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The Effects of an Interpersonal Skills Training Course on Interviewing Skills, Empathy, and Assertion in Fourth-Year Optometry Students

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THE EFFECTS OF AN INTERPERSONAL SKILLS TRAINING COURSE ON

INTERVIEWING SKILLS, EMPATHY, AND ASSERTION IN

FOURTH-YEAR OPTOMETRY STUDENTS

by

Sharon L. Greenburg

A Dissertation Submitted to the Faculty of the Graduate School of

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VITA

Sharon Louise Greenburg is the daughter of Irving and Ethel Rosenholtz. She was born on August 29, 1941 in Chicago, Illinois.

She received her elementary and secondary education within the Chicago public school system, graduating from Charles Darwin Elementary School in 1955 and Nicholas Senn High School in 1959. She attended the University of Illinois, Champaign-Urbana, from 1960 to 1962. While attending the University of Illinois, she was elected to Alpha Lambda Delta, the national honorary scholastic sorority for Freshman women. She entered Northwestern University, Evanston, Illinois in 1962 and completed her Bachelor of Science Degree in Education in 1963 with a major in social sciences and a minor in English.

After graduation from college, she taught English at the Spalding High School in Chicago for one semester, and language arts at the East Maine Junior High School, Niles, Illinois, from 1963 to 1965. During this time, she attended Northeastern University, Chicago, Illinois, where she took graduate courses in English. From 1966 to 1974, she was occupied with parenting and volunteer civic, charitable, and educational activities.

In 1974, she began attending Loyola University of Chicago where she received the degree of Master of Education in Guidance and Counseling in 1977. Immediately thereafter, she began her Doctoral studies at Loyola University of Chicago where she was awarded research assistantships in 1976 and 1977.

Concurrent with completing her Doctoral program, she has been employed at the Illinois College of Optometry, Chicago, Illinois, from 1978 to 1980 where she has been providing counseling services for students and teaching an interpersonal skills training course. She also has been associated with Psychological Consultation Services, Oak Park, Illinois, from 1978 to the present where she provides counseling/therapy and career development counseling. Since, 1976, she has had special training and considerable experience leading assertiveness training and communication skills training groups in several settings with a wide variety of populations.

Currently, she is serving as a counselor intern at the Student Counseling Center at Loyola, and continuing with her private practice and interpersonal skills training.

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CHAPTER I

INTRODUCTION

Interpersonal skills training is a relatively recent development
which originated in the formal training programs of counselors and
psychotherapists. As these programs evolved, certain interpersonal
qualities were identified as helpful to clients when communicated by
the helper within the interview situation. Initially, these inter-
personal qualities were global and nonspecific, e.g., empathy, positive
regard, genuineness (Rogers, 1957); later, they became increasingly
specific and objective as personal qualities and attitudes were trans-
lated into behavioral terms. Counselors and therapists were taught not
only what qualities and attitudes seemed to be facilitative to clients,
but also how to communicate them. Interpersonal qualities were opera-
tionalized and transformed into teachable skills. The most recent
innovations have involved the breaking down of helping skills into
component subskills and the use of audio and visual technology to
provide instruction and feedback. Interpersonal skills training has
been extended beyond the psychologically helping professions to others
who need to develop personalized and trusting relationships. Health
care professionals clearly fall into this category.

Interpersonal Skills Training Within the Health Professions

There has been a new emphasis on interpersonal skills, e.g.,
observing, listening, information gathering, responding to patient's

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feelings, within the formal training of health care professionals in recent years. The medical profession has been in the vanguard of this trend. Kahn, Cohen, and Jason (1979) attribute this movement within the medical profession to the growing consensus of opinion within government, the public, and the profession itself that patients should be treated in a personal and humane manner. Such treatment requires a high level of interpersonal functioning on the part of the health care provider. Research has also supported the need for good interpersonal skills. Studies have indicated that the quality of the doctor-patient relationship affects patient satisfaction, cooperation in treatment, and therapeutic outcome (Abrams and Chiles, 1972; Korsch and Negrete, 1972; Ley and Spelman, 1965; Vida, Korsch, and Morris, 1969).

Kahn, Cohen, and Jason provide a current overview of the expanding status of interpersonal skills training programs within medical education in the United States. Their national survey was designed to find out the number of medical schools offering interpersonal skills programs and the characteristics of the programs. The survey revealed that most medical schools do offer such programs and that they have been implemented relatively recently, 80% of them within the last five years.

Grayson, Nugent, and Oken (1977) point out that previously it had been assumed in medical education that students would acquire the proper interpersonal skills indirectly through clinical experience. Studies have shown, however, that mere exposure to patients does not result in the development of effective communication skills (Helfer and Ealy, 1972; Barbee and Feldman, 1970).

Interpersonal skills training has also been utilized with other

health care professionals, Programs have been developed to teach inter-
personal skills to nursing students, dentistry students, physician's
assistant students, optometry students, and other groups of health care
providers.

