by several of the control subjects in the second interview period that they had completed course work in applied behavior modification, part of which addressed behavioral consultation issues. This training may have biased the results so that group differences were not noted. It was indicated in informal discussion among the consultees before data analysis that there were group differences and these differences will be addressed later in this section.

Before elaborating on these group differences, a brief review and discussion of the rating of helpfulness results appears to be in order. The ANOVA failed to indicate any significant differences for cue, group or time effects or for any interaction among these variables. It was hypothesized consultants under behavioral cue conditions would rate themselves as being more helpful, and thus more successful in the consultation interview than when they were given medical cue words. Not finding any differences

indicated consultants do not rate themselves more successful under behavioral than medical cues. However, there does appear to be a trend in the direction of the proposed hypothesis as indicated in the ANOVA. These results revealed a potential time by group interaction with the experimental group showing more successful ratings as a function of their training. Collapsing across groups, the canonical analysis revealed further differences which were supportive of the original hypothesis. These results indicated that under the first interview there were a significant number of unhelpful ratings regardless of cue condition. However, the second interview period resulted in consultants' helpful ratings under behavioral cues while unhelpfulness ratings were associated more with medical cues. The fact that the canonical analysis indicated a significant relationship between cue and time, may suggest experimental analysis could find significant results if the sample size was larger, or if true experimental studies were conducted. The above findings tend to support the results found by Tombari and Bergan (1978), but one major difference was that behavioral cues did not have the same effect for inexperienced consultants as it did for experienced ones. The fact that inexperienced consultants did not rate themselves more successful under

behavioral cues as opposed to medical cues while experienced ones did, may denote the role that experience plays in how well consultants feel they are helpful. Because experienced consultants rated themselves more helpful under behavioral cues than medical cues, may be explained by the fact that experienced consultants feel more helpful when consultees "speak their language." Thus, when both consultees and consultants use behavioral terminology, their may be better communication resulting in greater feelings of helpfulness. Consultants under medical cues may feel they are not communicating adequately with consultees thus they use more behavioral probing. Because they have to attempt to have the consultee respond behaviorally, these efforts may reduce the communication flow and result in feelings of unhelpfulness. This finding, in part, contradicts the effects of behavioral terms found in Tombari and Bergan's study (1978). Inexperienced teachers rated more successful feelings about problem resolution when the consultant used behavioral terms, but in this study inexperienced consultants did not feel as helpful or unhelpful using behavioral terms. It was when consultants had experience and had behavioral terms used by the consultee that they felt successful. Inversely, it may be that if Tombari and Bergan (1978) had used

experienced teachers they would have found these teachers rating success regardless of cue used.

The major nonsignificant finding in this study was the lack of training effects. It was expected that trained consultants would be less influenced by cue differences and maintain a behavioral orientation regardless whether behavioral or medical cues were used by the consultee. Although there were no group differences, results tended to support hypothesis for the experimental group. As mentioned, consultees indicated that there were group differences and by comparing marginal and cell means for behavioral (see Table 4) and medical (see Table 6) verbalization, there does seem to be a trend toward a treatment effect with more behavioral statements being produced by experimental subjects. However, this trend is not seen in the self report measure. As a matter of fact, control subjects are shown to have made more behavioral statements than experimentals. Nevertheless, trained consultants, it was agreed among consultees, were more facilitative in the consultative interview. They remained more flexible with an open style of interacting, plus they reflected and empathized more in the interchange. For example, in response to a problem child, trained consultants seemed to entertain a variety of problem solving approaches whereas

untrained consultants appeared rigid and held to one approach. Also, untrained consultants appeared to come up with solutions much earlier in the interviews, a finding which Curtis and Watson (1980) showed to reflect unskilled consultants. These general impressions seem to relate to the power issues involved in effective consultation. Martin (1978) has related the need for consultants to acquire referent as well as expert power in order to be effective. Expert power as related in the consultative relationship means the consultee attributes to consultants as having the skills and expertise to help them. Referent power refers to the consultee attributing to the consultant as one having the same values, attitudes and beliefs. According to Martin (1978) consultants must maintain a balance between these two power sources in order to be effective. According to antedotes shared by the consultees, trained consultants may have achieved a greater balance between these two power attributes whereas untrained consultants were out of balance with too much weight placed on the expertise side.

Another difference appeared to emerge and that was the way the consultants approached problem resolution with the consultee. Untrained consultants attempted to solve the consultees' problem. The trained consultants seemed to

work with the consultee to solve their own problems. This difference appears to differentiate effective from ineffective consultants (Etzion, 1980; Fine, Grantham & Wright, 1979).

