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The University of North Carolina at Greensboro, 1987

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EFFECTIVENESS OF MICROSKILLS INTERVIEW TRAINING IN INCREASING THE RESPONSIVENESS OF MEDICAL STUDENTS TO THE PSYCHOSOCIAL NEEDS OF CANCER PATIENTS AND THEIR FAMILIES

by

Carolyn Cole Brewer

A Dissertation submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Greensboro
1987

Approved by

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APPROVAL PAGE

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BREWER, CAROLYN COLE. Ed.D. Effectiveness of Microskills Interview Training in Increasing the Responsiveness of Medical Students to the Psychosocial Needs of Cancer Patients and Their Families. (1987) Directed by: Dr. William W. Purkey. Pp. 274.

This study examined the effectiveness of faculty-supervised and self-instructional listening microskills training in increasing the responsiveness of medical students to the psychosocial needs of cancer patients and their families during medical student-patient-family member interviews. Two multiple baseline across subjects designs of four baselines each were used for the study. Eight third-year medical students from clinical oncology were randomly assigned to conditions for training and to baselines within each condition. Training conditions were identical in informational content and time requirements. Self-instructional training incorporated two videotapes developed for the study. Through the use of graphs, R_n analyses, and *t* tests, data from the training conditions were analyzed separately, comparatively, and on the basis of overall training effectiveness across all eight subjects. Standard for significance was .05.

Faculty-supervised training was hypothesized to be more effective than self-instructional training in increasing responsiveness as measured by (a) observational data from videotaped interviews, (b) patient and family member ratings of interviews, and (c) number of psychosocial needs recognized on medical student dictation reports. Results of the independent *t* tests of mean difference scores revealed no significant differences in the two conditions for training on the three dependent measures. However, results of both R_n analyses and *t* tests indicated that faculty-supervised training was effective in increasing the reflection of meaning during interviews; self-instructional training was effective in reducing closed questions during interviews.

Results based on *t* tests indicated overall use of training was effective in increasing (a) appropriate use of four interview microskills, (b) patient and family member interview ratings, and (c) number of psychosocial needs recognized on dictation reports.

The two training conditions were hypothesized to be equally effective in increasing responsiveness as measured by a content-based mastery test. Results based on the independent *t* test of mean difference scores revealed no significant difference in the effectiveness of the two conditions on this dependent measure. However, graphed data and *t*-test results indicated that faculty-supervised training was effective in increasing scores and self-instructional training was not effective. *T*-test results indicated that overall training was effective in increasing scores on the mastery test.

Based on these results and medical student responses, recommendations included (a) combining the training conditions, (b) implementing training earlier in medical study, and (c) adding the influencing microskills component to training.

ACKNOWLEDGEMENTS

The author would like to express her sincere appreciation to Dr. William W. Purkey, advisor, for his inspiration, guidance, and example during the course of doctoral studies. Special recognition and appreciation are extended to Dr. Jack Bardon, Dr. Marian Franklin, Dr. Rosemery Nelson, and Dr. Rebecca Smith for their many suggestions, exceptional assistance, and continual encouragement throughout the course of this research investigation.

Heartfelt gratitude is extended to the Oncology Research Center of Bowman Gray School of Medicine of Wake Forest University for the support of this research project. Special recognition is given to Dr. Bobbie Atwell for her inspiration and many hours of guidance during the development of this project. A tribute is extended to the Cancer Patient Support Program Volunteers, Attending Oncologists, and Staff of the Cancer Center. The author would like to recognize Dr. Robert Capizzi, Dr. Robert Cooper, Dr. Julia Cruz, Dr. Robert Michielutte, Dr. Mark Dignan, Dr. Patricia Zekan, Dr. Don Jackson, Dr. Carolyn Ferree, Dr. Milton Raben, and Dr. Bradley Wells for their cooperation and support of this research. Gratitude is extended to the following friends and staff members for their exceptional assistance during this investigation: Jeanne Weidner, Pat Robertson, Nan Hartman, Ruby Tablas, Karen Hutcherson, Mary Harrison, Ellen Pfaff, Martha Noble, Eleanor Williams, Pat Davis, Amy Reece, and Alison Smith. A very special thank you is extended to Bertha Long, Cancer Patient Support Volunteer and dear friend.

Appreciation is extended to Dr. Allen E. Ivey for materials and permission to use microskills training. Dr. Matthew Wolf is recognized for his permission for use of items from the Medical Interview Satisfaction Scale (1978).

A special salute is given to the observers for the study. They were Steve House, Claire Hedges, Jone Reid, Craig Corson, Steve Leatherwood, Stephanie Harper, and Nancy Slattery. Appreciation is extended to each of the medical students who participated in the study. Recognition is given to the Ciofolo and Gullege families for their participation in the instructional videotapes. Special tribute is given to the late Dr. Lawrence McHenry, Alice Waller, and Geraldine Roach for their encouragement and examples during their illnesses. The author would also like to extend appreciation to the patients and family members who participated in videotaped interviews. Special appreciation is given to Cindy McGinnis Richards.

The author would like to recognize the Oncology Education Committee and the Audiovisual Resources Department of The Bowman Gray School of Medicine. The funds for the development of the videotapes were made possible through Grant R23CA37573 of the Public Health Services Department of Health and Human Services. Appreciation is extended to Chan Lane and Charlie Porter for their outstanding work on the training videotapes. The author would like to recognize the Tennessee Delta Kappa Gamma Society. for their scholarship during doctoral study.

Finally, the author would like to pay grateful tribute to her parents, the late Eura Mae Howard Cole and Tyson Thomas Cole, for their example, their unlimited support, and their faith in her abilities. This document is especially dedicated to their memory and their inspiration. Tribute is extended to family members, Allene and Nathan Jones, Warren Ada Franks, and Tennie Jackson. In closing, sincere love and appreciation are extended to her husband, Max, and her son, Nathan, for their support, patience, and joy.

TABLE OF CONTENTS

CHAPTER Page

LIST OF TABLES

LIST OF FIGURES

Page

CHAPTER I

INTRODUCTION

Many patients place a higher degree of importance on the physician's ability to communicate understanding than on the physician's medical and technical competence (Congalton, 1969). The interpersonal communication skills of the physician may determine the patient's satisfaction (Bartlett, Grayson, Barker, Levine, Golden, & Libber, 1984), the patient's compliance (Blackwell, 1973; Engler, Saltzman, Walker, & Wolfe, 1981), and the patient's recovery (Waltzkin & Stoeckle 1976). These skills may also reduce the possibility of malpractice suits (Gutheil, Bursztajn, & Brodsky, 1984). Swanson-Fisher and Poole (1978) recommended that the successful completion of interpersonal communication skills training become a mandatory part of clinical coursework for medical students. Through such training, students may be taught to respond to patient needs through the use of listening skills.

Communication in clinical oncology is one area of major concern for many students. The increased number of adult cancer diagnoses and the extended lifespans of cancer patients through improved treatment modalities (Rosenbaum, 1982) provide evidence of a growing population of cancer patients. Because cancer is a disease which intricately involves the patient's family, the medical student may be required to communicate with both cancer patients and their family members.

Zekan (1983) discussed the need for a strong triangle of responsible communication in cancer care. This triangle consists of three points:

(a) the physician, (b) the patient, and (c) the family member who serves as the significant other to the patient. Zekan further observed that if communication ceases or is interrupted between any two of these points, the triangle collapses. The maintenance of this structure is dependent upon strong communication among the three points. For this triangular communication to occur, medical students need to be trained to respond to the needs and concerns of both the patient and the family member.

If communication is to be effective, the medical student will respond to psychosocial needs (Cain, Kohorn, Quinlan, Latimer, & Schwartz, 1986), as well as physical needs. Psychosocial needs are defined as the emotions, the feelings, and the experiences that accompany cancer and cancer treatment. The specific training of medical students to respond to these needs during physician-patient-family member interviews is not currently part of undergraduate medical education programs.

However, the continual demands for additional coursework in medical education due to scientific discovery and technological advances (Maddison, 1975) make it difficult to include psychosocial training. According to Werner and Schneider (1974), such psychosocial training depends upon the development of a teaching method which utilizes diverse qualities and provides for objective evaluation. The hope for the inclusion of psychosocial training in medical education is dependent upon the method developed being effective, concise, and expedient (Keyes, Wilson, & Becker, 1973) for students who are already overwhelmed by course demands.

Ivey and Authier's (1978) attending microskills approach taught through the microtraining process has been effective in increasing the communication skills of health professionals through concise and expedient methodology. Ivey (1985) incorporated a specific outline for teaching these microskills to medical students and physicians. This outline emphasizes the use of the listening microskills to understand the meaning of the illness for the patient. Through the use of these skills, the medical student may respond to the psychosocial needs of cancer patients and their families.

The microskills approach may be adapted to varied instructional methods. Ivey (1972) specifically suggested the use of self-instruction as an alternative to traditional microtraining where a faculty member is present to supervise the student. Recent studies in medical education have suggested that one of the most effective self-instructional tools is the use of videotape (Kaufman & Kaufman, 1983; Scheingold & Smith, 1980).

Thus, this study sought to incorporate the family member in the medical student-patient interview and to examine the effectiveness of two conditions for listening microskills training in increasing the responsiveness of medical students to the psychosocial needs of cancer patients and their families. The two conditions for training were faculty-supervised training and self-instructional training through the use of videotapes. The use of self-instructional training offered a more expedient and flexible means for training medical students in the use of the listening microskills.

Rationale

Physician-patient relationships have been an area of concern in medical education for over 50 years. As early as 1927, Peabody recognized the need for improved physician-patient relationships to provide a better quality of medical care. The foundation for this physician-patient relationship is laid during physician-patient interviews (Stillman & Burpeau-Di Gregorio, 1984).

> The medical interview is the cornerstone of clinical practice (Pilowsky, 1978). It is "the most powerful, the most sensitive, and the most versatile instrument available to the physician" (Engel and Morgan, 1973, p. VII) and is absolutely essential for the establishment of a meaningful physician-patient relationship. (p. 109)

Feinstein (1974) reported that the interview process has traditionally focused on history taking, data collection, and clinical assessment. Gerrard, Boniface, and Love (1980) stated that the major type of problem solving utilized during the medical interview training is clinical reasoning. Clinical reasoning consists of data collection to test out hypotheses leading to diagnosis, treatment, and problem resolution. Physicians may possess a high degree of competence in this clinical reasoning but lack the interpersonal skills necessary to develop effective physician-patient relationships. Unless these specific skills are taught during medical training, the young physicians may not be cognizant of the impact such skills may have on their relationships with patients. The students may enter medical practice untrained to respond to the psychological and social needs of patients.

In recent years, medical educators have recognized the need for additional training in psychosocial interview skills (Cassileth & Egan, 1979) to build physician-patient relationships. This need was

reinforced when Stanford (1972) reported results of the American Academy of Family Physicians' Survey to determine what percentage of time physicians spend in counseling patients. The physicians' response was that from 17.1 to 27.5 percent of time was spent in counseling patients. The survey further asked whether or not the physician felt he/she had received adequate medical school training in the psychosocial areas of study. The majority of physicians responded that their medical school training had not prepared them for this role. The majority of the respondents also indicated that they were presently spending large amounts of time in continuing education courses to try to fill this deficit in interview skills which deal with psychological and social issues.

Wells, Benson, and Hoff (1985) defined the medical psychosocial interview as having two goals: "1. To obtain information from the patient and 2. To establish rapport with the patient" (p. 182). These authors further suggested that empathic interviewing combines the two goals into one major goal: "to understand the experiences and feelings of the patient in dealing with illness" (p. 182). Thus, the techniques surrounding psychosocial interview training require a focus on how medical illness affects the patient's experiences and feelings during daily life.

However, the psychosocial interview training programs presently in existence limit their application to physician-patient interviews, or, in the case of pediatrics, physician-parent interviews. In diseases such as cancer, the family member is present during many of the physician-patient interviews. For these cancer patients, their illness and its treatment encompass the daily lives of their family members as

well as their own lives. A family member or a significant other is intricately involved in the care of the patient. Still, many medical students may receive no training in conducting interviews where both the patient and the family member are present.

Liebman, Sibergleit, and Farber (1975) suggested that failure to involve the family member results in (a) family member feelings of alienation, (b) beliefs that information is being withheld from the patient or the family member, and (c) large amounts of time invested by physicians in efforts to communicate with various members of a patient's family. The further result is that many medical students begin to dread encounters with family members and often avoid situations where family members are present and could contribute valuable information. When family members are involved in meetings with the physician and patient, "such communication renews the faith of patient, family, and physicians in the human process of sustaining and supporting the efforts for life and well-being even in the face of catastrophic illness" (p. 343).

Zekan (1983) proposed a theoretical approach to understanding the communication process between physicians, cancer patients, and their family members. First, each of the three persons has rights and responsibilities. One of the responsibilities of each is the responsibility to communicate with the other two persons. This is called the triangle of communication. The triangle may collapse when the communication between any two persons in the triangle ceases.

This triangular concept may further assist medical students in understanding the importance of one family member or significant other serving as a spokesperson in cancer care. When more and more persons

are added to the communication process, it becomes weaker and may become inadequate and ineffective. When one family member serves as spokesperson for the family in the triangular concept, the communication process is strengthened and the physician is able to invest more concentrated effort in the communication process.

The need for training medical students to conduct the physician-patient-family member interviews is further complicated by the lack of time for any additional coursework in the medical school curriculum as a whole. Technological advances and continuous expansion of medical knowledge dictate a growing demand for additional coursework. Unfortunately, the psychosocial interview skills take a lower priority placement (Maddison, 1975) in comparison with medical procedures. Thus, it becomes the challenge of medical educators to identify not only the most effective method of psychosocial interview skills training, but also the most expedient delivery system or condition for training. If an effective, expedient training intervention can be identified, then more psychosocial training programs can be developed and implemented in medical education. Clinical oncology is one area of medical education where such programs would be beneficial.

According to Rosenbaum (1984), cancer may enter the lives of one out of four adults each year. Blumberg, Flaherty, and Lewis (1980) stated that the changes in lifestyle and the emotional shock to both patients and their family members are overwhelming. Therefore, the physician may have a long-term relationship with both the cancer patient and with the family members. Cassileth and Egan (1979) made a plea for training which will enable medical students to examine their views of

cancer patients and their family members, and will provide the information and skills necessary to respond more effectively to the needs of cancer patients and their families.

Psychosocial Oncology

The oncology field has recognized a specialty area entitled Psychosocial Oncology. Traditionally this title has been used to describe the emotions, feelings, and experiences associated with cancer diagnosis and treatment (Cassileth & Egan, 1979). Blumberg et al. (1980) recognized that one of the greatest roles the professional counselor or psychologist can play is to serve as a consultant to medical students and the medical staff in general. This consultation role involves training the medical student, as well as the medical staff, to respond to the psychosocial needs of cancer patients and their families.

Psychosocial Needs of Cancer Patients

Mullan (1985) described the diagnosis of cancer as the feeling that you have flunked a big test. DeVita (1984) suggested that the possibility of cure for cancer victims is quickly approaching fifty percent. However, according to Mullan, "the challenge in overcoming cancer is not only to find therapies that will prevent or arrest the disease quickly but also to map the middle ground for survivorship and minimize its medical and social hazards" (p. 273).

Blumberg et al. (1980) suggested that the coping needs of cancer patients be viewed as twofold: (a) coping with the illness and its problems; and (b) coping with life as it is changed by the illness. Coping with the illness may involve the following areas: (a) pain and

incapacitation; (b) treatment and the hospital environment; and (c) relationships with the professional staff. Coping with life changes may include (a) emotional concerns, (b) self-image, (c) relationships with family and friends, and (d) the uncertainty of the future.

Blumberg et al. (1980) further stated that issues are compounded by the reality that psychologists have not agreed upon an adult developmental psychology. The psychological and social ages of patients vary greatly as do the chronological ages. With new role orientations and with varying lifestyles, it is difficult to determine psychological and social age levels by chronological age. It becomes increasingly important for the physician to be able to determine the specific life stage of the individual, and to identify the psychosocial needs associated with that stage of adult life.

According to Sutherland and Orbach (1977), another area of patient need is to minimize the feelings of alienation and abandonment. These feelings can bring the patient to despair and loneliness. Mastrovito (1972) found that patients may feel particularly vulnerable to these situations and may feel that they have lost their self-esteem, and consequently their control over their disease. This issue of control erodes many facets of the patients' personal lives including financial stability, employment, social performance, sexual being, and physical appearance. Patients may need the assistance of the physician in locating resources which will help build self-esteem and keep them involved with other persons who care.

Bigwood (1976) suggested physicians recognize patient care through understanding the patient's world and the meaning of illness to the

patient. Bigwood further suggested that the physician take time to sit down and talk with the patient and to listen to the patient's needs and concerns. In essence, time spent with the patient might be a time of listening and a time for caring incorporated with the traditional time for medical answers and medical information.

Psychosocial Needs of Family Members

Family members of cancer patients live in a state of limbo. Cohen and Wellisch (1977) reported that interactions between family members and health professionals may assist the family member in coping with this uncertainty. Pratt (1976) offered several suggestions for both identifying the needs of family members and assisting them in coping with cancer. These suggestions were (a) contact with others (groups and organizations), (b) flexible role relationships, (c) sharing power within the family structures, and (d) support of one another within the family group.

Another approach to needs assessment based on studies of 100 families of cancer patients was presented by Giacquinta (1977). The key steps in this approach are (a) to recognize the impact of the disease on the family, (b) to recognize the functional disruption of family life, (c) to recognize a family's search for meaning or justice in the disease, (d) to recognize problems in telling others about the disease, (e) to recognize the need to express emotions, (f) to identify the needs for role changes, and (g) to recognize the family's attempt to recall how the patient was before the disease. For the physician working with cancer patients and their families, Schnaper (1977) suggested that this

may mean more time spent in listening to the frustrations of family members throughout the course of the disease. As well as the interaction between physicians and patients being an area of concern in cancer care (Dewys, 1976), the maintenance of a positive supportive relationship has become a necessity for living with cancer (McKegney, Visco, Yates, & Hughes 1979). Living with cancer involves the family (Liebman et al., 1975) as well as the patient.

Responsiveness of the Physician

Impact of responding to psychosocial needs. Bartlett et al. (1984) and DiMatteo, Taranta, Friedman, and Prince (1984) found that patient satisfaction is dependent upon the physician's ability to communicate both verbally and nonverbally. The quality of interpersonal interaction (Bartlett et al., 1984) was found to be more important in determining patient satisfaction than quantity of instruction received. Good communication skills may provide an overall increase in physician credibility.

Patients who believe their physician cares about them tend to comply with medical recommendations (Peck & King, 1985). According to DiMatteo and DiNicola (1982), noncompliance may be a manifestation of poor communication between the physician and patient Peck and King (1985) suggested that "while laying the foundation for compliance may take slightly more time in the first instance, the result would be that more patients would get well and fewer would go treatment-shopping" (p. 84). Thus, the strong communication between physician and patient may assist the patient in feeling confident that he or she is receiving the best care and should comply with recommendations.

Patient outcome and physician communication have been areas of concern to medical education (Starfield, Wray, Heso, Gross, Birk, & D'Lugoff, 1981). The outcome appears to lie in physician-patient recognition of problems and agreement on issues surrounding these problems. In order to recognize what issues are present, the physician must possess the communication skills necessary to recognize and address issues of importance to the patient.

Perhaps one of the greatest concerns of present-day physicians is malpractice accusations. Gutheil et al. (1984) suggested that the prevention of malpractice lies in the sharing of uncertainty, information, and concern with patients through the building of communication. This communication involves listening to the patient and understanding the patient's world. The physician may be able to help prevent malpractice litigation by empathizing with the patient and family and communicating caring.

Artiss and Levine (1973) recognized the need many physicians have to fulfill the role of the hero. This heroic image becomes a large part of the physician's self-esteem. The frustration of not being able to control the patient's disease may lead to irrational physician feelings and inappropriate physician response patterns. According to Bigwood (1976), some of these response patterns may be (a) concentration entirely on the treatment and (b) spending very small amounts of time with the patient. Physicians may find themselves spending more time trying to avoid personal and emotional issues than it would take to effectively listen to the patient's problems (Artiss & Levine, 1973).

A study by Maslach (1976) found that professionals who are taught to deal with emotional issues are better able to cope with patient problems. Payne and Krant (1969), however, pointed out that these skills are not received by many medical students unless their schedule involves a rotation through psychiatry. Even the psychiatry rotations are not specifically addressed to the needs of cancer patients. Thus, as requested by Rothenberg (1967), the psychological specialists in the medical setting need to make themselves available to medical students and assist the student in responding effectively to cancer patients and their families. According to Ivey (1985), to respond effectively, the student needs information, role models, and experience in the use of listening skills.

Measures of responsiveness. The interpersonal and communication skills of physicians and medical students may be measured in terms of (a) knowledge (cognitive), (b) behavior, (c) patient and family member evaluation (rating), and (d) physician attitude and means of carry through (dictation and referral). According to Ivey and Authier (1978), the microskills approach is built on the cognitive behavioral approach to learning. This approach emphasizes the need for a knowledge base as well as a behavioral base for learning.

Medical interview training has likewise endorsed the assessment of the student's knowledge of interview skills. This assessment is most often made by means of a content-based mastery test (Leahey & Tomm, 1982) designed for the specific segment of training. The content validity of the content-based mastery test is often judged by experts in medical

interviewing skills and by the sampling adequacy of the questions asked in comparison with objectives and actual material taught.

The behavioral measure most often advocated in medical interview training is the videotaped interview (Jason, Kagan, Werner, Elstein, & Thomas, 1971). Similarly, Maguire and Rutter (1976) utilized videotaping as a means of assessing both content and process of the medical student-patient interview. According to Mai (1972), the low cost and availability of videotaping equipment has provided an excellent means of recording and evaluating medical student interviews. One of the most beneficial aspects of this measure is that once the interview is recorded almost every aspect of content, verbal, and nonverbal information may be evaluated.

Patient interview rating forms (Bartlett et al., 1984) provide an opportunity for patients to express satisfaction or dissatisfaction and to provide valuable input concerning perceived effectiveness of interview skills. Wolf, Putnam, James, and Stiles (1978) developed a Medical Interview Satisfaction Scale to measure a patient's satisfaction with a health care provider. One of the three subscales of this measure is the affective subscale of medical interviews. This scale provides a distinct measure of affective skills rather than a generalization of the patient's perception of physician attitudes.

The physician uses dictation as a tool to record his/her perception of the patient (Tatham, 1967) and to ensure that pertinent information is documented (Bull, Chamberlain, & Leavey, 1971). The dictaphone is also used as a means of recording referrals made to other specialists in

the medical and community setting. The transcription of dictation tapes becomes part of the patient's medical record.

Microskills Interview Training

The microskills approach to interview training bridges the gap between initial medical interview training and interpersonal skills training. According to Ivey (1978), the shaping process utilized in microskills training offers the student immediate and concrete feedback. This shaping process is primarily conducted through videotaping of brief counselor-client interactions. This approach was found by Moreland and Ivey (1973) to be more effective in increasing the interpersonal skills of preclinical medical students than traditional interview training methods. Ivey (1978) further recommended that variations of the methods of microskills training be researched. Two of these variations were (a) faculty- or teacher-supervised training and (b) self-instructional training.

In addition, Gerrard et al. (1980) proposed that it is not the length of the physician-patient interview but what happens during the interview that is crucial. Wells, Benson, and Hoff (1985) recommended that the beginning psychosocial interview be limited to a brief time period. This emphasis on interviewing for maximum effectiveness through use of specific skills within a relatively brief period of time is crucial with cancer patients and their families due to their inabilities to meet the physical demands of longer interview processes.

Skills Used in Training

The following skills have been used in microskills training.

Microskills

The listening microskills. "Listening skills focus on understanding the patient's construction of the world of reality and ill-health...In effect, through listening skills the physician enters the world of the patient" (Ivey, 1985, p. 62). The first step in entering the patient's world is the preparation for listening or the use of paraverbal (attending) behavior. This behavior includes appropriate eye contact, body language, vocal tone, and vocal following. Listening skills are founded on the use of paraverbal behavior.

According to Ivey, the medical student must become an astute observer of both nonverbal and verbal congruence and incongruence. This observational skill combined with the use of paraverbal behavior sets the stage for use of the basic listening sequence.

The Basic Listening Sequence provides specific listening microskills necessary to understand the world of the patient and the family member. "The goal of the basic listening sequence is to learn how the patient (and the family member) organizes the facts and feelings of the illness and her or his situation" (Ivey, 1985, p. 32). The first microskill of the basic listening sequence is the use of the open question.

The open question invites the patient and the family member to talk. Questions of this type also give patients and family members the opportunity to refuse to talk. The question stems of could, what, how, and why may provide a wealth of information inclusive of facts, feelings, and how a patient and family member organize these facts and feelings.

Closed questions (often the only questions used by physicians) do not invite conversation. The questions are directed toward the acquisition of specific information or specific data. Although useful, these are questions which may be overused in medical interviewing.

According to Ivey (1985), the encourager may be the most important of the listening skills. This brief, simple repetition of a key word or phrase allows the patient and family to express themselves more. These simple repetitions also help the patient and the family member to realize the importance of their words and their input.

The paraphrase allows the medical student to repeat what has been said in order to check whether the patient and family member has been correctly heard. This tool offers the opportunity for clarification of information or feelings. The paraphrase also serves as a means of insuring that what the medical student heard is what the patient and family members meant for him/her to hear.

One of the most well-known microskills is the reflection of feeling. According to Ivey (1985), it is the responsibility of the medical student (or physician) to understand how the patient (or family member) feels about the factual information. This reflection may be included as a part of a paraphrase.

The summary provides the opportunity for the medical student to bring together the information (facts, feelings, organization) presented in an interview. This skill ties the information together.

A listening skill not included in the basic listening sequence but achieved through use of the basic listening sequence and important to the process is the reflection of meaning. This skill allows the medical

student to make the choice of entering a deeper level of meaning and of understanding the patient (and the family member). The choice to enter this deeper world of meaning involves the commitment of time and the commitment to make any referrals necessary.

Ivey (1985) addressed the need for physicians to carefully choose whether to enter the patient's world of meaning.

> Dealing with patient meaning and more deep and complex issues of life is usually the task of the psychotherapist: yet it must be acknowledged that every physician constantly encounters this issue. Effective exploration of meaning may facilitate and speed patient recovery. A real difficulty for the busy physician is the issue of patient and family counseling in conjunction with a physical illness. It is obvious that the wife's (a breast cancer patient) chances for recovery will be better if she has an interested and supportive husband who fully understands the deeper meaning of their relationship. Physicians work on the edge of the meaning of life. To take Frankl's thought seriously means to take more time with patients and to enter their deeper worlds of meaning. This is a choice the physician cannot make lightly. (p. 46)

Ivey further suggested that if a medical student or physician chooses to seek to understand a patient's deeper meaning of illness, he or she should be willing to spend the time needed to listen to the patient. The medical student or physician should also be willing to make appropriate referrals for patients when necessary. If the choice is to understand, then the physician commits both time and carry through with referrals in patient care. Comprehensive patient care in the treatment of cancer involves the family as well as the patient (Zekan, 1983).

Conditions for training. According to Ivey (1972, 1978) the basic condition for the delivery of microskills training is faculty supervision. This condition is inclusive of the faculty member's (a) providing information (lecture, etc.), (b) providing

videotaped examples, (c) providing practice, and (d) providing feedback. However, Ivey (1972) stated that "there is no one right way to teach counseling skills" (p. 176), and advocated the development of well-organized self-instructional materials which may be used independently by students. Ivey suggested that either method begins with individual training. It is Ivey's further recommendation that at least two skills be taught and that skills be grouped to provide an appropriate framework for students. After individual training has been successful, other group approaches may be considered.

Statement of the Problem

The purpose of this research project was to examine the effectiveness of two conditions for listening microskills training in order to increase the responsiveness of medical students to the psychosocial needs of cancer patients and their family members during medical student-patient-family member interviews. The two conditions for listening microskills training which were examined in this study were (a) faculty-supervised training and (b) self-instructional training. These training interventions were scheduled during the Oncology portion of the General Medicine Rotation for third-year medical students at the Bowman Gray School of Medicine. An adaptation of Ivey's (1985) listening microskills outline to include the presence of the family member was utilized during both conditions for training.

During each intervention, medical students were provided with a training outline. This outline included information on the psychosocial needs of cancer patients and their family members, and a step-by-step guide to listening to the psychosocial needs of cancer patients and

their families during the physician-patient-family member interview. The training specifically addressed how to respond to the psychosocial needs of cancer patients and their families through use of the listening microskills. The informational content for both interventions included (a) subject matter and factual information presented, (b) examples of each microskill presented, and (c) equal amounts of time spent in the training process.

Although the interventions were equivalent in informational content, one intervention was delivered directly by a faculty member, and the other intervention was delivered by means of a self-instructional videotape. The research study was comprised of four components: (a) an examination of the effectiveness of using faculty-supervised listening microskills training, (b) an examination of the effectiveness of using self-instructional listening microskills training, (c) a comparative examination of the two types of training, and (d) an overall examination of training vs. no training across subjects.

Major Question for the Study

The major question for the study was this: Which of two conditions for listening microskills training, faculty-supervised training or self-instructional training, is more effective in increasing the responsiveness of third-year medical students to the psychosocial needs of cancer patients and their families? The measurement of responsiveness was determined by use of (a) evaluation of videotaped medical student-patient-family member interviews, (b) patient and family member ratings of the medical student interviews, (c) dictation tapes

following the medical student-patient-family member interview, and (d) a content-based pretest and posttest.

Definition of Terms

The following terms were defined and clarified for this study.

Cancer patient. The term cancer patient was used to identify any adult diagnosed with cancer and undergoing treatment at the Cancer Center of the Bowman Gray School of Medicine/North Carolina Baptist Hospital. The patients ranged in age from 15 to 75 and were representative of various cancer sites treated at the Cancer Center.

Family member. The term family member was used to identify the person the cancer patient identifies as the significant other in his or her life. This person was listed on the registration form of each cancer patient who was evaluated or treated at the Cancer Center. The term significant other included a relative, neighbor, friend, or the primary person upon whom the patient depends for care and support.

Psychosocial needs. These needs were defined as the emotions, the feelings, and the experiences of the cancer patient and his or her family member. The term encompassed the psychological and social needs of the patient and the family member.

Medical student. The term medical student was used to denote a third-year medical student who was working on the clinical oncology rotation. This means that the student was directly working with cancer patients and their family members on a daily basis for a time period of three and one-third weeks.

Independent variables. The two independent variables for the study were faculty-directed listening microskills training and self-instructional listening microskills training through the use of videotape. Both independent variables utilized the same informational content (Ivey, 1985) but differed in the condition for training. Permission for use of training is contained in Appendix A.

Dependent variables. The major dependent variable for this study was the responsiveness of the medical student. Responsiveness was determined by four dependent measures: (a) evaluation of videotaped medical student-patient-family member interviews; (b) patient and family member interview rating forms; (c) psychosocial needs recognized on dictation tape transcriptions, and (d) a pre-and-post content-based test.

Major Hypotheses for the Study

According to Wood (1982) and Moreland et al. (1973), the microskills approach has proven to be more effective than the traditional approaches to medical interview training. Authier and Gustafson (1976) found that supervised training was more effective than self-instructional training in one area of performance. That area was the use of complex skills during interviews.

In a comparative study of behavioral rehearsal groups and modeling groups, Keane et al. (1982) reported that behavioral rehearsal was effective in increasing interview skills. The group provided with modeling examples and no behavioral rehearsal increased only in content areas. Ivey and Authier (1978) indicated that a cognitive knowledge base may be present, but without behavioral practice and supervision the specific

behaviors necessary may not be learned. Without the behavioral component, the desired skills and client response may not be developed.

Perhaps the most relevant point is examined in studies by Peagle, Wilkinson, and Donnelly, (1980) and by Mir et al. (1984). These authors found that lecture and videotaped instruction may both increase the amount of cognitive gain, but the personal attention of the faculty member tends to have more impact on attitude and behavioral components of training.

It was therefore hypothesized that faculty-supervised listening microskills training would be more effective than self-instructional listening microskills training in increasing the responsiveness of third-year medical students to the psychosocial needs of cancer patients and their families as measured by (a) evaluation of videotaped medical student-patient-family member interviews, (b) patient and family rating forms, (c) evaluation of student dictation following each interview. These measures directly measured skill usage and its impact on the patient and family member.

Faculty-supervised listening microskills training and self-instructional attending skills training were hypothesized to be equally effective in increasing the responsiveness of third-year medical students to the psychosocial needs of cancer patients and their families as measured by a content-based pretest and posttest. It was hypothesized that medical students may master cognitive concepts without necessarily mastering the behavioral application of those concepts unless direct supervision is present during training.

Summary

This chapter has outlined a study which examined the use of two conditions for listening microskills training with medical students to increase their responsiveness to the psychosocial needs of cancer patients and their family members. The two conditions for training were (a) faculty-supervised listening microskills training and (b) self-instructional listening microskills training through use of videotapes. The effectiveness of each intervention was determined by (a) evaluation of videotaped medical student-patient-family member interviews, (b) patient and family member ratings of the medical student interview, (c) evaluation of student dictation reports following each interview, (d) pre-and-post scores on a content-based mastery test. The interventions were examined to determine which of the two conditions for training provided the greater amount of change on each of the dependent measures of responsiveness.

The focus of the study was the inclusion of the family member in medical student-patient interviews. The purpose of this study was to determine which of two conditions for listening microskills training with medical students is more effective in increasing their responsiveness to the psychosocial needs of cancer patients and their family members.

CHAPTER II

REVIEW OF THE LITERATURE

As early as the turn of the century, medical educators encouraged medical students to understand the patient as well as the disease (Fine & Therrien, 1977). However, Pfouts and Rader (1962) found that physicians some 60 years later were still not receiving interview skills training which would enable them to understand the total patient. As a result, an emphasis on the need for physicians to respond more effectively to the psychosocial needs of their patients has emerged throughout the medical literature of the past decade. Gorlin and Zucker (1983) stressed that all major attempts to train the physician to respond to the patient's psychosocial needs remain fragmented, and lack the effectiveness necessary to bring about needed changes in medical education. Such changes would emphasize the needs of patients and their families, and training in communication skills with patients and their families.

The Psychosocial Needs of the Cancer Patients and Their Families

Cancer is one of the most stress producing of all diseases. According to Blumberg et al. (1980), the psychological and social stress impacting upon families and upon the patients themselves is great. Medical students, care providers, and those involved with these patients and their families need to be prepared to communicate effectively.

Definition of Needs

The psychosocial needs of cancer patients and their families were defined by King (1962) as containing two areas: (a) the psychologic (feelings and emotions), and (b) the sociocultural (experiences). First, psychosocial needs involve all of the psychological needs that a patient or family member may have, and all of the social needs that a patient or family member may have. These two areas combine to form the psychosocial impact that is recognized throughout the oncology literature as psychosocial oncology. Those needs are better defined as the emotions, the feelings, and the experiences that accompany cancer and cancer treatment.

The social implications of cancer and cancer treatment which combine with the psychological impact are many. Productivity is essential to patients and their family members, and the income is important to the financial status of the home. These sociological implications of cancer involve both primary and secondary relationships. One major sociological concept studied by Parsons (1951) is the physician's assumption of a superior technical role and the physician's lack of recognition of the patient's emotional and social needs. Even the physicians who pause to recognize the emotional and social needs of patients are not prepared to deal with these issues (Hull, 1972; Stewart & Buck, 1977). However, an emphasis on consumerism (Friedson, 1960) may continue to emerge and increase the physician's respect for patient concerns.

Importance of Time

A third area, time, continually impacts on both the cancer patient and his or her family. Glaser et al. (1965) recognized the importance of time to cancer patients and their families. Time encompasses diagnosis, reaction to diagnosis, and the many adjustments to treatment. According to Holland's (1973) model, time may bring different views of reality to the patient. As time progresses, a patient's daily routine may vary from no treatment to intensive regimens and lengthy hospitalization. Uncertainty and fear of what the future holds bring great anxiety for the cancer patient (Cohn & Lazarus, 1979; Haney, 1984). Uncertainty and fear are accompanied by continual threats of the disease, which take away a patient's control over both daily routines and future plans. These threats involve issues of treatment, emotions, feelings, and issues of a sociological nature.

Friedenbergs, Gordon, Hibbard, Levine, Wolf, and Diller (1982) recognized that before the medical considerations of cancer and its treatment can be considered in depth, one must consider these psychosocial concerns associated with the disease. One of the major areas of concern is the patient's reaction and his or her family's reaction to the disease. Few studies address this total emotional impact on both patient and family.

Emotional Needs

Haney (1984) recognized these concerns in the statement that "probably no disease diagnosis is viewed by the average citizen of the Western world with as much fear and dread as cancer---whether because of the nature of the illness itself or the atmosphere of fear which is

evoked by the concept, cancer poses special problems both for the individual's adaptation to both self and the systematic relations between the individual and those in his/her more or less immediate social environment" (p. 201). According to Haney, the usual crisis resolution ideas do not fit when cancer is diagnosed. "First, cancer results in an ongoing process which unfolds over time and is characterized by numerous stages, each stage producing numerous problems. Second, cancer's impact and the adaptations and coping strategies employed are in large measure a function of the individual's previous life contingencies and current stage of life. Third, the patient's psychosocial status is rooted in that patient's history and oriented toward what the patient sees as the future" (p. 202).

Abrams (1966) stated that the public, most cancer patients, and families of cancer patients deal with four basic assumptions about cancer: "(a) cancer is the most feared of all diseases; (b) the patient with cancer is usually concerned with and often aware of the fact that he/she has cancer, and is reacting to it, whether he/she says so or not; (c) in cancer the physician hesitates to communicate readily about the diagnosis as he/she does in other situations because he/she is uncomfortable in this area; and (d) the patient has no control over the disease." The last item listed is perhaps the one which causes the greatest area of frustration and concern. It is this loss of control which often inhibits the verbal and nonverbal behavior of cancer patients and their families.

Contrary to most beliefs, cancer patients are not the clinically depressed group one may think they are (Friedenbergs et al., 1982).

Perhaps the best example of this realization was made by a cancer patient:

> Cancer has given me a sense of myself that I didn't have. A friend told me: "Having cancer was the best thing that ever happened to you,": and my friend was right. I have been to a place where I couldn't control what happened to me, how much pain I felt, how much energy I would have. I didn't want to go there, and if I could avoid doing it again, I would. But all of us must deal with that same, "emotional scar", that fear of death. I will, at some point die. The cancer has made it easier for me to understand that life here on earth is limited and that I should make the best use of my time while I'm here. (Solkoff, 1978; Blumberg, 1980).

Although studies vary in the reports of emotional impact of cancer, the majority recognize that it is more an issue of coping than depression (Blumberg, 1980).

Issue of coping. Blumberg et al's. (1980) description of two levels of coping needs of cancer patients and their families has served as a model in recent years. The first area in coping with illness involves the multitude of issues surrounding diagnosis, treatment, hospitalization, pain, relationships with health professionals, and adjustment to the medical environment. The family member may experience much of the disruption and trauma associated with the medical setting. Often, the entire attention of health professionals is focused on the patient. The family member may often experience even greater feelings of alienation and rejection from the health professionals and the hospital setting itself.

Blumberg et al. (1980) further defined the second area as coping with life changes. For many, this may be the most difficult area for both the patient and family members. These concerns of the coping area are inclusive of the emotional, self-image, relationships with family

and friends, and the uncertainty of the future. These areas may intertwine with the needs for attention, control, justice, and adequacy. Many patients and family members question religion and the reality of a just God. Many patients and family members feel alienated from both God and society, as well as from one another.

Hinton (1973) brought attention to the fact that there is no simple rule which may be applied to cancer patients and their emotional response to cancer. No rules can predict the individuality of the family involved, the emotional makeup of the individual diagnosed, or the multitude of life circumstances which may change due to the diagnosis and the treatment involved. According to Hinton, "there are so many variable factors in personality, illness, courage, quality of available care, relatives, passage of time, attitudes of those nearby, etc., which interact one upon the other in an ever-changing dynamic equilibrium" (p. 105).

Sociological Needs

Many patients and family members feel that they are often rejected by those who love them the most. For example, family members tend to go into corners and refuse to communicate with one another because they are so afraid of hurting one another (Stewart et al., 1977). Therefore, the social rejection becomes overwhelming and painful.

Friends often reject the patient and the family member. Quite often the patient enters counseling and asks, "Can you please tell me why my best friend never comes to see me? I'm still me. I don't look quite the same or maybe I do, but I'm still me. I'm still the same person I was before cancer entered my life. I want my friend to know

that it is still me and to come and talk and to be with me." According to Friedenbergs et al. (1982), the family member feels that friends often do not come to see them, that they really have no social outlet, and that they are really alone. Therefore, they try to track down physicians, to track down ideas, to track down ways of learning to cope with those social rejections and the lack of friends at a time when they may need them the most.

Issues of employment impact on the financial status of the life of the patient and family. These issues may determine many of the emotional needs that will impact on the family. Adjustment to these life changes involve the use of coping strategies and the willingness to communicate.