Interpersonal Skills Training Within Optometry

Levine (1976) believes that effective doctor-patient communication
is vital to the successful practice of optometry. She cites several
published works which support this contention (Gregg, 1969; Hale,
1967; Levoy, 1970; Wick, 1970). Conversely, she states that patient
dissatisfaction results from poor communication. Several negative out-
comes have been attributed to poor doctor-patient relations. They
include: patient refusal to pay bills (Bernstein, Bernstein, and
Dana, 1974); patient change of doctor (Blum, 1960); patient complaint
to state board of examiners and/or filing of malpractice suit (Bernstein,
Bernstein, and Dana, 1974; Blum, 1960); and patient disregard of doc-
tor's instructions (Korsch and Negrete, 1972). Though the studies
indicating these negative outcomes investigated the physician-patient
relationship, the findings apply to the optometrist-patient relation-
ship as well. In Levine's opinion, good communication skills are crucial
to both the highest ethical and the most successful practice of optometry.
She suggests that colleges of optometry can educate students to better
understand and communicate with patients. She points out that the
diversity of patients in age, problem, and personality presents many
difficulties for the beginning optometrist.

Gregg (1969) advocates communication skills training for optometry
students. He points out that the need for communicating well with

patients is greater than ever since patients no longer look upon profes-
sionals as unquestioned authorities. Patients are better educated and
expect to understand more about their health problems. He also believes
that optometrists must communicate to withstand competition. According
to Gregg, the optometrist who communicates effectively serves his/her
patients more effectively, derives more satisfaction from his/her work,
and is more likely to be successful in practice than one who doesn't.

Gregg (1975) states that patients often complain that doctors
don't give them enough information. He suggests that a communicative
ambience be established by: treating the patient as an important per-
son; developing a cordial relationship with the patient by encouraging
him/her to ask questions; answering questions readily and with concern;
listening for the real meaning behind the questions asked; understand-
ing the patient's point of view and treating it with importance; and
helping the patient to reveal his/her real reason for coming by letting
him/her talk.

A recent survey (Why Dr. Nice, 1978) of 500 practicing optometrists,
geographically distributed to reflect a cross section of the profession
in the United States, indicated that personality factors seem to have
an important bearing on successful practice. Of the 53% who responded
to the survey, 68% reported that they cared for patients both personally
and professionally. Optometrists reported that patients were more
likely to accept the program recommended by the optometrist when he/she
demonstrates caring for the patient and his/her concerns. Optometrists
also reported repeat visits by their patients and family members of
patients when optometrists personalized their relationships with

patients. Over 94% of polled optometrists rated the ability to listen to patients as very important to successful practice. Friendliness, a warm personality, and decisiveness were also designated as very important to a successful practice by a substantial majority of respondents.

The national organization of optometry schools has responded to the increased perception within the profession of the importance of interpersonal skills to the practice of optometry. The curriculum model developed by the Council on Academic Affairs of the Association of Schools and Colleges of Optometry (ASCO Council, 1978) included many specifications of student objectives requiring a high level of inter-personal skills.

Elements of the curriculum model which relate to interpersonal skills training include the following: counseling patients regarding preventive health care practices; counseling patients regarding modifying their visual environment; developing constructive doctor-patient, doctor-technician, doctor-staff, and doctor-community relationships; treating the patient as a person rather than an anomaly; developing group interactive skills; developing good verbal and nonverbal communication skills; recognizing the importance of good communication skills in demonstrating caring; dealing with problem patients, e.g., the anxious patient, the angry patient; communicating diagnosis and treatment plans; and teaching communications skills to office personnel.

The curriculum model envisions several roles for the optometrist: knowledgeable professional; patient's advocate; collaborator with the patient in delivering optimal visual care; counselor; teacher; and

fellow human being.

An earlier meeting of this same committee (ASCO Council, 1975) recommended that affective qualities required by the clinician be included in the educational program for optometrists. The committee ranked among the highest priorities, the need to delineate attitudinal indicators that the optometric practitioner should demonstrate. It stated that these affective characteristics pervade all aspects of practice and are therefore of prime importance. The committee defined professionalism as involving not only clinical and technical skills, but empathic patient care as well.

There have been numerous studies within the various health care professions supporting the position that interviewing, patient counseling, patient management, and doctor-patient communication skills can be taught. Levine (1978) has surveyed the thirteen optometry schools within the United States and has found that eight of them presently offer courses containing primarily affective subject matter. Of these, three require students to take the courses, and five offer them as electives.

Need for the Study

There have been several studies of varying degrees of rigor in other health care professions, primarily medicine, which have supported the efficacy of specific courses designated to enhance interpersonal skills of students; however, within the profession of optometry, evaluation has been either informal or merely self-report. There is a need to go beyond informal subjective evaluation in order to establish the effectiveness of interpersonal skills courses for optometry students.