These informal findings appeared to stand out in the second phase of this study. It is likely the dependent measure used in this research were measuring only a narrow band of the consultation process. This study focused on communication cues and conceptualization of problem behavior children. The differences that exist between trained and untrained consultants may not exist along these lines. The training in the use of behavioral technology may well be covered outside the application of consultation techniques. The merits of consultation training may be in its focus on how to relate effectively with consultees so that interventions, behavioral as well as other strategies, will likely be adopted by the consultee.

This study has shown that consultants are influenced by consultees' language in describing a problem child. The influence is apparent for the type of cue words consultees use even though this influence seems to diminish over time for experienced consultants. Although cue words do not, it appears, influence unexperienced consultants feelings of success, they do show an impact for the experienced

consultant in terms of their successful ratings. These influential factors agree with the original premise about two professionals interacting. Tombari and Bergan (1978) found that consultants influence consultees and this study has shown that consultees influence consultants. More specifically medical and behavioral model cue words have a tendency to elicit similar language from beginning consultants and consultees in terms of written and verbal descriptions of problem children. Although beginning teachers rate success with behavioral terminology, it is not until consultants have experience that behavioral terms are associated with success. The significance of these findings highlights the systemic view of reciprocal influence in the interchange among individuals, and that, at least for consultants and consultees, neither is exempt from this field of influence. This is important for consultants to know, especially those in training and those that train. Consultants recognizing they are subjected to influence in the communication process can begin to recognize it and develop strategies with which to deal with it. Failure to understand or resistence to its presence may delay or prohibit optimizing effectiveness in the consultation process. Trainers may begin to think how to handle the consultees' impact in order to eliminate

unnecessary problems and increase the caliber of school consultants.

In this study there appeared to be several drawbacks. However, each of these drawbacks can be reframed to reflect its strength. The few number of subjects used in this study could be seen as a drawback. However, examination of published research on consultation shows that most studies used one consultant to test the effects of various independent variables. Logistically, obtaining the cooperation of the 18 consultant subjects in this study was remarkable, hence, compared to other resarch efforts, this one appears more acceptable. The fact that this study was a quasi-experimental design may be seen as another limitation. But, complete randomization to maintain the designs internal integrity would have been impossible given the context of the study. That is, certain individuals were eligible for training due to their tenure in graduate school while others were not. In fact, this study's results may be more generalizable to actual field situations than consultation studies using true experimental designs as in the case of Tombari and Bergan (1978). Their study was conducted in a laboratory in which consultants were positioned behind a screen to prevent nonverbal behavior from influencing the consultee. In

addition, consultants did not conduct interviews but only had consultees respond to the questions asked. It remains questionable whether one can generalize their findings from a laboratory setting to naturalistic setting where the consultation interviews generally occur.

Another drawback of this study may be the use of two consultees, one for the first and one for the second interview period. However, consultees were matched for age, sex and experience, and each consultee served under all conditions. This primary concern would be with the verbal content of consultees which was shown to be highly reliable across time, each generating the appropriate cue conditions. This minor limitation in a replication study should be eliminated.

There is relevance of this study for future consultation research. Studies of this kind addressing only the consultants' impact upon consultees may be viewing only half of the influence. Future research should be conducted to re-examine the role and influence of consultees. Future research should attempt to study other consultee characteristics which could have an impact on the consultative relationship. For example, differences in teacher's experience may differentially influence consultants' conceptualizations of a problem child as well as the

success in the consultation. Without research efforts examining the reciprocity between consultants and consultees, information contributing to successful consultation practices will be incomplete. This type of research can maximize consultants' efforts to reduce consultees' difficulties with problem behavior children.

Another obvious research direction is to develop more sensitive coding schemes by which to measure the consultative interaction. It seemed the present device, though helpful in a number of ways, did not adequately reveal differences in consultant styles reported to be present by both experimenter consultees. Perhaps instruments from psychotherapy research (e.g., Gottschalk & Gleser, 1969) could be successfully adopted for consultation research.