Need for Family Involvement In Cancer Care

Greenwald and Nevitt (1982) summarized the physician's attitude toward cancer patients in the emergence of a subgroup of physicians who serve as specialists or role models in the area of communication with cancer patients. This subgroup goes beyond the traditional perception of the physician who avoids communicating with patients and offers new hope for a growing group of professionals dedicated to communication. The need for physician communication skills was viewed as a necessary and appropriate role for physicians to assume in patient care. Although the fulfillment of this role may be time consuming, it allows for the development of a group of physicians who place communication as a priority.

Liebman, Sibergleit, and Farber (1975) similarly asked that the family conference be exercised in the care of cancer patients. They

stated that "the family of the cancer patient is the first line of support and therefore requires attention" (p. 343). They continued to explain the importance of meeting with the family as a group rather than continual visits with individual family members. "Meetings with individual family members will often be necessary for specific purposes, but meeting with a family as a group may afford a unique experience for the family physician and family members" (p. 343). However, to date, no methods have been found to effectively study the physician's response to family members in the psychosocial interview. Therefore, these concepts have remained foreign to most medical students working with cancer patients.

Research on Psychosocial Needs of Cancer Patients and Their Families

The issue of depression and cancer remains a question in patient and family care. Koenig, Levin, and Brennan (1967) found 36 cancer patients to be less emotionally depressed than other hospitalized groups. Plumb and Holland compared 97 cancer patients to their next-of-kin and found the next-of-kin to exhibit greater signs of depression. In contrast, Roberts, Furnival, and Forest (1972) found 50 percent of patients studied to be either anxious or depressed. Craig and Abeloff (1974) found 50 percent of leukemia and lymphoma patients studied to be depressed and an additional 30 percent to experience anxiety.

In their review of current studies, Friedenbergs et al. (1982) suggested that one approach to a more clearly defined impact of cancer has been the attempt to examine daily life functioning of cancer

patients and their families. Lehman et al. (1978) and Gordon et al. (1977) have led these investigations. Lehman et al. studied 805 rehabilitation problems. The major results of this study indicated that there were needs for problem identification and referral to appropriate resources. Similarly, Gordon et al. (1977) found the major needs of 136 breast cancer patients to be issues of medical treatment and family and social relationships.

According to Friedenbergs et al. (1982), the recognition of the impact of cancer on the patient's family may be the most neglected area of psychosocial research. Weisman and Hackett (1961) found that family members of cancer patients go through more severe reactions than family members of any other patient population. Yet, no studies have addressed the role of the physician's interaction during interviews with this population even though family members are integral parts of the daily functioning and daily medical care of cancer patients.

Research in psychosocial oncology has been hampered by basic methodological problems and lack of consistency in design, definition, theoretical cases, and measures used. However, following a review of 29 studies of cancer patients, Temoshok and Heller (1984) made the following observations: (a) cancer patients may tend to have difficulty in expressing emotions; (b) the general characteristics for patients who tend not to do as well may include "niceness, industriousness, perfectionism, sociability, conventionality, and more rigid controls of defensiveness" (p. 255); (c) "helplessness/ hopelessness attitudes" tend to indicate a less favorable course of disease (p. 255); and (d) "the existence and number of past or recent life events appears to be less

important than for how these were cognitively, emotionally, or behaviorally dealt with" (p.255). The implications of these observations are that (a) physicians need to recognize emotions, feelings, and characteristics of patients, and (b) physicians need to assist patients in dealing with issues surrounding illness. As these authors indicate, it may be that because cancer is such an individual disease which does not conform to patterns, there is no psychosocial construct applicable to all patients or even to groups of patients.

The Need for Physician-Patient-Family Member Communication

Gorlin et al. (1983) stated that it is necessary for the physician and the patient to have a relationship which enables each to feel comfortable. Ironically, even with the present emphasis moving in this direction, the physician-patient relationship is often strained. The patient and the physician may both feel rejected by one another during the physician-patient interview. When this occurs, the physician often avoids dealing with his or her own feelings about the patient and begins to cope in ineffective manners such as (a) avoidance of the patients, (b) feelings of inadequacy, (c) feelings of loss of control, (d) frustration, (e) guilt, (f) anxiety, and (g) a tendency to trivialize the importance of the psychosocial aspects of the physician-patient relationship.

According to Dornbush, Singer, Brownstein, and Freedman (1985), one of the current needs of medical education is to examine the attitudes of student physicians toward the psychosocial aspects of medical care. Examination of attitudes would provide information concerning the need for psychosocial interviewing which would, in turn, benefit the patient.

Lipowski (1977) reported one of the positive moves in this direction as the return of an emphasis on psychosomatic medicine.

Fletcher (1980) suggested that the beginning point for making a change in medical training may be the realization that there is often too much emphasis on medicine. There is a need for physicians to stop avoiding feelings, to stop using jargon in the medical interview, and to allow patients to be heard and understood. Fletcher further recommended that this could be effectively accomplished through appropriate training in listening skills. A point of consideration is the need for professionals, medical students, and instructors to be willing both to recognize the need for such training, and to commit the time to learn to listen.

Gorlin et al. (1983), Dornbush et al. (1985), and Fletcher (1980) call for an approach to medicine which will teach humanistic skills and provide experience and role modeling of those skills. Gorlin et al. suggested a two-step process toward a humanistic approach to medical interpersonal skills training.

> First, the doctors in training modify their attitudes toward their own feelings, positive and negative, about patients and illnesses. What they may have considered irrelevant to the "scientific" situation they now acknowledge as human, understandable, relevant. Thus, in the second phase they are freed to deal with their own feelings and to apply a variety of interpersonal techniques that are appropriate to the needs of patient, family, and their own lives. (p. 1062)

This two-step process will enable the needs of the student physician, the needs of the patient, and the needs of the family to be addressed in medical interview training.

Purkey and Novak (1984) refer to such a level of functioning in the humanistic educational process as intentionally inviting. This means

that the medical student will become artful at inviting patients to participate in the medical student-patient interview process. This further means that "they have developed the ability to approach even the most difficult situation in a professionally inviting manner" (p. 20). According to Combs, Avila, and Purkey (1978), "human behavior is always a product of how people see themselves and the situations in which they are involved" (p. 15). Therefore, humanistic education must include increasing positive perceptions of self and providing the skills training which will enable the individual to become more effective in interpersonal relationships. According to Blumburg (1980), cancer patients and their families are in special need for physicians oriented to humanistic medical practice.

Need for Physician Communication with the Patient

Thompson and Anderson (1982) found in a study of fourth-year medical student-patient interviews that patients preferred students who were sensitive to what they said and used encouragement during the interview. Likewise, Mullan (1985) noted that a patient's survival from illness such as cancer is encompassed by sensitive issues which physicians need to recognize in order to give appropriate encouragement. This sensitivity provides a basis for patient satisfaction with the physician-patient relationship.

According to Korsch, Gozzi, and Francis (1968), patients are better satisfied with treatment and care when physicians possess strong communication skills. In a study of 63 patients at Johns Hopkins University School of Medicine, Bartlett et al. (1984) found that interpersonal skills are more important than the amount of scientific

instruction in determining patient outcomes. Similarily, DiMatteo et al. (1980) investigated the nonverbal interviewing skills of 71 residents with 462 physicians. Patients reported greater satisfaction with physicians who were more sensitive to body-movement and emotional cues. Physicians who communicated nonverbal emotional responses also received higher patient satisfaction ratings.

Peck et al. (1985) suggested that "we should turn to the doctor-patient relationship to be sure that the patient's needs are being met, that we are communicating productively with the patient, and that we are engaging in necessary negotiation and programming to help the patient overcome the obstacles to compliance which are present in his or her environment" (p. 83). The authors further recognized that if physicians could begin to identify the psychosocial needs of patients and communicate about those needs, then patient compliance would be increased and physicians would obtain greater job satisfaction. According to DiMatteo et al. (1982), lack of compliance is one example of the breakdown in physician-patient communication.

Need for Physician Communication with the Family

It is necessary to recognize that the patient is a member of a family system (Bauman & Grace, 1974) which may determine a large amount of the patient's behavior (Ransom & Vandervoort, 1973). According to Stanford (1972), the physician needs to be prepared to communicate with patients and with families. When family members are not included in physician-patient communication, they feel they have been denied inclusion, understanding, information, and the opportunity to share in the illness (Liebman et al., 1975).

The patient's family plays an important role in the illness and its treatment. "Physicians should be able to recognize situations where family relationships play an important role in precipitating or aggravating problems in their patients" (Leahey & Tomm, 1982, p. 197). These authors conducted a study of the effects of a course entitled "The Family in Health and Illness" on the first-year medical student's knowledge of the family. Although no behavioral measures were used, knowledge scores significantly increased following the training.

Similarily, Hunsdon and Clarke (1984) developed an elective course to teach medical students the psychosocial components of illness. The evaluation of the course was limited to written questionnaires with no measure of behavioral applications. Although information on family needs was given to students, no practice interview with family members were included in the study.

Need for Physician Communication Skills

If physicians do not possess the communication skills necessary for dealing with illness, they may remove themselves into the world of treatment and spend little time with patients (Bigwood, 1976). Physicians thus become delegators of communication responsibilities. They hide behind the principle that a psychologist's or psychiatrist's expertise in the area of communication is what is needed. This provides an excuse to keep from entering the world of the patient and taking time to listen to the patient.

If, on the other hand, physicians possess adequate communication skills, they may find increased patient-practitioner agreement (Starfield et al., 1981) and less chance of malpractice

litigation (Gutheil et al., 1984). Strong communication skills may also leave physicians with more time due to fewer patient complaints as well as less chance for burnout (Peck et al., 1985). Accordingly, if physicians communicate well, their patients may increasingly desire to comply with medical treatment and to express satisfaction with medical care.

According to Ivey (1985), physicians who learn the skills of listening will have the choice of whether or not to become involved in a patient's deeper level of existence. If physicians identify this deeper meaning, then they will be able to continue listening or refer the patient to the appropriate sources for help. This is in contrast to the delegation of the responsibility of communication without the identification of patient needs.

Perhaps Parkes (1974) stated the physician's concern best.

> Doctors find it hard to study their own behaviour and resent it when their behaviour is criticized by non-doctors. Sociologists and psychologists, lacking the doctor's power to change the health care system, may be tempted to deal with their own sense of powerlessness by attacking the doctors rather than by recognizing that the doctor's emotional needs should be treated with the same respect and understanding as those of their patients. It is not enough for scientists to take the lid off the health care system, they must be prepared to get in among the pain and death and grief and help to set things right. (p. 189)

In order to determine what a physician needs to know and to do, one must listen to and understand the physician's world just as he/she seeks to understand the patient's world.

Need for Triangle of Communication in Cancer Care

According to Elizabeth Kubler-Ross (1970), the realization of cancer takes time and this time period may vary for each patient.

Similarly, some doctors and some family members react more openly and more quickly than others (Parkes, 1974). Whatever the time period, the patient and the family find the most effective reduction of the anxiety accompanying cancer to be physician contact (Molleman, Krabbendam, Annyas, Koops, Sleijfer, & Vermey, 1984). Physicians, "by supplying information, giving attention, and showing understanding always exert influence on the coping process of cancer patients" (p. 479) and the environment which surrounds them.

As reported in the previous section, Liebman et al. (1975) found the use of a family conference in the care of the cancer patient to be effective in providing information and coordinating the care of the patient. This conference was held whenever the family or medical staff felt the need to share information or seek resolution. A major impact of good physician-patient-family member communication is the understanding of the needs of each person. According to Blumberg et al. (1980), the recognition of these needs is the first step in the communication process. A second step is the training of physicians to communicate with both cancer patients and their families.

Interpersonal Skills and Medical Interview Training

Much of the current research in interpersonal skills training for medical students has concentrated on the implementation of elective courses and programs during the post-clinical years. According to a survey by Kahn, Cohen, and Jason (1979), 80 percent of the programs in existence were less than five years old, and less than one-third of these programs emphasized any counseling skills. When these limitations are considered, medical educators find that there is a limited use of

training programs during the clinical training years, and that there is a void in programs which teach skills necessary to prepare medical students involved in clinical experience to deal with difficult psychosocial issues. The following sections will review (a) subjects used in research, (b) independent and dependent variables examined in research, and (c) a summary of the findings of the research studies.

Subjects Used in Research

Students from Elective Courses

Most of the subjects used for studies of interview training have been drawn from courses taught as electives or from postgraduate training courses. Several authors, Cassileth and Egan (1979), Ikemi and Masui (1984), Prendergast, Coe, Echsner, and Galofre (1984), Quirk and Babineau (1982), Terasaki, Morgan, and Elias (1984), and Wiltshire (1982), conducted studies involving medical students enrolled in these elective-type courses. Medical students in the schools where these studies were conducted who were not involved in these courses were not exposed to interpersonal skills training. These electives were not scheduled specifically during the year of formal clinical training and were not required courses for any section of medical training.

Most of the students enrolled in these courses were exposed to a seminar type setting which introduced them to some type of general counseling skills (Iekmi et al., 1984; Wiltshire, 1982). One study (Cassileth & Egan, 1979) utilized a small group of nine students from an elective course on cancer and cancer patient management.

Courses During Post-Graduate Training

Studies conducted by Duffy, Hamerman, and Cohen (1980), Hunt, Williamson, and Williams (1982), Keane, Black, Collins, and Vinson (1982), Robbins, Kauss, Heinrich, Abrass, Dreyer, and Clyman (1979), and Rosenbaum and Frankel (1984) utilized postgraduate medical students for research. These medical students had completed both preclinical and clinical training and were presently involved in more responsible positions in their various settings. These subjects were already serving as role models for undergraduate medical students in their various programs. The subjects involved had received limited, if any, instruction in psychosocial needs and interpersonal skills training prior to graduation from medical school.

Courses During Clinical Training

One study by Sack (1982) limited the subjects used for the study to third-year medical students in clinical training. In this study, the author utilized third-year medical students in a process to increase their understanding of the psychosocial needs of chronically ill children and their parents. The subjects observed interviews in a clinical setting. Another study by Quirk and Babineau (1982) examined the use of observation, reading, and videotaping with third- and fourth-year students. The videotaping method proved to be most effective.

Summary. Overall, the subjects used in research studies have been members of an elective course. The majority of these courses have been taught as postgraduate offerings or as elective offerings during early medical training. Only two studies reviewed have integrated interpersonal skills in third-year clinical training. The only study

that dealt with psychosocial issues was conducted with medical students. (See Table 1, pg.49)

Independent and Dependent Variables Examined in the Research

The variables examined in the studies reviewed were similar. First, most of the independent variables involved a course of study or a mini-course of study followed by dependent variables of observations or tests evaluating responses of medical students to interpersonal training. Secondly, those studies which did not involve an intervention or treatment tend to utilize an examination of the interpersonal skills of the medical interview process. A formal breakdown of the forms of the independent variable used and measurements of the dependent variables follow.

Independent Variables

Forms of the independent variable (interpersonal skills training) outlined in Table 1 include (a) formal courses in interpersonal skills training (Cassileth & Egan, 1979; Engler et al., 1981; Ikemi et al., 1984; Robbins et al., 1979; Rosenbaum et al., 1984; Smith, 1984; Terasaki, Morgan & Elias, 1984; Wiltshire, 1982); (b) the level of training and experience of the medical student (Duffy et al., 1980; Hunt et al., 1982); (c) interview experience with a patient or observation of an interview experience (Mumford et al., 1984; Prendergast et al., 1984; Sack, 1982; Scibetta, 1980; Stillman et al., 1985); (d) varied types of presentation of interpersonal skills training (Aspy et al., 1982; Keane et al., 1982; Quirk et al., 1982), (e) areas of training in medical schools (Kahn et al., 1979); and (f) a clerkship in psychiatry (Kaye, 1985). Each of these forms of the independent variables were part of a

study designed to examine some facet or type of interpersonal skills training in medical education.

Dependent Variables

The dependent variables examined attempt to measure the response of medical students to interpersonal training. In the studies outlined in Table 1, the following measures are included: (a) observational ratings by independent observers of interviews (videotapes of actual interviews) (Aspy et al., 1982; Cassileth & Egan, 1979; Duffy et al., 1980; Engler et al., 1981; Mumford et al., 1984; Quirk et al., 1982, Rosenbaum et al., 1984; Scibetta 1980; Smith, 1984; Stillman et al., 1985; Terasaki et al., 1984); (b) scores on Beck Hopelessness Scale (Cassileth et al., 1979); (c) scores on Brief Symptom Inventory (Cassileth et al., 1979); Carkhuff Scales Ratings (Engler et al., 1981; Robbins et al., 1979; Scibetta, 1980); (d) confidence in interviewing scores (Hunt et al., 1982); (e) score on a relationship scale (Ikemi et al., 1984); (f) number of programs in interpersonal skills training (Kahn et al., 1979); (g) score on Cancer Attitude Survey (Kaye, 1985); (h) checklist for content ratings (Keane et al., 1982); (i) scores on Eysenck Personality Inventory and Personal Orientation Inventory (Robbins et al., 1979); (j) number of questions asked by the medical student (Sack, 1982); (k) score on the Arizona Clinical Interview Rating Scale (Stillman et al., 1983); (l) ratings on the Reciprocal Category Analysis (Terasaki, 1984); (m) ratings on Bales's Interaction Process Analysis (Prendergast et al., 1984); (n) scores on the Kagan Rating Scale, the Brockway Scale, and the Affect Sensitivity Scale (Robbins et al., 1979); and (o) scores on a coping skills questionnaire (Wiltshire, 1982). Each of these measures

of the dependent variables was used to attempt to determine the response of the medical student and effectiveness of some facet of interpersonal skills training, or the amount of interpersonal skills training available.

Summary of the Findings of the Research Studies

Each of the studies involving a course in interpersonal skills training or some facet of interpersonal skills training found an increase in the student's ability to use those skills taught (Cassileth & Egan, 1979; Engler et al., 1981; Ikemi et al., 1984; Robbins et al., 1979; 1979; Rosenbaum et al., 1984; Smith, 1984; Terasaki et al., 1984; Wiltshire, 1982).

An interpersonal skills training course was found by Robbins et al. (1979) to increase significantly the interview ratings of the students involved in the course. Significant gains were also made on the cognitive test on interpersonal skills administered to the students, and the students reported a high satisfaction level with the course as a whole. Similarly, Ikemi et al. (1984) found that the students' abilities to show empathy and positive regard significantly increased following a course on counseling skills.

Smith (1984) found that some of the blocks to communicating with patients may have been the result of the medical student's performance anxiety. The student might also have a deep and sincere fear of harming the patient through the recognition and discussion of psychosocial issues. Medical students may also feel the need to control the patient and the course of the patient's treatment in order to perform the role of the physician more effectively. Individual students were found to be

unique. Smith recommended that students learn interpersonal skills which allow them to build upon that uniqueness.

In a study of six student physicians, Scibetta (1980) found that there was a positive relationship between the amount of empathy shown by the student and the number of self-exploratory statements a patient was willing to make during the interview process. A positive correlation was also found to exist between the number of encouraging statements used by the student and the amount of empathy shown by the student.

Terasaki et al. (1984) found that a course offering in cancer medicine provided the medical students with an opportunity to increase their willingness to discuss emotional and psychosocial issues and to decrease their tendency to avoid addressing emotional issues in student-patient interviews. Cassileth and Egan (1979) also found that an increase in students' knowledge of nonbiomedical aspects of the disease allowed the students to learn to recognize patient needs. Accordingly, the authors found that following a four-week course in cancer and cancer patient management, the student was more sensitive to the needs of the cancer patient.

A class in counseling skills was found to increase the medical students' awareness of interpersonal reactions and to assist the medical students in planning counseling strategies in their work with patients. Aspy and Aspy (1982) found that a microskills training intervention teaching attending and responding skills increased the responses of the patient in student-patient interviews. The authors also found that the length of the patient's response increased following microskills training. The actual number of words stated by the patient was recorded

and found to increase significantly following the intervention. Moreland, Ivey, and Phillips (1973) also found microskills training significantly effective in increasing the attending skills of second-year medical students.

Needs identified in the literature reviewed. A major recommendation from these studies was for combinations of techniques to be used during training to insure that the students receive opportunities to videotape interviews, review interviews being done, have adequate role models, be given adequate information, and be allowed to practice interviewing skills along with this recommendation. The needs for briefer intervention processes and for the inclusion of interview training during the clinical years were recognized.

Duffy et al. (1980) and Kahn et al. (1979) summarized the needs of medical education interpersonal skills programs by recognizing four needs: (a) medical students communicate medical problems well but need help in other areas of communication skills; (b) students need to recognize and assist with patients' social and emotional responses; (c) students need more courses in interpersonal skills; (d) students need courses which teach more than basic medical attending skills. These recommendations challenge those medical schools which presently offer little or no training in interpersonal skills. Clinical training has offered little opportunity for interpersonal skills training and practice in many American medical schools.

As noted by Cassileth and Egan, (1979), one of the most demanding areas of clinical training is oncology. The medical and psychosocial needs in this areas are multifaceted. Many patients in oncology are

undergoing treatments from various specialty areas of the hospital. Many patients and families are financially drained and visualize little hope for recovery. Many face isolation and family disruption. Many lose their jobs and the insurance benefits. Some face physical impairment. To compound the issue, Abrams (1966) reported that cancer is one of the most feared of all diseases. Thus, a medical student's interpersonal skills with cancer patients become a crucial component of treatment.

Only two of the studies presented addressed the issue of cancer (Cassileth & Egan, 1979; Terasaki et al., 1984). Both of these studies dealt with an elective course not presented during clinical training. The understanding of the psychosocial issues of the cancer patient by the medical student during the clinical rotation is left to chance and the student's own interpretation of the patient's psychosocial needs. No studies reported investigated teaching medical students to communicate with family members of adult patients or to recognize the needs of this population. Table 1 contains a summary of several of the research studies.

Although the combination of techniques used in the microskills training approach has been proven effective (Aspy & Aspy, 1982; Ivey, 1972), this approach has not been adequately researched with cancer patients. The microskills training approach has not been used in teaching the recognition of psychosocial issues.

Microskills Interview Training

Ivey and Authier (1978) used the terms interviewing, counseling, and therapy interchangeably. Ivy (1972) stated that "all interviewers, counselors, and therapists must learn to listen, to ask questions, to

Table 1

Summarization of Research Articles on Interpersonal Communications Skills and Medical Interview Training

Author (date)	Subjects (number and brief description)	Variables		Brief Findings
		Independent	Dependent	
Aspy, C.B. & Aspy, D.N. (1982)	49 randomly selected female nursing students working toward a Bachelor of Science Degree in Nursing	Type of presentation of interpersonal skills; attending, attending/responding, and non-attending Order of treatment presentation	Amount of information given by client determined by number of words said by client	Attending and responding during the interview significantly increased the number of words stated by the client; Absence of an order effect
Cassileth, B.R., & Egan, T.A. (1979)	9 students who enrolled in an elective course on cancer and patient management	Full-time four-week course on cancer and patient management inclusive of interpersonal skills training	Attitudes about cancer as determined by paragraphs written about cancer, scores on the Beck Hopelessness Scale and the Brief Symptom Inventory, and Supervisory ratings	Students increased knowledge of non-biomedical aspects of the disease; Psychosocial and interviewing skills improved; Students became more sensitive to patient needs
Duffy, D.L., Hamerman, D., & Cohen, M.A. (1980)	20 interns and residents available for the study	Level of training Communication techniques	Ten communication skills ratings by behavioral observation of student and patient interview	Skills in medical communication adequate; Skills relating to patient's social and emotional response were adequately developed
Engler, C.M., Saltzman, G.A., Walker, M.L., & Wolf, F.M. (1981)	46 medical students, 31 males and 15 females who were members of the same class	Interviewing skills training inclusive of interpersonal skills training (a nine-week course)	Scores on Carkhuff's Standard Index of Discrimination and Standard Index of Communication, and Ratings of videotaped interviews	Positive improvement in Discrimination ($p<.01$) and in Communication ($p<.01$); and a decline in ratings of videotapes

Table 1 (Cont'd)

Author (date)	Subjects (number and brief description)	Variables		Brief Findings
		Independent	Dependent	
Hunt, D.D., Williamson, P.R., & Williams, P. (1982)	165 residents in family medicine, psychiatry, behavioral medicine, and other medical students	Level of experience of person taking the test	Confidence in Interviewing Scale Score on 20 brief descriptions of challenging situations	Significant positive relationship between Confidence in Interviewing Scale Score and experience
Ikemi, A. & Masui, T. (1984)	11 first and second year medical students who took part in an elective course in medical humanities	Seminar on counseling skills	Score on a relationship scale and scores on pre-and-post seminar personality tests	Significant increase in student's ability for empathy ($p<.02$); and significant increase in unconditional positive regard
Kahn, G.S., Cohen, B., & Jason, H. (1979)	Respondents from each of the U.S. medical schools	Medical schools teaching areas	Number of programs in interpersonal skills inclusive of interview skills	80% of programs in interpersonal skills are less than five years old; less than one-third teach counseling skills
Kay, J. (1985)	42 medical students randomly assigned to a clerkship in psychiatry; 39 students in control group	Psychiatry clerkship	Scores on the Cancer Attitude Survey	Significant changes in parts I and II of test for clerkship students
Keane, T.M., Black, J.L., Collins, F.L., & Vinson, M.C. (1982)	35 clinical pharmacy externs; 20 male and 15 female; fifth year of training; 11 assigned to behavioral rehearsal training, 10 assigned to video tape training, and 14 subjects in no treatment/control group	Behavioral Rehearsal intervention Modeling tape/ videotape intervention	Interview content (checklist) of 31 questions) Ratings of physical status, emotional status, environmental situations, behavioral descriptions; Medication compliance	Behavioral rehearsal group increased the number of areas assessed, improved interviewing style; Modeling tape group improved only in the assessment area

Table 1 (Cont'd)

Author (date)	Subjects (number and brief description)	Variables		Brief Findings
		Independent	Dependent	
Mumford, E., Anderson, D.M., Guerdon, T., & Scully, J. (1984)	86 students and 11 faculty members from 4 medical schools	Medical school attended Videotaped simulated interviews Videotaped real interviews	Performance-based evaluation as determined by 10 independent raters, inclusive of psychosocial issues	Skillful interviewing skills develop through specific training; this training is especially important in the Psychosocial skills area
Prendergast, C., Coe, R.M., Echsner, C., & Galofre, A. (1984)	6 students randomly selected from a course on communication skills	Videotape of an interview with an elderly person	Ratings by independent raters on the Bales' Interaction Process Analysis	None of the students use empathy, significantly.
Quirk, M., & Babineau, R.A. (1982)	84 medical students (47 third-year and 37 fourth-year)	Observation of preceptors; Reading assignment group; videotaped group	Ratings of pre- and postintervention videotaped interviews by four independent raters on 12 characteristics of the interview interpersonal skills	Observation and Reading groups showed no significant change in interview skills; The videotaped group significant change ($p<.01$)
Robbins, A.S., Kauss, D.R., Heinrich, R., Abrass,I., Dyerer, J., & Clyman, B. (1979)	51 randomly selected house officers in an Internal Medicine Residency	Interpersonal skills training	Precourse and postcourse personality/attitude measures (Eysenck Personality Inventory, Personal Orientation Inventory) Precourse and postcourse the Affect Sensitivity scale. Kagan rating scale. Carkhuff Empathy Scale Brockway Scale Cognitive test Rating of satifaction	Significant increase on Affect Sensitivity Scale $P<.05$); Significant increase in interview ratings Significant gains on cognitive tests; Satisfaction with course high

Table 1 (Cont'd)

Author (date)	Subjects (number and brief description)	Variables		Brief Findings
		Independent	Dependent	
Rosenbaum, S., & Frankel, B.L. (1984)	Resident in an out-patient clinic	Learning the biopsycho-social model	Ratings by the psychiatric consultants	Residents responsive to learning skills; Residents defensive that their attitude toward a patient might have an impact on the course of the disease
Sack, W.H. (1982)	15 third-year medical students	Physician interview with the parent of a chronically ill child in front of the group of medical medical students (Psychosocial issues)	Questions asked by medical students	Positive evaluation of the experience by the medical students'
Scibetta, L.H. (1980)	6 student physicians	Videotaping of patient interviews	Ratings by independent judges on Carkhuff's Empathetic Understanding scale	Positive relationship between student empathy and self exploratory statements made by patient; Positive correlation between student empathy and number of statements students used to encourage self-exploration

Table 1 (Cont'd)

Author (date)	Subjects (number and brief description)	Variables		Brief Findings
		Independent	Dependent	
Smith, R.C. (1984)	17 dental students randomly assigned to psychosocial training	Psychosocial training	Countertransference as measured by an interview observation	Significant evidence of performance anxiety, fear of harming the patient, a need to control the patient, and attitudes unique to the individual student
Stillman, P.L., Burpeau-Di Gregorio, M.Y., Nicholson, G.I., Sabers, D. L., & Stillman, A.E. (1983)	Students in 6 second-year medical classes	Interview with a patient instructor	Score on the Arizona Clinical Interview Rating Scale	Correlation between content covered in interview and process of the interview
Terasaki, M.R., Morgan, C.D., & Elias, L. (1984)	32 medical students enrolled in a course in cancer medicine	Course in Cancer Medicine	Ratings of precourse and postcourse video-taped interviews (Reciprocal Category Analysis)	Increase in the discussion of the emotional impact of the disease; Less of a tendency to avoid emotional issues
Wiltshire, E.B. (1982)	183 medical student in a counseling skills class at a medical school	Counseling skills class	Coping-skills questionnaire	Increase in awareness of interpersonal ($p<.0005$); Increase in self-efficacy to plan counseling strategies

attend to feelings, and to interpret their clients' statements" (p. 6). This reasoning brought him to recommend "the microskills structure or methodological approach" (p. 5) for use in an infinite number of settings and in an infinite number of delivery systems.

Dowrick and Biggs (1983) recognized microskills training as a process of teaching social skills. According to Ellis and Whittington (1981) these skills are important to all persons and professionals who seek to meet interpersonal needs. These professionals can learn interpersonal skills through the examination and practice of each segment of the total interpersonal experience. Dowrick and Biggs (1983) recognized that the idea of microteaching actually began at Stanford University under the direction of Keith Acheson in 1963. This beginning marked the uniting of the video system and practice teaching skills.

Theoretical Base

Ivey began his work with microskills training techniques as a means of teaching the essential counseling skills. This method is now used under a larger title of microtraining or microskills training. Ivey (1972) termed microskills training as a process "applicable to every human endeavor" (p. 6).

Focus of the Approach

Although microskills training may appear to be a rather simplistic approach to learning, it has been firmly based on four propositions:

1. "To lessen the complexity of the interviewing process through focus on single skills;
2. To provide important opportunities for self-observation and confrontation;

3. To learn from observing video models demonstrating the skills they are seeking to learn; and
4. To be applicable to a wide area of diverse theoretical and practical frameworks" (Ivey, 1972, p. 8-9).

Safe practice. One of the major arguments for microtraining is that it is a practical and safe way for students to learn and practice skills. Through this approach, there appears to be less chance of graduating physicians without close examination of their skills. According to Allen and Ryan (1969), this is an extension of what other professional training programs have been doing for many years which is utilizing closely modeled, supervised, practiced, evaluated behavior.

Experiential nature. One of the major concepts of microskills training is that the participant must be actively involved. Ivey and Authier (1978) demanded that those who teach should have a full awareness of what they are doing. The microskills training process must be one which is definable and one which may be easily and readily implemented.

A tool for further research. Microskills training also provides countless opportunities for research. One of the major contributions Ivey and Authier (1978) reported was that this is a practical tool for an applied setting. Ivey suggested that practitioners identify new ways to use microskills training in all areas of interpersonal skills training.

Medical Interview Training

Ivey (1985) defined the skills needed in medical interviewing as the microskills of listening and influencing. The goal of listening microskills is to seek to understand the patient's view of the illness

and factors related to the illness. Ivey stated that "if you want patient compliance...listen to their feelings and their emotions" (p. 15) as well as the patient's situation. However, if listening is to be used effectively, the nonverbal skills must be continually present. These skills also need to be adjusted to the individual with whom you are working. The purpose of using listening skills is "to learn more about the patient," and the "listening skills may be used to direct and to control the interview" (Ivey, 1985, p. 30).

The framework for listening skills is found in the basic listening sequence. The basic listening sequence is made up of the following skills: (1) the open question, (b) closed question, (c) encourager, (d) paraphrase, (e) reflection of feeling, and (f) the summary. An additional skill, the reflection of meaning, may be used when the physician chooses to enter the deeper world of the patient. Ivey uses cancer as an example of a time when physicians may choose to enter this deeper world of meaning with both the patient and the family member.

Steps in the Application of Microskills Training

Ivey's (1972) basic microtraining model consists of nine basic steps to teaching skills: (a) "trainee receives instructions that he/she is to interview a client," (b) "a brief diagnostic session is videotaped," (c) "client leaves and completes an evaluation form," (d) "trainee reads a written manual describing the skill to be learned," (e) "video models (or role plays) are shown," (f) "trainee is shown his initial interview and discusses it with his supervisor," (g) "researcher and trainee review the skill together and plan for next session," (h) "trainee reinterviews client," and (i) "feedback and evaluation on the final session are made available to the trainee" (p. 6). It is

recommended that these steps can be adapted to the needs of the situation, the abilities of the learner, and the demands of the setting.

Research on Microskills Training

Microskills training has been utilized in applied research settings which encompass a wide spectrum of professional and paraprofessional fields of interest. Microskills training has been widely used as a means of increasing the skills of beginning counseling students. Ivey and Authier (1978) studied three groups of beginning counselors. They used microskills training to teach attending skills. This process was found to increase the actual understanding and performance of attending behavior.

Similarly, Guttman and Haase (1972) found that beginning counseling students were able to generalize reflection of feelings and summarization skills learned through microskills training to real counseling situations. Twenty-four counselors in training participated in a study by Fyffe and Oei (1979). The skill which showed the greatest increase following modeling and feedback training was reflection of feeling. These two studies specifically suggest that microtraining may be helpful in learning more difficult skills. It appears that the more basic skills of attending may be learned through various other training models.

The importance of emphasizing a single skill in counselor training was supported by Gill, Berger, and Cogar (1983) in a study of 12 trainees. These counseling trainees were measured three times during the study. Although trainees had previously been in counseling

supervision, their skills improved after a microskills approach was used. The authors suggested that the single skill development offered through microskills training enhances the learning process and enables the supervisor to better assist counseling students with skill mastery.

Teachers have been able to improve their communication with students following microskills training interventions. Seven secondary teachers were trained by Haroie (1984) to use attending and listening skills. These teachers significantly decreased the number of closed questions asked and increased the amount of time the pupil talked.

Cristiana (1978) utilized the microskills model in training child-care workers to respond with open questions and reflection of feeling. The results did not show significant gains but did show improvements in competence levels of the workers. He further suggested that microskills training become a part of the training given to those workers who serve institutionalized children. Similarly, 19 students completing the Master of Arts degree were asked to participate in a course utilizing microskills training strategies (Bennett, 1981). Participation in activities and group experiences were emphasized throughout the course. Significant gains were found in self-knowledge, interviewing techniques, and communication skills.

Twenty-four supervisory employees of a state manpower agency participated in a course to increase their knowledge of rehabilitation issues. Lawrence and Krieger (1975) found that even though some participants resented being included in the study, the majority of the participants recommended further training of this type. The authors were unable to collect sufficient data to report statistical results.

A growing area of interest exists in the training of paraprofessionals to assist in peer-counselor roles. One of the areas of greatest growth is seen in the number of paraprofessionals who volunteer in community service agencies. Gluckstern, Ivey, and Forsyth (1978) trained paraprofessionals to work as drug counselors. Counselors were able to modify some verbal client behavior. However, the skills of the counselors decreased over time and left questions as to what further investigations and training were needed.

Nine hotline workers were trained by Evans, Uhlemann, and Hearn (1978) to use attending behaviors, open invitations, paraphrasing, and reflection of feelings. Microskills training participants were compared with sensitivity group participants. Microskills participants were found to use fewer advice-giving statements than did sensitivity group participants.

Haase and Dimattia (1970) found significant increases in attending behavior, expression of feeling, and reflection of feeling of 16 support personnel workers. Authier and Gustafson (1975) found similar results with support personnel counselors. They additionally found that paraprofessionals who participated in supervised microskills training and those who participated in unsupervised microskills training had no difference in skill gains. Both methods were effective.

Medical Personnel Training.

Microskills training with psychiatric nurses has been explored by Wallace, Marx, and Martin (1981) and by Spruce and Snyders (1982). In both studies, brief microskills training was found to be effective in teaching attending and listening skills. Wallace et al. found that

brief microskills training was as effective a teaching method as the longer, traditional, discussion teaching format.

Moreland, Ivey, and Phillips (1973) assigned 24 male second-year medical students to two training groups. One of these groups received interview training as described in the microskills training model, and the second group received a more traditional model of interview training. Both groups improved in interviewing skills. However, the microskills training group showed greater gain in interview skills than the traditionally trained group.

In an investigation comparing supervised versus nonsupervised microskills training procedures with 18 registered and licensed practical nurses, Authier and Gustafson (1976) found only one main effect. The supervised group showed significant gain in combined use of microtraining skills. Both groups used each specific microskill equally well.

Summary of Training Research

Microskills training has proven to be an effective tool in increasing the interviewing skills of professional and paraprofessionals. In the medical field, the use of microskills training has offered a brief and effective alternative to traditional interview training (Moreland et al., 1973). Although supervised and nonsupervised microskills training have been somewhat equally effective with nurses (Authier et al., 1976), many questions still exist. Perhaps clarity could be drawn by investigating what has been done in teaching medical students interpersonal interview skills.

Need for the Present Study

From the literature reviewed, the needs presented were (a) need for interview training with medical students during clinical rotations, (b) need for training which will address the psychosocial needs of cancer patients and their families, and (c) need for the involvement of the family member. The present study addressed the recommendations of the research studies in providing (a) information, (b) videotaping experience, (c) role modeling, and (d) practice. This process was congruent with the format of microskills training. An additional area emphasis was the inclusion of family members in the interview process. The family member of the adult patient was not included in any of the studies presented.

CHAPTER III

METHODOLOGY AND PROCEDURES

The purpose of this chapter is to present clearly and comprehensively the exact methodology followed in the execution of this research investigation to examine which of two methods of listening microskills training was more effective in increasing the responsiveness of medical students to the psychosocial needs of cancer patients and their families. The microskills approach (Ivey, 1985) to medical interviewing used for this investigation was based on a cognitive behavioral approach to learning. This approach was directed toward the individual subject's skills and how those skills changed following training.

Two multiple-baseline, across-subjects designs were used for the study (Hersen & Barlow, 1984). Random assignment was used for assignment to training and for further assignment to baselines within each training condition. The purpose of the use of the multiple-baseline approach was to investigate whether or not the change in each individual subject's behavior occurred when, and only when, training was implemented. Each of the four baselines was treated as a subexperiment within the total experiment for each training condition. The environmental conditions for training were identical for each subject. According to Hersen and Barlow, (1984), the same treatment variable may be applied to each succeeding subject as the length of the baseline is increased. These authors also suggested that several behaviors may be measured at the same points across the baselines. The following

sections contain the methodological procedures which were used during this study to examine the comparative effectiveness of faculty-supervised training and self-instructional training.

Subjects for the Study

The subjects for the study were eight third-year medical students assigned to a Clinical Oncology Rotation at the Bowman Gray School of Medicine of Wake Forest University. At the beginning of the 1985-1986 academic year, third-year medical students were randomly assigned to clinical rotations. One of these clinical rotations was the General Medicine Rotation. The Clinical Oncology Rotation was one-third (approximately three and one-half weeks) of the General Medicine Rotation.

Each of the subjects volunteered to participate in the study. Of ten students available for the study, the two who did not participate were students who had received previous counseling training prior to their medical education which would tend to bias the results of the study; i.e., one had received a Ph.D. in a related field, and one had been previously trained in Pastoral Care Counseling. The eight subjects involved in the study had received no prior interview training where the family member was present with adult patient. Their prior interview training had been limited to history-taking skills. In training to take histories of patients, the subjects had not been taught basic listening skills or basic listening procedures. The emphasis in training had been "information-getting" and diagnostic procedures. Skills taught in obtaining information were directive and influencing in nature

These were skills for securing information, advising, and giving information.

Of the eight subjects involved the study, six were male and two were female. Seven of the eight subjects were Caucasian, and one was a minority student. Four of the eight subjects were married and four were single. All eight subjects were at the same point in their third year of medical study.

Permission was obtained from each subject, the Bowman Gray School of Medicine, and The University of North Carolina at Greensboro Human Subjects Committee. Each medical student participating in the study was asked to sign a consent form for participation in the study and for videotaping interviews. (See Appendices B, C, and D)

The patients participating in the interview were outpatients coming to the Oncology Clinic at the Bowman Gray School of Medicine. Patients and family members used for the interviews volunteered to participate in the study. There were 63 different patients and family members interviewed. Each patient and family member pair was randomly assigned to an interview. In one case a patient and family member interviewed with two subjects. However, the interviews were not with the same subject. Each patient and family member pair was also asked to sign a consent form. Agreement was obtained from the patient's oncologist or supervising health care provider to insure that the experience would not be detrimental to the patient's physical condition. Every effort was made to select the patients representative of the population of patients available at the time of the study.