There is a need for objective evaluation and the use of a control group
to assess the outcome of interpersonal skills courses presented to this
population. The present study is designed to work towards that end by
providing and interpreting contributing data.

Most interpersonal skills courses in the literature were designed
to teach empathic and/or interviewing skills only. The present study
involves the teaching of assertive skills as well. The inclusion of
an assertiveness training component is appropriate for two reasons.

First, assertion can reasonably be thought of as a behavioral
correlate of the facilitative qualities of genuineness, facilitative
self-disclosure, confrontation, immediacy, and concreteness as
delineated by Carkhuff (1969). Definitions and descriptions of asser-
tive behavior, both verbal and nonverbal would encompass these quali-
ties. These facilitative qualities which have been found to be bene-
ficial in therapy situations would also be important in establishing
and maintaining high quality doctor-patient relationships.

Secondly, assertive behavior, both verbal and nonverbal, would
help to convey the confidence and decisiveness expected of optometrists.
Students, new in their professional role, frequently need to learn new
assertive behaviors to function as professionals. They must be able
to instill patient confidence and express their professional opinions
to both patients and clinical faculty. It is helpful for optometry
students to determine their interpersonal rights as professionals as
well as the rights of patients and clinical faculty members. Students
who are uncomfortable in their professional role may be overdependent
on clinical faculty, may be too dominating or wishy-washy with patients,

or avoid the issue by focusing on the technical aspects of the examination alone.

Importance of the Study

Goldman (1978) makes a strong case for practical or applied research in counseling. He stresses the importance of local research which may or may not be of interest to other settings in that it provides useable knowledge to the counselors involved. Goldman asserts that research should answer practical questions concerning specific people and settings. He also believes that applied counseling research should make it apparent to employers that the services and programs provided by counselors have both direction and value. The outcome of the present study may affect future policy decisions at the research setting concerning incorporating interpersonal skills training into the curriculum for all students.

Of more general importance, positive results indicating the effectiveness of an interpersonal skills course for optometry students may further the increased application of developmental counseling interventions to this population. Ivey and Authier (1978) recognize that interview skills training is not only necessary for professional helpers, but by others engaged in a wide range of professions as well. Interpersonal skills training is based upon the psychoeducator model. This model was evolved (Ivey and Alschuler, 1973; Carkhuff, 1971; Guerney, 1969; Guerney, Guerney, and Stollak, 1971; Mosher and Sprinthall, 1971) as one way to meet the need for basic skills training. The psychoeducator model focuses on the setting of goals, appropriate skills training, and evaluation of goal achievement. The

present study attempts to evaluate an application of this model with the goal of improving the interpersonal skills of optometry students. It has importance as an extension of the psychoeducator model, a developmental counseling intervention, to this population.

Purpose of the Study

The purpose of the study is to measure change in fourth-year optometry students at the Illinois College of Optometry who take the elective course, Interpersonal Skills for Optometrists, as compared to a control group. The aim is to study the effects of the course on increasing student empathy and assertion and improving interviewing skills. The primary focus of the empathic and interviewing skills training is directed towards the optometrist's professional role; however, some personal and social applications are also included. The assertion training is more generalized, i.e., directed to situations of a personal and social nature as well as those of a professional nature. The situational nature of assertion as well as the availability of normed measurement instruments were the reasons for the more generalized treatment.

The study attempted to answer the following questions: Will students who took the course demonstrate better interviewing skills than students who didn't? Will students who took the course indicate a more favorable attitude or likely disposition to respond empathically to patients than students who didn't? Will students who took the course demonstrate behaviorally a higher level of empathy than students who didn't? Will students who took the course be less anxious in situations requiring an assertive response than students who didn't?

Will students who took the course be more likely to behave assertively than students who didn't? Will students who elected to take the course differ initially from students who didn't on any of these dimensions?

Defintion of Terms

Optometry: The health profession that deals with functional disorders of vision including: refraction; fitting of optical aids; visual training or therapy; screening for disease and referring patients with suspected disease for medical treatment.

Interviewing skills: Those communication proficiencies involved in the interviewing process including: greeting; introducing; arranging for patient comfort; proper use of open-ended and closed questions; use of silence; use of facilitative responses; use of empathic responses; use of appropriate and personalized language (Cohen and Baker, 1979). Interviewing skills involve the application of interpersonal skills specifically to the interview situation.

Empathy: "Sensitivity to current feelings" of another and the "verbal facility to communicate this understanding in a language attuned" to another's feelings (Truax and Carkhuff, 1967, p. 46).

Assertion: The honest, direct, and appropriate expression of one's legitimate rights, feelings, beliefs, or opinions in interpersonal situations without the violation of the rights of others. Assertion consists of both verbal and nonverbal components (Jakubowski-Spector, 1973).

Interpersonal skills training: The systematic teaching of some or all of the following content: self-awareness of feelings, attitudes

and values; nonverbal and verbal attending skills; empathic responding skills; communication of a caring attitude; development of rapport; communication of warmth and genuineness; assertive expression; interviewing skills.