In summary, the significant findings in this research were that medical cues do appear to elicit from consultants more medical, verbal and written statements. Likewise, behavioral model cues tend to elicit written and verbal behavioral statements. It was shown, however, that the behavior statements for the second time period increased significantly while medical statements declined. Furthermore, it was shown that there was a significant increase in behavioral statements under medical cue conditions

during the second time period. Though written statements showed the effects of cue, it was not shown that behavioral statements significantly increased during the second time period. However, there was a significant finding that written behavioral statements increased under medical cue condition at the time of the second interview. The univariate analysis revealed no significant results for the ratings of helpfulness. However, the canonical analysis indicated that the inexperienced consultants rated themselves significantly less helpful in the first interview but at the second interview consultants rated themselves helpful when given behavioral cues and unhelpful when given medical cues. The major nonsignificant finding in this study was the failure to detect differences between trained and untrained consultants. It appears, on an observer level, that differences between the groups did exist, but that the instruments used in this study were unable to measure them.

APPENDIX A

Behavioral and medical cues

Appendix A

Behavioral Cues

1. I want to tell you about _____'s behavior in my class.

2. Other aspects of _____'s behavior in the classroom that I am concerned about are _____.

3. Of these behaviors, I am most concerned about _____.

4. This behavior usually occurs in the classroom in the _____.

5. I am usually doing _____ immediately before he/she does that behavior.

6. Immediately after _____ performs this behavior, I react by _____, the other children react by _____.

Medical Cues

1. There are so many things to tell about _____. It's hard to know where to begin.

2. The other kinds of concerns I have about _____ are _____.

3. The aspects of _____'s problem I am most concerned about are _____.

4. _____'s problem usually occurs _____.

5. The factors causing the behavior are _____.

6. The consequences of _____'s problem might be _____.

Appendix B

Consultation Training Curriculum

Appendix B

Competency	Learning Experience	Assessment
Knowledge of four theoretical models of consultation: Mental Health, behavioral, advocacy, and process	1. Readings by Caplan, Schein, Abidin, Biklen, Stein, Altrocci, Alpert, Sarason, and others 2. Written papers comparing and contrasting models 3. Class lectures by instructor on each of the models 4. Development of annotated bibliography on the consultation models	Written assignments assessed, corrective feedback given, and assignments resubmitted if necessary until attainment of at least a B grade
Ability to engage in the four theoretical models at appropriate times according to the presenting situation	1. Role plays during seminar, supervision, and laboratory training sessions 2. Case presentations with appropriate models described 3. One day/wk field placement doing consultation	1. Supervisor feedback on role plays and case presentations 2. Field supervisor feedback on practicum experiences
Ability to synthesize a personal model of consultation intervention	1. Supervisory meetings focused on the development of consistent models 2. Paper describing synthesized model at the end of the year	1. Assessment of videotapes of supervisory sessions 2. Assessment of written statement
Expertise in listening and feedback skills	1. Laboratory training and practice during supervisory meetings 2. Videotapes of supervision analyzed along these dimensions	1. Assessment of video and audio tapes 2. Feedback from field supervisors 3. Feedback from peers

Appendix B continued

Competency	Learning Experience	Assessment
	3. Audiotapes of consultative sessions analyzed	
Ability to both enter into and terminate smoothly from consultee organizations and from individual consultative relationships	1. Class lecture and discussion of entry and termination issues 2. Actual entry to and termination from the practicum organization 3. Role plays 4. Development of sample contracts	1. Assessment of an "Entry Paper" 2. Assessment of description of entry in supervisory meeting 3. Feedback from field supervisors
Knowledge of the theory and application of evaluation methods	1. Class lecture and discussion on evaluation theory presented by evaluation expert 2. Development of appropriate assessment instruments to investigate: (a) Consultant effectiveness; and (b) Organizational needs 3. Undertaking of evaluation of consultation services with appropriate data analysis	1. Assessment of evaluation instruments 2. Results of student initiated evaluation procedure
Ability to design and deliver in-service training	1. Development of needs assessment instrument 2. Development of an in-service program with appropriate didactic and experiential elements 3. Development of in-service evaluation instruments	1. Needs assessment and evaluation instrument graded 2. When in-service is actually delivered, on the spot supervision 3. Grading of planned in-service

Appendix B continued

Competency	Learning Experience	Assessment
Expertise in design and implementation of preventive mental health strategies	1. Class lectures and discussions on community mental health concepts 2. Written proposal for preventive intervention in practicum organization	1. Assessment of written proposals 2. Field and university supervisor assessment of actual preventive interventions
Ability to diagnose organizational variables and design implement, and evaluate appropriate interventions	1. Diagnosis of supervisory group as an organization 2. Development implementation and evaluation of an appropriate intervention	1. Feedback from peers 2. Assessment by supervisor 3. Reassessment of supervisory group
Expertise in the code of ethics governing psychologists as described in the APA code of ethics	1. Reading APA code of ethics 2. Class discussion of code 3. Supervisory sessions devoted to development of understanding of ethical issues	1. Case supervision 2. Reports of field supervisors and consumers
Awareness of personal impact in the consultative relationship	1. Laboratory training aimed at increasing self awareness 2. Supervisory sessions devoted to giving and receiving of feedback about personal characteristics that interact with proffesional role	1. Field and university supervisors assessment of such characteristics as openness, levels of anxiety and self disclosures and amount of improvement in consultation skills over the year