Research Design

Although group designs are traditionally used to examine the comparative effectiveness of two interventions, the use of two across-subjects, multiple-baseline designs was more suitable for this study. When comparative-group approaches are used to assess treatment, little or no knowledge of the individual's performance is gained (Hersen & Barlow, 1976). The focus of this study was the change in the responsiveness of the individual medical student within each training condition following treatment. The need for the use of a single-subject design was further strengthened by the small number of medical students in Clinical Oncology available for study. This presented difficulties in securing the number of subjects needed for larger group studies. Also, medical students on clinical rotations would not be available for group training interventions due to individual schedules and variance in patient needs and emergencies throughout the rotation.

The across-subjects, multiple-baseline design has been used to assess interview skills in other professional areas. Brown, Kratochwill, and Bergan (1982) utilized four subjects in the across-subject design to examine teaching interview skills to school psychologists for problem identification. Iwata, Wong, Riordan, Dorsey, and Lau (1982) similarly used the across-subjects design to assess clinical interviewing skills of university practicum students. The present study used the multiple-baseline, across-subjects design in the examination of the medical interview where both the patient and the family member were present.

Multiple-baseline designs have also been used to compare the effectiveness of treatment modalities. Three multiple-baseline, across-subjects designs were used by McKnight, Nelson, Hayes, and Jarrett (1984) to compare effectiveness of treatments of depression. The present study utilized two designs of four baselines each to compare the effectiveness of two conditions of listening microskills training.

According to Barlow, Hayes, and Nelson (1984), Hersen and Barlow (1984), Kazdin (1982), and Kratochwill (1978), three baselines are adequate where no-treatment control comparison is provided by the variation in the baselines. Wolf and Risley (1971) stated that "while a study involving two baselines can be very suggestive, a set of replications across three or four baselines is completely convincing" (p. 316). Medical students were randomly assigned to the condition of training and then randomly assigned to one of four baselines within the condition for training.

As shown in Table 2, eight observations were used across four subjects for faculty-supervised training and for self-instructional training. The eight subjects who had been randomly assigned to the Clinical Oncology Rotation at the beginning of the third year of medical school were randomly assigned to the two types of training. Each subject within each type of training was then randomly assigned to one of four baselines. The first baseline for each of the two types of training consisted of three observations. The second baseline for each type of training consisted of four observations. The third baseline for each consisted of five observations. The final baseline for each type

Table 2

Multiple-Baseline Across-Subjects Design

Faculty-Supervised Intervention Interview Observations

Student	Obs. 1	Obs. 2	Obs. 3	Obs. 4	Obs. 5	Obs. 6	Obs. 7	Obs. 8
1	0	0	0	X	X	X	X	X
2	0	0	0	0	X	X	X	X
3	0	0	0	0	0	X	X	X
4	0	0	0	0	0	0	X	X

Self-Instructional Intervention Interview Observations

Student	Obs. 1	Obs. 2	Obs. 3	Obs. 4	Obs. 5	Obs. 6	Obs. 7	Obs. 8
1	0	0	0	X	X	X	X	X
2	0	0	0	0	X	X	X	X
3	0	0	0	0	0	X	X	X
4	0	0	0	0	0	0	X	X

0 = Interview observation prior to treatment.

X = Interview observation following treatment.

of training consisted of six observations. The following variables were used for this study.

Independent Variables

The independent variables for this study were two conditions of microskills listening training. These were faculty-supervised listening microskills training and self-instructional listening microskills training. These methods (or conditions for training) were suggested for use with microskills training by Ivey (1972; 1978). Other studies which have investigated the use of faculty directed or supervised study as compared with videotaped self-instructional study (Mir, Marshall, Evans, Hall, & Duthie, 1984; Paegle, Wilkinson, & Donnelly, 1980) found the two methods to be equivalent in teaching cognitive information. Both studies also found personal training from a faculty member to produce greater affective and behavioral changes.

Training program designers have begun to seek to determine what ingredients would make the use of self-instructional videotape more effective. Paegle et al. (1980) suggested that all elements with the methods be kept equivalent. These authors recommended that each graph, each chart, each written word be presented in both presentations. This study met these requirements. Both interventions utilized the same information, the same outline, and the same skill examples. A detailed outline of the two interventions is contained in Table 3.

The same faculty member appeared on both the self-instructional video tape and the faculty-supervised instructional training. The same person was used in both situations to insure consistency of training and to remove the variable of changing persons presenting the training.

Table 3

Comparative Outline of Interventions: How to Listen: Responding to the Psychosocial Needs of Cancer Patients and Their Families

Faculty-Supervised Intervention	Self-Instructional Intervention
Part I: Preparing to Listen (Faculty Member Presents Material)	Part I: Preparing to Listen (Videotape)
A. Introduction - Faculty Member	A. Introduction
B. Definition Psychosocial Needs Faculty Member	B. Definition of Psychosocial Needs
C. Triangle of Communication	C. Triangle of Communication
1. Video Explanation - Dr. Patricia Zekan	1. Explanation - Dr. Patricia Zekan
D. How to Respond - Faculty Member	D. How to Respond
E. Preparing to Listen - Faculty Member	E. Preparing to Listen
1. Video Example - Family Member trying to talk to physician	1. Example - Family Member trying to talk to physician
2. Video Example - Family Emotions	2. Example - Family Emotions
3. Video Example - Eye Contact	3. Example - Eye Contact
4. Video Example - Body Language Observation	4. Example - Body Language Observing
5. Video Example - Family & Patient Responsiveness	5. Example - Family and Patient Responsiveness
F. Presentation - A Case Study - Faculty Member	F. Presentation of a Case Study
Part II: The Basic Listening Skills (Faculty Member Presents Mateiral	Part II: The Basic Listening Skills (Videotape)
A. Review of Preparing to Listen - Faculty Member	A. Review of Preparing to Listen
1. Video Example - Eye Contact	1. Example - Eye Contact
2. Video Example - Body Language	2. Example - Body Language
B. Basic Listening Skills - Faculty Member	B. Basic Listening Skills
1. Open Questions - Faculty Member	1. Open Questions
a. Video Example	a. Example
2. Closed Questions - Faculty Member	2. Closed Questions
a. Video Example	a. Example
3. Encourager - Faculty Member	3. Encourager
a. Video Example	a. Example
4. Paraphrase - Faculty Member	4. Paraphrase
a. Video Example	a. Example

Table 3 (Con't.)

5. Reflection of Feeling - Family Member, Faculty Member	5. Reflection of Feeling
a. Video Example	a. Example

Comparative Outline of Interventions: How to Listen: Responding to the Psychosocial Needs of Cancer Patients and Their Families

6. Summary - Faculty Member	6. Summary
a. Video Example	a. Example
7. Reflection of Meaning - Faculty Member	7. Reflection of Meaning
a. Video Example	a. Example
C. Interview Analysis - Faculty Member	C. Interview Analysis
a. Video Example	a. Example
D. Closing - Faculty Member	D. Closing

Critique of Tape

PART III

Faculty-Supervised - Faculty member will be present to assist student

Self-Instructional - Student will complete his/her own critique

Critique of Tape

Please examine your behavior during the following interview of you, a patient, and a family member. Place a tally mark each time you see yourself use the behaviors. Stop the tape to have time to record as needed or to review a section of your tape. Be sure to mark each question you ask as open or closed.

Behavior	Tally Marks
Nonverbally Attending	
Open Question	
Closed Question	
Encourager	
Paraphrase	
Reflection of Feeling	
Summarization	
Reflection of Meaning	
Recognized a Psychosocial Need	

Following the critique of your tape, you are asked to practice the listening microskills during your daily interviews with cancer patients and their families.

Faculty-Supervised Listening Microskills Training

This intervention was presented by an instructor at the Bowman Gray School of Medicine. The faculty member who conducted the training interventions was the faculty member assigned to work with the psychosocial training for medical students during the clinical oncology rotation. The faculty member had received certification from the National Board for Certified Counselors and had completed all coursework required for the Doctor of Education degree with a concentration in counseling in the community career setting and a cognate in child and family relations. The faculty member had two years experience as a counselor with cancer patients and their families.

The faculty member directly presented the lecture parts of the training and assisted the subject in viewing the specific videotaped examples of skills. When the two major training sections were completed (See Table 3, Preparing to Listen and The Basic Listening Skills), the faculty member reviewed one of the subject's videotapes with the subject and assisted with the critique. After completing the critique, the faculty member asked the subject to practice the listening skills with patients and family members during routine daily schedules.

Self-Intructional Listening Microskills Training Through Use of Videotape

For the self-instructional training, the same instructor presented each subject with an outline of the training. The student then viewed the two self-contained videotapes. After completing viewing the tapes, the subject viewed one of the videotapes and completed critiquing the tape. The subject then read instructions to practice the listening

skills during routine daily interviews. The overall, comparative outline for this training is contained in Table 3. The complete transcription of the videotapes is contained in Appendix E.

Dependent Variables

The dependent variables for the study were (a) observational data obtained from videotaped medical student-patient-family member interviews, (b) patient and family member ratings of the interviews, (c) observational counts of psychosocial needs from student dictation reports, and (d) a content-based mastery test.

Observational Data from Eight Videotaped Medical Student-Patient-Family Member Interviews

The observational technique for this study was the use of trained observers to rate each of eight 20-minute videotaped medical student-patient-family member interviews. Observation of each interview was conducted by two independent observers. The observers for the study were five graduate students enrolled in counseling courses at The University of North Carolina at Greensboro. The observers were paid a set wage for their observational work. They were unaware of the order of the interviews.

Time sampling. Time sampling observational methodology was used for this study (Barlow et al., 1984). The longer 20-minute interviews were divided into 15-second intervals. By dividing the longer observation into small units, observers were able to record whether or not each of nine targeted behaviors occurred during each 15-second interval. The observation form used for the study is included in Appendix F. Codes for each of the nine targeted behaviors

were used for observation form, as follows: (a) NV - medical student used nonverbal attending skills; (b) PAT - patient talked; (c) FAM - family member talked; (d) PSY - medical student recognized psychosocial need; (e) OP - medical student used open question; (f) CL - medical student used closed question; (g) EPS - medical student used encourager paraphrase, or summary; (h) RF - medical student used reflection or feeling; and (i) RM - medical student used reflection of meaning. Each observer circled the code for the behaviors occurring in each 15-second interval.

After pilot work and observer training, the decision was made to use an assistant during observations. This assistant stopped the tape following each 15 seconds of observation to allow observers time to record each of the nine behaviors. A behavior code was circled if, and only if, that behavior occurred during the 15-second interval observed. This procedure allowed the observers to record with greater accuracy and to have adequate time to record observations. Two independent observers were present for each observational session.

The number of circled codes for each targeted behavior was summed. The percentage reported was calculated by dividing the number of 15-second intervals in which the behavior occurred by the total numbers of 15-second intervals observed. Although every attempt was made to insure a full 20 minutes of observation, in a few cases where a patient was not able to complete a full 20-minute interview, the percentage was used for the number of intervals obtained. Since there were two observations for each behavior, the average of the two observations was used as the final observed rating for that behavior

within that interview observation. The range for the intervals observed across the interviews was from 57 to 80. Form may be found in Appendix F.

Reliability of Observations. Reliability was calculated separately for each of the nine measures for each interview observations. The lowest acceptable reliability coefficient was set at .80. Overall reliability coefficients were calculated for each behavior for each subject. Overall reliability coefficients were also calculated for each of the nine behaviors over all observations taken for that behavior. The results of the overall reliability coefficients are included below. A complete table of the analyses is contained in the Appendices G and H. Reliability was calculated for each behavior for each subject for each interview. An overall reliability for each behavior for each subject was also calculated. The calculations of reliability were based on the formula

$$\frac{\text{agreements}}{\text{agreements + disagreements}}$$

The reliability coefficients for each of the nine measures are contained in Appendices G and H. The overall interobserver reliability coefficients were the following:

1. Observations of nonverbal skills $r = 1.00$
2. Observations of patient talk $r = 0.95$
3. Observations of family talk $r = 0.93$
4. Observations of psychosocial need $r = 0.89$
5. Observations of open questions $r = 0.95$
6. Observations of closed questions $r = 0.92$
7. Observations of encouragers, $r = 0.88$

paraphrase, and summary

8. Observations of reflection of feeling — $r = 0.97$

9. Observations of reflection of meaning — $r = 0.99$

Training of observers. Observers were trained in a six-hour training session conducted by the researcher at the Bowman Gray School of Medicine. Each behavior to be rated was defined and operationalized. Examples were given of possible verbalizations. Instructions were given in (a) recording each interval observation, (b) understanding explicit definition of behaviors to be observed, (c) accuracy in coding procedures, and (d) reporting to the researcher. Observers practiced behavior counts for the videotaped interviews. Reliability checks were taken during the practice sessions. If reliability was not .80 or greater, additional training was given. Any observers who needed additional practice were given the opportunity to complete additional training sessions until interobserver reliability was achieved. An outline of the training for observers can be found in Appendix I.

Patient and Family Member Ratings of Interview

Demands for accountability dictated the development of the Medical Interview Satisfaction Scale (Wolf et al., 1978). Many attempts have been made to measure patient attitude toward physicians, but only a few known previous scales have sought to determine the patient's satisfaction with an interview with a physician. One of these attempts, a questionnaire by Riser (1974) addressed interviews with nurses. A

questionnaire by Vuori (1972) reported no reliability or internal consistency.

The Medical Interview Satisfaction Scale was specifically developed to be used following interviews with physicians to measure the patient's view of the interview. The scale consists of three subscales: (a) cognitive, which measures amount of medical information received; (b) affective, which measures the physician's listening skills; and (c) behavioral, which measures physical examination ratings. The present study utilized items from the affective subscale. Cronbach's coefficient for this subscale is 0.87. The subscale has been field tested and provided the only known available, reliable, and internally consistent measure of the patient's effective response to a medical interview. The authors recommended the use of this scale with clinical students to evaluate the effectiveness of their interview skills. A copy of the rating form used may be found in Appendix J.

Transcription of Dictation

Dictation tapes. The use of dictation to report important interview findings by physicians and health care personnel has been standard procedure in patient care (Bull, Chamberlain, & Leavey, 1971; Tatham, 1967). The subjects had previously received training in recognizing factual medical information for dictation (Tatham, 1967), but had not received training in recognizing the psychosocial issues. The subjects had not received experience in the use of the dictaphone.

Each subject was given a dictaphone and asked to make a dictation tape of important information received during each videotaped interview

with a patient and a family member. Each dictation tape was transcribed by the Oncology Clinic clerical staff. Two copies of transcriptions were made. One copy of each of the transcriptions was randomly assigned to each of two independent raters who marked each psychosocial need recorded in the transcription. The definition of psychosocial needs used is contained in the Appendix K. The average of the two observations was used as the rating. Exact agreement divided by agreement plus disagreement was calculated for each dictation tape. This rating was used to determine the reliability for each observation. (See Appendices G and H). The reliability coefficients for the dictation tapes ranged from .80 to 1.00.

Content-Based Mastery Test

A pre-and-post content-based mastery test was administered to the subjects on the first and last day of observation. This instrument included items from each skill area emphasized. Questions for the instrument were derived directly from the content of the interventions. Items were matched with content and skills taught in the inverventions.

This instrument was developed by instructors at the Bowman Gray School of Medicine. The instrument was designed to include one item from each the areas presented in the two types of training (A complete transcript of training is included in Appendix E.). The instrument was edited and critiqued by students and faculty members prior to the study. The same form of the instrument was used for the pre-and-post tests. A copy of the instrument used is included in Appendix L.

Setting for the Study

The study was conducted in the Outpatient Hematology/Oncology and Radiation Therapy Clinic of the Bowman Gray School of Medicine. Approximately 175 cancer patients per day come to these clinics for treatment. One of the areas in these clinics is a comfortably furnished physician, patient, and family consultation room. Training and measurement for the study took place in this conference area. This setting was the natural environment for medical interviews in this clinical environment.

The room was adaptable to videotaping, and electrical outlets and needed facilities were present. The room was also identified by the clinic staff as a comfortable place for consultation and counseling. Patients and family members may use the room for meetings with physicians, and staff members frequently use the room for meetings.

The outpatients who came to the clinic were ambulatory and were able to converse with medical staff members. Appoximately 85 percent of the patients who came to the clinic each day during the study brought a family member with them to see the doctor. Those who did not bring a family member with them to see the doctor usually had a family member waiting for them in the clinic lounge or waiting area.

Experimental Requirements

In order to complete this study, it was necessary to secure a quality video camera and tripod. One major requirement for the study was the availability of a microphone compatible with the taping equipment. Without such a microphone, it would have been impossible to rate the videotapes adequately. Several of the patients had been

through surgery which left them unable to speak loudly enough to be understood on regular built-in camera taping equipment.

Another major requirement for the study was the availability of monitor and complete video systems to complete taping of interviews without interruption. It was necessary to have a back-up system ready in case of faulty equipment operation. Because of time needs and patients' schedules, it was necessary to be able to get back-up equipment within 15-30 minutes.

The researcher prepared signs indicating "taping in progress; please do not disturb" in advance of the study. The researcher informed the staff in both the Oncology Clinic and the Radiation Oncology Clinic of the procedures which would be taking place. The researcher secured permission from the authorities necessary to use all areas for the time needed and to reserve the room at least one week in advance. The staff was also prepared to readjust the schedules when the subject was called on emergency to another area and the interviews had to be rescheduled.

It was extremely important to have a complete filing system set up in advance. Each file contained the pretest the subject would complete, all permission forms needed, all patient and family rating forms needed, and the posttest. One of the most crucial parts of the preparation was the availability of dictaphones and tapes for subjects in order to prevent delay. These tapes were checked to insure that files were kept clearly and that tapes were not confused during the process of the study.

Just prior to the beginning of the study, it was necessary to check all equipment and all supplies. A traveling cart was secured to be used

in the area and removed when the Oncology Department needed the room for other purposes. A weekly check of all equipment was made, and an emergency technician was on call.

Before the observers were trained, it was necessary to insure that all areas where the observation would be conducted were large enough to insure that the observations would be made independently and that the observers were able to see the monitor and to hear all comments made during the interview. The assistant needed a place to be seated near the monitor and either an adapter or a pause button on the recorder in order to stop the tape precisely at 15-second intervals.

It was important to have all observational forms reproduced and ready at the time of observational training. It was also necessary to have copies of all lists of psychosocial needs available for the observers. Finally, all copies of materials to be given to the students in self-instructional training were reproduced prior to the beginning of the study.

Procedures

The following procedures are presented in the order in which they occurred.

Study Procedures

The following procedures were used for this study.

1. Permission for subjects' participation was secured from each medical student.
2. Subjects randomly assigned to the Oncology Rotation were randomly assigned to either the faculty-directed or the videotaped self-instructional interventions.

3. A content-based pretest was administered.
4. Independent videotape raters were trained in a six hour training period.
5. Each subject assigned to each intervention was randomly assigned to one of four baselines.
6. Patients and family members were assigned to subjects for interviews.
7. Patients and family members were told what their requirements would be for the videotaping process and were requested to discuss at least four psychosocial needs during the interview. (Needs were those reported and experienced by patients).
8. Each subject was asked to make three 20-minute videotapes with a cancer patient and a family member who had volunteered to assist with the study and asked to present psychosocial issues during the interview.
9. Patient and family member rated the interview using Likert-type scale as to medical student effectiveness during the interview. (This was completed following each interview throughout the study).
10. Treatment was introduced Subject 1 in each method of training (faculty-supervised and self-instructional).
11. Each subject made a 20-minute videotape with a cancer patient and a family member who had volunteered to assist with the study and had been asked to present psychosocial issues.
12. Subject 2 in faculty-supervised and self-instructional training received the intervention.

13. Each subject made a 20-minute videotape with a cancer patient and a family member who had volunteered to assist with the study and had been asked to present psychosocial issues.
14. Subject 3 in faculty-supervised and self-instructional training received the intervention.
15. Each subject made a 20-minute videotape with a cancer patient and a family member who had volunteered to assist with the study and had been asked to present psychosocial issues.
16. Subject 4 in faculty-supervised and self-instructional training received the intervention.
17. Each subject made two 20-minute videotapes with a cancer patient and a family member who had volunteered to assist with the study and had been asked to present psychosocial issues.
18. Each subject completed a content-based mastery test.
19. All the subjects were thanked for their participation and told what the process was addressing and how the information would be used.

Summary

This chapter has described the subjects, the research design, the setting, the experimental requirements, and the procedures used for this study. In review, two multiple-baseline, across-subjects designs were used to examine the effectiveness of faculty-supervised and self-instructional listening microskills training in increasing the responsiveness of eight third-year medical students on the Clinical

Oncology rotation to the psychosocial needs of cancer patients and their families. The setting for the study was the Outpatient Oncology Clinic at the Bowman Gray School of Medicine. The responsiveness of the medical students was measured by (a) observational data from eight videotaped student-patient-family member videotaped interviews, (b) patient and family member ratings of interview, (c) evaluation of student dictation reports following each interview, and (d) scores on a same-form pre-and-post content-based mastery test: The results of the study, the discussion, and the recommendations for future research follow in Chapters IV and V.

CHAPTER IV

RESULTS OF THE STUDY

The purpose of this chapter is to report the results of the present study through the presentation of the data analyses used to examine the question: which of two conditions for teaching listening microskills training, faculty-supervised or self-instructional videotape, is more effective in increasing the responsiveness of third-year medical students to the psychosocial needs of cancer patients and their families? Two major hypotheses were examined by the study.

Major Hypothesis I

Faculty-supervised listening microskills training will be more effective than self-instructional videotaped listening microskills training in increasing the responsiveness of third-year medical students to the psychosocial needs of cancer patients and their families as measured by (a) the observational data from videotaped medical student-patient-family member interviews, (b) patient and family member interview ratings, and (c) evaluation of medical student dictation reports. Three procedures were used to examine the data obtained from these measures. (Data are contained in Appendices M and N.)

The first procedure used for analysis in this study was the graphing of each data point for each individual subject. The graphs were arranged to show the comparison of the faculty-supervised training and self-instructional videotaped training. A separate graph was

developed for each of the behavioral measures. According to Barlow et al. (1984), the examination of the graphed data allows for the determination of clinical significance of the results. Clinical significance is determined by the amount of change which would make the training of practical use in changing the desired behaviors. The clinical significance desired in this study was a positive change following treatment which remained consistent on the postinterview observations. One exception to this rule was the use of closed questions. For this variable, the desired response was a decrease in the use of closed questions.

As data were obtained through the observation, the behavior was graphed to examine the baseline stability. Since nine behaviors were being observed, the target behaviors used to examine the stability of baselines were nonverbal skills, reflection of feeling, and reflection of meaning. These skills were chosen because they represented the first skill to be taught and the two most difficult skills. For each of these behaviors for each subject, the baselines were extremely stable but produced either near perfect presence or absence of skills. According to Barlow et al. (1984), stability has two dimensions. One of these dimensions is the physical and extremely scientific examination of baseline. The other dimension is utility. This dimension was the most important for this study due to the limitation of the number of videotapes which could be completed. The researcher chose to follow the directions given by these authors in determining stability in areas where limitations exist.

The major examination of data which appeared somewhat unstable was conducted to determine whether or not there was consistent change following treatment, and if there was not, what was the possible source of variability. The examination of the extraneous sources of variability proved to be as important to the present study as the other analyses. These sources are examined in Chapter V.

The second procedure used for the study was the R_n statistic (Revusky, 1968). This statistic was used to examine the rank order of the subexperiments of the study to determine whether or not the change occurred immediately following the initial introduction of intervention for each subject. Each subject within each type of training was considered to be a subexperiment. The R_n statistic required the prerequisite of random assignment of each subject to each baseline which was met by this study. The data points used to determine the order were the data points immediately following the intervention for each subject. Each subject received a rank order number for each behavior on the interview immediately following the training intervention. The sum of the ranks of each subject is used as the R_n statistic. The R_n statistic is not designed to compare the effectiveness of two treatments. However, if one rank order analysis showed significant change in the behavior and the other rank order analysis did not show statistical significance, it was interpreted that the significant training was more effective in changing the behavior. An example follows.

An understanding of how the ranking was done may be obtained through the example of Table 7. In Table 7, it may be noted that the data points examined are the data points which immediately followed

training. These points are underlined in Table 7. In faculty-supervised training, Subject 1 received a rank of 2 when compared with the other three subjects. For the next ranking, Subject 1 was not included in the ranking process and Subject 2 received a rank of 2. For ranking Subject 3, Subjects 1 and 2 were not included and Subject 3 received a rank of 1. Finally, Subject 4 was ranked as 1. The sum of the ranks became the value examined for significance. This process was repeated for self-instructional training.

The third procedure used for this study was the use of four t tests. Hersen et al. (1976) recognized the use of the t test as a means for examining the statistical significance of data when random assignment was a prerequisite for the study. When treatments are randomly assigned, the t test may be used in single-subject designs to examine the effects of the treatment intervention. One of the purposes the authors listed for using the t test was when practical considerations require a certain or limited number of baseline observations without the guarantee that baselines will be stable. The statistical procedure is suggested as a means of dealing with possible variability in baseline observations. Through the use of this statistical procedure, the variability is taken into consideration.

Four t tests were used for each of the dependent measures for the first hypothesis. A one-tailed dependent t test was used for each of the two training interventions to determine whether or not there was significant change from the premean to the postmean. In order to calculate this statistic, the mean for each baseline for each subject and the mean for each treatment phase for each subject were calculated.

These means were compared to determine whether or not there was a significant change from the pretest means to the posttest means for each type of training. If one treatment produced significant change and one did not, it was interpreted that the treatment which had statistically significant effect was more effective than the treatment which did not.

The third *t* test, a one-tailed independent *t* test, was used to examine the premean and postmean difference scores for each of the dependent variables to determine whether or not there was a significant difference in the effectiveness of faculty-supervised training versus self-instructional videotaped training. The *t* tests utilized the comparison of the mean difference scores for the two types of training. The results and description of the tests are included in the following sections on each of the dependent variables. A $p<.05$ level of significance was used for the study.

An additional dependent *t* test was used to investigate the difference in premean and postmean scores when both types of training are combined for a total of eight subjects. The *t* test was calculated by comparing the premean scores for baselines for all eight subjects with the postmean scores for all eight subjects. The .05 level of significance was used for a one-tailed *t* test. This statistic was calculated for each of the dependent measures. This procedure was used to determine whether or not training in general was significantly effective in changing each of the dependent variables.

By conducting these analyses for each of the measures used to examine Major Hypothesis I, it was possible to compare the results of

the three types of procedures and to look for consistent findings. The use of the graphed data allowed for an examination of each individual subject's performance and the identification of possible occurrences during the study which are discussed in Chapter V. For the following variables, all formats will present the figure of the graphed data first, followed by the table of the R_n analyses. A table will be presented for the means and means differences. Finally the *t* tests may be compared for each variable by examining Table 5 continuously throughout the discussion of Major Hypothesis I. All tests were one-tailed tests for both the R_n analyses and the *t* tests. The .05 level of significant was used for all tests. The first dependent measured used to examine Major Hypothesis I was the observational data from the 20-minute videotaped interviews.

Observational Data From Videotaped Interviews

The observational data was taken for nine behaviors. These behaviors were nonverbal attending skills, time patient talked, time family member talked, recognition of psychosocial needs, use of open questions, use of closed questions, use of encouragers, paraphrase, and summary, use of reflection of feeling, and use of reflection of meaning.

Nonverbal Attending Skills Usage

The use of nonverbal attending skills was found to be perfect or near perfect for all subjects. The standards for the analyses of all data for the first hypothesis were applied to this variable even though there was a ceiling effect. This effect is discussed in more detail in Chapter V.

Graphed data. The results of the graphing of data for nonverbal attending skills are presented in Figure 1. This figure shows that the baselines for subjects were stable. However, the overall performance for each subject during baseline was very close to 100 percent. Subjects 1, 2, and 4 in faculty-supervised training and Subject 1 in self-instructional videotaped training used 100 percent nonverbal attending skills in each baseline interview. It is impossible to state a real difference in the effectiveness of the two groups due to the high baseline performance of both groups. Therefore, the graphed data does not support the hypothesis that faculty-supervised training is more effective than self-instructional training in increasing nonverbal attending skills. There was no clinically significant difference in the behavior following treatment for any subject.

R_n analysis of data. The results of the R_n analysis for nonverbal attending skills may be reviewed in Table 4. This rank order analysis showed both treatment conditions to be effective in increasing the attending skills of the subjects. The R_n statistic for both groups was 4. This statistic is significant at the .05 level of significance for a one-tailed test. The obvious realization was that anything that was 100 percent had a rank order of 1. Therefore, the R_n values are not as applicable as they would be if there were no ceiling effect.

t tests. Table 6 contains the premean scores and the postmean scores for each type of training. The table also contains premean and postmean difference scores for each subject within each type of

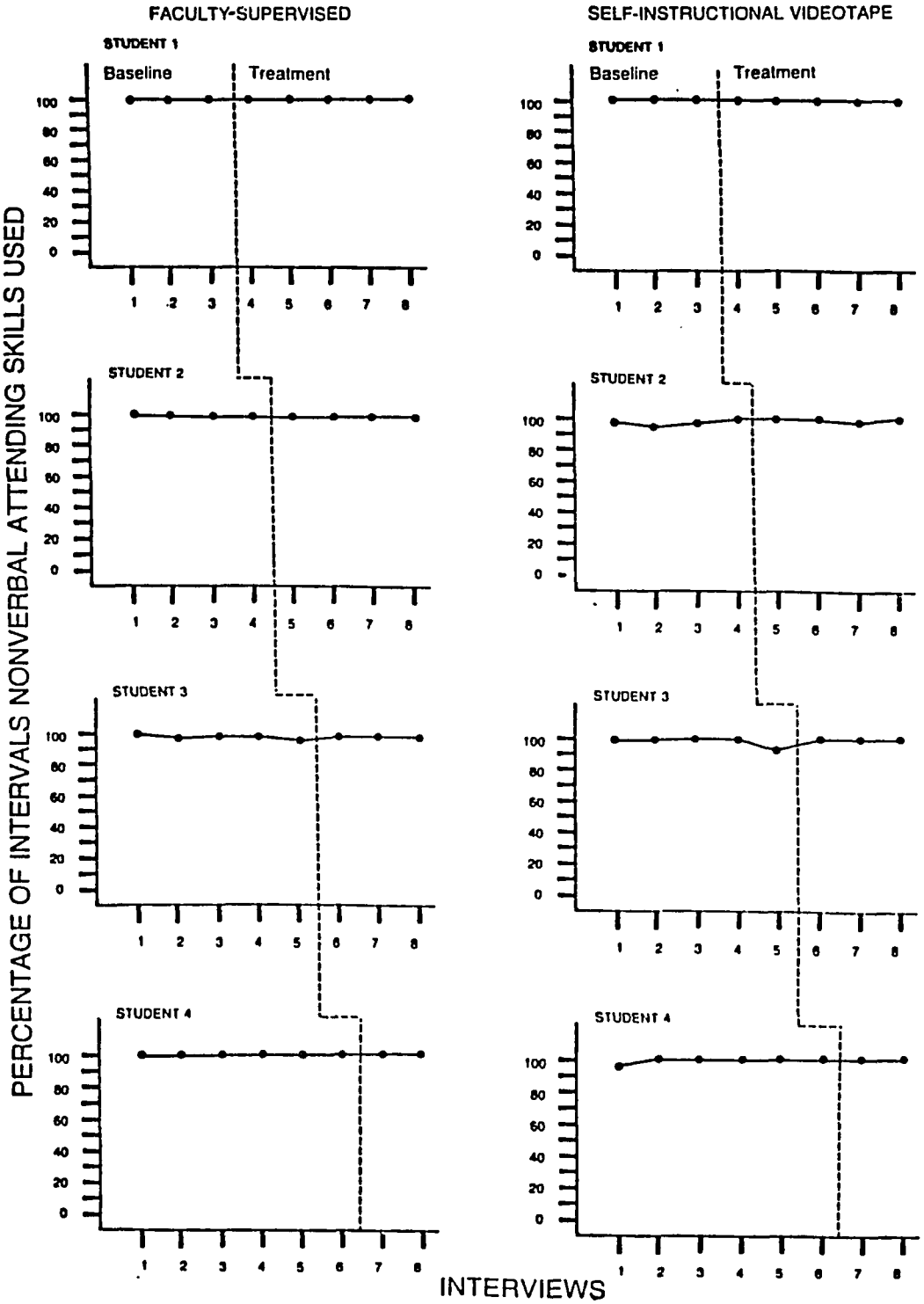

Figure 1. Percentage of 15-second interview intervals in which medical students in faculty-supervised and self-instructional videotaped training used nonverbal attending skills.

Table 4

Percentage of Interview Student Uses Nonverbal Attending Skills

FACULTY-SUPERVISED									SELF-INSTRUCTIONAL VIDEOTAPED								
Student	Percentage								Student	Percentage							
1	100	100	100	100	100	100	100	100	1	100	100	100	100	100	100	100	100
2	100	100	100	100	100	100	100	100	2	99	95	99	100	100	100	99	100
3	100	99	100	100	99	100	100	100	3	100	100	100	100	93	100	100	100
4	100	100	100	100	100	100	100	100	4	97	100	100	100	100	100	100	100
				Rn = 1	+ 1	+ 1	+ 1	= 4*					Rn = 1	+ 1	+ 1	+ 1	= 4*

*Significant at .05 level for one-tailed test.

Table 5

Results of *t* Tests for Faculty-Supervised Training and Self-Instructional Training

Dependent Measure	Dependent *t* Test for Mean Scores for Faculty-Supervised Training		Dependent *t* Test for Mean Scores for Self-Instructional Training		Independent *t* Test for Mean Difference Scores for Faculty-Supervised versus Self-Instructional Training		Dependent *t* Test for Mean Scores for Training vs. No Training Across All Eight Subjects	
	df	*t* value	df	*t* value	df	*t* value	df	*t* value
Percentage of Interview Nonverbal Attending Skills	3	1.00	3	2.35	6	-2.00*	7	2.12*
Percentage of Interview Patient Talked	3	1.99	3	0.22	6	0.87	7	1.26
Percentage of Interview Family Member Talked	3	-0.41	3	1.12	6	-0.90	7	0.20
Percentage of Interview Psychosocial Needs Recognized	3	2.18	3	2.94*	6	-0.30	7	3.83**
Percentage of Interview Open Questions Used	3	1.96	3	0.93	6	-0.05	7	1.78
Percentage of Interview Closed Questions Used	3	-0.82	3	-5.12**	6	0.45	7	-2.17*
Percentage of Interview Encouragers, Paraphrase, Summary Used	3	0.53	3	0.84	6	-0.29	7	1.05
Percentage of Interview Reflection of Feeling Used	3	2.10	3	1.84	6	0.89	7	2.78**
Percentage of Interview Reflection of Meaning Used	3	3.16*	3	0.39	6	1.73	7	2.05*
Patient Rating	3	1.56	3	1.25	6	0.39	7	2.13*
Family Member Rating	3	1.56	3	1.25	6	0.19	7	2.13*
Psychosocial Needs on Dictation Tapes	3	1.33	3	3.44**	6	-0.90	7	3.11**

* Significant at $p<.05$ for one-tailed test
**Significant at $p<.025$ for one-tailed test

training. The *t* value for the dependent *t* test for premean vs. postmean scores for the faculty-supervised training was 1.00 and was not significant for a one-tailed test at the .05 level of significance. The *t* value for the dependent *t* test for the premean vs. postmean scores for self-instructional was 2.35 and was not significant at the .05 level of significance. The results of the *t* test are contained in Table 5.

The *t* value for the comparison of the premean and postmean score differences was -2.0 which was significant at the .05 level of significance for one-tailed tests. This value was due to the extremely small variation in the data. This indicates that there was a difference in the two conditions for training, and that the difference is in the greater effectiveness of the self-instructional training. This analysis does not take into account the impact of the three premeans of 100 percent for the faculty-supervised group.

The dependent *t* test for premean vs. postmeans scores for all eight subjects when training interventions were combined showed a significant *t* value of 2.12. This value was affected by the ceiling effect of the use of nonverbal attending skills.

Table 6

Differences in Nonverbal Attending Means

Training	Subject	Number Baseline Observations	Premean	Postmean	Difference
Faculty-Supervised	1	3	100.00	100.00	0.00
Faculty-Supervised	2	4	100.00	100.00	0.00
Faculty-Supervised	3	5	99.60	100.00	0.40
Faculty-Supervised	4	6	100.00	100.00	0.00
Self-Instructional	1	3	100.00	100.00	0.00
Self-Instructional	2	4	98.25	99.75	1.50
Self-Instructional	3	5	98.60	100.00	1.40
Self-Instructional	4	6	99.50	100.00	0.50

Summary of the data analyses. The examination of the graphed data did not show clinical significance for either type of training. The

results of the R_n analyses showed both types of training to be effective. The results of the independent t test showed that there was a difference in the effectiveness of the two training conditions and that the self-instructional training condition was more effective. The dependent t test across all eight subjects showed the training in general to be effective. However, the ceiling effect shown in the data must be taken into consideration. There could be no improvement with such high baselines scores.

Percentage of Interview Intervals Patient Talked

Graphed data. The results of the graphed data for the amount of time patient talked are found in Figure 2. A discussion of the issues surrounding the stability of the baseline observations for the amount of time patient talked is included in Chapter V. The examination of the graphed data showed that Subject 2 in the faculty-supervised group increased patient participation in the interview following the training. Although other subjects showed a positive trend in patient involvement (Subject 4 in faculty-supervised and Subject 1 in self-instructional), their changes were not as consistent as the change for Subject 2. No subject in either type of training showed a clinically significant change in the amount of time the patient talked during the interview.

There was insufficient evidence from the graphed data that there was any difference in the effectiveness of the two conditions for training. The graphed results did not support the hypothesis that faculty-supervised training is more effective in increasing the amount of time the patient talked.

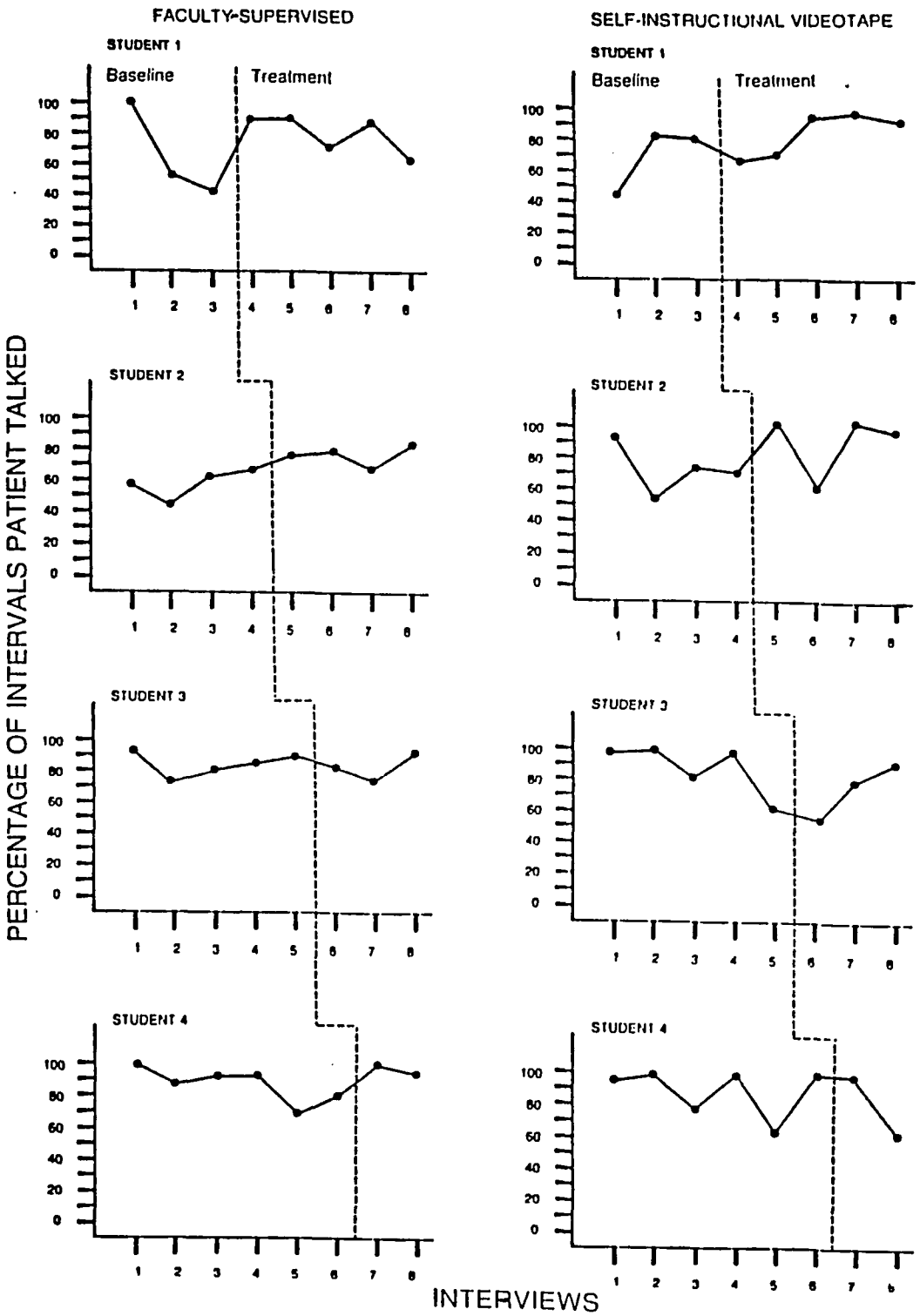

Figure 2. Percentage of 15-second interview intervals in which patient talked.