Interpersonal skills course: Interpersonal Skills for Optometrists (Optometric Science Course 410-A), a didactic and experiential elective course for fourth-year optometry students focusing on: the need for good doctor-patient communication; self-awareness; developing rapport with patients; nonverbal and verbal attending behaviors; verbal responding; appropriate use of questions; and assertion. Videotaping, short lectures, discussion, structured exercises, modeling, coaching, role-playing, positive reinforcement, feedback, and readings are utilized in the course.

Limitations

The study was limited to fourth-year optometry students at the Illinois College of Optometry. Though the Illinois College of Optometry accepts students from all regions of the country and from diverse backgrounds, the results of this study may not necessarily be generalized to all fourth-year optometry students in other schools. The results may also not necessarily be generalized to first, second, or third-year optometry students.

The students in the interpersonal skills course elected to take the course. They were not randomly assigned; therefore the equivalence of the experimental and control groups could not be assumed. The control group was randomly selected; however, not everyone selected consented to participate.

The Patient Response Style Indicator and the Assertion Inventory are self-report instruments designed to measure attitudes or predispositions to act in certain way in response to a stimulus. These instruments do not measure actual behavior.

Because the course was taught by one instructor, the researcher, it is difficult to separate the course content from the personal effectiveness of the instructor; therefore, it is the total effect of the course which is to be considered as the independent variable in this study.

Organization of the Study

The study is divided into five chapters. Chapter I includes: introductory material; the importance of the study; the need for the study; the purpose of the study; the definition of terms; the limitations of the study; and an overview of the order of presentation of the study. Chapter II includes: a review of the related literature including: the origin and evolution of interpersonal skills training; surveys describing the scope and content of interpersonal skills programs wthin the health care professions; specific interpersonal skills programs within the health care professions in general and optometry in particular; interviewing skills; empathy; assertion; and characteristics of optometry students. Chapter III includes the methodology, i.e., the research design, the pilot study, subject selection, the instructor, the instruments, the treatment, procedures, hypotheses, and methods of data analysis. Chapter IV includes an analysis of the data in relation to the hypotheses of the study. Chapter V consists of a summary and discussion of the implications of the data analysis,

the conclusions of the researcher, and recommendations for further
research.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

Overview

The purpose of this chapter is to provide a review of the related literature. There are seven sections. The first examines the origin and evolution of interpersonal skills training. The second section surveys interpersonal skills programs for health professionals focusing on prevalence, scope, and content. Section three provides specific examples of interpersonal skills programs within the health care professions in general and optometry in particular. The intent of section three is to provide the reader with more detailed information regarding the variety of teaching strategies, procedures, and evaluation methods utilized. The studies included in this section are selective rather than all-inclusive and involve a variety of health professional students. Section four defines and specifically describes interviewing skills. Section five deals with empathy, its definition, measurement, and relevant research. Section six focuses on assertion including: theoretical origins, components and procedures of assertiveness training, relevant research, and assessment. Section seven describes the characteristics of optometry students.

Interpersonal Skills Training: Origin and Evolution

Ivey and Authier (1978) trace the origin and development of interpersonal skills training in the evolution of formal interviewing

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training programs for helping professionals. It was through efforts to identify facilitative skills and attitudes used by therapists within the helping interview that the content of interview skill training was derived. Ivey and Authier believe that after helping skills were determined, it was a logical inference to share them with persons other than counselors or therapists who could gain from their use.

Ivey and Authier view interpersonal skills training as a specific application of the psychoeducator model (Ivey and Alschuler, 1973). The psychoeducator model of counseling differs sharply from the medical model which preceded it. Briefly, the medical model focuses on client pathology which requires diagnosis, treatment, and cure. The psychoeducator model focuses instead on client satisfaction/dissatisfaction, the setting of goals, appropriate skills training, and evaluation of goal attainment.

Increasingly specific skills have evolved within professional training programs for counselors and therapists. Systematic research into counselor-therapist training grew significantly in the 1970's. Ivey and Authier point out that traditionally, counselor-therapist training relied heavily upon cognitive theory, trainee self-report from memory of counseling interviews, and an emphasis on the relationship between the trainee and the supervisor. Such traditional models (Ekstein and Wallerstein, 1958; Mueller and Kell, 1972) viewed the supervisory relationships as parallel to the counseling relationship in that both involved working through transference and countertransference issues. Major change in counselor training occurred with Rogers' client-centered approach (1957) which changed the content of

the training program to the acquisition of certain attitudes, personal qualities of skills on the part of the therapist which Rogers believed were essential to helping. Rogers described these facilitative attitudes/skills as therapist congruence, positive regard of the client, and empathic understanding. Though this emphasis on attitude/ skill acquisition was not very specific or systematic, Ivey and Authier observe that it was an important innovation in that it attempted to bridge the gap between theory and the real helping inter-view situation by focusing on the "how" aspect of counseling.