(Conoley, 1981a, pp. 225-227)

Appendix C

Consultation Analysis Record Form

Appendix C

Consultation analysis record form

	Message Source		Message Content							Message Process							Message Control		
	Consultee	Consultant	Background Environment	Behavior Setting	Behavior	Individual Characteristics	Observation	Plan	Other	Negative Evaluation	Positive Evaluation	Inference	Specification	Summarization	Negative Validation	Positive Validation	Elicitor	Emitter	
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Appendix D

Operational Definitions and Examples of Content Areas, Behavior, Behavior Setting, Background Environment, and Individual Characteristics

Appendix D

Behavioral Model

Behavior

The behavior category includes verbalizations which designate covert processes (e.g., thinking, feeling) and overt actions of the client, the strength of client behavior, goals for client behavior, tasks performed by the client, and records of action of the client (e.g., graphs or anecdotal reports).

The following verbalizations illustrate utterances in the behavior category: "What does Carol do to show her hostility toward other children," "Give me some examples of ways in which Bob could improve his participation in the group," "Let's look at the data on Ted's behavior," "Why do you think Alice hits other children," "Ted's hitting is very upsetting to me."

Behavior Setting

The behavior setting category refers to antecedent, consequent, and sequential conditions occurring continuously to a client's behavior. Antecedent conditions are events occurring before a client's behavior. Consequent conditions are events which occur after a client's behavior. Sequential conditions include specifications of the day of the week or time of day that a behavior typically occurs, the

the number of different antecedent and/or consequent conditions present over a set of occasions, and changes in antecedent or consequent conditions across occasions. Some familiar examples of sequential conditions include: the spacing of trials in a retention task (i.e., massed versus distributed practice), (i.e., massed versus distributed practice), schedules of reinforcement (i.e., continuous versus intermittent reinforcement schedules), and shaping procedures. Teacher behavior, peer behavior, and other stimulus conditions occurring in the immediate setting in which client behavior is emitted and all coded in the behavior setting.

Examples of behavior setting verbalizations include: "What happened right before Carol disrupted the class this morning," "Just before Ted answered the question Bob asked him for a pencil," "What steps to you go through to teach arithmetic," "So you said you gave him assignments to do in the morning."

Medical Model

Background Environment

Verbalizations about past and present home and community influences fall in the background environment category. Behaviors of parents, siblings, peers, etc.

occurring outside the setting in which the behavior of concern occurs, are included in this category.

Some examples are: "Tell me something about Bob's home life," "How many brothers and sisters does Bob have," "Why do you think Carol was beaten by her father," "I don't like the way Bob's brothers treat him at home," "You said that when Alice goes home from school, there is never anyone around."

Individual Characteristics

Individual characteristics are individual attributes including personality characteristics (e.g., traits or states within the individual), intellectual characteristics (e.g., abilities and aptitudes of the individual), and physical characteristics (e.g., sex, age, hair color, height).

Some examples of verbalizations in the individual characteristics category are: "Ted is hyperactive," "Do you think Alice is immature," "Why is Bob aggressive," "You said Bob is anxious, is that correct," "Are these the characteristics you are concerned about," "Ted is ready to participate."

(Bergan & Tombari, 1972, pp. 215-216)

Appendix E

Self-Report Form

Appendix E

Self-Report Form

1. Write in a sentence or 2 your description of the problem that was just presented to you by the consultee.

2. How successful (helpful) do you believe you were consulting with this person? On the scale below indicate your impression as to your probable helpfulness.

1 2 3 4 5 6 7

---

1 = not at all helpful, consultee probably more confused than helped

2 = mainly unhelpful, did not add to consultee's problem solving

3 = more helpful than not, supported consultee's problem solving

4 = slightly helpful, added one or two new insights for problem solving

5 = moderately helpful, added several new insights for problem solving

6 = mainly helpful, consultee's problem solving much improved

7 = completely helpful, consultee's problem solving very much improved

Appendix F

Content Analysis Coding Process

Appendix F

The Coding Process

Verbal interactions in consultation are coded from transcriptions of audio tapes of consultation interviews. The coding process requires designating the messages to be coded, determining how to code them.