Table 7

Percentage of Interview Patient Talked

FACULTY-SUPERVISED

Student	Percentage							
1	98	51	40	87	87	69	83	60
2	58	44	62	67	75	77	66	83
3	93	74	80	84	89	80	72	89
4	97	84	91	91	67	77	96	91

Rn = 2 + 2 + 1 + 1 = 6

SELF-INSTRUCTIONAL VIDEOTAPED

Student	Percentage							
1	46	82	81	68	73	92	94	90
2	91	53	72	68	97	57	97	94
3	96	98	81	95	60	53	76	89
4	95	97	76	95	63	97	96	60

Rn = 2 + 1 + 2 + 1 = 6

R_n analysis. The results of the R_n analysis are shown in Table 7. The R_n statistic for the faculty-supervised training was 6. The R_n statistic for the self-instructional videotaped training was also 6. Neither of these was significant for four subexperiments on a one-tailed test at the .05 level of significance. Neither training condition produced significant behavior change.

t tests. The *t* value for the one-tailed dependent test for mean scores for the faculty-supervised training was 1.99 and was not significant at the .05 level. The *t* value for the dependent *t* test for premean vs. postmean scores for self-instructional training was 0.22 and was not significant. The results of the *t* test of independent samples are found in Table 5. The *t* value for the independent *t* test for the mean difference scores was 0.87 and was not significant at the .05 level. Table 8 contains the premean scores and the postmean scores, and the mean difference scores for the two types of treatment.

The dependent *t* test for premean vs. postmean scores for all eight subjects when training interventions were combined produced a *t* value of 1.26 which was not significant at the .05 level. This statistic indicated that the overall use of training was not effective in producing increased patient talk time when training was compared with no training.

The results of the first three procedures used were interpreted that there was no evidence to support Major Hypothesis I for this value. However, there was not a significant difference in pretraining vs. posttraining across all eight subjects. A more detailed discussion of this variable is included in Chapter V.

Table 8

Differences in Patient Talked Means

Training	Subject	Number Baseline Observations	Premean	Postmean	Difference
Faculty-Supervised	1	3	63.0000	77.2000	14.2000
Faculty-Supervised	2	4	57.7500	75.2500	17.5000
Faculty-Supervised	3	5	84.0000	80.3333	-3.6667
Faculty-Supervised	4	6	84.5000	93.5000	9.0000
Self-Instructional	1	3	69.6667	83.4000	13.7333
Self-Instructional	2	4	71.0000	86.2500	15.2500
Self-Instructional	3	5	86.0000	72.6667	-13.3333
Self-Instructional	4	6	87.1667	78.0000	-9.1700

Percentage of Interview Intervals Family Member Talked

Graphed data. The graphs of the data obtained for both conditions for training are found in Figure 3. The only subject who made consistent gain following the training was Subject 4 for self-instructional training. Other subjects had inconsistent positive and negative trends following the training. There was insufficient evidence from the graphed data to support the Hypothesis I. No subject made clinically significant change in the amount of time the family member talked following either type of training.

R_n analyses. The R_n statistic for the faculty-supervised training was 6 and for the self-instructional training was 8 (see Table 9). Neither of these statistics was significant for four subjects at the .05 level. The faculty-supervised training did produce the lower of the two sum of the ranks, but was not significant. Since neither of the training interventions produced significant change following treatment, it was interpreted that there was no support for Major Hypothesis I.

t tests. The *t* value for the dependent *t* test for premean vs. postmean scores for the faculty-supervised training was-0.41 and was not significant for a one-tailed test at the .05 level of significance. The

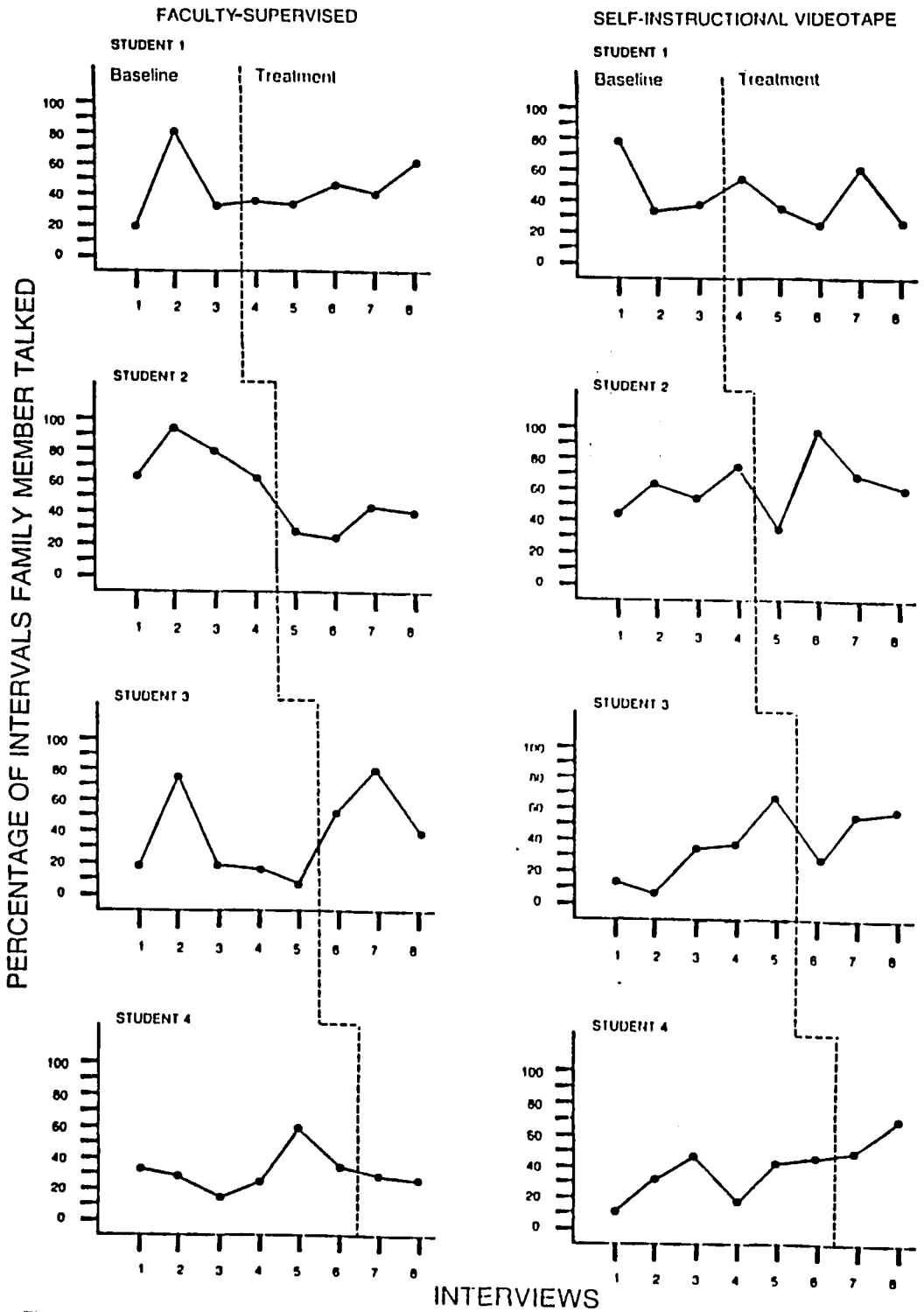

Figure 3. Percentage of 15-second interview intervals in which family member talked.

Table 9

Percentage of Interview Family Member Talked

FACULTY-SUPERVISED

Student	Percentage							
1	19	80	31	34	31	47	39	59
2	62	93	79	60	28	26	41	38
3	24	74	24	22	8	50	79	36
4	34	27	14	25	59	31	28	26

Rn = 2 + 2 + 1 + 1 = 6

SELF-INSTRUCTIONAL VIDEOTAPED

Student	Percentage							
1	77	32	38	56	33	24	60	25
2	46	65	54	72	35	94	65	56
3	12	5	32	33	65	25	51	54
4	12	31	47	18	41	43	48	68

Rn = 2 + 3 + 2 + 1 = 8

t value for the dependent *t* test for mean scores for the self-instructional training was 1.12 and was not significant. The *t* value for the *t* test of independent samples for the mean difference scores was -0.90 and was not statistically significant. A description of differences in post-pre family member talk means follows in Table 10. The *t* tests failed to show that the faculty-supervised training was more effective than the self-instructional training.

The dependent *t* test for mean scores for all eight subjects when both training interventions were combined proudced a *t* value of 0.20 which was not significant at .05 level. This indicated that the overall use of training across all eight subjects did not produce an increase in the amount of time the family member talked.

The results of the three procedures used showed no clinical or statistical significance in the two types of treatment. The variability of the baseline data points will be discussed in detail in Chapter V. This variability may have been due the personality and family dynamics present during the interview.

Table 10

Differences in Family Talk Means

Training	Subject	Number Baseline Observations	Premean	Postmean	Difference
Faculty-Supervised	1	3	43.3333	42.0000	-1.3333
Faculty-Supervised	2	4	73.5000	33.2500	-40.2500
Faculty-Supervised	3	5	30.4000	55.0000	24.6000
Faculty-Supervised	4	6	31.6667	27.0000	-4.6670
Self-Instructional	1	3	49.0000	39.6000	-9.4000
Self-Instructional	2	4	59.2500	62.5000	3.2500
Self-Instructional	3	5	29.4000	43.3333	13.9333
Self-Instructional	4	6	32.0000	58.0000	26.0000

Percentage of Interview Psychosocial Needs Recognized

Graphed data. The graphs of the data are contained in Figure 4. Subject 1 for faculty-supervised training and Subject 3 for self-instructional training showed positive trends in posttraining observations. Although not as consistent as the two previous subjects, Subject 1 in self-instructional training showed a positive trend which increased for observations 7 and 8. There was no clinically significant change following treatment for six of the subjects. However, Subject 1 in faculty-supervised training and Subject 3 in self-instructional training did show a clinically significant change in behavior following treatment.

Through the examination of the graphs, it is not possible to support Major Hypothesis I. A discussion of possible implications of the graphed data for this dependent variable is found in Chapter V.

R_n Analyses. The R_n statistic for the faculty-supervised training was 6 and the R_n statistic for the self-instructional training was 8 (see Table 11). Neither of these values was significant for four students at the .05 level for a one-tailed test. Since neither treatment was shown to be effective, it was interpreted that there was no support for the hypothesis that the faculty-supervised training is more effective than the self-instructional training in increasing the percentage of psychosocial needs recognized.

t tests. The *t* value for the dependent test for the premean vs. postmean scores for faculty-supervised training was 2.18 and was not significant at the .05 level of significance. The *t* value for the dependent *t* test for the premean vs. postmean scores for the

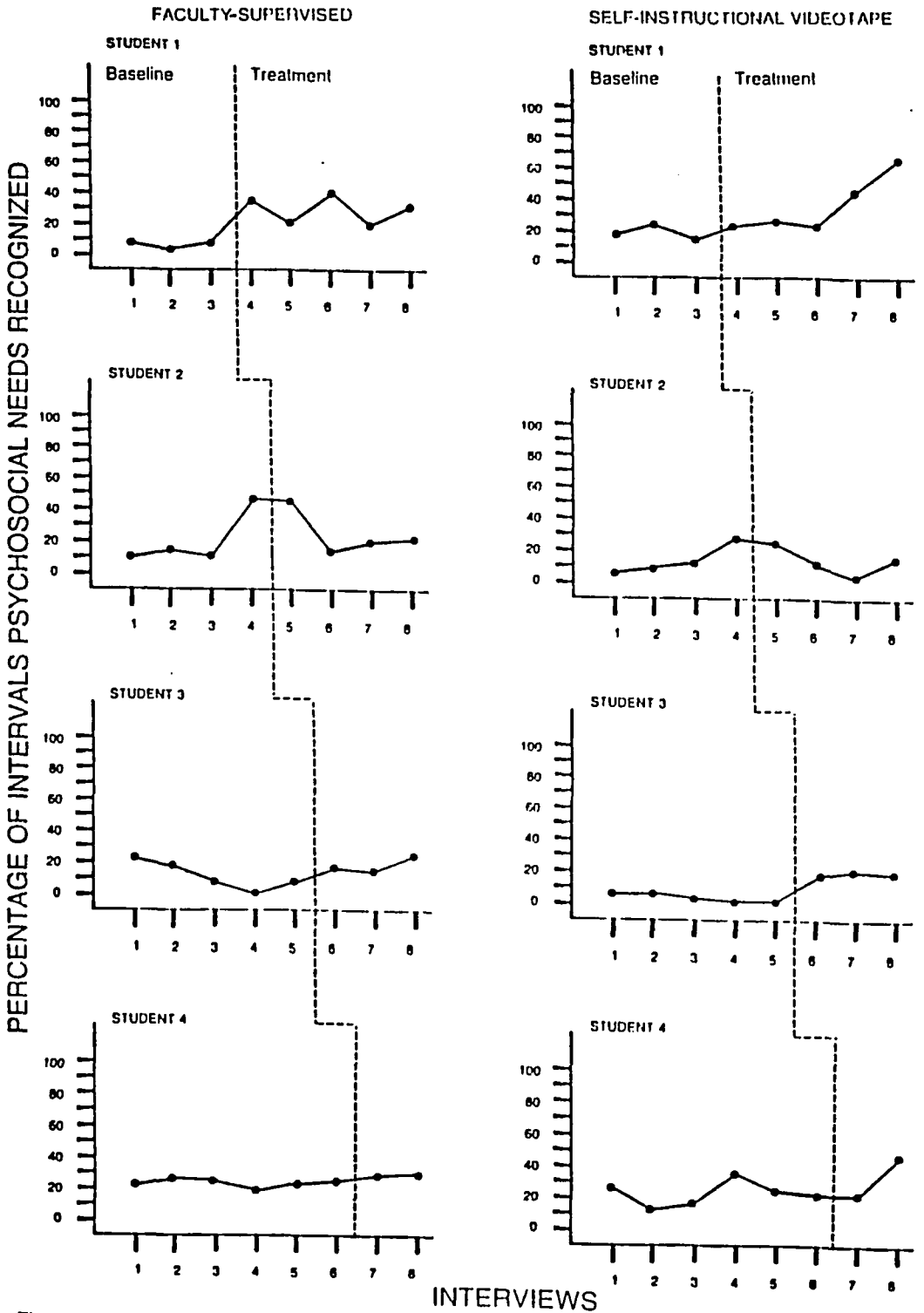

Figure 4. Percentage of 15-second interview intervals in which medical students in faculty-supervised and self-instructional videotaped training recognized psychosocial needs.

Table 11

Percentage of Interview Student Recognized Psychosocial Needs

FACULTY-SUPERVISED									SELF-INSTRUCTIONAL VIDEOTAPED								
Student	Percentage								Student	Percentage							
1	8	6	8	36	20	39	18	33	1	18	26	11	23	25	23	44	67
2	10	13	10	46	45	11	19	20	2	8	9	10	27	22	10	7	17
3	24	18	9	0	9	15	13	21	3	6	6	4	0	0	16	18	16
4	21	25	22	18	21	23	28	29	4	26	11	13	35	24	21	21	46
			Rn = 2	+ 1	+ 2	+ 1	= 6					Rn = 3	+ 2	+ 2	+ 1	= 8	

self-instructional training was 2.94 and was statistically significant at the .05 level. The t value for the one-tailed t test of independent samples was -0.30 and was not significant at the .05 level (see Table 5). The differences in the premean scores and the postmean scores may be found in Table 12.

The dependent t test for premean vs. postmean scores for all eight subjects when both training interventions were combined prouduced a t value of 3.83 which was significant at the .025 level. This indicated that the overall use of training was effective in increasing the recognition of psychosocial needs across all subjects.

The graphed data showed no clinically significant difference for either type of training over the four baselines. The R_n analysis showed neither of the two types of training to produce a significant change. The dependent t test for the self-instructional training did produce a statistically significant t value. However, there was not a significant difference between training interventions on the independent t test. The overall use of training was significant in increasing the recognition of psychosocial needs on the basis of the premean vs. postmean dependent t test.

Table 12

Differences in Recognition of Psychosocial Needs Means

Training	Subject	Number Baseline Observations	Premean	Postmean	Difference
Faculty-Supervised	1	3	7.3333	29.2000	21.8667
Faculty-Supervised	2	4	19.7500	23.7500	4.0000
Faculty-Supervised	3	5	12.0000	16.3333	4.3333
Faculty-Supervised	4	6	21.6667	28.5000	6.8333
Self-Instructional	1	3	18.3333	36.4000	18.0667
Self-Instructional	2	4	13.5000	14.0000	0.5000
Self-Instructional	3	5	3.2000	16.6667	13.4667
Self-Instructional	4	6	21.6667	33.5000	11.8333

Open Question Used

Graphed data. The graphed data found in Figure 5 showed only small variations in baselines. Further examination of the graphs found Subject 1 in the faculty-supervised training and Subject 3 in the self-instructional training to show a positive trend in observations following training. Other subjects showed a more inconsistent trend in observations following training. Neither type of training showed clinically significant change in any subject's post training behavior.

R_n analyses. As shown in Table 13, the R_n statistic for faculty-supervised training was 5 and the R_n statistic for self-instructional training was 4. The R_n statistic for the self-instructional training was significant for four subjects on a one-tailed test at the .05 level. It was interpreted that the self-instructional training was more effective than the faculty-supervised training due to the significance of the R_n statistic for that group.

T tests. The *t* value for the dependent *t* test for the mean scores for the faculty-supervised training was 1.96 and was not significant. The *t* value for the dependent *t* test for the mean scores for the self-instructional training was 0.93 and was not significant at the .05 level. The *t* value for the independent *t* test for the mean difference scores for the variable use of open questions was -.05 (see Table 5). The mean differences are found in Table 14. There was no evidence from the dependent *t* tests that either of the types of training produced significant change. The independent *t* tests for the difference scores did not support the

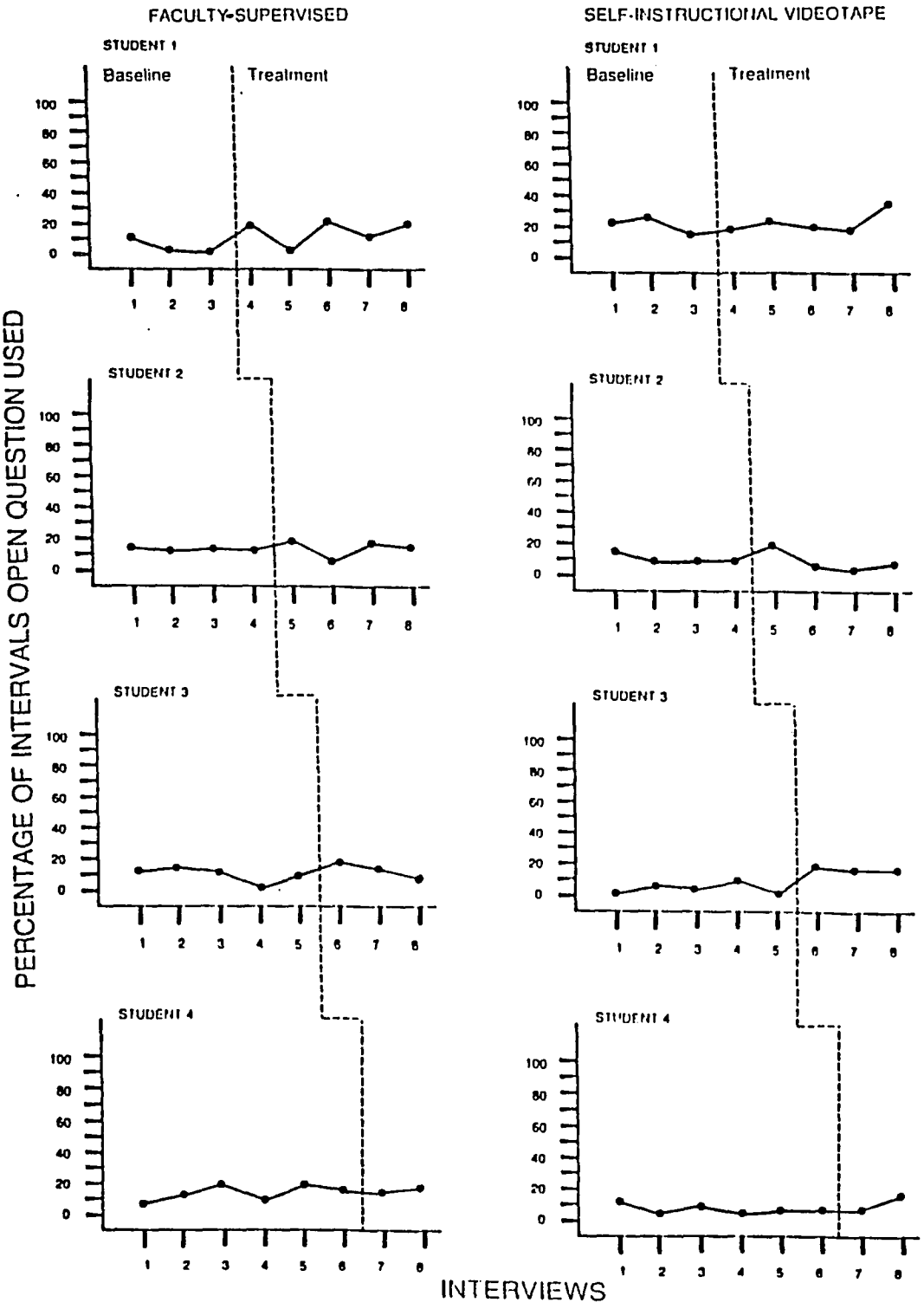

Figure 5. Percentage of 15-second interview intervals in which medical students in faculty-supervised and self-instructional videotaped training used open question.

Table 13

Percentage of Interview Student Used Open Questions

FACULTY-SUPERVISED

Student	Percentage							
1	11	4	3	16	3	19	7	16
2	13	12	13	12	17	5	16	14
3	13	14	12	3	10	16	12	9
4	7	12	19	9	19	16	13	17

Rn = 1 + 2 + 1 + 1 = 5

SELF-INSTRUCTIONAL VIDEOTAPED

Student	Percentage							
1	23	25	14	16	23	16	15	31
2	15	8	8	8	17	5	2	6
3	1	5	3	7	1	16	13	13
4	12	4	9	4	6	6	6	13

Rn = 1 + 1 + 1 + 1 = 4*

*Significant at .05 level for one-tailed test

hypothesis that the faculty-supervised training was more effective.

The three procedures used in examining the data produced inconsistent results. The R_n analysis for the self-instructional videotaped training showed a significant change following treatment. However, other procedures did not show either type of training to produce a significant change. The independent *t* test of the mean difference scores produced a *t* value which was not significant at the .05 level.

The dependent *t* test for mean scores for all eight subjects when both training interventions were combined produced a *t* value of 1.78 which was not significant at the .05 level. This indicated that the overall use of training did not significantly increase the use of open questions across all eight students.

Table 14

Differences in Open Questions Means

Training	Subject	Number Baseline Observations	Premean	Postmean	Difference
Faculty-Supervised	1	3	6.0000	12.2000	6.2000
Faculty-Supervised	2	4	12.5000	13.0000	0.5000
Faculty-Supervised	3	5	10.4000	12.3333	1.9333
Faculty-Supervised	4	6	13.6667	15.0000	1.3333
Self-Instructional	1	3	20.6667	20.2000	-0.4667
Self-Instructional	2	4	9.7500	7.5000	-2.2500
Self-Instructional	3	5	3.4000	14.0000	10.6000
Self-Instructional	4	6	6.8333	9.5000	2.6667

Percentage of Interview Closed Questions Used

Graphed data. The graphed data for the use of closed questions are contained in Figure 8. Subject 2 in the faculty-supervised training group showed a trend toward the use of fewer closed questions following the training. Subject 3 in this group also showed a slight trend in the reduction of the use of closed questions. For the self-instructional

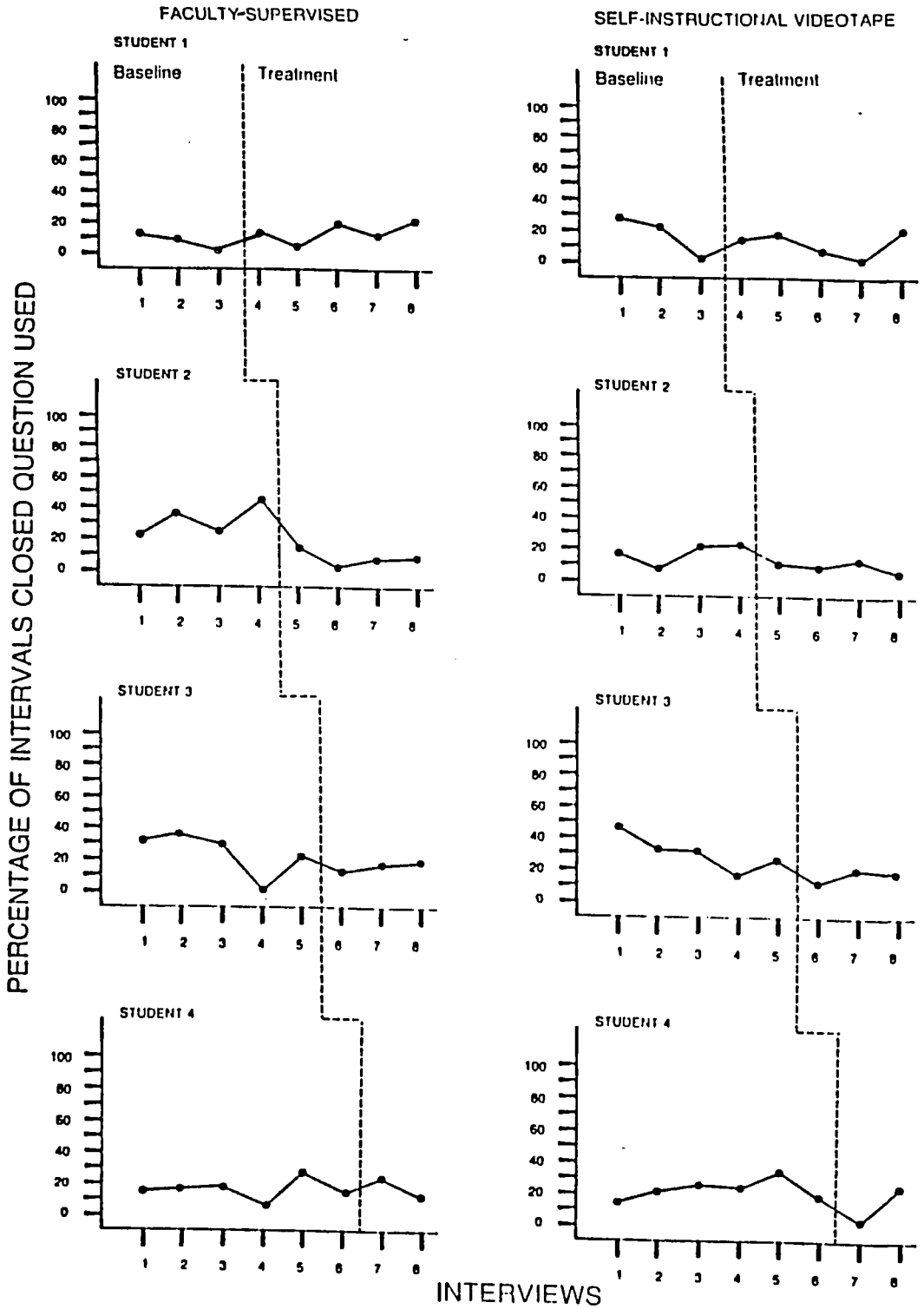

Figure 6. Percentage of 15-second interview intervals in which medical students in faculty-supervised and self-instructional videotaped training used closed question.

Table 15

Percentage of Interview Student Used Closed Questions

FACULTY-SUPERVISED								
Student	Percentage							
1	13	9	1	14	3	20	12	22
2	23	38	27	47	17	5	10	12
3	31	35	30	3	23	14	18	20
4	16	17	18	8	28	15	25	13

Rn = 3 + 1 + 1 + 1 = 6

SELF-INSTRUCTIONAL VIDEOTAPED								
Student	Percentage							
1	29	23	2	15	18	9	4	22
2	19	8	23	25	11	10	13	7
3	44	31	30	15	25	13	19	18
4	14	21	26	25	33	19	6	24

Rn = 1 + 1 + 1 + 1 = 4*

*Significant at .05 level for one-tailed test

group, Subjects 2 and 3 showed a slight trend toward the reduction of the use of closed questions. Neither of the conditions for training appear to be effective for all subjects within each group. The only clinically significant change in the use of closed questions was produced in Subject 2 for the faculty-supervised training.

R_n analyses. The R_n statistics for the variables closed questions are contained in Table 15. The R_n statistic for the faculty-supervised group was 6 and was not significant for a one-tailed test at the .05 level. The R_n statistic for the self-instructional group was 4 and was significant at the .05 level. The results of these analyses found that the self-instructional training produced a significant change. It was interpreted that the self-instructional training was more effective due to the significant change in post training behavior. (See Table 15)

t Test. The *t* value for the dependent *t* test for the mean scores for the faculty-supervised training was -0.82 and was not significant at the .05 level of significance. The *t* value for the dependent test for mean scores for the self-instructional training was -5.12 and was significant at the .025 level. The *t* value for the independent t test for the mean difference scores was 0.45 and was not significant at the .05 level. Table 16 contains the mean difference scores.

The dependent *t* test for mean scores for all eight subjects when both training interventions were combined produced a *t* value of -2.17 which was significant at the .05 level. This indicated the overall use of training was effective in decreasing the use of closed questions across all eight subjects.

Table 16

Differences in Closed Question Means

Training	Subject	Number Baseline Observations	Postmean	Premean	Difference
Faculty-Supervised	1	3	7.6667	14.2000	6.533
Faculty-Supervised	2	4	33.7500	11.0000	-22.750
Faculty-Supervised	3	5	24.4000	17.3333	-7.067
Faculty-Supervised	4	6	17.0000	19.0000	2.000
Self-Instructional	1	3	18.0000	13.6000	-4.400
Self-Instructional	2	4	18.7500	10.2500	-8.500
Self-Instructional	3	5	29.0000	16.6667	-12.333
Self-Instructional	4	6	23.0000	15.0000	-8.000

There were inconsistent results from the procedures. The R_n analyses and the dependent *t* tests both showed the self-instructional training to be significantly effective in producing pre-post treatment behavior change. It is, therefore, interpreted that the self-instructional training was somewhat more effective than the faculty-supervised training in producing significant behavior change.

Encourager, Paraphrase, or Summary Used

Graphed data. The graphed data for this variable showed that Subject 1 in faculty-supervised training made a small positive change following training (see Figure 7). Subject 2 did not have the same trend and showed almost a reverse trend from Subject 1. Subject 3 in that group did not show as much change immediately following training. However, on Interviews 7 and 8 did show such a positive trend. Subject 4 did not show a positive trend following training. For the self-instructional group, the Subject 1 showed a positive trend following treatment. Interview 5 for that subject did not show as much improvement as Interviews 7 and 8. Subject 2 showed improvement following training and a positive trend, although Interviews 3 and 4 were rather high prior to the initiation of training. Student 3 did not show a positive trend following training. Subject 4 did not show an

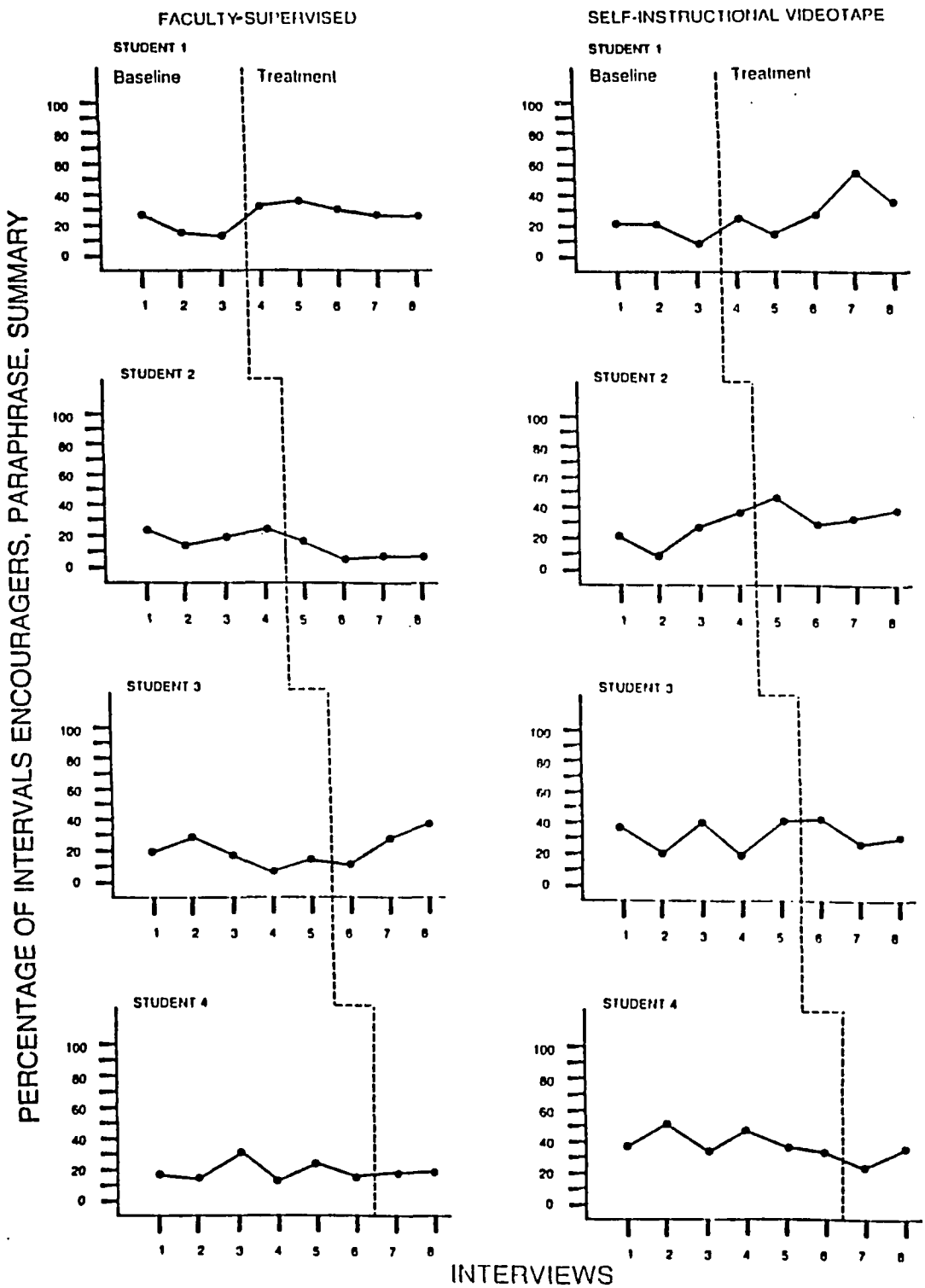

Figure 7. Percentage of 15-second interview intervals in which medical students in faculty-supervised and self-instructional videotaped training used encouragers, paraphrase,and summary.

Table 17

Percentage of Interview Student Used Encouragers, Paraphrase, Summaries

FACULTY-SUPERVISED

Student	Percentage							
1	28	14	13	31	35	30	27	27
2	23	14	21	26	18	8	10	10
3	20	28	18	6	17	15	28	38
4	17	16	31	12	23	15	17	19

Rn = 1 + 2 + 1 + 1 = 5

SELF-INSTRUCTIONAL VIDEOTAPED

Student	Percentage							
1	21	21	9	26	14	19	54	37
2	22	10	29	39	47	30	33	40
3	35	20	37	18	38	39	25	29
4	37	50	32	48	36	33	24	35

Rn = 3 + 1 + 1 + 1 = 6

increase either in the use of encouragers, paraphrase, and summary following treatment. No subject in either training intervention showed clinically significant change following the intervention.

R_n Analyses. The R_n statistic for the faculty-supervised training was 5 and was not significant for a one-tailed test at the .05 level. The R_n statistic for the self-instructional group was 6 and was not significant at the .05 level (see Table 17). Neither condition was effective in producing a significant difference in pre-post scores.

t tests. The *t* value for the dependent *t* test for the mean scores for the faculty-supervised training was 0.53 and was not significant. The *t* value for the dependent *t* test for mean scores for the self-instructional training was 0.84 and was not statistically significant. The *t* value for an independent one-tailed *t* test was -0.29 and was not significant at the .05 level. On the basis of the results of the independent *t* test, the researcher found no evidence that faculty-supervised training is superior or is more effective than self-instructional training.

The dependent *t* test for pretraining vs. posttraining mean scores when both training interventions were combined produced a *t* value of 1.05 which was not significant at the .05 level. This indicated that the overall use of training was not significantly effective in increasing the use of encouragers, paraphrase, and summary across all eight subjects.

The three procedures produced consistent findings. There was no evidence that the faculty-supervised training was more effective than the self-instructional training in increasing the use of encouragers,

paraphrase, and summary. The difference scores are found in Table 18.

Table 18

Differences in Encouragers, Paraphrase, Summary Means

Training	Subject	Number Baseline Observations	Premean	Postmean	Difference
Faculty-Supervised	1	3	18.3333	30.0	11.6667
Faculty-Supervised	2	4	21.0000	11.5	-9.5000
Faculty-Supervised	3	5	17.8000	27.0	9.2000
Faculty-Supervised	4	6	19.0000	18.0	-1.0000
Self-Instructional	1	3	17.0000	32.0	15.0000
Self-Instructional	2	4	25.0000	37.5	12.5000
Self-Instructional	3	5	29.6000	31.0	1.4000
Self-Instructional	4	6	39.3333	29.5	-9.8333

Reflection of Feeling Used

Graphed data. Graphed data for the variable reflection of feeling showed that Subject 1 for faculty-supervised training showed a positive trend following the initiation of training (see Figure 8). Subject 2 made improvement immediately following training and showed a negative trend which later improved. Subject 3 and Subject 4 showed positive change following the initiation of training.

Subject 1 in the self-instructional training did not show improvement immediately following training but on Interviews 6, 7 and 8 showed much improvement. Subject 2 in this group showed very small improvement on Interview 6 but did not show an overall positive trend following training. Subject 3 also showed little change. Subject 4 showed a large change in Interview 7 followed by a decrease in Interview 8. However, there is no evidence that either treatment produced clinically significant change on post interview behavior across the four subjects.