Truax and Carkhuff (1967) further refined Roger's approach in their experiential-didactic training program. Their goal was to teach trainees to acquire the therapeutic qualities of warmth, empathy, and genuineness which they considered as the core facilitative condi-tions. Their research and that of their associates supported the facilitative value of these qualities. Truax and Carkhuff provide an extensive listing of research evidence supporting the value of the core facilitative conditions in achieving a positive outcome in therapeutic situations as well as creating rapport and a constructive relationship in interviewing situations. Like Rogers, Truax and Carkhuff emphasized the importance of a warm, supportive supervisor-trainee relationship which served as a model for the counselor-client relationship desired. Another component of their training program was a group therapy experience.

The therapeutic qualities of warmth, empathy, and genuineness were initially quite global and nonspecific. Carkhuff (1969) later operationalized these concepts and added to them the skills of

concreteness, facilitative self-disclosure, confrontation, and immediacy. Research by Carkhuff and associates has shown that nonprofessionals as well as professionals can function in a facilitative capacity. Carkhuff also advanced training by his emphasis on evaluating counselor training programs and revising them accordingly. Scales developed by Carkhuff and associates have been widely used in research. In recent years, Carkhuff has been one of the best known advocates of the helper as a teacher of skills.

Ivey and Authier (1978) state that the most recent innovations in counseling or interviewing skill training consist of the further breaking down of skills into more specific components and the use of observational media, e.g., videotaping, as a means of teaching skills. Their approach to counseling and interviewing training, which they call microcounseling, incorporates these developments.

Microcounseling is based on the psychoeducator model described earlier. It is both a technology and a theory. As a technology, it consists of the use of videotape, programmed manuals, self-observation, feedback, and the teaching of single helping skills. It can be used as a structure for teaching many different types of skills, both simple and complex. As a theory, microcounseling consists of several designated skills, e.g., reflection of feeling, use of questions, interpretation, which the authors believe to be facilitative. The microcounseling approach can be used to teach whatever skills are emphasized in the various theoretical orientations. The technological aspects of microcounseling have been used to teach a wide variety of skills including parent-child communication, sales techniques, and

dental practices. Ivey and Authier believe that microcounseling expands the role of the helping professions to incorporate the teaching of communication skills to others.

Though originally designed for the training of individuals, microcounseling has been successfully used with various types of groups (Gluckstern, 1973). Ivey and Gluckstern (1974, 1976) have developed a model for systematic instruction in microtraining skills designed for group instruction. The components of the model are the same as those used with individuals, with the addition of group process components. Client populations for group instruction have included many diverse types of professional groups including: medical students, high school counselors, nurses, residence hall assistants and professional clinic training program directors. The authors believe that skills may be taught as effectively to groups as to individuals if small groups for the monitoring of skill acquisition, coaching, and feedback are utilized.

Another currently used approach to counseling and interviewing training is Kagan's Interpersonal Process Recall (1972; 1973; 1975), abbreviated as IPR. IPR utilizes videotaped interviews and specific feedback from both the supervisor and the client.

Ivey and Alschuler (1973) believe that the work of Carkhuff, Kagan, and Ivey support the sharing of counseling skills with the public as one aspect of psychological education. Ivey and Alschuler believe that each of these three models have valuable aspects and speculate that a combination of methods taken from all three might be maximally effective.

Egan (1975) provides another model for treatment and training incorporating the work of Carkhuff, Truax and Carkhuff, Ivey and others. Like, Carkhuff, Egan believes that helping skills are primarily the skills of effective interpersonal relating.

Thomas Gordon has greatly popularized the teaching of interpersonal skills to others. He has addressed his communication skills training approach to parents (1970) and teachers (1974).

Models have been developed specifically for teaching interpersonal skills to health professionals. Anthony and Carkhuff (1977) applied the basic Carkhuff model to the health care setting. It focuses on four major skills: attending, responding, personalizing, and initiating. The teaching process follows the basic format of "tell-show-do". In the "tell" stage, the desired skills are defined, a rationale for them is provided, and the specific behaviors involved in the skill are described. The "show" stage involves the modeling of the skill behaviors; demonstrations may be live, videotaped, audio-taped, or written. The "do" stage involves practice of the skill within the training situation, practice of the skill outside of the training situation, and using the skill in the real situation.

Cohen and Baker's P.I.M.F. (Preparing-Implementing-Monitoring-Feedback) model (1979) emphasizes the skills of attending, interchangeable responding, and developing direction. Numerous methods are utilized over the four stages of the P.I.M.F. model, but the use of videotechnology is stressed. In addition, the instructor's own interpersonal skills are a crucial factor in effective training. The instructor uses the skills in the teaching process, modeling them and

allowing students to experience their effects.