Determining What to Code

Determining what messages to code requires that verbal interactions be divided into a set of discrete units of observation, each of which may be assigned a series of coding responses. A unit of observation may be defined as an independent clause or as an implied independent clause (Auld & Whate, 1956). For example, the sentence "Tell me about Ted" would be a unit of observation. Likewise, if in response to a teacher's suggestion a consultant were to say "Fine," one could clearly conclude that a sentence such as "That would be fine" was implied. Accordingly, "Fine" would be regarded as a unit of observation. An incomplete statement such as "you feel that . . ." followed by an interruption from another speaker is not a unit of observation and is not coded. However, an interrupted statement which is subsequently completed is a unit of observation. For example, the statement "You feel

that . . ." followed by an interruption from another speaker and then completed would be coded.

How to Code

Each unit of observation in an interview is coded four times, once for each of the message-classification categories. Coding is done on a consultation-analysis form such as the one in

Appendix G

Application to Human Subjects Review Committee and Subject's Froms

HUMAN SUBJECTS REVIEW COMMITTEE

Name of Investigator: Jane Close Conoley, Ph.D. Center: Denton

Address: Department of Psychology and Philosophy Date: October 5, 1981

Denton

Dear Dr. Conoley,

Your study entitled Interactive Problem Conceptualizations of Consulting Psychologists

has been reviewed by a committee of the Human Subjects Review Committee and it appears to meet our requirements in regard to protection of the individual's rights.

Please be reminded that both the University and the Department of Health, Education, and Welfare regulations typically require that signatures indicating informed consent be obtained from all human subjects in your studies. These are to be filed with the Human Subjects Review Committee. Any exception to this requirement is noted below. Furthermore, according to DHEW regulations, another review by the Committee is required if your project changes.

Any special provisions pertaining to your study are noted below:

_____ Add to informed consent form: No medical service or compensation is provided to subjects by the University as a result of injury from participation in research.

_____ Add to informed consent form: I UNDERSTAND THAT THE RETURN OF MY QUESTIONNAIRE CONSTITUTES MY INFORMED CONSENT TO ACT AS A SUBJECT IN THIS RESEARCH.

_____ The filing of signatures of subjects with the Human Subjects Review Committee is not required.

_____ Other:

__X__ No special provisions apply.

cc: Graduate School
Project Director
Director of School or
Chairman of Department

Consent Form
TEXAS WOMAN'S UNIVERSITY
HUMAN SUBJECTS REVIEW COMMITTEE

(Form B)

Title of Project: _____

_____

Consent to Act as A Subject for Research and Investigation:

I have received an oral description of this study, including a fair explanation of the procedures and their purpose, any associated discomforts or risks, and a description of the possible benefits. An offer has been made to me to answer all questions about the study. I understand that my name will not be used in any release of the data and that I am free to withdraw at any time. I further understand that no medical service or compensation is provided to subjects by the university as a result of injury from participation in research.

_____ _____
Signature Date

_____ _____
Witness Date

Certification by Person Explaining the Study:

This is to certify that I have fully informed and explained to the above named person a description of the listed elements of informed consent.

_____ _____
Signature Date

_____
Position

_____ _____
Witness Date

One copy of this form, signed and witnessed, must be given to each subject. A second copy must be retained by the investigator for filing with the Chariman of the Human Subjects Review Committee. A third copy may be made for the investigator's files.

Form C (to be used in addition to Form A or B when voices or images are to be recorded)

TEXAS WOMAN'S UNIVERSITY

We, the undersigned, do hereby consent to the recording of our voices and/or images by _____, acting on this date under the authority of the Texas Woman's University. We understand that the material recorded today may be made available for educational, informational, and/or research purposes; and we do hereby consent to such use.

We hereby release the Texas Woman's University and the undersigned part acting under the authority of the Texas Woman's University from any and all claims arising out of such taking, recording, reproducing, publishing, transmitting, or exhibiting as is authorized by the Texas Woman's University.

SIGNATURES OF PARTICIPANTS*

_____
Date

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

* * *

The above consent form was read, discussed, and signed in my presence. In my opinion, the person signing said consent form did so freely and with full knowledge and understanding of its contents.

_____ _____
Authorized representative of the Texas Woman's University — Date

*Guardian or nearest relative must sign if participant is minor.

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