R_n analyses. The analyses for the reflection of feeling produced the R_n statistic of 4 for the faculty-supervised group which was

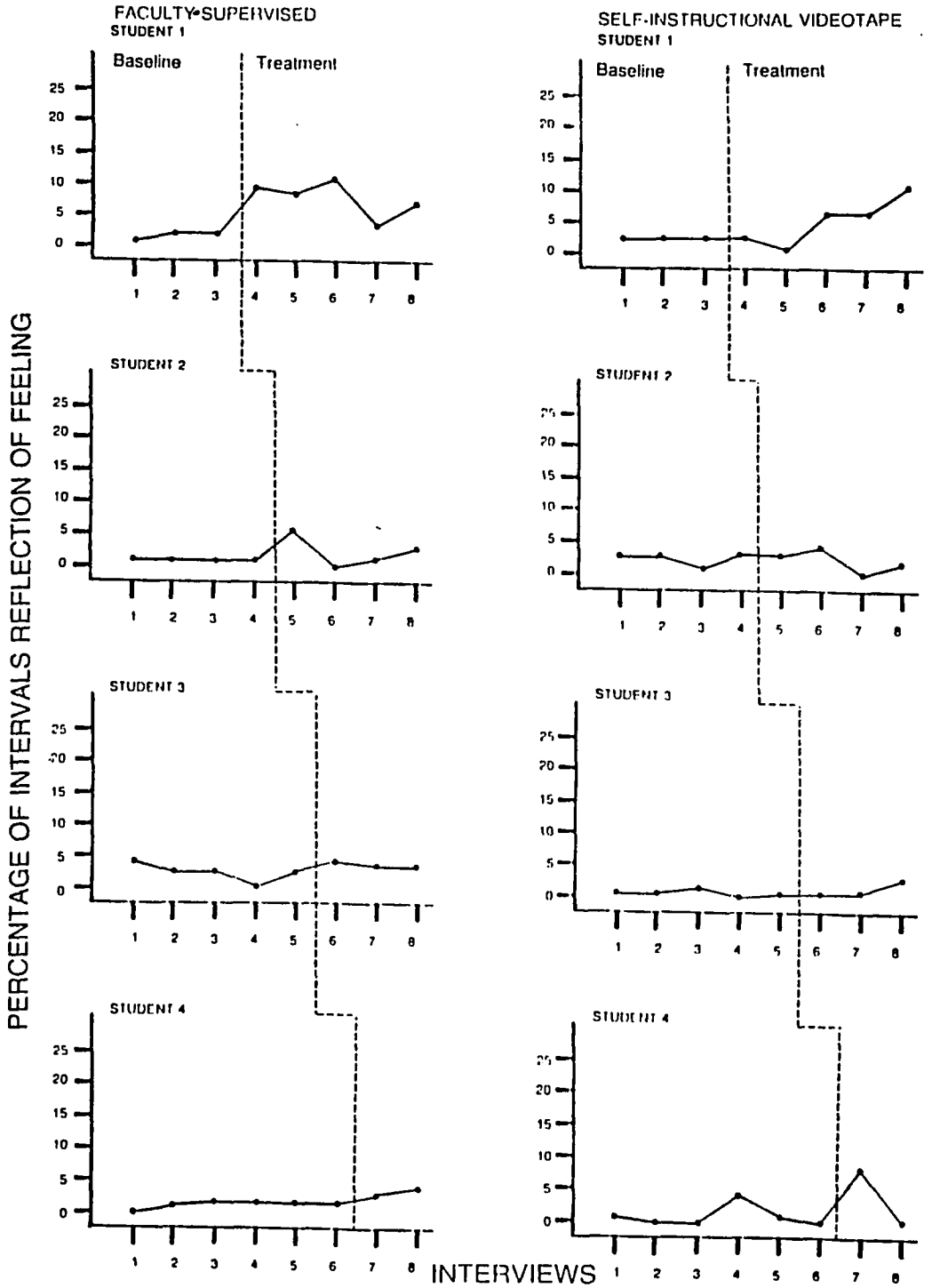

Figure 8. Percentage of 15-second interview intervals in which medical students in faculty-supervised and self-instructional videotaped training used reflection of feeling.

Table 19

Percentage of Interview Student Used Reflection of Feeling

FACULTY-SUPERVISED									
Student	Percentage								
1	1	2	2	9	8	11	3	7	
2	1	1	1	1	5	0	1	3	
3	4	3	3	0	3	4	3	3	
4	0	1	2	2	2	2	3	4	
	Rn = 1 + 1 + 1 + 1 = 4*								

SELF-INSTRUCTIONAL VIDEOTAPED									
Student	Percentage								
1	3	3	3	3	1	6	6	10	
2	4	3	1	3	3	4	0	3	
3	1	1	2	0	0	1	1	2	
4	1	0	0	4	1	0	7	0	
	Rn = 2 + 1 + 1 + 1 = 5								

*Significant at .05 level for one-tailed test

significant at the .05 level. The R_n statistic was 5 for the self-instructional training which was not significant at the .05 level for one-tailed tests (see Table 19). The rank order statistic was significant for the faculty-supervised group supporting that change did occur immediately following training for each of the students. It was interpreted that the faculty-supervised training was more effective due to the fact that it produced significant change and the self-instructional training did not produce significant change.

T tests. The t value for the dependent t test for mean scores for the faculty-supervised training was 2.10. The t value for the dependent t test for the mean scores for the self-instructional training was 1.84. The t value for the independent t test for the mean difference scores was 0.89 and was not significant at the .05 level. Neither of the first three t tests produced significant results. The difference scores are found in Table 20.

The dependent t test for mean scores for all eight subjects when both training interventions were combined produced a t value of 2.78 which was significant at the .025 level. This indicated that the overall use of training was significantly effective in increasing the use of reflection of feeling across all eight subjects.

Table 20

Differences in Reflection of Feeling

Training	Subject	Number Baseline Observations	Premean	Postmean	Difference
Faculty-Supervised	1	3	1.6667	7.6000	5.9333
Faculty-Supervised	2	4	1.0000	2.2500	1.2500
Faculty-Supervised	3	5	2.6000	3.3333	0.7333
Faculty-Supervised	4	6	1.5000	3.5000	2.0000
Self-Instructional	1	3	3.0000	5.2000	2.2000
Self-Instructional	2	4	2.7500	2.2500	-0.5000
Self-Instructional	3	5	0.8000	1.6667	0.8667
Self-Instructional	4	6	1.0000	3.5000	2.5000

The three procedures produced inconsistent results. On the basis of the R_n analysis, it was interpreted that the faculty-supervised training produced significant change and the self-instructional training did not. However, on the basis of the three *t* tests, there was no difference in the effectiveness of the two training interventions. The dependent *t* test for training vs. no training showed training in general to significantly increase the use of reflection of feeling at the .025 level.

Reflection of Meaning Used

Graphed data. The graphed data for the faculty-supervised group showed a small positive trend for Subject 1 following the initiation of training (see Figure 9). Subject 2 and Subject 3 showed also slight positive trend. From the graphed data, each of the four subjects made some type of improvement following training even though this improvement is very small. For the self-instructional training, Subject 1 showed no improvement following training until Interview 8. Subject 2 showed no immediate improvement and then greater improvement for Interview 8. Subject 3 showed no improvement. Subject 4 did not show improvement following treatment. This subject did not use reflection of meaning following treatment. For the graphed data, there was no clinically significant change across the four students for either type of training. No student within either type of training made a clinically significant change.

R_n analyses. The R_n analyses for reflection of meaning produced a R_n statistic of 4 for the faculty-supervised group which was significant at the .05 level for one-tailed test and R_n statistic of 6 for the

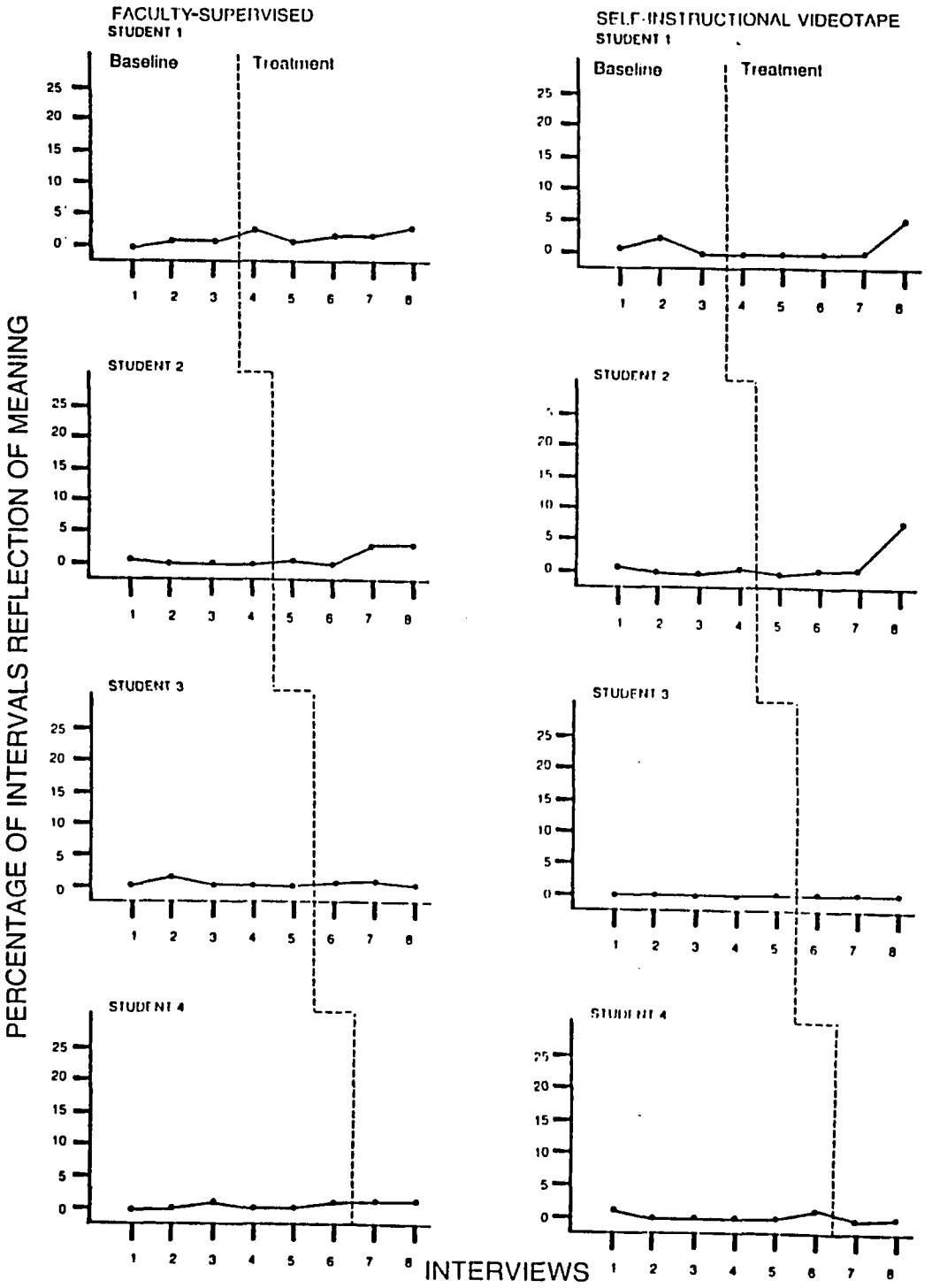

Figure 9. Percentage of 15-second interview intervals in which medical students in faculty-supervised and self-instructional videotaped training used reflection of meaning.

Table 21

Percentage of Interview Student Used Reflection of Meaning

FACULTY-SUPERVISED									
Student	Percentage								
1	0	1	1	3	1	2	2	3	
2	1	0	0	0	1	0	3	3	
3	0	2	0	0	0	1	1	0	
4	0	0	1	0	0	1	1	1	
	Rn = 1 + 1 + 1 + 1 = 4*								

SELF-INSTRUCTIONAL VIDEOTAPED									
Student	Percentage								
1	1	3	0	0	0	0	0	5	
2	3	0	0	1	0	1	1	7	
3	0	0	0	0	0	0	0	0	
4	1	0	0	0	0	1	0	0	
	Rn = 2 + 1 + 2 + 1 = 6								

*Significant at .05 level for one-tailed test

self-instructional training which was not significant at the .05 level (See Table 21). It is evident that the rank order statistics for the faculty-supervised group showed that the behavior did change immediately following training. Since the faculty-supervised training did produce a significant change, it was interpreted that that that type of training was more effective.

t tests. The t value for the dependent t test for the mean scores for faculty-supervised training was 3.16 and was significant for a one-tailed test at the .05 level. The t value for the dependent t test for the mean scores for the self-instructional training was 0.39 and was not significant at the .05 level. The t value for the independent t test for the mean difference scores was 1.73 and was not significant at the .05 level. (The mean difference scores are found in Table 22).

The dependent t test for the premean vs. postmean scores for all eight subjects when both training interventions were combined produced a t value of 2.05 which was significant at the .05 level. This indicated that the training was significantly effective in increasing the use of reflection of meaning across all eight subjects.

Table 22

Differences in Reflection of Meaning

Training	Subject	Number Baseline Observations	Premean	Postmean	Difference
Faculty-Supervised	1	3	0.6667	2.2000	1.5333
Faculty-Supervised	2	4	0.2500	1.7500	1.5000
Faculty-Supervised	3	5	0.4000	0.6667	0.2667
Faculty-Supervised	4	6	0.3333	1.0000	0.6667
Self-Instructional	1	3	1.3333	1.0000	-0.3333
Self-Instructional	2	4	1.0000	2.2500	1.2500
Self-Instructional	3	5	0.0000	0.0000	0.0000
Self-Instructional	4	6	0.3333	0.0000	-0.3333

There was not agreement in the results of the three procedures. On the basis of R_n analysis and the dependent *t* test, it was concluded that the faculty-supervised training did significantly increase the reflection of meaning following the initiation of treatment. There was overall effectiveness of training in increasing the reflection of meaning.

Patient and Family Member Ratings of Interview

Patient Ratings of the Interview

Examination of the patient ratings for the Interview were based upon the mean patient score for the items from the Affective Subscale of the Medical Interview Satisfaction Scale (Wolf et al., 1978).

Graphed data. The graphed data for the patient ratings of the interview shows for faculty-supervised training that there was not a consistent pattern following training (see Figure 10). Subject 1 for faculty-supervised training did make some positive gain toward the end of the observations. Subject 2, however, did not make positive gain while subject 3 had a positive gain following training. Subject 4 also found a positive trend following training. The subjects in the self-instructional training did not make consistent gain following training. There was not a clinically significant increase in ratings for any subject, and there was no clinical significance for either type of training across subjects.

R_n analyses. The R_n statistic for patient rating of interviews for the faculty-supervised group was 7 which was not significant at .05 level for one-tailed test. The R_n statistic for the self-instructional group was 6 which was not significant at the .05 level (see Table 23).

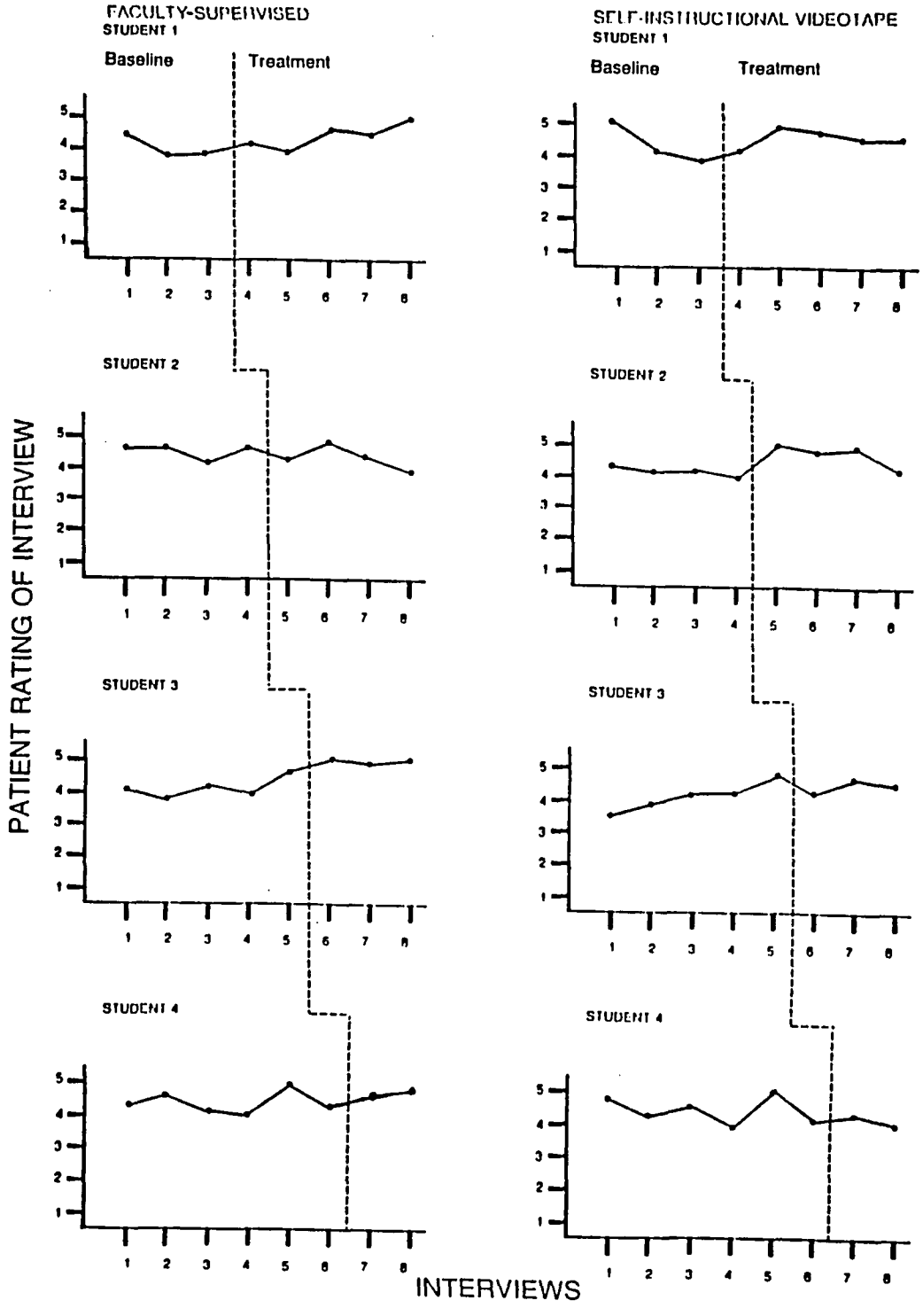

Figure 10. Patient rating following each medical student-patient-family member interview on medical interview satisfaction scale: affect subscale items.

Table 23

Patient Rating of Interview

FACULTY-SUPERVISED									SELF-INSTRUCTIONAL VIDEOTAPED								
Student	Percentage								Student	Percentage							
1	4.44	3.65	3.89	4.22	3.89	4.56	4.44	4.89	1	5.00	4.11	3.89	4.11	4.78	4.78	4.56	4.67
2	4.78	4.78	4.11	4.78	4.22	4.89	4.33	4.00	2	4.33	4.22	4.00	4.00	5.00	4.78	5.00	4.22
3	4.11	3.78	4.22	4.00	4.67	5.00	4.78	5.00	3	3.56	3.89	4.11	4.22	4.78	4.22	4.67	4.56
4	4.44	4.56	4.33	4.11	5.00	4.47	4.78	5.00	4	4.78	4.33	4.56	4.89	5.00	4.11	4.33	4.00
			Rn = 2 + 3 + 1 + 1 = 7									Rn = 3 + 1 + 1 + 1 = 6					

It was not possible to say that either condition for training was effective.

t tests. The t value for the dependent t test for the mean scores for faculty-supervised training was 1.56 and was not significant. The t value for the dependent t test for the mean scores for the self-instructional training was 1.25 and was not significant. The independent one-tailed t test for the mean difference scores for the patient ratings resulted in a t value of 0.39 which was not significant at the .05 level (see Table 5). There was no significant difference in the conditions for training.

The dependent t for the premean vs. postmean scores for all eight subjects when the two training interventions were combined produced a t value of 2.13 which was significant at the .05 level. This indicated that the training was effective in increasing the patient rating across all eight subjects.

Table 24

Differences in Patient Rating Means

Training	Subject	Number Baseline Observations	Premean	Postmean	Difference
Faculty-Supervised	1	3	3.9933	4.4000	0.4067
Faculty-Supervised	2	4	4.6125	4.3600	-0.2525
Faculty-Supervised	3	5	4.1560	4.9267	0.7707
Faculty-Supervised	4	6	4.4800	4.8900	0.4100
Self-Instructional	1	3	4.3333	4.5800	0.2467
Self-Instructional	2	4	4.1925	4.7500	0.5575
Self-Instructional	3	5	4.1120	4.4833	0.3713
Self-Instructional	4	6	4.4450	4.1650	-0.2800

On the basis of each of the three procedures, neither type of training produced a significant change. The faculty-supervised training was not more effective in increasing the patient rating than the

self-instructional training. The overall use of training was significantly effective in increasing patient ratings of interviews across all eight subjects. Mean difference scores are found in Table 24.

Family Member Ratings of the Interviews

The family member ratings of the interviews were comprised of the means of the scores for each of the items on the Affective Subscale of the Medical Interview Satisfaction Scale (Wolfe, et al., 1978).

Graphed data. Examination of the graphed data for family member ratings of the interviews showed that the subjects in the faculty-supervised training produced inconsistent findings (see Figure 12). Subject 1 did not produce a positive change immediately following training but did produce a positive trend later on Interviews 6,7,8. Subject 2 did not produce a positive trend following trend and Subject 3 produced a more positive trend than 4 of the pre-training data points but not more positive than on Interview 3. Subject 4 produced a positive change following training; however, this change was very small.

Subject 1 produced the greatest change on Interview 5; however, the high rating of the family member on Interview 1 made for an inconsistent pattern. Subjects 2 and 3 produced a somewhat positive trend following training. Subject 4 did not have a positive trend following training.

The graphed data for the family rating of the interview suggest that faculty-supervised training did not consistently produce positive change following training and neither did self-instructional videotape training. The results of the graphed data provided no support for the hypothesis that faculty-supervised training is more effective than

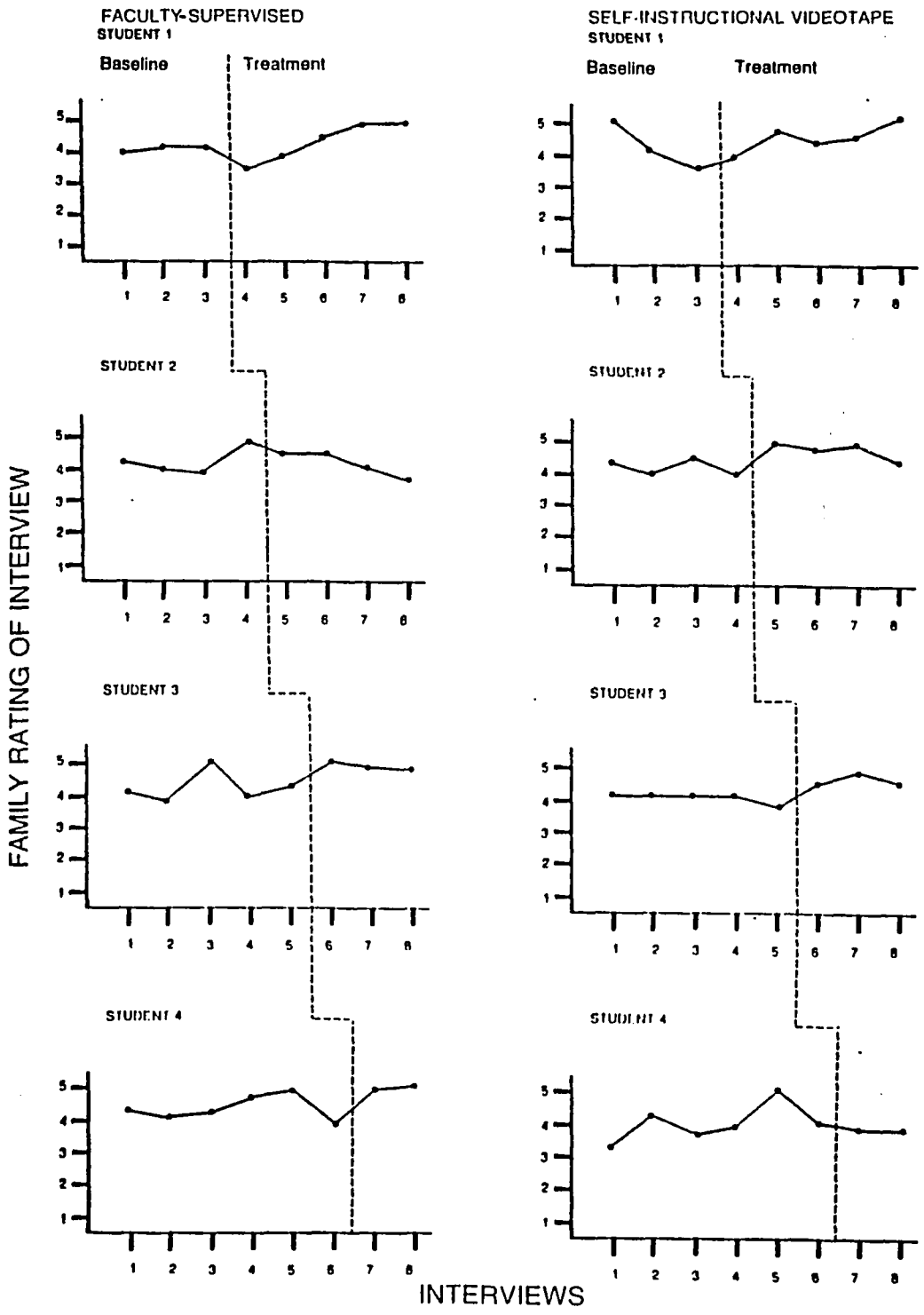

Figure 11. Family member rating following each medical student-patient-family member interview on medical interview satisfaction scale: affect subscale items.

Table 25

Average of Family Member Rating of Interview

FACULTY-SUPERVISED									SELF-INSTRUCTIONAL VIDEOTAPED								
Student	Percentage								Student	Percentage							
1	4.00	4.11	4.11	3.56	3.89	4.33	4.56	4.56	1	5.00	4.11	3.67	4.00	4.89	4.44	4.56	5.00
2	4.33	4.11	4.00	4.89	4.11	4.11	4.11	3.78	2	4.33	4.00	4.44	4.00	5.00	4.78	5.00	4.33
3	4.11	3.89	5.00	4.00	4.33	5.00	4.78	4.78	3	4.11	4.11	4.11	4.11	3.67	4.33	4.22	4.33
4	4.33	4.11	4.33	4.67	4.78	3.89	4.78	5.00	4	3.44	4.33	3.67	3.89	5.00	4.00	3.78	3.78
	Rn = 4 + 3 + 1 + 1 = 9									Rn = 2 + 1 + 1 + 1 = 5							

self-instructional training in increasing the family member rating of interviews.

R_n analyses. The R_n analysis for family member rating of the Interview produced an R_n statistic of 9 for the faculty-supervised training which was not significant at the .05 level (see Table 25). The R_n statistic for the self-instructional training was 5. Neither type of training produced a significant effect immediately following the implementation of training on the basis of the R_n analyses.

T tests. the *t* value was 1.56 for the dependent *t* test for mean scores for faculty-supervised training and was not significant at the .05 level. The dependent *t* test for the mean scores for the self-instructional training produced a *t* value of 1.25 which was not significant at the .05 level. The *t* value for the independent one-tailed t-test was 0.19 which was not significant at the .05 level. There was no significant difference in the effectiveness of the two conditions for training. The difference scores are found in Table 26.

Table 26

Differences in Family Member Rating Means

Training	Subject	Number Baseline Observations	Premean	Postmean	Difference
Faculty-Supervised	1	3	4.0733	4.1800	0.1067
Faculty-Supervised	2	4	4.3325	4.1925	-0.1400
Faculty-Supervised	3	5	4.2660	4.8533	0.5873
Faculty-Supervised	4	6	4.3517	4.8900	0.5383
Self-Instructional	1	3	4.2600	4.5780	0.3180
Self-Instructional	2	4	4.1925	4.7775	0.5850
Self-Instructional	3	5	4.0220	4.2933	0.2713
Self-Instructional	4	6	4.0550	3.7800	-0.2750

The dependent t test for the premean and postmean scores for all eight subjects when the two training interventions were combined produced a t value of 2.13 which was significant at the .05 level. This indicated that the overall use of training was effective in increasing the family rating across all eight subjects.

Summary of Data Analyses of Patient and Family Member Ratings of Interviews

Patient and family member ratings were computed separately and analyzed separately to provide a more comprehensive evaluation of the two conditions for training. It is important to recognize that the majority of the overall interview ratings were extremely high and that patients and family members rated students very highly on observations following interviews. The overall use of training across the eight subjects significantly increased both patient and family ratings of interviews. The use of the interview ratings is discussed in more detail in Chapter V.

Psychosocial Needs Recognized on Dictation Tape Transcription Graphed Data

The graphed data for the faculty-supervised group for this variable showed that Subjects 1 and 2 made small positive improvement following training (see Figure 12). This high first interview score for Subject 2 score made it difficult to show an increased positive trend. Subject 3 showed a positive trend with the highest score for Interview 6. Subject 4 did not show a positive change following training.

For the self-instructional videotaped training, Subject 1 showed a positive trend following training. Subject 2 showed a positive change

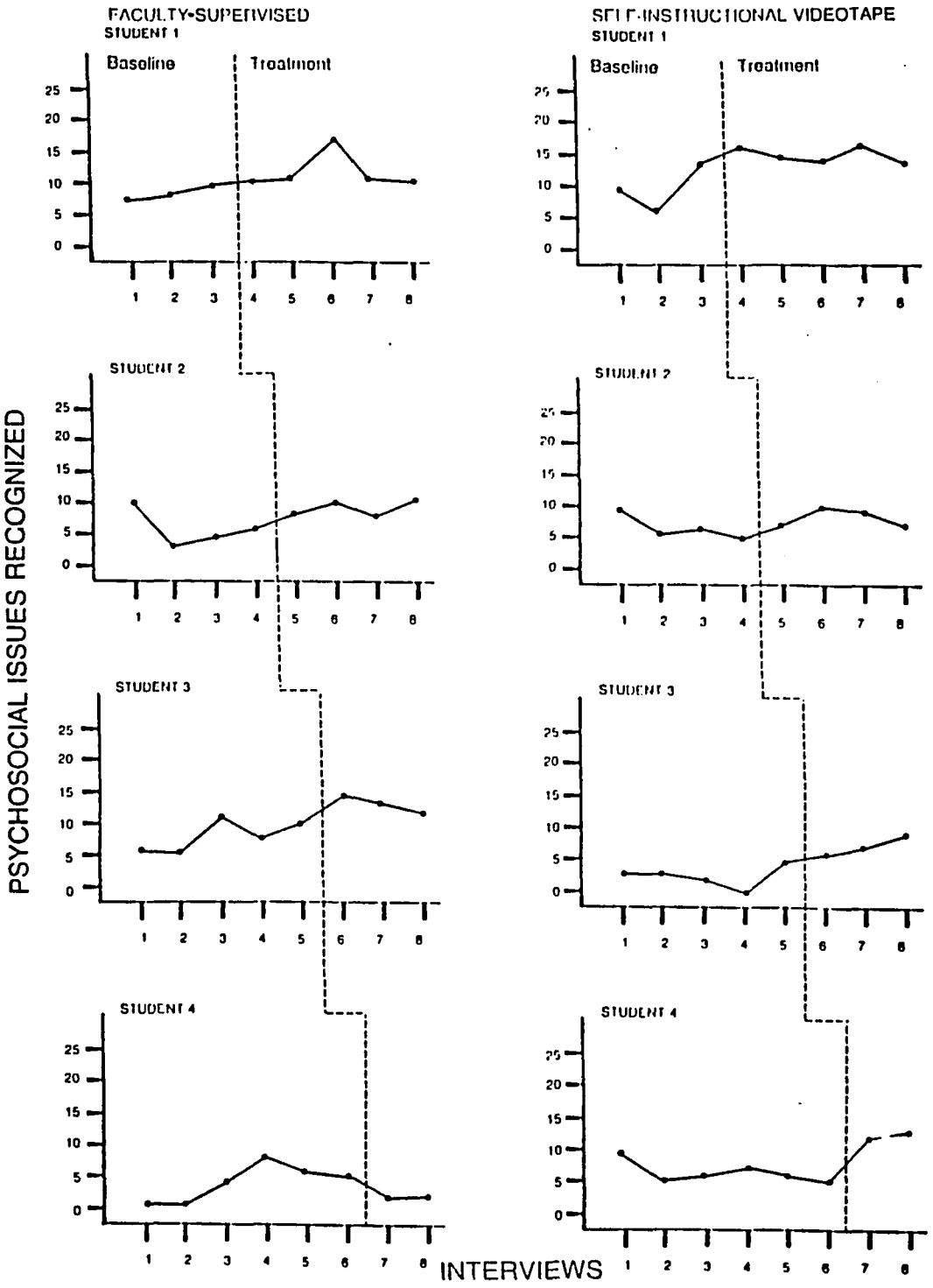

Figure 12. Number of psychosocial issues recognized in medical student dictation tapes following each videotaped interview.

Table 27

Evaluation of Dictation Tapes

FACULTY-SUPERVISED									SELF-INSTRUCTIONAL VIDEOTAPED									
Student	Percentage								Student	Percentage								
1	6.5	7.0	8.5	10.0	11.0	16.5	10.5	10.0	1	9.5	6.5	13.0	16.0	14.0	13.5	15.5	13.0
2	10.0	4.0	7.0	6.0	7.5	9.0	7.0	9.0	2	8.0	5.0	7.5	4.0	6.0	8.0	7.0	5.5
3	6.0	5.0	10.5	6.5	9.0	12.0	11.0	10.5	3	3.0	3.0	2.0	0.0	4.0	5.0	6.0	7.5
4	1.0	1.0	4.0	7.0	5.0	5.0	2.0	2.0	4	9.0	5.0	6.0	7.0	6.0	5.5	10.5	11.5
				Rn = 1 + 2 + 1 + 1 = 5									Rn = 1 = 1 = 2 = 1 = 5					

following training. The high score for Subject 3 on Interview 1 made it more difficult for that subject to show positive change. Subject 3 showed a positive change following training which increased on Interviews 7 and 8. Subject 4 also showed positive change following training.

In reviewing the graphed data, it was apparent that the faculty-supervised training was not as effective in changing the behavior of Subject 4 and that self-instructional training produced a more consistent positive trend for each of the students. On this basis, the self-instructional videotaped training condition was more effective than the faculty-supervised condition for training. On the basis of the lack of change for Subject 4, there was inadequate support for the hypothesis that faculty-supervised training was more effective due to the fact that the self-instructional training provided a more consistent positive training.

R_n analyses

Of the number of psychosocial issues recognized on dictation tapes, the R_n analyses produced a statistic of 5 for the faculty-supervised training which was not significant at the .05 level and a statistic of 5 for the self-instructional training which was also not significant at the .05 level (see Table 27). According to the R_n analyses results, neither of the two conditions for training was effective in changing the behavior of each of the subjects following training. The rank orders were not sufficient to produce a significant R_n statistics.

t tests

The t value for the dependent t test for the mean scores for faculty-supervised training was 1.33 and was not significant at the .05 level. The t value for the dependent t test for the mean scores for self-instructional training was 3.44 and was significant at the .025 level. The t value for the independent t test for the mean difference scores for faculty-supervised versus self-instructional training was -0.90.

It is interpreted that since the dependent t test for the self-instructional training did produce significant results, that type of training was more effective than the faculty-supervised training in changing this behavior. However, the difference was not great enough to say that there was a significant difference between the two types of training. The mean difference scores are found in Table 28.

The dependent t test for the premean vs. postmean for all eight subjects when both training interventions were combined produced a t value of 3.11 which was significant at the .025 level. This indicated that the overall use of training was effective in increasing the number of psychosocial needs recognized on dictation tapes across all eight subjects.

Table 28

Differences in Dictation Tape Means

Training	Subject	Number Baseline Observations	Premean	Postmean	Difference
Faculty-Supervised	1	3	7.3333	11.6000	4.2667
Faculty-Supervised	2	4	6.7500	8.1250	1.3750
Faculty-Supervised	3	5	7.4000	11.1667	3.7667
Faculty-Supervised	4	6	3.9167	2.0000	-1.9167
Self-Instructional	1	3	9.6667	14.4000	4.7333
Self-Instructional	2	4	6.1250	6.6250	0.5000
Self-Instructional	3	5	2.4000	6.1667	3.7667
Self-Instructional	4	6	6.4167	11.0000	4.5833

Summary

From the graphed data, the changes made by students following training for the self-instructional group were consistent enough to say that the self-instructional training appeared to be more affective than the faculty-supervised training. However, according to the R_n analyses neither of the conditions for training produced significant results. On the basis of the graphed data and the dependent *t* test, it is interpreted that the self-instructional training was effective in producing clinically and statistically significant change following the intervention. However, this change was not great enough to show a significant difference between the two types of treatment. In reviewing the results of the dependent *t* test for training vs. no training across all eight subjects, training was significantly effective on this variable.

Major Hypothesis II

The second Major Hypothesis for this study was stated as follows: Faculty-supervised listening microskills training and self-instructional listening microskills training will be equally effective in increasing the responsiveness of third-year medical students to the psychosocial needs of cancer patients and their families as measured by a same form pre-and-post content-based mastery test. The R_n analyses were not applicable.

Graphed Data

The graphed data for the faculty-supervised training showed that each of the subjects did made a positive change following treatment (see Figure 13). The graphed data for the self-instructional training showed

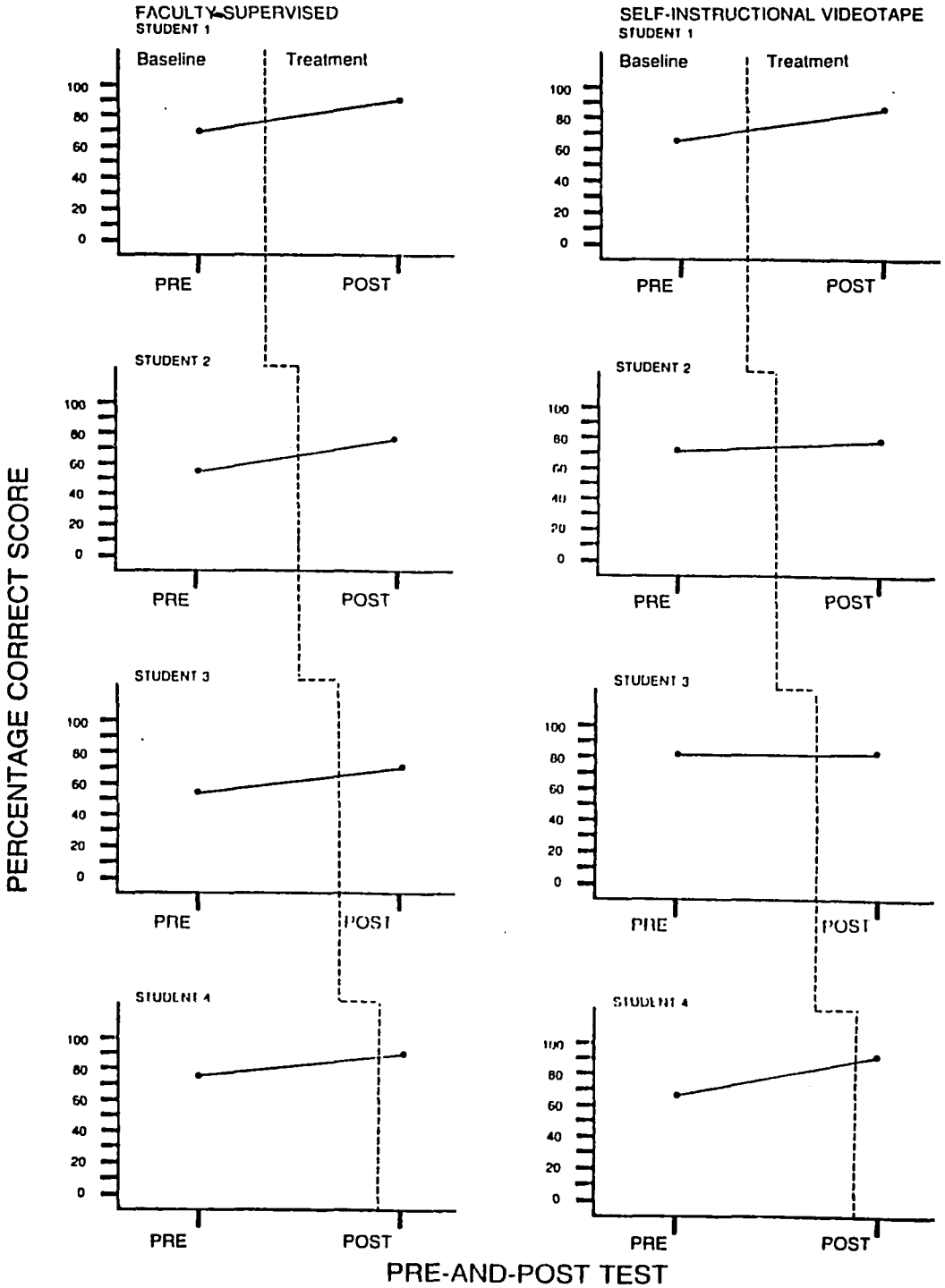

Figure 13. Pre-and-post content based mastery test scores for faculty-supervised and self-instructional training.

that two of the subjects made large gains on the pre-and-post test, (Subjects 1 and 4). Subject 2 made less progress than Subjects 1 and 4 and Subject 3 scored the same percentage point on both the pretest and the posttest. By examining the graphs, it is apparent that faculty-supervised training was more consistent in its effect upon the students. Although it is impossible to do an R_n analyses due to only one prescore and one postscore, it is interesting to note that each student made positive change following the faculty-supervised training.

t Tests

In order to further examine the data, a dependent t test for the prescores vs. postscores was conducted for each type of training. The t value for faculty-supervised training was 12.12 and was significant at the .02 level. The t value for the self-instructional training was 2.10 and was not significant at the .05 level. This indicated that the faculty-supervised training significantly increased the posttest scores and the self-instructional training did not significantly increase the posttest scores.