To summarize, interpersonal skills training has evolved from developments within counselor/therapist training programs. The advances contributed by Rogers, Truax and Carkhuff, Carkhuff, Ivey and Authier, Kagan, Egan, and Gordon have been cited. The concept of interpersonal skills training has been extended to increasingly large numbers of persons outside of the psychologically helping professions. Anthony and Carkhuff and Cohen and Baker have developed models for teaching interpersonal skills to health care professional students.

Surveys of Interpersonal Skills Programs for Health Professionals

As part of a project sponsored by the National Medical Audio-visual Center, Cohen and Friel (1978) compiled a resource document which included all available information on the teaching of fundamental interpersonal skills to selected student health professionals utilizing videotechnology. Its purpose was to determine the state of the art in order to: facilitate sharing of information about programs among health professional educators teaching interpersonal skills; describe current methods of teaching interpersonal skills to health professional students; encourage further innovation in both the teaching of and research regarding interpersonal skills.

The data were derived from three sources: an in-depth survey of selected interpersonal skills programs in the health professions: a review of the literature; and a sequence of field studies. In conducting the survey as well as examining the literature, the authors were concerned with the same basic questions. Which types of interpersonal

skills were being taught? To whom were they being taught? What kinds of "patients" were utilized in the instructional process? How was videotechnology used and what were its effects? What evaluation procedures were employed?

The Cohen and Friel survey focused on undergraduate medical school programs, institutions with nurse practitioner programs, family practice residencies, and physician assistant programs; however, other health professionals were included.

One problem encountered by the authors was that of defining the term, "interpersonal skills". They found that there was much variation in its meanings and methods of instruction among the programs. They also discovered that interpersonal skills were sometimes taught in a separate formal course, as part of another course, or merely as needed. To resolve this problem, the authors defined a "program" as a course or portion of a course which utilizes videotechnology in the direct teaching of interpersonal skills to health professional students. It could comprise either a course in itself or be incorporated into another course as long as it included a "logical set of instructional objectives over the period of one or more semesters (blocks, or quarters, etc.)" (p. 9).

Other terms also had to be defined. Videotechnology was defined as the use of pre-recorded or self-made tapes or playback sessions. Health professionals included primarily physicians (medical students, residents, practitioners), physician extenders (physician assistants), and nurse practitioners; but in addition, other health professionals (dentists, social workers, and physical therapists) were included.

Interpersonal skills were defined as skills that enhance the health professional-patient relationship or relationships among health professionals. More specifically, they were defined as: "interpersonal-processes skills (e.g., listening, responding); information-gathering skills (e.g., history taking); information-giving skills (e.g., one-to-one patient education); other interpersonal skills (e.g., team member-ship skills, faculty supervision)." (p. 9)

The Cohen and Friel survey revealed a very high level of activity in the teaching of interpersonal skills to health professional students. The extent of instruction is demonstrated in several ways. Of all schools responding to the survey, 93.5% indicated a specific course or courses in interpersonal skills. Over 1,100 instructors from 316 schools were involved in the teaching of interpersonal skills to health profes-sionals. Over half of the schools offered more than one program in interpersonal skills.

Regarding the skills taught, the survey findings paralleled the literature indications. The emphasis was on interpersonal process skills and information-gathering skills for all types of programs. The teaching of information-giving/counseling skills showed the most variability among programs. Medical school programs seemed to de-emphasize these skills more than other programs. There was, however, a greater inclusion of them in the latter years of medical school than in the earlier.

Of the interpersonal process skills, listening, observing, and responding were taught more frequently than self-assessment. This tendency was especially true in physician assistant programs. Nurse

practitioner programs emphaszied one-to-one patient education more so than other types of programs. Of special application areas, working with difficult patients was most often reported across all programs. Family practice programs, by their nature, gave more emphasis to family counseling than did other programs.

The survey revealed a wide variety of backgrounds among those teaching interpersonal skills. In general, psychiatrists and psychologists were most prevalent. Physicians in various specializations were also often used. Family practice physicians were most frequently used in family practice residencies.

Data concerning teaching methods were gathered from 1,100 responding instructors. Live lectures and readings were most frequently reported as used for didactic presentations. More than a fourth of instructors also used videotapes of lectures. For demonstration purposes, videotapes were used most frequently to instruct medical students and family practice residents. For practice and feedback, videotapes and live observations comprised the primary teaching methods. Of all surveyed programs, 91% of them used videotechnology in some way.

Regarding the use of playback, survey data revealed three major purposes. They are: to expose students to a shared affective learning experience; to promote student self awareness through recall; and to foster student sensitivity to patients' feelings. Generally, video playback was used infrequently for purposes of pre-testing learning skills and even less so for setting course goals. There was variation among programs in the use of playback. Less than half of the nurse

practitioner programs used playback at all. Overall, playback was used more frequently as a means of helping students to assess their own skill development than as a means of evaluating their progress for the purpose of grading or meeting training requirements.

Another use of videotechnology indicated by the survey was the use of pre-recorded tapes. The tapes were primarily used to present information, i.e., to demonstrate or model both good and poor behaviors. Pre-recorded tapes were rarely used for evaluation purposes. Nurse practitioner programs used pre-recorded tapes most frequently of all programs.

Regarding the characteristics of equipment used in the video-technology component of interpersonal skills programs, the survey data indicated that recordings were usually made in a classroom/conference room or special interview room. Cameras were usually visible. Most programs used only one camera with black and white film. The camera was operated by either a faculty member or a technician; in some cases the camera was set up and left unattended. In general, faculty members took much of the responsibility in determining how the equipment would be used. Half of the time, faculty operated the equipment.

Regarding evaluation methods, the survey found that indirect ones, i.e., methods in which the behaviors evaluated are not directly observed, were most frequently used over all programs. More specifi-cally, 17% of all respondents used only indirect methods, i.e., self-report, multiple choice exams, or patient-management problem tests. Direct assessment consisted of observing live interviews or video playbacks.

The use of outcome indices for evaluation was reported by only 35% of respondents. Close to half of nurse practitioner programs evaluated outcomes. The most frequently used outcome objectives were: statements of patient satisfaction; ratings on designated skills by trained patients; criteria of patient compliance; and written indices of patient satisfaction. Physician assistant programs were relatively low in relation to other programs on the use of outcome indices.

Cohen and Friel reviewed the literature seeking articles which involved the teaching of interpersonal skills to health professional students using videotechnology. For the most part, only those articles which involved all three of these criteria, i.e., teaching of interpersonal skills, health professionals, and videotechnology, were included. The relevant literature was located through computer searches, bibliographies of relevant articles, and experts in the field.

Cohen and Friel found much consensus within the literature about the value of teaching interpersonal skills to health professionals. There was great disparity, however, in the actual skills defined as "interpersonal".

The authors found that the major thrust of the majority of reported interpersonal skills programs was to teach those skills which facilitated rapport between doctor and patient for the purpose of obtaining more pertinent information from patients. Responding to feeling and the use of open-ended questions were the two specific skills most emphasized as the means to build a trusting relationship and consequently acquire better information from the patient. The authors found this emphasis on interpersonal process skills and

information-gathering skills consistent with the findings of the survey data and information acquired through on-site visits. Cohen and Friel found few articles concerning the other skills included in their survey instrument, i.e., information-giving/counseling skills, team membership skills, supervisory skills, or special application areas.

Regarding which health professional students were receiving interpersonal skills training, the literature did not reflect the degree of activity revealed by the survey, especially in nursing and family medicine. Most relevant articles involved medical students. Psychiatric residents were also well-represented in the literature. As also reported by Kahn et.al. (1979), the literature indicated that interpersonal skills training tended to be offered to medical students towards the early part of their education rather than the latter.

Cohen and Friel (1978) believe that the use of both real and simulated patients in interpersonal skills training for health professionals provide a valuable training component. They see advantages in each.

The literature revealed a widespread use of real patients. The various articles generally agreed that the use of videotechnology did not bother patients and that students found the interviewing of real patients to be a vital training experience. Using real patients was found to be an effective means of measuring student skill acquisition. However, Cohen and Friel point out that the authors in the reviewed articles didn't mention the lack of standardization which occurs when real patients are used. Lack of standardization, i.e., control, creates

a considerable problem for assessment.

The use of simulated patients was also extensively indicated in the literature. One advantage of using simulated patients is that interviews can be standardized, i.e., controlled, for assessment purposes. Most of the reviewed authors believed that convincing simulated patients succeeded in creating a realistic situation and that artificiality was not a problem.

Cohen and Friel found that playback was the most frequently reported use of videotechnology in the literature. Playback was used to provide feedback to students on skill acquisition; to increase student self-awareness; to teach new interviewing methods; and to evaluate the efficacy of teaching. Many of the authors reviewed indicated positive results from using playback, but there was disagreement about when it should be offered and in what context, individual or group. In order to maximize learning by decreasing students' anxiety, some authors suggested that supervision in conjunction with playback be empathic and supportive.

To a lesser extent, the use of videotechnology for demonstration purposes was also reported in the literature. The use of videotaped models of both good and bad interviewing behaviors was indicated.

Regarding the specific effects of using videotechnology in the teaching of interpersonal skills to health professional students, Cohen and Friel found little in the literature. Other than the findings that the use of playback can increase student anxiety and provide the student with a more concrete self-image, there was no systematic evaluation in the literature of the efficacy of videotechnology.

Most evaluation methods described in the reviewed articles involved surveys of student opinion on program effectiveness and measurement of student skill acquisition. Very few articles examined the actual subsequent use of skills learned or their effects on patients.