The results of the independent t test for the difference scores showed no significant difference in the two conditions for training. The t value was 0.82 which was not significant at the .05 level. On the basis of the results of the independent two-tailed t test, the researcher supported this major hypothesis.

On the basis of the dependent t test for training vs. no training across the eight subjects, the overall use of training was significantly effective in increasing the content based mastery test scores. The t value was 5.02.

Table 29

Differences in Content Test Scores

Training	Subject	Number Baseline Observations	Prescore	Postscore	Difference
Faculty-Supervised	1	3	70	90	20
Faculty-Supervised	2	4	55	75	20
Faculty-Supervised	3	5	55	70	15
Faculty-Supervised	4	6	75	90	15
Self-Instructional	1	3	65	85	20
Self-Instructional	2	4	70	75	5
Self-Instructional	3	5	80	80	0
Self-Instructional	4	6	65	90	25

Summary

The independent t-test found no significant difference in the mean difference scores for faculty-supervised vs. self-instructional training. The graphed data showed changes in scores for both training conditions with one exception. The results of the independent t test supported the hypothesis that the two training conditions are equally effective. However, the dependent t-tests showed that faculty-supervised training was significantly effective in increasing the scores following the intervention and self-instructional training was not effective in increasing the scores. The dependent t test for pretraining vs. posttraining mean scores showed the overall use of training to be effective in increasing the scores on the content-based mastery test.

Subsidiary Analyses

The two types of training were further evaluated by the examination of patient and family member written comments on interview rating sheets and recorded verbal comments made to the researcher following the Interview. The following comments are representative of those recorded. There was no difference in the overall attitude of the patient and family members (as to type of training). Patient and family members

from both training conditions made very positive comments following the interviews.

Also included are some of the comments of the medical students. Each of the students in both conditions of training responded positively to the experience. Although they were rushed for time and were spending many hours in clinical service, each one of the students expressed a positive attitude toward the training experience. One of the general comments which was made by each of the students was that it was especially helpful to have the opportunity to work with patients and family members in a psychosocial framework rather than just the diagnostic setting.

Patient Responses

1. "I am so glad I had this time with the doctor. I have never talked so much. Sometimes I just want a chance to talk." (Faculty-Supervised)
2. "I had never heard my wife say some of those things before. We talked about some really tough things to deal with. Maybe we'll talk more." (Faculty-Supervised)
3. "The doctor seems to really care about me." (Faculty-Supervised)
4. "Will I get to see this doctor again? I really liked what he did." (Faculty-Supervised)
5. "Sometimes I just need a little encouragement. She gave it to me." (Faculty-Supervised)
6. "This doctor listened to what we had to say and didn't interrupt." (Self-Instructional)
7. "I hope all doctors are being trained this way. When you are in the hospital and scared, you just want somebody to make you feel that you matter." (Self-Instructional)
8. "I don't want to be a burden. Now I feel that I got the message through to my husband. I feel better." (Self-Instructional)
9. "I think this doctor is great. I like the way the doctor let my son talk. He took time to wait for an answer." (Self-Instructional)
10. "I felt so alone. I have lost my hair, my job, and my husband. I thought nobody understood. I think the doctor really cared about me." (Self-Instructional)

Family Responses

1. "I appreciated being there. I wanted to hear what my mother would say." (Faculty-Supervised)
2. "I have tried to talk to my husband for months. Today we talked about things that have been so painful." (Faculty-Supervised)
3. "I feel a part. This made me feel that what I was going through really was important. Sometimes I feel left out." (Faculty-Supervised)
4. "The patient seems to always get the attention. I liked being in that room. I talked a lot, and the doctor listened." (Faculty-Supervised)
5. "I wish this could have happened months ago. I have always wanted us to talk like this with the doctor." (Faculty-supervised)
6. "I have been so worried about my son...she seemed to care about us and about him...he is so young." (Self-Instructional)
7. "I hope all young doctors will do more of this. I keep thinking of how scared we have been. I feel better." (Self-Instructional)
8. "It seems that the doctor's kind manner made me feel comfortable. I wanted to tell that doctor how I felt." (Self-Instructional)
9. "It has been five long years. I have needed help so many times. That doctor listens." (Self-Instructional)
10. "The thing that was most important to me was that I could see mom's happiness. I could tell she liked this doctor. I did too." (Self-Instructional)

Medical Student Responses

1. "I thought it would take longer to do this kind of listening. I have found it to save time. One patient told me what I needed to know in a brief time when it usually takes a week to get that kind of information. This does work." (Faculty-Supervised)
2. I listened to a patient in the hospital that I knew was dying. I responded as best I could. I knew I could get criticized for taking so much time...later after her death, a member of her family told me she died more peacefully because she said that somebody had listened to her, I walked away...it felt really strange to realize I was that person." (Faculty-Supervised)
3. "I want to know more. I wish we had more of this type of training where we could have someone to work with, to ask questions, and to bounce ideas." (Faculty-Supervised)
4. "I think this training should begin during the first year of medical school...before we begin to work with the patients and continue through the clinical years." (Faculty-Supervised)

5. "I know this is important. Sometimes I get so busy I seem to forget. It was good to be reminded of what needed to be done and of what my patients needed." (Self-Instructional)
6. "I would like to go back and do all my rounds over. Now I know what I could have done." (Self-Instructional)
7. "This is the first time in my medical education that I have been face to face with training without the pressures of doctor and student expectations. It was as if it was just the training and and me personally. There was no competition. Somehow I wanted to hear everything." (Self-Instructional)
8. There is so much I want to do for my patients. I wish I could do it all. I am glad I had the chance to meet these wonderful people in this setting. Sometimes all the students get are the ones that are so ill and are doing so poorly. I didn't realize there were so many vibrant patients." (Self-Instructional)

Summary of Subsidiary Analyses

From the evaluations of the patients and family members, the most important factor was the time the patient and family member had with the subjects. This factor combined with the positive caring attitude of the subjects impacted on the patient and the family member. Each patient and family members interviewed expressed positive comments about the subjects.

The medical students reported gratitude for the opportunity to work with that many patients and family members in a nondiagnostic setting. Third-year medical students had received little opportunity to sit and talk with patients and family members outside of this study. The emphasis in their training was clinical. For the students, the opportunity to conduct psychosocial interviews allowed them to see a different aspect of medicine and cancer care.

Summary of Results of the Study

The results of this study sought to examine which of two conditions

for listening microskills training was more effective in increasing the responsiveness of medical students to the psychosocial needs of cancer patients and their families. Six of the analyses of the behaviors observed on the videotaped interviews produced inconsistent results. These were the use of nonverbal attending skills, the recognition of psychosocial needs, the use of open questions, the use of closed questions, the reflection of feeling, and the reflection of meaning. According to the R_n analyses, the faculty-supervised training was effective in increasing the use of nonverbal attending skills, reflection of feeling, and reflection of meaning. According to the R_n analysis, the self-instructional training was effective in increasing the use of nonverbal attending skills, open questions, and reducing the use of closed questions.

There was no significant difference (overall) in the two conditions for training on the videotape observational measures on the basis of the independent *t* test of mean difference scores. However, on the basis of the dependent *t* tests for premean vs. postmean scores, the self-instructional training produced significantly effective change in the recognition of psychosocial needs, and the reduction of the use of closed questions. On the dependent *t* tests for premean and postmean scores, the faculty-supervised training was effective in increasing the use of the reflection of meaning. The nonverbal attending skills variable had a ceiling effect and cannot be examined in the same manner as if this effect were not present.

The patient and family member ratings did not significantly increase following either type of training when premean and postmean scores were examined for each type of training separately. The recognition of psychosocial needs on the transcriptions of the dictation tapes increased for the self-instructional group on the basis of the dependent *t* test of premean and postmean scores. However, on the basis of the independent *t* test of the mean difference scores, there was no significant difference in the two types of training.

When both types of training were combined and pretraining mean scores vs. posttraining mean scores were compared, training was significantly effective for eight of the eleven behavioral variables examined. These were (a) nonverbal attending skills, (b) psychosocial needs recognized, (c) use of closed questions, (d) use of reflection of feeling, (e) use of reflection of meaning, (f) patient rating, (g) family member rating, and (h) dictation tape rating.

There were inconsistent results in the analyses used to examine Major Hypothesis II. The graphed data and the dependent *t* test showed the faculty-supervised training to be more effective. The independent *t* test showed that there was no difference in the two conditions for training. There was a significant change from prescores to postscores following training across all eight subjects when both types of training were combined. The following chapter contains the discussion of these results and their implications for future research.

CHAPTER V

DISCUSSION OF THE RESULTS OF THE STUDY

The results of this study are discussed by examining each of the Major Hypotheses. The first major hypothesis for this study stated that the the faculty-supervised listening microskills training is more effective than self-instructional videotaped listening microskills training in increasing responsiveness of third-year medical students to the psychosocial needs of cancer patients and their families. This hypothesis was evaluated by the use of three measures. The first of these measures involved videotaped medical student-patient-family member interviews. The second measure was the use of patient and family member interview rating and the third was the evaluation of the medical student dictation reports. The second major hypothesis of this study stated that faculty-supervised listening microskills training and self-instructional listening microskills training would be equally effective in increasing responsiveness of third-year medical students to the psychosocial needs of cancer patients and their families as measured by pre-and-post content-based mastery test.

Major Hypothesis I

The first major hypothesis addressed the behavioral component of listening microskills training. Videotaped medical student-patient-family member interviews were evaluated by the use of two independent observers. The observations were taken on nine behaviors during 15-second interview intervals.

Videotaped Medical Student-Patient-Family Member Interviews

Nonverbal Attending Skills

The first behavior measured was the use of nonverbal attending skills by the medical student. The results of the analysis for this behavior were inconsistent. The graphing of the percentage of the intervals showed no real difference in the two conditions for microskills training. Both methods of training significantly increased nonverbal attending skills according to the rank order analyses. The R_n statistic for both groups was 4 and was significant at the .05 level. The dependent *t* test for faculty-supervised training produced a *t* value of 1.00 which was not significant at the .05 level. The dependent *t* test for self-instructional training also produced a *t* value of 2.35 which was not significant at the .05 level.

The independent *t* test of the mean difference scores found a significant difference in the two types of treatment. The *t* value was -2.00 which was significant at the .05 level. However, the difference was in the direction of the self-instructional condition for training being more effective than the faculty-supervised condition for training.

The dependent *t* test for pretraining vs. posttraining for all eight subjects produced a *t* value of 2.12 which was significant at the .05 level. This indicated that the overall use of training was effective in producing an increase in nonverbal attending skills across the eight subjects.

Perhaps the most important point of the results of this measure was the ceiling effect of nonverbal attending skills. From the first observation, the students' nonverbal attending skills level

approached 100 percent. For the faculty supervised group, the level was 100 percent for several pretreatment observations. This made it impossible for the student to increase the number of attending skills from a pretreatment score of 100 percent.

The use of nonverbal attending as a measure would be more appropriate in observations in the natural environment without videotaping or recording. The observations during the pilot work when no videotaping was conducted showed a lower use of nonverbal attending skills. The use of videotape may have caused the medical student to respond through the increased use of nonverbal attending skills. This measure would be much more valid without videotaping and with the use of unobtrusive observations.

The Percentage of 15-Second Intervals in Which Patient Talked

The result of the graphed data for the percentage of time the patient talked found no difference in the effectiveness of the two conditions for training. The results were an R_n statistic of 6 for both the faculty-supervised training and the self-instructional videotaped training. The R_n statistic for each intervention was not significant at the .05 level for either type of treatment.

The dependent *t* test for faculty-supervised training produced a *t* value of 1.99 which was not significant at the .05 level. The dependent *t* test for self-instructional training produced a *t* value of 0.22 which was also not significant at the .05 level. This indicated that neither training condition was effective.

The result of the independent *t* test for postmean and premean difference scores was a *t* value of .87. According to this *t* test, there

was no significant difference in the condition for training as measured by the amount of time patient talked. The results of the three analyses showed no significant difference in the two conditions for training.

The dependent *t* test for pretraining vs. posttraining for all eight subjects produced a *t* value of 1.26 which not significant at the .05 level. This statistic indicated that the overall use of training was not effective in producing increased patient talk time when training was compared with no training.

Although the assumption was made that the patient talk time would increase following training, it is extremely important to recognize the amount of time the patient talked depended upon the patient's personality and the communication pattern the patient and his or her family member had previously established. The personality of the patient and the relationship between the patient and the family member may have impacted greatly upon the amount of time the patient talked during the interview. Some patients tended to try to talk the entire interview while others talked much less.

It was reported during the study by two of the observers that the amount of time the patient talked seemed to be affected by the age of the patient. Several of the older patients seemed to feel that it was their role to talk and explain to the medical student in much more depth than did younger adult patients. The reverse was noted by the same two observers in that the younger adult patients often relied upon the family member to do most of the talking. Although it was the goal to increase the time the patient talked, the amount of time patient talked

may have been more dependent on patient personality and patient-family patterns of communication than on medical student skill.

The use of this measure needs to be carefully evaluated. A desired percentage of time patient talks should be determined and should be incorporated into the instructional unit. The area of patient personality and family dynamics needs further clarification. The extraneous variables of personality and the family dynamics may make it very difficult to use this measure appropriately.

Percentage of Interview the Family Member Talked

Graphed data for the amount of time the family member talked showed no difference in faculty-supervised and self-instructional training in increasing the amount of the time family members talked. The R_n analyses also showed that neither of the treatments was significantly effective in increasing the amount of time the patient talked.

The dependent *t* test for faculty-supervised training produced a *t* value of -0.41 which was not significant at the .05 level. The dependent *t* test for self-instructional training produced a *t* value of 1.12 which was also not significant at the .05 level. This indicated that neither training condition was effective. The independent *t* test for premean and postmean difference scores for the amount of the time patient talked produced a *t* value of -0.90 which was not significant at the .05 level. The results of the procedures used showed no significant difference in the two conditions for training.

The dependent *t* test for pretraining vs. posttraining for all eight subjects produced a *t* value of 0.20 which was not significant at .05 level. This indicated that the overall use of training across all

subjects did not produce an increase in the amount of time the family member talked.

As in the amount of time patient talked, the data obtained from the observations reflected the personality of the family member and the preestablished communication patterns of the patient and family member. Although in many cases the medical student was trying to increase the time that the family member talked, the determinant of the amount of time may have been extraneous to the training. Talk time was less for many of the family members of older patients than for the family members of the younger patients.

The use of this measure needs to be further evaluated. As with the use of patient talk time, there were concerns over personality and family dynamics. There may only be so much that a medical student can do in an interview setting to deal with the extraneous variables.

Psychosocial Needs Recognized

The results of the graphed data for psychosocial needs recognized showed that there was no real difference in the two conditions for training in increasing the medical student's recognition of psychosocial needs. The R_n analyses for both types of training showed no significant difference following training.

The self-instructional condition for training showed a significant increase in the amount of psychosocial needs recognized following training on the basis of the dependent *t* test of the premean and postmeans. The dependent *t* test for faculty-supervised training produced a *t* value of 2.18 which was not significant at the .05 level. However, the dependent *t* test for self-instructional training produced a

t value of 2.94 which was significant at the .05 level. On this basis, the self-instructional training was interpreted to be more effective than the faculty-supervised training.

The independent t test produced a t value of -0.30 which was not significant at the .05 level. According to the procedures used, it was interpreted that the difference was not great enough to say that there was a significant difference between the two types of training.

The dependent t test for pretraining vs. posttraining for all eight subjects produced a t value of 3.83 which was significant at the .025 level. This indicated that the overall use of training was effective in increasing the recognition of psychosocial needs across all subjects.

It is important to recognize that the observers checked during observations to insure that each patient and family member discussed at least four psychosocial issues. This was one of the prerequisites for the study. The definitions of psychosocial issues included in Appendix K were quite extensive. Several of the medical students recognized high percentages of psychosocial needs from the beginning. One of the major difficulties in the use of this variable was that the definition used for psychosocial combined social experiences with feelings and emotions. Following the completion of all observations, three of the observers suggested that it might have been more desirable to have divided this area or to have limited it to emotions and feelings. At the conclusion of the study, one observer suggested that perhaps the best measure of this variable would have been the amount of time the patient talked about emotional and feelings issues. Although the observers were blind

to interview order, two of the observers commented that some of the interviews were devoted to talk concerning experiences while others were heavily loaded with emotional and feelings issues. Additional observations of emotional versus experiential talk would have added a helpful dimension to the study.

The use of this measure as it is presented in the study may be an inadequate assessment of the target behavior. The ease with which medical students, patients, and family members talked about experiential concerns compared with the reluctance to talk about emotional concerns showed that the term psychosocial may not be appropriate. If the tapes were to be re-examined on the basis of emotional needs recognized, different results might occur. A count of pretraining (one tape) recognition of emotional concerns and posttraining (one tape) recognition of emotional concerns for two of the students in each type of treatment showed both treatments to be effective. This further showed a greater change when the faculty member was present during training.

The Use of Open Questions

The graphed data showed no overall difference in the effectiveness of the faculty-supervised training and the self-instructional training. The R_n analyses showed one treatment to be effective. There was a significant difference in the students in the use of open questions following the self-instructional training while the R_n statistic was not significant for the faculty-supervised training.

The dependent *t* test for faculty-supervised training produced a *t* value of 1.96 which was not significant at the .05 level. The dependent

t test for self-instructional training produced a *t* value of 0.93 which was also not significant at the .05 level. This indicated that neither training condition was effective.

However, the *t* value of -.05 for the independent *t* test was not significant for the use of open questions. The results of this variable differ and make it difficult to state that one treatment was more effective than the other. On the basis of the *t* test and the graphed data, there was no significant difference in the effectiveness of the two conditions for training. However, due to the fact that the students were being videotaped, the students tried to use every interview skill possible.

The dependent *t* test for pretraining vs. posttraining for all eight subjects produced a *t* value of 1.78 which was not significant at the .05 level. This indicated that the overall use of training did not significantly increase the use of open questions across all eight students.

Following the study, the researcher questioned the medical students as to the use of open questions. The students stated that although no formal training had been given, the rotation in Pediatrics had provided several experiences with open questions. An example was the use of open questions by the clinical staff to get children to talk. Although this may not have had a major impact, it may have alerted the students to the need for open questions.

The Use of Closed Questions

The R_n statistics for the variable closed questions were 6 for the faculty-supervised group and 4 for the self-instructional group.

According to this analysis, the self-instructional group was effective and the faculty-supervised group was not effective in reducing the use of closed questions.

The dependent *t* test for faculty-supervised training produced a *t* value of -0.82 which was not significant at the .05 level. However, the dependent *t* test for self-instructional training produced a *t* value of -5.12 which was significant at the .025 level. On this basis, the self-instructional training was interpreted to be more effective than the faculty-supervised training. The *t* value for the independent *t* test was 0.45 and was not significant at the .05 level.

The dependent *t* test for pretraining vs. posttraining for all eight subjects produced a *t* value of -2.17 which was significant at the .05 level. This indicated that the overall use of training was effective in decreasing the use of closed questions across all eight subjects.

Following the training, the researcher questioned the students about their use of closed questions. The students recognized that closed questions had been a major part of their diagnostic training. The students felt that a longer training and practice period would be required to help them balance the use of open and closed questions and to reduce the use of closed questions.

The Use of Encouragers, Paraphrase, and Summary

From the graphed data it was not possible to show that one condition of training was more effective than another condition for training. The R_n analyses for the two conditions showed that there was no significant differnece in the postranking for either training. The

R_n statistic for the faculty supervised group was 5, and the R_n statistic for the self-instructional group was 6. Neither of these statistics was significant at the .05 level.

The dependent *t* test for faculty-supervised training produced a *t* value of 0.53 which was not significant at the .05 level. The dependent *t* test for self-instructional training produced a *t* value of 0.84 which was also not significant at the .05 level. This indicated that neither training condition was effective.

The independent *t* test for the mean difference scores on the use of encouragers, paraphrase, and summary showed no significant difference between the two conditions for training. The *t* value of -0.29 was not significant at the .05 level.

The dependent *t* test for pretraining vs. posttraining for all eight subjects produced a *t* value of 1.05 which was not significant at the .05 level. This indicated that the overall use of training was not significantly effective in increasing the use of encouragers, paraphrase, and summary across all eight subjects.

The medical students used encouragers from the first interview. One of the students commented that during the clinical diagnostic training you encourage the patient. After the researcher reviewed pre- and posttapes for one of the students in each of the types of training, use of encouragers were most used. It would have been helpful if the measure had been broken into separate categories. There was much less use of paraphrase and summary.

The Use of Reflection of Feeling

From examining the graphed data for the use of reflection of feeling, it was possible to see that the faculty-supervised condition showed greater change in the use of reflection of feeling immediately following training. The R_n analyses for the faculty-supervised group was consistent with the graphed data. The R_n statistic of 4 for the faculty-supervised training group was significant at the .05 level. There was no significant change (R_n=5) for the self-instructional training.

The dependent *t* test for faculty-supervised training produced a *t* value of 2.10 which was not significant at the .05 level. The dependent *t* test for self-instructional training produced a *t* value of 1.84 which was also not significant at the .05 level. This indicated that neither training condition was effective. The independent *t* test for the premean and postmean difference scores on reflection of feeling showed no significant difference (*t* value = 0.89) between the two conditions for training.

The results of the procedures used to analyze the data for this variable did not concur. Although the graphed data and the R_n analyses were interpreted to support the hypothesis that faculty-supervised training was more effective, the independent *t* test showed no significant difference in the two conditions for training. This led the researcher to conclude that, although there was small positive change following faculty-supervised training, the change was not large enough to be significantly different from the self-instructional training at the .05 level.

The dependent t test for pretraining vs. posttraining for all eight subjects produced a t value of 2.78 which was significant at the .025 level. This indicated that the overall use of training was significantly effective in increasing the use of reflection of feeling across all eight subjects.

The Use Reflection of Meaning

The graphed data for the faculty-supervised group showed a small positive change. The R_n analyses also produced significant results for the faculty-supervised group with an R_n statistic of 4. The R_n statistic of 6 for the self-instructional group was not significant at the .05 level.

The dependent t test for faculty-supervised training produced a t value of 3.16 which was significant at the .05 level. However, the dependent t test for self-instructional training produced a t value of 0.39 which was not significant at the .05 level. On this basis, the faculty-supervised training was interpreted to be more effective than the self-instructional training. However, the independent t test for the use of reflection of meaning showed no significant difference in the two conditions for training.

The results of the procedures were not consistent in the evaluation of the effectiveness of the two conditions for training. The graphed data analyses showed a difference in the two types of training. The results of the independent t test showed no significant difference in the two types of training. The conclusion of the researcher was that although there appeared to be a difference in the two types of training, this difference was too small to be significant at the .05 level.

The dependent t test for pretraining vs. posttraining for all eight subjects produced a t value of 2.05 which was significant at the .05 level. This indicated that the overall use of training was significantly effective in increasing the use of reflection of meaning across all eight subjects.

As in the use of reflection of feeling, the reflection of meaning appeared to be a valid measure. Although this is the most difficult skill to use, it showed that for the R_n analyses and the graphed data there was a change following training.

Patient and Family Member Ratings for the Interview

The second behavioral measure for the effectiveness of the two conditions for training was the use of patient and family member ratings for the interview. The rating instrument used was the Affective Subscale of the Medical Interview Satisfaction Skill (Wolf et al., 1978).

Patient Ratings of the Interview

The graphed data for the patient ratings of the interview showed that there was no real difference in the effectivenes of the two conditions for training in increasing the patient ratings of the interview. The results of the R_n analyses showed that neither of the two conditions for training was effective in increasing the patient ratings of the interview.

The dependent t test for faculty-supervised training produced a t value of 1.56 which was not significant at the .05 level. The dependent t test for self-instructional training produced a t value of 1.25 which was also not significant at the .05 level. This indicated that neither

training condition was effective. The independent t test showed no significant difference in the premean and postmean difference scores for patient rating in the two conditions for training. The t value of the 0.39 was not significant at the .05 level.

The procedures used to analyze the data for the patient ratings were interpreted to show that there was no significant difference in the two conditions for training. The patient ratings were high from Interview 1 for each of the students in both conditions for training. This made it very difficult for students to increase their ratings following training. In talking with the researcher following interviews, two of the patients commented that "it was so good just to have 20 minutes of the doctor's time." The fact that the medical student took the time to sit down and talk with the patient in a nondiagnostic setting may have impacted upon the patient ratings of the interview.

However, the dependent t test for pretraining vs. posttraining for all eight subjects produced a t of 2.13 which was significant at the .05 level. This indicated that the overall use of training was effective in increasing the patient rating across all eight subjects.

The use of patient rating for the interview needs to be examined. The instrument used was quite appropriate for clinical interview evaluation. However, many patients asked if some of the questions were appropriate for their situation. Twenty of the patients commented that they had no pain and that they felt they had no real problems. The development of a specific psychosocial interview rating scale for use with adult patients and family members would be most helpful. Since

this specific investigation is a relatively new area of cancer care, the development of such a scale has not been completed. The authors of the scale have developed a scale for use with pediatrics, and it is hoped they will continue with development of a scale in this area of study.

Family Member Ratings of the Interview

The review of graphed data for the family member ratings of the interview showed there was no difference in the two conditions for training. The R_n analyses of the family member ratings of the interview found that neither of the conditions for training was significantly effective in increasing the scores on the rating scale.

The dependent *t* test for faculty-supervised training produced a *t* value of 1.56 which was not significant at the .05 level. The dependent *t* test for self-instructional training produced a *t* value of 1.25 which was also not significant at the .05 level. This indicated that neither training condition was effective. The independent *t* test of the mean difference scores for the family member ratings of the interview showed no significant difference in the two conditions for training. The *t* value of 0.19 was not significant at the .05 level.

The dependent *t* test for pretraining vs. posttraining for all eight subjects produced a *t* value of 2.13 which was significant at the .05 level. This indicated that the overall use of training was effective in increasing the family rating across all eight subjects.

It is important to recognize that the pretraining ratings for each of the interviews were extremely high. The family members interviewed by the researcher following the interviews commented similarly to patients that "it was so good to have so much time with the doctor."

The time the doctor spent with the family member may have been more of a determinant of the family member rating than the condition for training.

The use of the rating scale would have been more appropriate in the clinical diagnostic setting. Many of the family members (25) wanted to rewrite items on the scale to fit the family member situation. It would be extremely appropriate for such a scale to be developed for the family members of adult patients. Much work has been done in the area of pediatrics but less has been done with the family members of adult patients.

Summary of the Patient and Family Member Ratings

Both patients and family members rated medical students extremely high on preinterview ratings. The postinterview ratings were not significantly different for either patients or family members following either condition for training. The absence of change following training may be due to the impact of the time the medical student spent with the patient and family member and the high baseline ratings. Although patients and family members were told that they were to be very specific in their ratings and rate the student on the use of good skills, all patients and family members consistently rated the students very high on both pre- and postinterviews. One family member commented to the researcher following an interview, "I don't know if this young medical student has been trained or not in what you are doing, but I am so grateful that I had so much of the young doctor's time. I feel that the young doctor was really interested in me." The interview time may been more a determinant of the rating score than the skills used.

Evaluation of Medical Student Dictation Tapes

The graphed data for the measure dictation tapes showed that the self-instructional training produced a somewhat more positive trend in recognition of psychosocial needs on dictation following training than the faculty-supervised training. The results of the R_n analyses showed neither intervention to be significantly effective.

The dependent *t* test for faculty-supervised training produced a *t* value of 1.33 which was not significant at the .05 level. However, the dependent *t* test for self-instructional training produced a *t* value of 3.44 which was significant at the .025 level. On this basis, the self-instructional training was interpreted to be more effective than the faculty-supervised training. The independent *t* test showed no significant difference in the two conditions for training. The *t* value of -0.90 was not significant at the .05 level.

The dependent *t* test for pretraining vs. posttraining for all eight subjects produced a *t* value of 3.11 which was significant at the .025 level. This indicated that the overall use of training was effective in increasing the number of psychosocial needs recognized on dictation tapes across all eight subjects.

It is important to recognize that the subjects had no prior experience in the use of dictaphones. It is also important to recognize that the subjects were aware this was a unit in psychosocial oncology. The inexperience of the medical students in the use of dictation tape combined with the knowledge that they were involved in a training on psychosocial oncology may have alerted the students to the need to recognize psychosocial areas.

Another difficulty arose in the use of dictation tape. Several posttapes were damaged in the taping process. Every possible effort was made to insure complete information was transcribed. However, the partial loss of sentences in tapes may have limited the scores. If these data had not been damaged, six of the posttranscriptions may have had higher ratings.

The use of dictation tapes as a measure may not be as appropriate as the measure used in some of the pilot work. This measure was the number of referrals made by the medical student to counseling and psychosocial resources. Also, the medical student awareness of this having been a unit in psychosocial oncology may have impacted upon the recognition of psychosocial needs. This was evident by the high scores on some of the pretraining dictation transcriptions.

Summary of the Results of Major Hypothesis I

The R_n analyses showed that there were some differences: (a) the self-instructional training significantly increased the number of open questions used; (b) the self-instructional training significantly reduced the number of closed questions used; (c) the faculty-supervised training significantly increased the reflection of feelings; and (d) the faculty-supervised training significantly increased the reflection of meaning.

The dependent *t* test for faculty-supervised training showed significant change in the reflection of meaning following training. The dependent *t* test for self-instructional training showed significant change in recognition of psychosocial needs, use of closed questions, and recognition of psychosocial needs on dictation tapes.

The results of the data analyses for Hypothesis I showed only one significant difference on the independent t tests which was a significant difference in the mean difference scores for the percentage of nonverbal attending skills. This result was in the direction of the greater effectiveness of the self-instructional training. However, this result was distorted by the fact that there was no basis for change for the faculty supervised group due to the higher treatment scores. There were no "overall" clinically or statistically significant effects for either type of training.

However, when both types of training were combined and examined for pretraining mean scores vs. postraining mean scores, there were significant difference on most variables. The combined training interventions significantly changed the use of (a) nonverbal attending skills, (b) psychosocial needs recognized, (c) use of closed questions, (d) use of reflection of feeling, (e) use of reflection of meaning, (f) patient rating, (g) family member rating, and (h) dictation rating.

Major Hypothesis II

The second major hypothesis for the study stated that the faculty supervised training and the self-instructional training were equally effective in increasing the responsiveness of the third year medical students to the psychosocial needs of cancer patients and their family was measured by pre-and-post content-based mastery tests.

Content-Based Mastery Test

On the examination of this hypothesis, the graphed data definitely showed that the premean and postmean scores for the faculty-supervised group were consistent in gain. However, each subject in both training

conditions made positive gain on the posttest with one exception (Subject 3, in self-instructional group). There was no significant difference in the mean difference scores for the two conditions for training on the independent *t* test. It is important to recognize that the greater consistency in change was found in the faculty-supervised group.

The analysis of data was interpreted to support the hypothesis that faculty-supervised training and self-instructional training were equally effective as measured by the pretest and posttest scores on the basis of the independent *t* test. However, the dependent *t* test for faculty-supervised training showed the training to be significant in increasing the scores on the posttest. The dependent *t* test for the self-instructional group showed no significant change. The faculty-supervised training produced a more clinically significant change.

The dependent *t* test for pretraining vs. posttraining for all eight subjects produced a *t* value of 5.02 which was significant at the .05 level. This indicated the overall use of training was effective in increasing content-based mastery test scores across all eight subjects. The use of the present content-based mastery test appeared to be an appropriate measure. However, it must be recognized that the present instrument needs further development. This is evident by the scores on the pretest. Although efforts were made to insure that this was an appropriate test, it may have been too easy for several of the students. However, this measure appeared to be an appropriate measure used for the

study. The results showed subjects (with one exception) gained knowledge following both types of training.

Limitations of the Study

There were several major limitations to the present study: a) the number of subjects involved in the study, (b) the length of time for training the subjects, (c) the number of post observations for the study, (d) the clinical demands of student during the clinical oncology rotation, (e) the impact of videotaping the interviews, and (f) influences in personalities and family communication systems.

Subjects for the Study

The number of subjects for this study was limited to eight medical students. Two medical students were not allowed to volunteer for the study. One of these students had already received a doctorate in a related field, prior to entering medical school, and the other medical student had participated in an intensive program in Pastoral Care Counseling also involving counseling with cancer patients. The eight students in the formal project were the only students available for participation.

Although the design used for the study allowed for the utilization of the multiple-baseline, across-subjects design for four baselines, it would have been helpful to have had additional subjects available to have allowed for a replication of each of the baselines. A larger number of students would have allowed the researcher to examine and compare baselines better. It would have also provided the opportunity to determine changes (or lack of changes) due to extraneous variables. Through the replication of baselines, it would have been possible to

have established a more extensive analysis of the data and a better view of the effectiveness of the two conditions for training.

Length of Time for the Training

The brief time period allotted for training students to respond to the psychosocial needs of cancer patients and their families while on the Clinical Oncology rotation created several difficulties. One of the major difficulties involved in the limited time was the amount of information that had to be covered in this brief time period. Although students were well adapted to receiving factual information in lectures and in other forms, students were not prepared to carry through with information following such a brief instructional time period. The premise that students could not only make cognitive gains but also make behavioral gains after such brief instruction was overly optimistic. It is obvious from the results of this study that the period was not adequate to increase many of the interview behaviors.

The problem of time limitation is critical in medical schools. As stated in the Introduction, the technological demands, the demands for knowledge, and the demands of various clinical applications prohibited the insertion of as much time for training as desired for psychosocial needs. The issue of time is one which would require the attention of the clinical oncology staff, as well as the medical educators throughout the medical school. Decisions concerning time assignments are difficult to make. The requirements for the students are great and which area receives time becomes a matter of priority establishment. Unfortunately, the psychosocial area does not receive as high priority as other clinical areas.

Number of Postobservations for the Study

During the original proposal planning for this study, only three baselines were designed for each of the two conditions for training. At the time of the proposal meeting, it was suggested that an additional baseline be added for each of the conditions of training to allow the researcher to use the R_n analysis. By adding this additional baseline, the number of postobservations was cut to two. Eight videotaped interviews were all that were possible through the work of the clinical oncology rotation. The limitation of the study to only two (Subject 4) postinterviews did not allow the the researcher to examine the number of postobservations desirable. A minimum of three (Subject 4) for each condition of training would have been more desirable.

Although some trends can be seen in data, it would have been extremely helpful to have had more postobservations. One of the major blocks to the inclusion of more interviews was the clinical service time required of the medical student. It was the judgment of the faculty members involved with the study that eight videotaped observations were the maximum for the amount of work required of these students on the clinical oncology rotation.

Clinical Demands of Students on the Clinical Oncology Rotation

The demands of the students involved in the Clinical Oncology rotation include care of the patients who are hospitalized, the drawing of blood samples from assigned patients, reporting to residents and other doctors on the status of the patient, and routine checks on patients. During the course of this investigation, an influx of patients was received into the Clinical Oncology area of North Carolina

Baptist Hospital. During one week of the rotation, 38 patients were admitted within a period of four days. Although several students assisted with the newly hospitalized patients, it was still very difficult to balance the clinical requirements of students and the requirements for this study.

An example of this limitation follows. Two of the medical students were called out on emergencies several times when they were supposed to be either taping or finishing part of their training. When the medical team called and said that the student was needed on emergency, the emergency took precedence. Each of the eight subjects was required to reschedule at least one interview. An interview would be set, the patient and family member would be waiting, and there would be a crisis in the hospital. Perhaps the difficulty with this area was due to the fact that the training was done during the clinical rotation. This placement of training during Clinical Oncology rotations was made specifically to give the student the practice with cancer patients and their families. However, many of the students found it quite difficult to meet all the requirements of the study and the requirements of unexpected increases in patient populations and the medical emergencies surrounding these emergencies. Every effort was made to schedule training and interviews with patients during the hours that students could participate with the fewest interruptions.

Impact of Videotaping of Interviews

Efforts were made to insure that the videotaping process would take place in as natural an environment as possible within outpatient clinical oncology area. Some patients and family members were concerned with the

camera. They were most aware that they were being videotaped and asked many questions about the equipment and the process itself.

The introduction of the videotape into the natural environment may have limited the effectiveness of the study. Although this is discussed in another part of this chapter, it is necessary to recognize that students do perform differently on videotape. The earlier pilot work, including observations made in hospital rooms without videotaping, was quite different from the results of the videotaped interviews. The introduction from the camera itself may have caused the students to perform rather than to work with patients naturally and consistently.

Differences in Personalities and Family Communication Systems

Although patients and family members were briefed on their roles and were asked to present a minimum of four psychosocial needs encountered during the illness, they were not controlled for basic personality traits. Each family unit interviewed brought with it a different set of family dynamics. The families came from different family structures. Most important, each person involved in the interview brought to the interview very different personality traits. For example, the researcher failed to recognize prior to the present study that many patients will talk incessantly because of the nature of their personality.

It is interesting to note that the actual percentage of time the patient and the family member talked may have been more dependent upon the personalities of the patient and the family member and the dynamics of the family unit than on the effectiveness of the medical student. It is also important to note that the excitement for some of the patients

and family members over videotaping may have interacted with the amount of time they talked during the interview. Some patients and family members appeared extremely calm while others appeared very excitable. These differences may have been the determining factors in some of the ratings for the interview rather than the condition for training.

Summary of Limitations

The present study was limited by the number of students available during the Clinical Oncology Rotation and the amount of time allotted for microskills study. This study was further limited by the number of videotaped interview observations possible during the rotation. Additional limitations included the impact of the use of videotaping equipment on the subjects and the interviewees and the impact of the personalities of the patient and family member interviewed.

Practical Implications of the Study

The practical implications of this study are very limited. The use of faculty-supervised and self-instructional listening microskills training were equally effective in increasing the responsiveness of third-year medical students on the basis of the independent *t* tests on content. The subjects involved in the two types of training were representative of their class and of the academic levels of their class. However, for practical purposes the results of the study would be limited to these students. This is due to the fact that these students were at the end of their third year of study, and it could not be generalized that students in the beginning of their third year of study would show similar changes. Students with no clinical experience could not be compared with students with clinical experience. The students

participating in the study had received the larger part of a year of clinical experience which allowed them to be more comfortable in the interview setting.

The use of videotaped interviews as a measure for a psychosocial interview may not be as appropriate as observations by independent observers in their natural environment. This implication is limited to the students involved in this study but provides caution for those planning research in psychosocial oncology interviewing. If interview observations are to be made, it is necessary to reexamine the measures used for observations of the videotaped interview. If this study was to be replicated, careful consideration would be needed in the definition of behaviors to be observed and the limiting of those behaviors to carefully defined measures.

The practical implications based on behavioral measures are few. The major implications from the results of this study are found in recommendations and future research suggestions. However, the present study did show that patients and family members gave high ratings to the medical students following a psychosocial interview. This is limited to the specific students involved in the study and the patients and family members with whom the interviews were conducted. Although randomization was a part of the study, the population of students as well as patients is subject to change. For example, the specific makeup of the patient population changes at the completion of each patient treatment. The medical student population for each year of study may change.

The use of dictation transcription as a tool for interview assessment may not be an appropriate measure. This implication is

dependent upon the training the medical student has had prior to the psychosocial onology unit and the experience the student has had with the use of the dictaphone. The results of the present study cannot be extended beyond the sample used for the study.

A major implication of this study is the difficulty in securing time with medical students during clinical training. This implication holds for third-year medical students involved in clinical study. The demands of clinical oncology rotations need to be considered in depth before a research study begins. It is important to recognize that every rotation may differ in clinical demands due to the admission of patients and emergencies in patient care.

Another major implication of this study is the realization that two hours of training followed by hours of critique and practice of skills may be far too inadequate to accomplish desired behavior change. Although this implication is limited to the sample involved, the realization stands. Since neither of the groups made significant behavior change following training on several measures, it was apparent that both conditions for training need to be reexamined.

A final implication from this study is the recognition of the difficulty in conducting research in psychosocial oncology in the clinical setting. This has been documented in the literature presented in Chapter II and has been a theme in psychosocial oncology since its beginning. The many variables which impact on patient care and physician response to patient care often impede the most carefully designed research studies. The variables of clinical demand, patient health status, and patient needs dictate caution in generalizations from research in the psychosocial area.

In summary, the results of this study provide cautions for research in psychosocial oncology and medical interview training. Those cautions are concerned with measures used, length of training, student requirement, and changes in patient health status. The results of the study are limited to the sample of third-year medical students used and are not generalizable to other student populations. This is due to the timing of the study, the point in the subjects' medical education, and the uniqueness of the patient and family member sample.

Theoretical Implications

The microskills approach to interview training is based on (a) the acquisition of knowledge of behavior, (b) the modeling of behavior for the student, (c) the use of the behavior (inclusive of videotaping), (d) the critique of the students behavior, and (e) the continued practice of the behavior. The theoretical base for this study was that supervision of students during training provides more opportunity for skill development and more impetus for increasing skills than the use of self-instructional training. The results of the study make it difficult to support this theoretical base. However, the limitation of the time of training may have impacted on the study as a whole.

Theoretically, the use of the faculty member in training provides the student with a role model and a guide in critiquing the subject's work. The impact of working with a faculty member for only three hours may have been inadequate to increase behavior as well as provide a basis for the comparison of two types of microskills training. The one support for the theoretical base of this study came from the request for students following both types of training for time with faculty members

to discuss important issues and how to handle them. This process is an integral part of microskills training when the faculty member is present.

The need for the subjects to have someone to consult and to ask for a critique was further confirmed by the subjects' response. Following the study, four of the subjects asked specifically to discuss one of their patients. The other four subjects recommended that such an opportunity be a part of the regular clinical oncology program. The subjects' responses supported the theoretical base although the results of the study did not prove the faculty-supervised training to be more effective in the behavioral area. This also indicates that the subjects were not as concerned with the memorization of facts as they were with knowing how to use the knowledge gained.

An unexpected result of the study was the support for social role theory (Reiss, 1980). The medical students assumed the role given them in psychoscocial interviewing, and they tried to perform that role on videotape. By defining psychosocial, they were able to perform the role assigned. The pretapes showed the subjects trying to use skills they knew would be appropriate for psychosocial interviewing. Perhaps the best test of their skill was not performed. That test would have been the measure of the amount of the interview that was devoted to social issues and that amount of the interview that was devoted to emotional issues (patient and family talk as well as medical student recognition of needs).

Interestingly, the role of the patient and the family member within the family unit may have been more of a determinant of the amount of

time the patient and family member talked than the skills of the medical student. It is important to recognize that medical students, patients and family members tried to fulfill the roles assigned and that this variable may have impacted upon the results of the study. More important, the goal of the original work for this study was the inclusion of the family member in the interview process and the use of good listening skills by medical students. It may be possible that when medical students are told that the skills included in psychosocial interviewing are important and necessary for quality medical practice, the medical students automatically work to assume that role. The subjects were able to do this cognitively, and for nonverbal skills. The students were not able to perform the more advanced skills.

Recommendations for Future Research

The first major recommendation for future research evolved from the use of videotaped interviews. If this study was to be replicated, it would be more appropriate to use independent observers in the natural environment. The presence of the videotape and the concern some of the patients had over the videotape may have negatively affected the present study. In future studies, every effort should be made to insure the most natural environment possible. Videotape provides an excellent means for observation, but it may impede the performance of the medical student and the response of the patient and the family member.

The second major recommendation for future research is the careful definition of behaviors to be measured and the limiting of these behaviors to manageable observations. The present study used nine measures from the videotape which may have been too many for the

observers to record. Although reliability was high, the category of encouragers, paraphrase, and summary should have been divided into three categories. This number of 12 measures would have been too large.

The use of dictation transcriptions for measurement of responsiveness should be reconsidered. The inexperience of medical students in the use of dictation and the tendency for the medical student to fulfill the role designated did not allow for adequate assessment.

The need for the development of a rating scale specifically for psychosocial interviews is important. The need for a family member interview rating scale is crucial to future research and interview training for medical student/patient/family member interviews. The interview rating scale used is excellent for clinical interviewing evaluation. If some of the items were rewritten to address the needs of the family member of the adult cancer patient, the scale might well be adaptable to this interview situation.

The designers of training programs in microskills training may need to work more closely and cooperatively with medical personnel to insure longer designated training periods. The difficulty surrounding the inclusion of additional units of training in medical education is great. The implementation of training programs should focus on adequate time allotment.

The use of listening skills training is recognized as an important aspect of psychosocial oncology. This study sought to use this training with third year medical students during the clinical oncology training. This training is only one part of the microskills training developed by

Ivey (1971). The other component to the training includes the use of influencing skills. Although medical students have had much training in clinical decision making, it would be helpful for them to receive both components of the microskills format. This would enable the medical students to use listening skills in the process of clinical decision making. In future studies, it would be appropriate for researchers to secure adequate training time to teach both components of the training package.

A recommendation from the study is for medical educators and counselor educators working in the medical setting to make decisions cooperatively concerning the types of psychosocial interview training needed to increase the responsiveness of medical students to the needs of cancer patients and their families. A needs assessment for medical students and for patients and family members would be most appropriate. The support given to the present study by the medical center was unique in psychosocial oncology educational programs. The entire oncology and radiation therapy staff and faculty cooperated to insure the success of the study. Limitations of the study were due to uncontrollables in the medical setting. Perhaps the greatest detriment to the study was the small amount of time for training. If a longer time period were devoted to psychosocial oncology, a more valid assessment of the two conditions for training would be possible.

In future designs for psychosocial interview training, it would be helpful to recognize that on several of the measures the analyses were not in agreement. The use of open questions showed on the basis of the R_n test that the self-instructional training was effective. The use of

closed questions was reduced significantly following self-instructional training on the basis of the R_n analyses and the dependent *t* test. The reflection of feeling was increased by the faculty-supervised training on the basis of the R_n analyses. The reflection of meaning increased significantly following faculty-supervised instruction on the basis of the R_n analyses and the dependent *t* test. The content-based mastery test scores significantly increased on the basis of the dependent *t* test for the faculty-supervised training. The percentage of psychosocial need recognized increased significantly on the posttest with the self-instructional training on dependent *t* test.

With these differences, it is possible to consider a possible combination of faculty-supervised and self-instructional training. Such a combination would allow the researcher to utilize more time for training and would offer the advantages of both the faculty member present and the opportunity of self-instruction. The combination of the two types of training would overcome one of the major limitations of the study which was the relatively brief amount of time for training.

A final recommendation is based on the results of the *t* test of pre-and-post differences when the two training groups are combined. Training in general produced improvements on most dependent variables. These results coupled with information gleaned from patient and medical students produced the recommendation that interview training be included fairly early in medical education.

Summary

The present study sought to examine which of two conditions for listening microskills training was more effective in increasing the

responsiveness of medical students to the psychosocial needs of cancer patients and their families. The two conditions for training were faculty-supervised training and self-instructional training. There was no significant difference (overall) in the two conditions for training on the behavioral measures.

The hypothesis that faculty-supervised training is more effective in increasing the responsiveness as measured by videotaped interviews, the patient and family ratings, and the dictation transcriptions was not supported by the results of the study. The hypothesis that faculty supervised training and self-instructional training are equally effective as measured by the content based mastery test was supported by the independent *t* test but not by the dependent *t* test. The graphed data showed the faculty-supervised training to be more clinically significant in increasing skills consistently across subjects on the content-based mastery test.

In reviewing the results of the dependent *t* test for training vs. no training across all eight subjects, training was significantly effective on the following variables: (a) nonverbal attending skills, (b) psychosocial needs recognized, (c) use of closed questions, (d) use of reflection of feeling, (e) use of reflection of meaning, (f) patient rating, (g) family member rating, and (h) dictation tape rating. On the basis of the dependent *t* test for training vs. no training across the eight subjects, the training was significantly effective in increasing the content-based mastery test scores.

Perhaps the reason there was no difference between the two types of treatment on the basis of the independent *t* tests is due to the fact

that the two types of training were essentially the same training. The variables in the training package were held so constant that they did not allow for any real variation in training. Although the training was presented in two different conditions, it was essentially the same and therefore extremely difficult to show any significant difference. However, when training was compared with no training across the eight subjects, training was significantly effective for every variable except the time patient and family member talked , use of open questions, and use of encouragers, paraphrase, and summaries.

The study was limited by the number of subjects, the time for training, the effects of videotaping, the differences in patients' personalities and family dynamics, the difficulties with dictation, the number of postobservations, and the clinical demands on students. The study supports the need for future research in the development of measurements of psychosocial interview skills and supports the need for more time for training in this area.

Prior to the study, one of the researcher's committee members requested that the use of nonverbal skills be maintained as a variable. The committee member's idea was that on first interviews the use of nonverbal skills combined with "taking time" with the patient may actually be the determinant of how the interviewer is rated by the patient and family member even if no other skills are present. From the results of this study and comments made, this idea held true.

A final consideration in future endeavors may be an examination of the definition of psychosocial needs. This can best be expressed in the words of one of the patients who was interviewed for the study. The

patient is responding to the researcher's question: "Did the doctor recognize your needs and your problems?"

> "The doctor did far more than recognize my needs or my problems. This doctor recognized my JOY! If any doctor can find out what gives me joy, then that doctor can truly help me deal with the disease of cancer. For if a doctor knows my joy, that doctor knows how to help me live."

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APPENDIX A

LETTER FROM DR. ALLEN E. IVEY

TWO CRANBERRY LANE
Amherst
Massachusetts
01002

(413) 253-5353

Dr. Jack Bardon
School of Education
University of North Carolina
Greensboro, N.C. 27412

Dear Jack:

One of your doctoral students called me yesterday talking about her dissertation on teaching interviewing skills to physicians around cancer. I told her I would send a draft of a chapter I have completed for a book Jerry Authier and I are doing on medical interviewing.

Unfortunately, I immediately lost her name and address. I'd appreciate if you would forward the enclosed to her with my apologies. The project sounds interesting and important and I would like to know the results.

If you or she find the material interesting and useful, you have my permission to duplicate it. The most relevant may be the discussions around the basic listening sequence. Stan Baker of Penn State has clearly indicated that "chunking" of communication skills helps cognitive understanding and retention/generalization of skills. I think she has a nice two-hour conceptualization of the training program and hope these ideas may be somewhat helpful.

Looking forward to seeing you at Council... with best personal wishes and thanks.

Cordially,

Allen E. Ivey

APPENDIX B

STUDENT PERMISSION FORM FOR PARTICIPATION IN THE STUDY

MEDICAL STUDENT

CONSENT FOR PARTICIPATION

MEDICAL STUDENT: _____

One of the goals of the faculty of the Oncology Research Center is to assist the medical student in responding to patient and family needs. You are asked to give your permission to participate in a study to examine the responsiveness of medical students to the needs of cancer patients and their families. Videotaping of patient and family interviews with you will be used in teaching and evaluating interviewing techniques. You are being asked to give your consent to participate in this study and to be videotaped during your visit with patients and family members. This will be done under the following conditions:

1. Videotaping of an interview between you and the patients and family members will be done only with the consent of patients and family members.

2. Videotaping and monitoring will be done only by faculty members and graduate students working with the Cancer Patient Support Program.

3. The Oncology Research Center gives its assurance to you that videotapes of you will be secured within the ORC against unauthorized viewing by anyone, thus, assuring the confidentiality of your videotape.

4. You may request that your videotapes be erased.

5. All your videotapes will be available for your review.

After reviewing the above noted conditions, I give my consent to have my interview with patients and family members videotaped and to participate in this research study.

SIGNED: _____
(Medical Student)

DATE: _____

APPENDIX C

PATIENT AND FAMILY MEMBER PERMISSION FORM

PATIENT AND FAMILY MEMBER

CONSENT FOR OBSERVATION AND VIDEOTAPING

PATIENT: _____ FAMILY MEMBER: _____

One of the goals of the faculty of the Oncology Research Center is to assist the medical student in responding to patient and family needs. You are asked to give your permission to participate in a study to examine the responsiveness of medical students to the needs of cancer patients and their families. Videotaping of medical student interviews with you will be used in teaching and evaluating interviewing techniques. You are being asked to give your permission to have your interviews with medical students videotaped. The videotaping will be done under the following conditions.

1. Videotaping of an interview between you and the medical student will be done only with the consent of your physician.

2. Videotaping and monitoring will be done only by faculty members and graduate students working with the Cancer Patient Support Program.

3. The Oncology Research Center gives its assurance to you that videotapes will be kept confidential.

I give my permission for my interview with the medical student to be videotaped.

SIGNED: _____ _____
(Patient) (Family Member)

ATTENDING
PHYSICIAN: _____

DATE: _____

APPENDIX D

PERMISSION FOR THE STUDY

MEMORANDUM

TO: Carolyn Brewer DATE: April 30, 1986

FROM: John Christian Busch

RE: Human Subjects Committee

Your study, "Increasing the Responsiveness of Medical Students to the Psychosocial Needs of Cancer Patients and Their Families," was reviewed by three members of the HSRC because it was not exemptable from full review by the committee. Those members were Dr. Osborne, Dr. Jaeger, and myself.

We do not believe the subjects are at risk.

The committee approves your study with two conditions:

1. In section 4 (page 2) of your proposal you indicate that "the student may request that his/her tape be erased"; it would be well if the consent form reiterated that option.

2. Since patients and family members normally are under considerable stress, it would be advisable to indicate the general purpose of the study. Providing a reason might eliminate any additional concerns by the patient about the reason for the study.

Good luck with your study.

JCB:ah

APPENDIX E
TRANSCRIPTION OF TRAINING INTERVENTION

HOW TO LISTEN: RESPONDING TO THE PSYCHOSOCIAL NEEDS OF CANCER PATIENTS AND THEIR FAMILIES

PART I: PREPARING TO LISTEN

I am Carolyn Brewer, Co-Director of the Cancer Patient Support Program of the Bowman Gray School of Medicine of Wake Forest University. The tape you are about to see is the first of a two-part series on How to Listen. These tapes were developed to train medical students to communicate more effectively with cancer patients and their families. The factors that led to the development of these tapes are as follows:

1. Cancer is one of the most stress producing of all diseases. The psychological and social stress impacting upon families and upon the patients themselves is great. Medical students, care providers, and all those involved with these patients and their families must be prepared to communicate effectively.
2. Research has shown that physicians who communicate effectively with their patients stand greater chances of patient satisfaction, of patient compliance, of positive patient outcomes, and even malpractice suits prevention.
3. Time, quality time, is so important with the physician. For cancer patients and their families to feel that they are communicating with their physicians does not take and enormous amount of time. It does take quality use of the time one has through physician communication skills and through physicians knowing how to listen to cancer patients and to their

families. Dr. Allen Ivey developed the microcounseling concept. It is with Dr. Ivey's permission that these tapes were developed to be used with all persons who might be interested in listening and responding to the psychosocial needs of cancer patients and their families. Dr. Ivey's approach specifies that specific skills be learned and that these skills be mastered to competency levels in order for those persons who want to listen to use the skills most effectively.

4. Finally, the wonderful thing about learning to listen is that it is applicable to all areas of professional growth and professional use. If you are a practicing physician, if you are a medical student, if you are a nurse, physician assistant, a counselor, psychologist, psychiatrist, or parent, or any interested person in health care, you will find that the skills contained on these tapes will enable you to listen, to communicate, and to respond more effectively to cancer patients and to their families.

The Psychosocial Needs of Cancer Patients and Their Families

What are the psychosocial needs of cancer patients and their families and how are those needs recognized? First of all, psychosocial needs involve all of the <u>psychological needs</u> that a patient or family member may have, <u>and</u> all of the <u>social needs</u> that this patient or family member may have. These two areas combine to form the psychosocial impact that is recognized throughout the oncology literature as psychosocial oncology. Those needs are better defined as the <u>emotions</u>,

the feelings, and the experiences that accompany cancer and cancer treatment.

In breaking those down, we may look at the emotions and the feelings of the patient and the family member. Perhaps the best known work in the area of emotional response has been done by Kubler Ross in her work with the emotional stages and responses of patients after diagnosis and after treatment. In these areas, we must realize emotions change and stages of emotional impact may vary. At one stage patients may be both bargaining and denying. At another stage, a patient may be totally accepting of what is going on, and a family member may still be bargaining, and holding back and saying, "This really can't be happening to us."

The psychological impact through these emotions and these feelings forms a roller coaster in cancer care. This roller coaster says that at one point I may be at the bottom, at the depths of depression, and that another point I may feel victory. Then I may go down and up as my emotions vary. The emotions of the family member accompany these and often times may not be at the same point. In our Clinic we see patients who are really high," they are thinking, "Gee, treatment is going well..things are looking great". However, the family member is experiencing, "Oh, what if this does not work?" "What do I Do?" and those emotions are in contrast to one another.

The emotions and the feelings that accompany cancer and cancer treatment need to be recognized by observing the nonverbal messages that patients and family members give as well as the verbal messages. It

becomes important to be able to state those feelings and recognize those feelings in an interview.

The social implications of cancer and cancer treatment that combine with the psychological impact are great. Let's take, for example, one issue, the issue of work. Productivity is essential to patients and their family members, and the income is important to the financial status of the home. Patients become involved in, "Will I get back to work? How soon can I get back to work? Will I lose my job? How many days will I have to miss?" Also, family members become concerned over, "Will I lose my job? How much time will I have be off work to bring the patient for treatment?"

Then, there is another issue, another major issue of wigs. In chemotherapy treatment, one of the first questions we receive, "Will I lose my hair? If I lose my hair, how do I maintain a sense of dignity and a sense of pride and care about my appearance. And what if this whole area changes and how does that impact upon me psychologically. Will I be devastated the day I look in the mirror and put my hands on my head and pull away part of my hair? How will I react? And how will this affect me socially? Will people stare at me, thinking I have a wig, or will people accept me for what I am and think that I look great?"

Many patients and family members feel that they are often rejected by those who love them the most. For example, family members tend to go into corners and not communicate with one another because they are so afraid of hurting one another. Therefore, the psychological rejection, the fear, the worry, the concern, the social rejection become great.

A prime example of how a friend rejects the patient and the family member comes from the patients themselves. Quite often the patient enters and says, "Carolyn, can you please tell me why my best friend never comes to see me? I'm still me. I don't look quite the same or maybe I do, but I'm still me. I'm still the same person I was before cancer entered my life. I want my friend to know that it is still me and to come and talk and to be with me." The family member feels that friends often do not come to see them or that they really have no social outlet and that they are really alone. Therefore, they try to track down physicians, to track down ideas, to track down ways of learning to cope with those social rejections and the lack of friends at a time when they perhaps need them the most.

The friends who do come and the family members often pour over the people and give them negative attention. Negative attention to cancer patients and their families is so common that often patients are trained to push the buzzer in the hospital to get the nurses there just to say, "I want something." The patient may yell rather than pushing the buzzer, because the only way they have been trained is negatively, to get the attention to say, "I'm sick. I hurt." Because when they don't say I'm sick or I hurt, everyone goes away. And with family members they become obsessed with talking about the patient and the illness that they forget what it is like to talk about general things in life and to enjoy those things.

Also, patients and family members are not given much control over their lives. Their lives tend to revolve around cancer diagnosis and cancer treatment. They feel that the self-esteem and the self-control

that they once had has been taken away; that they are a victim or victims of this disease. Therefore, it becomes our challenge to recognize this need and to give the patient and the family member back a little bit of control by listening to what those needs are and how we can give that control back to them.

A prime example: a medical student happened to observe that a cantankerous man always yelled, screamed, and griped when she entered the room to draw blood. Being very perceptive, she noticed that the man really waited and watched for her to come. "What time is she coming? Is she here on that very minute that I thought she would be here? Where is she today?" Observing that she was an important person in this patient's life, she began to give the patient tiny tasks to do. You have your arm ready when I come in. If you have your hand right here, we will do a better job and get it done more quickly. Pretty soon, by the time she entered the room, the once lowered shade was up; the sun was coming in; and the patient was ready and waiting, and wanting more to do. He felt that he again had even a tiny bit of control over what was going on.

Very often patients and family members feel that there is no justice. What has happened to the fairness in life? I try to do things right; I try to live a good and a decent life. And for the family member, I have given my loved one everything I knew to give. I have given them the food I though was best, and I have tried to do what I thought would help. And cancer! Where did I go wrong? And the guilt, and the feeling that there is no justice and fairness, even at the anger

of striking out at God and of trying to work through issues that once did not exist in their life.

Giving a patient and a family member a feeling that we care about them, giving a patient and a family member a feeling that they can still do some things in their lives..many, many wonderful things..giving them a feeling that we want them to be productive is key. It is key to the success of the treatment, and it may be the key to the success of the patient and the family member in the battle with cancer.

First of all we recognize the emotions and feelings, the psychological basis and the impact of the disease. We recognize the social position that person is now in, and the impact socially that cancer has upon the life of that patient and that family member. We also should recognize how that patient deals with the disease itself, and the coping skills possessed by that patient and that family member in the endeavor to battle against cancer.

Triangle of Communication

Let us now turn to the issue of the triangle of communication that must exist in cancer care. One of our oncologists has specialized in trying to help those of us involved with cancer patients and their families to understand this triangle and the impact it can have on positive cancer treatment. I turn now to Dr. Patricia Zekan.
(Specific copies of the Patient's Bill of Rights may be obtained from Dr. Patricia Zekan the American Hospital Association)

It has been said that the secret for caring for a patient is in caring for the patient. We all can be effected by cancer in one of three ways. We can be a patient effected by cancer; we can be a health care member giving care to a patient with cancer, or we can be a

concerned family member or friend involved with someone who has cancer. Some of us, in fact, can be involved in several of those roles. These three roles do, however, come together in what we think of as a triangle as has been mentioned. At the apex of the triangle, we have the patient. At one of the corners, we have the health care team taking care of the patient, and at the other corner, we have the family. The triangle is said to be one of the most stable architectural and geometric structures. It can also be a very weak structure if the arms of the triangle are not strong.

How does one keep the arms of the triangle strong? One keeps them strong by communication. Communication is the key and if this communication does exist, a relationship of support in all of these arms exists, allowing this to be a firm structure. I like to think about rights and responsibilities when I think about each of the corners of the triangle. It has become the vogue in these days to think about patients' rights. Because people do think of patients' rights, I will discuss these first. But I also want to call to your attention to the fact that everyone who has rights also has responsibilities. And those responsibilities are what we have to help protect the rights of the other corners of the triangle.

Let me summarize for you quickly a few of the things I have experienced over the years as being things the patient seems to feel are important rights. I think the patient does have the right to know their disease, and not only to know the disease but to be informed of every aspect of the disease and its treatment. They also have the right to have and <u>express feelings</u> and to <u>react emotionally to these feelings</u>

with expression of anger, fear, joy. They also have a right to expect competent, considerate, and respectful care from the health care team. The patient has the right to ask questions, and, in fact, has the right to not ask questions when they don't want to know the answer that they may be expecting. They have a right to share in every decision that is made about their care. This includes being involved in the decision of how they will be treated when they are actively dying. The patient has the right to communication from the health care team and from the family. They also have the right to privacy concerning their disease, their treatment, and anything related to that. Along with these rights, the patients do have certain responsibilities.

The key responsibility being communication. If the patient doesn't tell you what is wrong, how can you help them? If they don't tell you what has happened in their relationships with their family, how can you help to guide them to straighten out those relationships? Another responsibility that the patient has is to consider the rights of others, including, you the health care team, and including the family and concerned friends.

We do frequently think of the patients' rights; we less frequently of the rights of the health care team. I, as a physician, have considered these rights carefully, because I have often been neglected them, and have often demanded them. I do think that our generation of physicians has been allowed to have and express feelings much more liberally than have generations of physicians ahead of us. Thank goodness! That also gives us the right to care, the right to care about

that patient and provide whatever service that caring leads us to provide.

The health care team also has the right to whatever coping mechanisms might apply. To some of us this might mean giving the most technically competent expert care we possibly can; to some of us this might mean completly distracting ourselves with non-medical things away from the hospital when we are off hours. Whatever coping mechanisms we have, however, must be honored if we ourselves are going to protect our own right to maintain our own energy levels and stamina. We also have the right to communication. When I have some message that I want to communicate to the patient or the family, I feel I have the right to relay that message. I also have the right to continuing medical education. Without keeping up with what is going on in this field, we will not be able to provide that patient right of competent and up-to-date medical care. The health care team also has the right to relieve the pain and suffering of the patient. Sometimes patients don't allow you to do this by virtue of inadequate communication in that time or communication. That is why it is our responsibility to encourage that communication to occur so that we can fulfill our right to help them.

The health care team also has responsibilities. As already mentioned, we have the responsibility to provide expert medical care. A more important role than that, I think though, is the responsibility to educate the patient. Sometimes we don't have good treatment for certain diseases. Sometimes what is more frightening to the patient than the disease, is not knowing what is going to happen next, not

knowing what the sequence of the disease is going to be. If we can educate them to knowing what is coming next and alleviate the fear of the unknown, we have probably provided an immeasurable service to that patient.

We do have the responsibility to care. I think an uncaring physician is an inadequate physician. We have the responsibility to relieve symptoms; we have the responsibility to be available. This does not mean we have to be available twenty-four hours a day, seven days a week. We obviously would not be able to exert our coping mechanisms if we had to do that. But we have to provide a mechanism by which someone is available to help the patient with whom we have made a contract of responsibility. We also have the responsibility to give hope. I don't think there is anything more sad than a physician who cannot at least impart some degree of hope to even the most hopeless illness in a patient.

In addition to the patient and the health care team having rights, probably the most neglected corner of the triangle in terms of recognition of right is the family member's rights. The family does have the right to have and express feeling, and their feelings are going to be somewhat different than are feelings of the patient and the physician. They are going to have feelings of guilt, anger, and even hope. They also have a right to have a knowledge of the patient's disease and treatment. They also have the right to support from the health care team. They cannot be excluded in that support triangle. They, too, have a right to use whatever coping mechanisms are required;

they, too, have a right to communication. They also have a right to be included in terminal choices.

The family, along with these rights, does have certain responsibilities- those of communication of whatever problems they see may be occurring. They have the responsibility of respecting whatever it is that the patient has chosen for their terminal choices. They also have the responsibility of acceptance of the health care team, and they have the responsibility of being available.

I would also like to emphasize that communication must also occur within the family, within the family unit, and it is always best for there to be one family spokesman when dealing with the health care team rather than the health care team having to approach several different family members. I think that in situations where all of these rights are recognized and all of these responsibilities are fulfilled, we have a very strong and stable triangle of support and caring. (Conclusion of Dr. Zekan's Section of tape).

The triangle of communication in cancer care is essential. If communication exists between and among each of the points in this triangle, including the patient, the family member, and the physician, then medical care itself will be much easier. The patient and the family member will begin to understand that the doctor does care about them and that the goal of the doctor is to understand where they are in cancer and cancer treatment. If a physician recognizes that the family member, the patient, and the physician himself or herself are essential to cancer care, then the physician will want to respond to those psychosocial needs of those cancer patients and their family members.

How to Respond

How do you respond? You respond first through the knowledge which enables you to recognize what those needs are. The knowledge base is accomplished through reading, through reading of research, through previewing the case again to see that you know what some of those psychosocial issues are which impact upon patients and family members. Then you learn..you learn through viewing models and role plays and examples of the way that you listen and respond. The way experts listen and respond to cancer patients and to their families. Then you yourself practice that behavior, and you practice and you practice until you master the use of these skills which enable you to respond effectively to the psychosocial needs of cancer patients and their families.

Preparing to Listen

Let's turn now to preparation for the listening skills. This preparation involves a series of what Dr. Ivey has termed as the paraverbal skills. The paraverbal skills say to us that we are able to nonverbally respond to a patient through good body language, through use of eye contact, and through involving the family member in the conversation by proximity alone, by having the family member in the area of communication, and also by vocal following, and following tracking of the patient.

For the purposes of this tape, let's concentrate on how do we bring that family member into proximity. First, let's take an example of a patient's room. When the doctor walks into the patient's room, quite often a family member is sitting at one end of that room. The patient is in the bed, and the doctor often walks to the bed, faces the patient,

and either ignores the family member or does the number where there is no real triangle of communication. Also, the doctor some times does a very brief and quick, "Hello, Ms. so and so. How are you today?" And goes right on. Many experts have said, "Perhaps it would be good if the family member were brought near the bedside, and the family member and the physician or doctor go to the level of the patient, either by taking chairs near the bed, or if possible, getting on the level of eye contact with that patient." This means that yes, I care about you as a patient, I care about you as the family member, and I want to communicate with both.

This is in great contrast to what often happens in the rooms of our hospitals, because the next example is very common. [E X A M P L E] The family member reaching out after the physician goes down the hall-the family member hoping to get that attention, hoping to catch a moment of that physician's time. The family member often in tears saying, "What comes next? I've got to have some information. I don't know what to do."

[E X A M P L E] Whereas, if the physician had taken a moment and brought the family member into the interview, the whole process could have been clarified, and the triangle would have existed, and the hours of time spent in family members trying to catch up with physicians, and physicians trying to relay messages would have been avoided. No, not a waste of time, but a saver of time to involve the family member in the interview.

In the clinical setting, often as many as 85% of our patients invite a family member to go with them to see the doctor. The

indication is not always accepted, but when it is, the family member sits wondering if they will be ignored or if they will be incorporated into the interview and allowed to ask questions. Then there is always the danger of will the family member take over. How do I stop when the family member begins to not let the patient talk? It is important to note that when the family member is brought into the interview physically to where the family member is there, the family member often does not feel as much of a need to take over the interview; they do not feel that they have the need to say, "Wait, listen to me", because they know they have the listening ear. The physician may very skillfully turn eye contact from the patient to the family member as needed during the interview.

Let's look at eye contact. [E X A M P L E] Something that we hear so much about, something that we know is important and can be done in a very helpful way. First of all, the physician needs to be able to look at the patient, to really have eye contact with the patient, and likewise [E X A M P L E] the physician needs to be able to make eye contact with the family member and to use that eye contact very creatively in a way that says I am able to turn from the family member to the patient as each speaks during the interview. I may be able to even exert control over the interview by changing my eye contact and by moving from one member to the other.

The body language (E X A M P L E] of a patient and a family member is crucial. If we observed what they are saying, we know a lot about what they are feeling, what they are thinking, what they are doing. If

we ourselves portray a poor body image, then we are telling the patient and the family member that we are not really interested in what they have to say. The most common example of this is the physician who becomes so involved in the chart [E X A M P L E] that the chart becomes a barrier in the interview process. It is almost as if to say, I haven't really done my homework, and I got to catch up right here. At other times, it is a way of saying, "Oh, my goodness, if I take the chart down, then I will really have to communicate, and that is too painful. That may take too much time. How do I do that?"

Body language used appropriately communicates to the patient that you are willing to focus and to listen and that you are prepared to try to hear and understand what they have to say. Patients and family members respond to body language. They respond with smiles; [E X A M P L E] they response with good body language themselves; they respond by knowing that the person who is listening really cares about them. [E X A M P L E] Nonverbal skills provide the basis for listening. Nonverbal skills prepare the physician to listen to cancer patients and to their family members. Nonverbal skills must be used throughout the entire interview. They are ever present in order for good communication to take place. Physicians must be prepared to use body language and eye contact which says to both the patient and the family member, "I am focusing, and I want to listen. I invite you to participate in this interview."

The skills that have been taught on this tape may be summarized and applied through an example of an elderly patient. Test yourself, see if you can recognize the psychosocial issues at hand, see if you can

identify how you might respond, and then see if you can realize the nonverbal behavior that made the difference.

A few months ago, a call came to my office from the nursing station in our tower where our cancer patients stay during hospitalization. The nurse was quite upset. There was a elderly gentlemen who was driving everyone crazy. The main reason was--instead of ringing the bell or buzzer for the nurse, he was cursing out the entire staff, and you could hear him throughout the entire floor of the hospital. He said, "What is the use." He yelled, screamed, and cursed. Every time someone tried to show this gentleman that they cared about him, he cursed. They felt rejected; they were almost scared to go into the room, but yet they were more afraid not to go, because somebody had to calm the gentleman down. It came to the point that they thought he was going to throw his breakfast at them. He was demanding that the wrong breakfast had been brought to him and that he needed something more nourishing and something better. His anger increased.

By the time I arrived at the door of his hospital room, I was also a bit nervous. How do I respond? What are the needs of this patient? As I entered the room, I made a crucial error. I failed to use the necessary nonverbal skills. I looked at the patient, yes. But I tended to stand closer to the edge of the bed and work my way around, because I knew that he had already intimidated the entire floor. I found myself asking questions that were very closed, and I found myself getting information that said that this gentleman wanted me to intimidate him. He wanted to feel that he had some control. He looked at me as if to say, "What are you doing here?" And, in fact, he said, "Don't bother to

stay; you will only be here once. Just go on your merry way. You don't really care about me. You are not going to stay."

Still failing to pick up on his nonverbal views and failing to use my own appropriately, I endeavored to interview this man for some ten to fifteen minutes finding out virtually nothing. I did, before I left, get the gentleman to agree to allow me to come back and visit him that afternoon. Just as I was to leave my office area, a volunteer with our program, also an elderly gentleman, said, "Let me go with you." I said, "Okay, but you are in for a real experience." But it was I who was in for the experience.

The gentleman looked at me on the way up the elevator and said, "Please promise me that you won't say anything. And I looked at him as if to say, "Who is coordinating this program? Who is the boss?" And then I laughed and said, "Okay, I struck out." We entered the room. The gentleman walked over to the patient's bedside and looked at the gentleman in a very kind and caring manner; and they simple exchanged eye contact. The volunteer lowered himself to sit where he would be on eye level with the patient and simply reached over and very quietly took the patient's hand. Nothing was said. The eye contact was maintained; the body language was good, and the touch of the hand said, "I cared." After about two minutes, the patient began to cry and looked over at this elderly gentleman and said, "I don't want to die... I am scared to die."

The purpose of the second part of this series is to teach you to use appropriate listening skills, but perhaps the most important message of the first part of the series is that if you simply <u>observe</u> and

recognize the needs of the patients and the family members and respond to them in nonverbal, caring manners, you may find that you have set the tone for the listening sequence.

HOW TO LISTEN

PART II: THE BASIC LISTENING SKILLS

During this tape, you will be learning to listen to cancer patients and their family members and to respond to the psychosocial needs of those patients and family members through the use of the specific listening skills. The skills that you will will cover today include preparing to listen, and the basic listening sequence: learning specifically how to use open questions; how to use appropriately closed questions when going for specific information; how to maximize the use of encouragers which say to a patient and family member I want to hear more; how to use paraphrase and recognizing that paraphrase is a win-win skill that you always gain by paraphrasing what has been said; you will discover the use of reflection of feeling, to definitely recognize and reflect the feelings and emotions you hear in the interview; how to summarize what has been said in either a segment of an interview or in a total interview in a way that summarizes not only factual information but feelings and experiences of patients and family members; and then you will be offered the opportunity to choose whether or not to enter the deeper world of meaning of a patient and to reflect that meaning and recognize those values and those foundations, and those special meanings which bring the illness and its treatment into perspective for that patient and for that family member. Now let's begin.

Preparing to Listen

Preparing to listen means that we, yes, look at all the nonverbal, all the skills that are needed to prepare to listen. Let's take just a moment and see what the specific nonverbal skills are in preparing to listen. First, let's look as the doctor prepares to say, "I'm looking at you. [E X A M P L E] My eyes are on you and I'm ready to focus." Let's look as the doctor says to the family member, [E X A M P L E] "I'm looking at you also, and I'm concerned about you, and I care about you." And then let's say, "What is your body language. [E X A M P L E] Do you communicate that you are open, that you are caring, that you are understanding, and that you want to know what is important to that patient and that family member."

Basic Listening Skills

Once you have prepared to listen, it may be necessary and important for us to look at what are the basic listening skills and how are those skills best performed in a way to understand the world of the patient. The basic listening skills allow us to seek to get the data; to get the information; to get the feelings; and often to get the reasons; and to help us to organize what is going on as the patient and the family member perceives this illness and its treatment.

The first step in listening comes in learning to use the skill of the Open Question. Very often in medical treatment, closed questions are not only advocated but taught as the appropriate way to get information. The doctor enters the room and seeks to quickly get information that tells that doctor: what is going on; what the information is; what the diagnosis should be; and what treatment is

appropriate. But, quite often that doctor may have achieved far more than the information given if that doctor uses an open question. Open questions require that you think before you act. Closed questions come very easily. Questions that are open do require that we think, that we say, "Could you tell me what has happened since the last time I saw you. Could you bring me up to date on your situation. Could you tell me how you feel about what is happening in your treatment. I am concerned about you as a family member. Tell me what is happening in your home." These questions provide the framework for the physician and the doctor to receive numerous amounts of data, numerous amounts of information. Not only do we receive this information, we often receive summaries...almost like diaries of what has happened in that patient and that family member's life. We also may receive the feelings that the patient and the family member have, and we may even sometimes receive the reasons for those feelings.

Therefore, by going into the patient's room or into the clinic... or sitting down with a patient in a consultation or wherever we see that patient... by asking one or two open questions... we may receive the same goals as we would have by asking ten to fifteen closed questions. Let's turn to an example of one our physicians using a very open question with a patient and then with a family member, and let's look at the response given to that open question and how much information the physician receives.

[E X A M P L E-PATIENT]

Question: "Tell me what happened most recently that brought you back into medical situation?"

Patient: Well, prior to the first of the year, I noticed some small knots on the left side of my neck, and, of course, when I noticed this, I got back with the doctors here at Bowman Gray - Dr. . . . . , and he referred me to Dr. . . . . .

[E X A M P L E-FAMILY MEMBER]

Question: "How has this new development affected your life?"

Family Member: I think at first we were all scared. I think I worried a lot about how . . . . would react, how we would tell the children, what to expect. We've really been through some rough times. I didn't know when to back off a lot of times. I wanted . . . to talk with me concerning it, and I was thinking he was kind of distant.

Open Question

The open question as you have just seen invites the family member and the patient to express their concerns, their information, and their feelings about the illness and what it means to their daily life. The open question serves as an invitation, an invitation which says... I respect you,..I care about you as a person,... and I want to know more about every aspect of how this illness impacts upon your life both in treating and caring for the illness and your own existence in daily living...your family and your many psychological and social needs.

The open questions you have seen also took a little thought. They took time for the physician to pause and say, "What do I really want to know? How do I invite this patient and this family member to participate in this discussion? How do I say to him (her) I care and I want to understand?"

Closed Question

The closed question, on the other hand, is not always bad. We have portrayed it as something that says, "I just want information." But they are times in interviews of all types that closed questions are necessary. For example, many physicians encounter patients and family members who talk on for hours and hours, and it is necessary to introduce a closed question to say, "Let's get some information or it's time to take a break from so much talk and go onto something else." In all realism, there are many times that specific medical information has to be obtained and perhaps the only way to get that crucial information is by asking a closed question. But for just a moment, let's pause and take a look at how one of our physicians again may use a closed question to go after specific information that the physician needs in order to care for the patient and to understand the patient and the family members meaning and the impact of the illness.

[E X A M P L E]

Question: I understand that you have since started chemotherapy. Is that correct?

Patient: Yes.

These closed questions of...is, do, can, are...which produce yes, no, or minimal answers are often used by physicians in efforts to get information. Closed questions can be most appropriate. They can be most helpful, and they can get the exact medical information needed or the exact information in social and psychological issues. But, the caution exists do not overuse...or seek to use these closed questions minimally in order to get that information. At other times, go to the open question, go for the invitation which says, "I care and I want to

understand."... Yet, remember that your thoughts, your skills, and your practice of those skills will help you to achieve the level of skill usage that you need in knowing when to use an open question and when to use a closed question.

Encourager

The next skill is the skill that is often unrecognized in its importance. Dr. Ivey has asked to look upon the use of the encourager as perhaps the most important skill that any of us can use in medical interviewing. The encourager is the simple repetition of one word, several words, or a key phrase that the patient or the family member has said in the interview process and through the use of this repetition or through the use of encourager, the physician is able to say, "Go on, I want to hear more. I am listening; I have heard what you have to say. I want to hear more." Its impact is usually that the patient or the family member may go on in depth about the problem at hand or give information on feelings, on emotions, on things that we never realized they would tell so easily. This can be done by simple repetition. Let's watch the skillful use of repetition and the use of encouragement by one of our physicians again as she interviews a patient and a family member.

[E X A M P L E]

Patient: I have lived the ritual for six years since I found out that I had Hodgkin's disease.

Physician: A ritual.

Patient: Every day of my life I check myself for a knot and when I notice these knots, of course, I become alarmed...It didn't scare me.

I hope you observed that the use of this encourager can benefit the physician by the amount of information that is given to the physician by patient or family member following the use of the encourager. I hope you also understood the clarity which it brought to the interview process when the physician hit on a key word and both the physician and the patient, as well as the family member, were united in understanding that the physician had heard something key to that interview process. That encourager may well be the most important skill that you will use in the interview process, because it will say to your patient and to your family member, "I want to hear more. I am listening, I hear you, and go on, tell me more."

Paraphrase

The next skill, the paraphrase and its usage in the medical interview is important in that it is skill which enable us to get concise, accurate repetition of the essence of what has been said. If a physician uses a paraphrase with clarity, it is a win-win situation, because the physician will be able to find that (1) I have heard the essence of this information correctly or (2) I have heard something that the patient either did or did not say or did or did not mean to say or that the family member did or did not mean to say. Therefore, the physician is able to know yes, I have heard and comprehended what is meant in the essence of this interview segment or I have not, and I need to do further questioning or further listening in an appropriate manner. The paraphrase brings to the patient the ultimate opportunity of expressing his or her opinion on what the physician has heard. It

also gives the family member the opportunity to say, "That is not really what I meant or yes, that is exactly what I was saying."

Let's turn now to our physician using paraphrase in an interview situation and getting the essence and the clarification of whether or not the essence heard is correct.

[E X A M P L E]

Family Member: And I learned when to approach him and want to talk about it and when to just let him alone.

Physician: So, you were able to take your cues from him of when to be helpful and when not to be helpful.

Family Member: That's right.

The paraphrase as you have just seen enables the physician to really get confirmation of whether he or she has heard and understood correctly or incorrectly what the patient and the family member has said plus it brings a small section of the interview to a close to where the rest of the interview may continue, and you may move to a different topic or a different area of thought, or continue in a like manner.

Reflection of Feeling

Next, the skill reflection of feeling. Reflection of feeling does involve that you pay attention to the emotional cues which come up in the interview. That you are sensitive not only to that crucial medical information and data, but that you listen intently for the expression of emotions and feelings that say, "You need to take note of this." Reflection of feeling is commonly used by saying you feel angry, you

feel this unfair, you feel frightened, you feel that you really don't want to die. Feelings that are brought up in interview with cancer patients often but also feelings that say, "You feel so excited that you are going back to work. You feel that you are meaningful now in your home because your family is allowing you to do things for yourself." Feelings...The fact that you note, maybe not by saying you feel, but this is a down time for you...recognizing the feelings that that patient has, the feeling that family member brings into the interview. Reflection of feeling may be the key to telling the patient and the family member not only have I listened, but I have noted what is important to you and the impact that this illness is having on your whole emotional makeup, and I care about that. I am concerned about that enough to take note of that in the interview process.

Overuse of reflection of feeling and inappropriate use of reflection of feeling may cause problems in an interview. This inappropriate use may bring people to look upon reflection of feeling as an easy out. What do you do. You say, "You feel." But skillful use such as the example you will now see by our physician says not only to the physician - this feeling and this patient and this family member is important, but it says to this patient and this family member, I care about you as a person. Let's listen.

[E X A M P L E]

Patient: Going back and forth to the hospital and things like that.

Physician: You feel like it is not fair.

Patient: I learned to live it with six years ago. I knew when I was diagnosed and I lived some hard days after they diagnosed me originally - mentally and physically.

The reflection of feeling when used appropriately can communicate so much to a patient and a family member and can give them great comfort in knowing that you begin to understand and that you listen to and care about them. The ways we reflect those feelings and the words we can use are numerous. With cancer care, they vary to any extent that we like, because the cancer emotions vary from jubilant rejoicing over victory and cure to the greatest of emotion concerned with death itself. So the gamit of feelings to be reflected is huge...and you are to make the choice of which feelings that you choose to reflect and when to reflect those feelings.

Summary

One of the skills most needed in our interview is the skill of summarization. Summarization brings together at the focus everything that has been included in the interview. It may be used at key points during an interview to stop and summarize what has been said so that the patient, the family member, and you will know that this is perhpas an outline of what has been heard and what has been said. Or, it may be used always at the closing of an interview which says "These are the feelings, the emotions, the information, the facts. This is the organization of what I have heard, and this is the summary of how think it best fits."

Then the patient and the family member may add to that summary or they may take away from that summary and say, "This point is really

still not what I want it to be." But before you leave the patient and the family member, you will have the opportunity to say, "This is the summary of what has happened in the time I have been with you." It is hoped that you as a caring physician will begin to say, "Yes, in this summary I will recognize not only the fact but those feelings, those emotions, those psychosocial issues that are so important to that patient and to that family member in the care of a cancer patient and his or her family."

Let's us now turn to a summary used in an interview with a patient. Take note of what is included in that summary and of the hope that is derived in the use of the summary by the physician.

[E X A M P L E]

Physician: It is difficult, I think, to go through this. This is another threat. You went through this threat six years ago...and have done very well from that standpoint...and you have again, from my knowledge, a good chance at cure.

Reflection of Meaning

A skill not included in the basic listening sequence but so important to cancer patients and their families because of the intensity of the illness, is the reflection of meaning. Reflection of meaning is often left to the psychologist, the psychiatrist, and the counselors involved in patient and family care. However, because this physician works on the edge of the meaning of life and is always just about to enter that deeper world of meaning for a patient and a family, he or she has the choice of using this skill. The crucial element is if you choose to use the reflection of meaning, then you must also to choose to

devote the time needed to that patient or that family. You must also choose to refer that patient or family member to whatever resources available in your world if the patient or family member expresses meaning, emotions, or needs that indicate that referral is needed.

The reflection of meaning is derived from the work of Frankel which means that there is some deeper goal, deeper meaning, deeper essence. That there are values; there are parts of a patient's life and a family's life that give them meaning even in the face of illness.

The reflection of meaning says, "Yes, I can ask open questions, and I can use the entire basic listening sequence to get to what is the meaning of this illness for you and for your family." By doing this, you may be able to cover such issues as the reasons a patient is able to cope and the meaning of going on and coping so well through illness and through problems. However, you may also be able to sit with a breast cancer patient and her husband and derive the meaning for surgery for that patient and for that husband and the impact it may have on their life together.

By facing such issues honestly, by identifying what values underlie the care of this patient, you may be able to help that patient and that family member pull together the meaning of the illness and what you, as a physician, can do to help that patient and that family member throughout the course of the illness and the treatment.

You may say this will take hours...this will take more time than any physician ever has. Yet...reflection of meaning can take only a few brief minutes. It is the skill of knowing what questions to ask...and it is the skill of being able to ask what do you value? What crisis

have you encountered? In other words, what brings you meaning and what gives you meaning to go on? One of the best examples of perceptiveness on the part of a physician comes in the following segment of an interview with our physician where she very quickly assessed that there was a deeper meaning to the way in which this patient was coping and to the impact that this illness was having on this patient. Let's take a moment and see how this physician identifies that meaning.

[E X A M P L E]

Physician: How about tragedies in your life...tough things to cope with? You are a coper obviously.

Patient: Well, I will be honest with you. I have had a fear of cancer all my life. And it has been valid. I won't say all my life...but basically the biggest part of my life. When I was in the eighth grade in high school, my mother was diagnosed with leukemia. She had five years to live. Myself and my sister fought through school hoping our mother would get better. At the time when she had this, of course, they hadn't made the progress they have now or medicines to treat it with. My mother lived five years. She was treated here in this institution. That was very traumatic for me, growing up under those circumstances - going through school and trying to maintain a level of grades that would be acceptable for me to get into college...I got out of high school; it was tough. On one hand we wanted mother to get better, but on the other hand we saw mother suffer. It was a tough road...

Physician: But you learned to cope.

Patient: We learned to live with it as best as we could.

Physician: I have noticed that people who cope best have usually had something in their background that has taught them how to live a day at a time and or like your situation, they have been through it before. They have learned at that time to take it a day at a time. It is easy to say, and it makes a lot of sense, but it is very difficult to do some times.

In the scene that you have just seen, the patient was able to express to this physician the source, the values, the meaning that cancer has upon his life and in his life and how he has derived the strength to continue and his constant hopeful battle with this disease. Also, you were able to see how the family member has also derived courage and strength and what values underlie the means of coping that this family uses in dealing with cancer. Although all situations are not this hopeful and in all situations a physician cannot use such hope, such summary, and such questions for meaning.

A physician can take the time to enter that deeper world, to find out the exact meaning of this illness for that patient, and then the physician may choose to refer this family if necessary to the groups, to the counselors, to the psychologists, the psychiatrists, to other members of the medical team who may be of help in the totality of cancer treatment and cancer care... Referrals are not always necessary... So reflection of meaning may simply be an affirmation to this patient and this family member that I have used the best listening skills I possess in an effort to learn the ultimate impact of this illness upon you...I recognize that meaning...and I am here throughout your care and throughout your treatment...not to be the psychotherapist or the

counselor...but to be caring physician who understands that in any illness there is a deeper meaning and a deeper way from which we derived our coping skills.

In the following minutes you will view segments of the interview you have seen used in a total interview perspective. These segments will hopefully show you that the old excuse that it takes too long to listen...I just don't have time to listen...I've got to get this information and go get my other work done...does not hold any ground. The interview you will see will take less time than most consultations...than most visits with patients...and it will accomplish several things: (1) if you watch carefully, you will see the use of the basic listening skills; (2) if you watch carefully, you will see that the meaning, the way, the values for that patient and family member come out, and more importantly; (3) you will see that the patient and the family are both involved in the process where the physician is able to respond to not only their medical needs but their many psychosocial needs and together as a triangle of communication that patient, that family member, and that physician set the tone for understanding the impact of illness.

[E X A M P L E]

Physician: It is good to see you again after so long. I am sorry to hear you are having more trouble. Tell me what happened most recently that brought you back into the medical school and the medical situation. (Open Question)

Patient: Well, prior to the first of the year, I noticed some small knots in the left side of my neck, and, of course,

when I noticed this, I got back with the doctors here at Bowman Gray - Dr. [illegible], and he referred me to Dr. [illegible], and they did a biopsy, and it showed that I had Hodgkin's.

Physician: I understand that you have since started chemotherapy. Is that correct?

Patient: Yes.

Physician: How are you doing with the chemotherapy?

Physician: So, one day kind of gets you down, and then you pick up fairly well the next day. (Psraphrase and refelction of feeling)

Patient: Usually, I go back to work the next day.

Physician: In comparison to how you went through this being told you had Hodgkin's disease six years ago vs. finding out that it had come back despite all the treatment you had six years ago, how do you feel about all that? (Open Question)

Patient: My biggest concern was I have lived a ritual for six years since I found that I had Hodgkin's disease.

Physician: A ritual? (Encourager)

Patient: Every day of my life I checked myself for a knot, and when I noticed these knots, of course, I became alarmed...It didn't scare me; I just wanted something done and wanted to find out if that was the problem.

Physician: So your understanding is that going through the chemotherapy should irradicate it and then you go back to

living your ritual every day. (Summary of patient's understanding)

Patient: I will carry on a normal life.

Physician: Good. How has this new development affected your life?

Fam. Memb.: I think at first we were all scared. I think I worried a lot about how [illegible] would react, how we would tell the children, what to expect. We have really been through some rough times. I didn't know when to back off. A lot of times, I would want [illegible] to talk with me concerning it, and I was thinking he was kind of ill towards me. But he wasn't. He needed time alone. I learned when to approach him and talk about it and when to just let him alone.

Physician: So you were able to take your cues from him of when to be helpful and when not to be helpful.

Fam. Memb. That's right.

Physician: How did the children take this news?

Relative: Amy, that is our little girl who is eight, did real well. I think she was more concerned with her father at first. He said she may be frightened because of the hair loss. We just sat down and told her what to expect when daddy came home after his chemotherapy treatments. She has since been more than helpful. When he comes home and is real sick, she will run and get wash rags for him and put on his head. Things have really worked out well with her. And our son, he has been good too. He seems to

understand more that is going on as far as going back and forth to the hospital and things like that.

Physician: ...You feel like that it's not fair. (Reflection of feeling)

Patient: I learned to live with it six years ago. I knew when I was diagnosed and I lived some hard days after they diagnosed me originally, mentally and physically. Mentally I had to deal with myself and realize that through the help of you people working with me, even at the best, I will always be a Hodgkin's disease patient.

Physician: Right now what is the plan? (Open Question)

Patient: My understanding is there will 12 treatments. I have gone through - it will be two treatments about a month, day 1 and day 8. The next month will be follow-up of the A,B,B,D on day 1 and day 15. I will then start all over again with the month and A,B,B,D, and I will go through this three times, a total amount of 12 treatments.

.....

Physician: Any other tragedies in your life or tough things to cope with? You are a coper obviously. (Open question)

Patient: I will be honest with you I have had a fear of cancer all my life. It has been valid. I said all my life, but basically the biggest part of my life. When I was in the eight grade in high school, my mother was diagnosed with leukemia, terminal. She had five years to live. Myself and sister fought through school, hoping our

mother would get better. At the time when she had this, of course, they hadn't made the progress they have now or the medicines to treat it with. My mother lived five years and one month. She was treated here in this institution. That was very traumatic for me, growing up under those circumstances, going through school and trying to maintain a level of grades that would be acceptable for me to get into college after I got out of high school. It was tough, on one hand we wanted mother to get better, but on the other hand, we saw mother suffering. It was a tough road...

Physician: ...But you learned to cope. (Reflection of meaning)

Patient: We learned to live with it as best as we could.

Physician: I have noticed that people who cope best have usually had something in their background that has taught them how to live a day at a time or like your situation, they have been through it before and have learned at that time to take it a day at a time. This is easy to say; it makes a lot of sense, but it is very difficult to do sometimes. (Continued reflection of meaning)

Physician: What about you? (Open Question)

Relative: We, at time were scared together. We cried together, and we got mad at each other, but you learn these things are put before you. You have to deal or you sink. I really don't know anybody that has kept going like [redacted] has. I think that has a lot to do with the way he is now. He is

a fighter. He will take his treatments on Friday and go back to work on Saturday...

Patient: The main thing is to maintain my job and as much of my regular routine every day. If I can hold on to that as close to 100%, good, if it is 75%, that is fine. The reason for that is I can deal with these treatments a whole lot better mentally than if I have to sit at home and think about it. I would rather maintain my own pace and so far through four treatments and two months of this, I have not lost one day of work on account of it.

Physician: It is good difficult to go through this. This is another threat in some ways. You went through this threat six years ago and have done very well from that standpoint. I think really from my knowledge of Hodgkin's disease and where you are and where you have been, you still have an awful good chance of being cured. I am happy to hear that you are doing so well; I'm just sorry you are having to go through it again. Nobody wants to go through this. If you have to go through it, it is nice to know that there is a light at the end of the tunnel. The probability is that you are going to do very well with it.

(Summary)

Through the knowledge of the listening skills, through seeing the listening skills used appropriately, through practice of the listening skills, you will be able to respond to the psychosocial needs of cancer

patients and their families. It is hoped that your choice will be to respond through caring and through listening to patients and their families.

On Screen

If you choose to use the listening skills you have seen you will...learn the specific skills and practice these skills until you have mastered them.

The results of the physician's use of listening skills may be expressed in the words of a cancer patient, "I thought I was going to die...

My doctor recognized my feelings and my concerns for my family.

My doctor involved my husband in my visits...

I truly believe I was able to live because my doctor listened to me and to my family."

APPENDIX F

BEHAVIORAL OBSERVATION RATING FORM

Student Number _____
Interviewer Number _____

Videotaped Interviews

Rater Number_____

20 Min Videotape
Time Sampling - 15 Sec Intervals

1.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
2.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
3.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
4.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
5.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
6.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
7.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
8.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
9.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
10.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
11.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
12.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
13.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
14.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
15.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
16.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
17.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
18.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
19.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
20.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
21.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
22.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
23.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
24.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
25.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
26.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
27.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
28.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
29.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
30.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
31.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
32.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
33.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
34.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
35.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
36.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
37.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
38.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
39.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
40.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
41.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
42.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
43.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
44.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
45.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
46.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
47.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
48.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
49.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
50.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
51.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
52.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
53.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
54.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
55.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
56.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
57.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
58.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
59.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
60.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
61.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
62.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
63.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
64.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
65.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
66.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
67.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
68.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
69.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
70.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
71.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
72.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
73.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
74.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
75.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
76.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
77.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
78.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
79.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
80.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM

APPENDIX G

RELIABILITY OF OBSERVATIONS ON FACULTY-SUPERVISED TRAINING

Interobserver Reliability for Dependent Measures for Faculty-Supervised Training

Student	Observation	NV	PAT	FAM	PSY	OP	CL	EPS	RF	RM	DICT
1	1	1.00	.94	.94	.89	.88	.84	.84	.95	.98	.86
1	2	1.00	.98	.94	.80	.88	.86	.88	1.00	1.00	1.00
1	3	1.00	.98	.96	.93	1.00	.99	.96	1.00	1.00	.89
1	4	1.00	.88	.83	.91	.98	.88	.89	.98	1.00	1.00
1	5	1.00	.95	.93	.98	.95	1.00	.97	1.00	1.00	.83
1	6	1.00	.95	.98	.86	.94	.93	.94	.96	1.00	.83
1	7	1.00	.94	.89	.89	.97	1.00	.89	.94	1.00	.91
1	8	1.00	.92	.84	.80	.80	.80	.86	.90	.94	1.00
1	Overall	1.00	.94	.91	.88	.93	.91	.90	.97	.99	.92
2	1	1.00	.94	.93	.94	.91	.93	.84	.99	.99	.82
2	2	1.00	.91	.93	.86	.91	.93	.88	1.00	1.00	1.00
2	3	1.00	.87	.92	.90	.91	.90	.91	.99	1.00	1.00
2	4	1.00	.86	.81	.86	.88	.82	.82	.96	1.00	1.00
2	5	1.00	.96	.96	.80	.95	.85	.84	.98	.98	.90
2	6	1.00	.94	.95	.97	.94	.95	.97	1.00	1.00	1.00
2	7	1.00	.95	.98	.84	.92	.91	.92	1.00	.94	1.00
2	8	1.00	1.00	.95	.95	.94	.94	.92	1.00	1.00	1.00
2	Overall	1.00	.93	.93	.89	.92	.90	.89	.99	.99	.97
3	1	1.00	.94	.85	.91	.96	.94	.96	.99	1.00	1.00
3	2	.99	.93	.93	.89	.93	.87	.93	.96	.97	1.00
3	3	1.00	.96	.80	.90	.91	.93	.86	.97	1.00	.91
3	4	1.00	.99	.98	1.00	1.00	1.00	.98	1.00	1.00	.86
3	5	1.00	.98	1.00	.88	.94	.83	.84	.98	1.00	1.00
3	6	1.00	.90	.94	.94	.94	.92	.90	.99	.99	1.00
3	7	1.00	.94	.96	.86	.95	.85	.89	.98	.99	.83
3	8	1.00	.99	.96	.86	.98	.94	.88	.95	.99	.91
2	Overall	.99	.95	.93	.91	.95	.91	.91	.98	.99	.94
4	1	1.00	.99	.80	.90	.95	.96	.80	1.00	1.00	1.00
4	2	1.00	.94	.92	.88	.92	.89	.91	.98	1.00	1.00
4	3	1.00	1.00	.96	.89	.94	.96	.83	.93	.98	1.00
3	4	1.00	.88	.91	.85	.96	.93	.84	.96	1.00	1.00
4	5	1.00	.85	.93	.85	.96	.95	.93	1.00	1.00	.83
4	6	1.00	.96	.96	.96	.99	.99	.94	.96	1.00	1.00
4	7	1.00	1.00	.91	.87	.86	.91	.84	.96	.99	1.00
4	8	1.00	1.00	.97	.88	.96	.96	.90	.99	.99	1.00
4	Overall	1.00	.95	.92	.89	.94	.95	.88	.97	.99	.97

APPENDIX H

RELIABILITY OF OBSERVATIONS ON SELF-INSTRUCTIONAL TRAINING

Interobserver Reliability for Dependent Measures for Self-Instructional Training

Student	Observation	NV	PAT	FAM	PSY	OP	CL	EPS	RF	RM	DICT
1	1	1.00	.98	.95	.96	.95	.94	.90	1.00	1.00	.90
1	2	1.00	.95	.93	.95	.96	.94	.93	.99	1.00	.86
1	3	1.00	.92	.98	.96	.98	.98	.94	.96	.98	.86
1	4	1.00	.96	.93	.84	.90	.91	.89	.91	.98	1.00
1	5	1.00	.95	.98	.80	1.00	.99	.80	.94	1.00	1.00
1	6	1.00	.96	.93	.84	.99	.81	.84	.89	.99	.80
1	7	1.00	.96	.99	.86	.97	.89	.86	.95	.99	.82
1	8	1.00	.93	.99	.81	.96	.88	.81	.96	.99	1.00
1	Overall	1.00	.95	.96	.88	.96	.92	.87	.95	.99	.91
2	1	1.00	.90	.96	.93	.98	.96	.93	.95	1.00	1.00
2	2	.99	.88	.80	.89	.89	.90	.90	.98	1.00	1.00
2	3	1.00	1.00	.91	.84	.93	.80	.80	.96	1.00	.86
2	4	1.00	.97	.85	.85	.96	.87	.88	.96	.99	1.00
2	5	1.00	.99	.95	.83	.96	.91	.88	.93	.91	1.00
2	6	1.00	.86	.97	.89	.99	.99	.80	.95	1.00	1.00
2	7	1.00	.99	.87	.96	.97	.94	.81	.99	1.00	1.00
2	8	1.00	.94	.80	.80	.95	1.00	.83	.95	.92	.83
2	Overall	.99+	.9[illegible]	.89	.87	.95	.92	.85	.96	.98	.96
3	1	1.00	.99	.93	.97	.99	.99	.81	.99	1.00	1.00
3	2	1.00	1.00	1.00	.93	.99	.95	.83	1.00	1.00	1.00
3	3	1.00	.97	.93	.94	.97	.96	.85	.99	1.00	1.00
3	4	1.00	1.00	.98	1.00	.98	.93	.83	1.00	1.00	1.00
3	5	1.00	.99	.91	.99	.98	.85	.83	.99	1.00	1.00
3	6	1.00	.96	.93	.91	.96	.96	.85	1.00	1.00	1.00
3	7	1.00	.86	.89	.88	.97	.91	.85	1.00	1.00	1.00
3	8	1.00	.99	.89	.89	.98	.96	.83	.96	1.00	.90
3	Overall	1.00	.97	.93	.94	.98	.94	.84	.99	1.00	.99
4	1	1.00	1.00	.95	.82	.87	.94	.83	.97	1.00	.80
4	2	1.00	.98	.94	.88	.96	.84	.80	1.00	1.00	1.00
4	3	1.00	.91	.88	.84	.89	.80	.81	1.00	1.00	1.00
4	4	1.00	.88	.94	.85	.93	.88	.85	1.00	1.00	1.00
4	5	1.00	.94	.91	.91	.95	.92	.89	.98	1.00	1.00
4	6	1.00	.97	.89	.88	.99	.89	.95	1.00	.97	.83
4	7	1.00	.99	.93	.86	.99	.99	.92	.94	1.00	.91
4	8	1.00	1.00	.98	.83	1.00	.95	.84	.93	1.00	.92
4	Overall	1.00	.96	.93	.86	.95	.90	.86	.98	.99	.93

APPENDIX I

INSTRUCTIONS TO OBSERVERS

INSTRUCTIONS TO OBSERVERS

During this twenty minute videotape you are asked to view the tape for fifteen seconds at a time. The assistant will stop the tape at the end of fifteen seconds for you to record (circle) your observations. As soon as you have recorded your observations, the assistant will start the tape again. You will continue this process until you have completed rating the twenty minute tape. You will record a question or statement in the 15 second interval in which the question or statement is completed.

Medical students' nonverbal attending skills and patient or family member talking will be recorded in each interval in which it occurs.

Please use the attached form to complete your observations.

The following list of abbreviations are used. Circle the abbreviations which represents the behavior you have observed in each 15 second interval.

NV - Student is nonverbally attending

Pat - Patient is talking

Fam - Family member is talking

Psy - Psychosocial need recognized by student

Op - Student used open question

Cl - Student used closed question

EPS - Student used encourager, paraphrase, summary

RF - Student reflected feeling

RM - Student reflected meaning

Student Number _____
Interviewer Number _____

Videotaped Interviews

Rater Number_____

20 Min Videotape
Time Sampling - 15 Sec Intervals

1.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
2.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
3.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
4.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
5.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
6.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
7.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
8.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
9.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
10.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
11.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
12.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
13.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
14.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
15.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
16.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
17.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
18.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
19.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
20.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
21.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
22.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
23.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
24.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
25.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
26.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
27.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
28.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
29.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
30.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
31.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
32.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
33.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
34.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
35.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
36.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
37.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
38.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
39.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
40.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
41.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
42.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
43.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
44.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
45.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
46.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
47.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
48.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
49.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
50.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
51.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
52.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
53.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
54.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
55.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
56.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
57.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
58.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
59.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
60.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
61.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
62.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
63.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
64.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
65.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
66.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
67.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
68.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
69.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
70.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
71.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
72.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
73.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
74.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
75.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
76.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
77.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
78.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
79.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM
80.	NV	Pat	Fam	Psy	Op	Cl	EPS	RF	RM

Outline of Training for Observers

I. Introduction to Observational Process

   A. Place
   B. Time

II. Definitions of Terms

   A. Psychosocial Needs
   B. Skills (Review of Videotaped Skills)

      1. Nonverbal Skills
      2. Open Question
      3. Closed Question
      4. Encourager
      5. Paraphrase
      6. Reflection of Feeling
      7. Summary
      8. Reflection of Meaning

III. Explanation of a Time Sampling Method

IV. Review of Skill Examples

   A. Practice Identification of Skills
   B. Practices Observation of Videotape

V. Meeting Interobserver Reliability Standards

VI. Practice Observations

VII. Final Instructions

APPENDIX J

PATIENT AND FAMILY MEMBER RATING FORM

The following items were adapted from:

THE MEDICAL INTERVIEW SATISFACTION SCALE: AFFECT SUBSCALE
Matthew H. Wolf, Samuel M. Putnam
Sherman A. James, and William B. Stiles

Please check one:
Patient _____
Family Member _____

Please rate the doctor who talked with you on the following scale. Place a check mark under the number which best describes your feelings about the interview.

Affective	1 Strongly Disagree	2 Disagree	3 Uncertain	4 Agree	5 Strongly Agree
The doctor gave me a chance to say what was really on my mind.	____	____	____	____	____
I really felt understood by my doctor.	____	____	____	____	____
After talking to the doctor, I felt much better about my problems.	____	____	____	____	____
I felt that this doctor really knew how upset I was about my pain.	____	____	____	____	____
I felt free to talk to my doctor about private thoughts.	____	____	____	____	____
I felt this doctor accepted me as a person.	____	____	____	____	____
I felt that this doctor didn't take my problems very seriously.	____	____	____	____	____
This doctor was not friendly to me.	____	____	____	____	____
The doctor I saw today would be someone I would trust with my life.	____	____	____	____	____

Wolf, M.H., Putnam, S.M., James, S.A., & Stiles, W.B. (1978). The medical interview satisfaction scale: development of a scale to measure patient perceptions of physician behavior. Journal of Behavioral Medicine, Medicine 1:391-401.

Plenum Publishing Company, New York.

APPENDIX K

PSYCHOSOCIAL NEEDS OF CANCER PATIENTS AND THEIR FAMILIES

PSYCHOSOCIAL = EMOTIONS, FEELINGS, AND EXPERIENCES

EXPERIENCES

In Alphabetical Order:

Adjustment to disease

Change in appearance

Change in career

Change in eating habits

Changing roles

Employment

Financial issues

Lack of ability to concentrate

Need for attention

Need for control

Need for productivity

Need for resource help

Relationships with family

Relationship with friends

Relationships with employer

Relationship with medical staff

Search for justice

Self-image concerns

Sexual issues

This list was compiled from experiences expressed to staff members in the Hematology/Oncology Outpatient Clinic at the Bowman Gray School of Medicine.

For information on psychosocial needs, please refer to the bibliography. Special emphasis is found in these sources: Atwell and Michielutte (1986), Cooper (1984), King (1962), and Weisman, Worden, and Sobel (1980).

FEELINGS AND EMOTIONS REPORTED BY CANCER PATIENTS AND THEIR FAMILIES

abandoned	defeated	exhausted	infuriated	pleasant	tense
accepting	denial	fearful	inspired	pleased	tentative
affectionate	delighted	foolish	intimated	powerless	threatened
aggressive	depressed	frantic	insulted	pressured	tired
angry	despairing	frustrated	isolated	proud	trapped
annoyed	determined	frightened	jealous	put down	troubled
anxious	different	furious	joyful	quarrelsome	ugly
apathetic	discontented	glad	joyous	queasy	uncomfortable
bad	disgusted	gratified	left out	rejected	unfair
betrayed	disorganized	guilty	lonely	relaxed	unsettled
bewildered	distraught	happy	loved	relieved	vulnerable
bitter	disturbed	harassed	low	remorseful	wonderful
brave	down	hateful	mad	restless	weepy
burdened	divided	helpless	mean	reverent	worried
challenged	dubious	high	miserable	sad	
cheated	eager	homesick	misunderstand	satisfied	
cheerful	ecstatic	hurt	nervous	scared	
concerned	empty	hysterical	overwhelmed	sensitive	
confused	envious	ignored	panicked	shocked	
conspicuous	exasperated	impatient	peaceful	sorrowful	
cruel	excited	imposed upon	perplexed	sympathetic	

This list contains feelings expressed to staff members in the Hematology/Oncology Outpatient Clinic

APPENDIX L

CONTENT-BASED MASTERY TEST

Read each of the following items carefully. According to your knowledge of psychosocial oncology, place a check mark by the letter you think is the best response.

1. Physician communication skills may determine

   ____ a. Patient satisfaction

   ____ b. Patient compliance and patient outcome

   ____ c. Malpractice suit prevention

   ____ d. All of the above

2. The psychosocial needs of cancer patients and their families may best be described as

   ____ a. Psychological impact of cancer

   ____ b. Emotions, feelings, and experiences

   ____ c. Sociological impact of cancer

   ____ d. Stages cancer patients go through

3. Communication with cancer patients and their family member requires

   ____ a. More time than with other patients

   ____ b. Many hours of additional training

   ____ c. Quality use of the physician's time

   ____ d. The involvement of psychologists

4. The emotions and feelings of cancer patients and their families may be recognized best by

   ____ a. Observing nonverbal as well as verbal behavior

   ____ b. Talking with family members during rounds

   ____ c. Interviewing the patient

   ____ d. Taking notes on daily patient care

5. Cancer patients and family members often need

____ a. To search for justice

____ b. To feel productive

____ c. To have some control

____ d. All of the above

6. Cancer patients and their family members may find themselves

____ a. Totally isolated in society with no hope

____ b. Continually depressed

____ c. Rejected by those they love the most

____ d. Dreading each day they live

7. In order for communication in cancer care to be effective there must be

____ a. A referral to psychological specialists

____ b. A triangle of communication

____ c. Workshops for patients and family members

____ d. Positive attitudes present at all times

8. One of the major rights of a physician is

____ a. The right to refuse to treat a patient

____ b. The right to refer patients to other specialists

____ c. The right to refuse to tell a patient his/her true condition

____ d. The right to have and express feelings

9. Often the most neglected person in cancer care is the

____ a. Staff psychologist

____ b. Family member

____ c. Physician himself (herself)

____ d. Patient himself (herself)

10. In order for the physician to better serve the cancer patient, it is important for

    ____ a. Patients to talk to the doctor without the family member present

    ____ b. There to be one spokesperson for the family

    ____ c. Physicians to call patients regularly to followup

    ____ d. Each patient to receive the same amount of time from the physician

11. Physicians may respond to psychosocial needs through

    ____ a. Knowledge of needs

    ____ b. Practice of skills

    ____ c. Viewing examples

    ____ d. All of the above

12. Most physicians use more

    ____ a. Reflection of feelings

    ____ b. Open questions

    ____ c. Closed questions

    ____ d. Summaries

13. Perhaps the most important skill in medical interviewing is

    ____ a. The use of open questions

    ____ b. The use of paraphrase

    ____ c. The use of the encourager

    ____ d. The use of the reflection of meaning

14. The main reason for listening to patients and family members is to

    ____ a. Identify exact tests needed

    ____ b. Prescribe treatment needed

    ____ c. Help patient understand what needs to be done

    ____ d. Understand the world of the patient and the family member

15. Open Questions

____ a. Are the most used tool of physicians

____ b. Are used to get facts, feelings, and reasons

____ c. Take too much time for patients to answer

____ d. Require physicians to become involved in psychological issues

16. The best use of closed questions is

____ a. To expedite diagnosis

____ b. To maximize use of physician's time

____ c. To allow patient to answer quickly

____ d. To obtain specific information

17. The use of paraphrase is

____ a. A time saver in interviewing

____ b. Unnecessary in most situations

____ c. A win-win situation in interviewing

____ d. Important to recognize feelings of patients

18. The use of reflection of feeling

____ a. Is overused by many physicians

____ b. Is a very easy skill to use

____ c. Is not a skill most physicians need to use

____ d. Is the skill which most communicates that you care

19. A good summary communicates

____ a. That you understand what has been said

____ b. That you can list exactly what has been said

____ c. That you don't want to listen to more on the same issue

____ d. That the treatment has been determined

20. Reflection of meaning is a skill which

____ a. Requires more skill than most physicians possess

____ b. Requires a commitment of time and carrythrough

____ c. Requires the help of a psychologist or psychotherapist

____ d. Requires too much time of the physician

APPENDIX M

DATA FROM FACULTY-SUPERVISED TRAINING

DATA
FACULTY-SUPERVISED TRAINING

STUDENT	OBSERVATION	NV (%)	PAT (%)	FAM (%)	PSY (%)	OP (%)	CL (%)	EPS (%)	RF (%)	RM (%)	PRAT (%)	FRAT (%)	DICT (%)	CT (%)
1	1	100	98	19	8	11	13	28	1	0	4.44	4.00	6.5	70 Pre
1	2	100	51	80	6	4	9	14	2	1	3.65	4.11	7.0	
1	3	100	40	31	8	3	1	13	2	1	3.89	4.11	8.5	
1	4	100	87	34	36	16	14	31	9	3	4.22	3.56	10.0	
1	5	100	87	31	20	3	3	35	8	1	3.89	3.89	11.0	
1	6	100	69	47	39	19	20	30	11	2	4.56	4.33	16.5	
1	7	100	83	39	18	7	12	27	3	2	4.44	4.56	10.5	
1	8	100	60	59	33	16	22	27	7	3	4.89	4.56	10.0	90 Post
2	1	100	58	62	10	13	23	23	1	1	4.78	4.33	10.0	55 Pre
2	2	100	44	93	13	12	38	14	1	0	4.78	4.11	4.0	
2	3	100	62	79	10	13	27	21	1	0	4.11	4.00	7.0	
2	4	100	67	60	46	12	47	26	1	0	4.78	4.89	6.0	
2	5	100	75	28	45	17	17	18	5	1	4.22	4.44	7.5	
2	6	100	77	26	11	5	5	8	0	0	4.89	4.44	9.0	
2	7	100	66	41	19	16	10	10	1	3	4.33	4.11	7.0	
2	8	100	83	38	20	14	12	10	3	3	4.00	3.78	9.0	75 Post
3	1	100	93	24	24	13	31	20	4	0	4.11	4.11	6.0	55 Pre
3	2	99	74	74	18	14	35	28	3	2	3.78	3.89	5.0	
3	3	100	80	24	9	12	30	18	3	0	4.22	5.00	10.5	
3	4	100	84	22	0	3	3	6	0	0	4.00	4.00	6.5	
3	5	99	89	8	9	10	23	17	3	0	4.67	4.33	9.0	
3	6	100	80	50	15	16	14	15	4	1	5.00	5.00	12.0	
3	7	100	72	79	13	12	18	28	3	1	4.78	4.78	11.0	
3	8	100	89	36	21	9	20	38	3	0	5.00	4.78	10.5	70 Post
4	1	100	97	34	21	7	16	17	0	0	4.44	4.33	1.0	75 Pre
4	2	100	84	27	25	12	17	16	1	0	4.56	4.11	1.0	
4	3	100	91	14	22	19	18	31	2	1	4.33	4.33	4.0	
4	4	100	91	25	18	9	8	12	2	0	4.11	4.67	7.0	
4	5	100	67	59	21	19	28	23	2	0	5.00	4.78	5.5	
4	6	100	77	31	23	16	15	15	2	1	4.44	3.89	5.0	
4	7	100	96	28	28	13	25	17	3	1	4.78	4.78	2.0	
4	8	100	91	26	29	17	13	19	4	1	5.00	5.00	2.0	90 Post

APPENDIX N

DATA FROM SELF-INSTRUCTIONAL TRAINING

DATA
SELF-INSTRUCTIONAL TRAINING

STUDENT	OBSERVATION	NV	PAT	FAM	PSY	OP	CL	EPS	RF	RM	PRAT	FRAT	DICT	CT (%)
1	1	100	46	77	18	23	29	21	3	1	5.00	5.00	9.5	65 Pre
1	2	100	82	32	26	25	23	21	3	3	4.11	4.11	6.5	
1	3	100	81	38	11	14	2	9	3	0	3.89	3.67	13.0	
1	4	100	68	56	23	16	15	26	3	0	4.11	4.00	16.0	
1	5	100	73	33	25	23	18	14	1	0	4.78	4.89	14.0	
1	6	100	92	24	23	16	9	29	6	0	4.78	4.44	13.5	
1	7	100	94	60	44	15	4	54	6	0	4.56	4.56	15.5	
1	8	100	90	25	67	31	22	37	10	5	4.67	5.00	13.0	85 Post
2	1	99	91	46	8	15	19	22	4	3	4.33	4.33	8.0	70 Pre
2	2	95	53	65	9	8	8	10	3	0	4.22	4.00	5.0	
2	3	99	72	54	10	8	23	29	1	0	4.22	4.44	7.5	
2	4	100	68	72	27	8	25	39	3	1	4.00	4.00	4.0	
2	5	100	97	35	22	17	11	47	3	0	5.00	5.00	6.0	
2	6	100	57	94	10	5	10	30	4	1	4.78	4.78	8.0	
2	7	99	97	65	7	2	13	33	0	1	5.00	5.00	7.0	
2	8	100	94	56	17	6	7	40	2	7	4.22	4.33	5.5	75 Post
3	1	100	96	12	6	1	44	35	1	0	3.56	4.11	3.0	80 Pre
3	2	100	98	5	6	5	31	20	1	0	3.89	4.11	3.0	
3	3	100	81	32	4	3	30	37	2	0	4.11	4.11	2.0	
3	4	100	95	33	0	7	15	18	0	0	4.22	4.11	0	
3	5	93	60	65	0	1	25	38	0	0	4.78	3.67	4.0	
3	6	100	53	25	16	16	13	39	1	0	4.22	4.33	5.0	
3	7	100	76	51	18	13	19	25	1	0	4.67	4.22	6.0	
3	8	100	89	54	16	13	18	29	3	0	4.56	4.33	7.5	80 Post
4	1	97	95	12	26	12	14	37	1	1	4.78	3.44	9.0	65 Pre
4	2	100	97	31	11	4	21	50	0	0	4.33	4.33	5.0	
4	3	100	76	47	13	9	26	32	0	0	4.56	3.67	6.0	
4	4	100	95	18	35	4	25	48	4	0	3.89	3.89	7.0	
4	5	100	63	41	24	6	33	36	1	0	5.00	5.00	6.0	
4	6	100	97	43	21	6	19	33	0	1	4.11	4.00	5.5	
4	7	100	96	48	21	6	6	24	7	0	4.33	3.78	10.5	
4	8	100	60	68	46	13	24	35	0	0	4.00	3.78	11.5	90 Post

APPENDIX O

PILOT WORK

PILOT WORK COMPLETED

DEFINITION OF PSYCHOSOCIAL NEEDS

During the time period July 1984 through November 1985, a checklist of feelings and emotions expressed by oncology clinic patients and family members was kept. The list was compiled to form the basis for the definition of psychosocial need (feelings, emotions, and experiences).

INTERVIEWS WITH ONCOLOGISTS

Four oncologists in the Oncology Research Center were interviewed to determine needs of medical students and needs of patients and family members. The results of the interviews were:

1. A need for the family member to be involved in the communication process.
2. A need for help in using listening skills.
3. Concern over teaching medical students how to respond to difficult issues (especially emotional issues).

INTERVIEWS WITH MEDICAL STUDENTS

Six medical students were interviewed to determine how much training they felt they had received in psychosocial issues and what they wanted to know about psychosocial issues. The results were:

1. Six students reported no training offered in psychosocial issues.

2. Five students expressed concern over not knowing what to say when emotional issues were brought up by patients or family members.
3. Six students thought more training in how to listen to patients would be helpful - 2 students were concerned over when such material could be scheduled.
4. One student reported dreading talking with family members so much that he would not go in a patient's room when a family member was present.

REVIEW OF CURRENT CURRICULUM

A review study of the present medical school curriculum was conducted. No psychosocial onology units were being taught. Only one course, radiation therapy, addresses specific needs of cancer patients and their families. There is no training offered in conducting interviews when a family member is present.

OBSERVATION OF THIRD YEAR MEDICAL STUDENTS

Four third year medical students were observed by a faculty member during visits with patients. The following behaviors were reported to be used consistently:

1. Closed questions.
2. Advice giving (what to do - how to do it).
3. Use of medical terminology.
4. Appearance of "being in a hurry".
5. Used eye contact well.

PILOT III - PRE-AND-POST INTERVENTION AUDIO-TAPING

and

PILOT IV - INDIVIDUAL RESPONSE TO TRAINING

FINAL DEVELOPMENT OF VIDEOTAPES

Final development of the two videotapes followed the recommendations of Dr. Ivey. The listening microskills materials were used for the development of these tapes. The description of each microskill was taken directly from Dr. Ivey's outline. The use of the listening microskills in a live interview with a patient and a family member was chosen to specifically be unrehearsed. The examples shown on the tape are natural examples of an oncologist interviewing one of her patients and his wife.

REVIEW OF VIDEOTAPES

Videotapes were reviewed by two faculty members of the Bowman Gray School of Medicine, two certified counselors, two oncologists, four medical students, and a specialist in instructional design to determine clarity of presentation, correct use of skills, and overall usefulness. Two additional editing sessions were held following the review of the tapes to clarify places where the tape was unclear or the example or explanation were not satisfactory.