To summarize, Cohen and Friel found that the three data sources, i.e., survey process, literature review, and field visits, corroborated each other and presented a consistent view. All sources indicated that interpersonal skills training has become an accepted part of curricula in health professional schools. The authors speculate that this movement results from an increasing emphasis within health care on treating the patient as a whole person and establishing an influential and personal relationship with him/her.

All of the data sources indicated the same problems and directions in the existing interpersonal skills programs. One problem is the lack of precision in defining the various interpersonal skills. The lack of clear and consistent definitions of interpersonal skills creates problems in conducting and evaluating research efforts. Controlled research is necessary to scientifically establish the benefits (to both patients and health care providers) of teaching interpersonal skills. Such hard evidence is necessary to convince health professional educators and practitioners who presently neither teach nor model facilitative interpersonal skills.

Cohen and Friel conclude that the findings regarding evaluation of programs are unclear because of the methods employed, i.e., either indirect or direct but limited to skill acquisition during or immediately after training. The authors suggest the use of follow-up

studies and more specific patient outcome indices. They also advocate
pretesting of student skills prior to training in order to measure
growth after training.

All of the data sources indicated that instructors of interper-
sonal skills courses are coming from increasingly diverse backgrounds.
Previously, all courses designated as behavioral science were taught
by psychiatrists. Also changed is the focus of the courses, now on
basic interpersonal skills which create rapport between health pro-
vider and patient rather than on psychiatric analysis. Cohen and
Friel believe that more research is needed concerning the selection
and training of health professionals who teach interpersonal skills
courses.

The authors note the concurrent increase in the use of video-
technology with the development of interpersonal skills courses. The
efficacy of using videotechnology in interpersonal skills training has
apparently been presumed, in that virtually all programs are either
increasing or continuing the present level of use.

Cohen and Friel see a parallel in the teaching of interpersonal
skills courses and the use of videotechnology in that both are
increasing despite the lack of much systematic research supporting
their specific effects. Though videotechnology is perceived by stu-
dents and instructors as effective, evidence of specific effects is
limited to self-reports on how it was utilized and experienced.

Cohen and Friel conclude that the results of their project are
heartening to those who advocate the teaching of interpersonal skills
to health professionals. Though the authors describe the benefits of

establishing a constructive relationship to patients and health professionals as merely intuitive, they document the widespread implementation of this philosophy. They stress the need for more and better research to demonstrate these benefits on a more scientific basis.

Most of the studies reported in the literature relating to interpersonal skills training in the health professions emanate from programs in medical schools. Kahn, Cohen, and Jason (1979) provide a current overview of the expanding status of these programs within medical education in the United States. Their national survey was designed to find out the number of medical schools offering such programs and the characteristics of the programs.

The survey revealed that most medical schools do offer interpersonal skills programs, and that they have been implemented relatively recently. Eighty percent of them were begun within the last five years. Of the 111 medical schools in the United States, 79 (71%) responded. Of these, 76 (96%) reported that they did teach interpersonal skills. More than 500 faculty members were engaged in teaching interpersonal skills to medical students.

According to the survey, the skills most commonly taught included interpersonal process skills, information-gathering, and psychological intervention. Interpersonal process skills included: listening; observing; responding; initiating-questioning-challenging; being aware of oneself; and assessing oneself. Information-gathering skills included history-taking of medical and psychosocial information and performing the physical exam. Psychological intervention skills included: demonstrating empathy; providing psychological support;

and responding to patient feelings or helping the patient to deal with feelings.

Fewer than one third of the programs provided specific information-giving/counseling skills. These skills included sharing diagnostic findings, giving advice, and educating patients.

Regarding the timing of interpersonal skills courses in medical schools, the survey found more courses offered to preclinical students than to clinical students. Sixty-one percent of the programs were offered to first- and second-year students. Only 26% of programs were taught to clinical students. The remaining 13% of programs incorporated both clinical and preclinical periods. The average class size varied with the year offered: first year, 88; second year, 62; third year, 25; and fourth year, 35.

Pacoe, Naar, Guyett, and Wells (1976) point out that many different techniques and methods of instruction for teaching interpersonal skills to medical students have been reported in the literature. The object of these methods and techniques has been to elevate the quality of the doctor-patient relationship. Such techniques include student interviewing and subsequent group discussion; video or audio recording; the interpersonal process method; microcounseling; the use of actors and actresses as coached patients; combined techniques; role-playing; programmed instruction; and observation of filmed and live skilled interviewers.

Common to all of these various approaches and methods was the goal of improving the communication skills of students through live or simulated practice, focused observation, and systematic feedback.

Another shared objective was to increase the students' sensitivity to both their own feelings and to patients' feelings.

Regarding evaluation, the Kahn, et.al. survey (1979) found that most interpersonal skills courses attempted some means of judging their efficacy. Indirect assessment of some type, e.g., self-report, multiple choice examination, was used in 87% of program evaluations. Indirect assessment does not involve the direct observation of target behaviors. Direct assessment, i.e., staff observation, was used to evaluate 69% of the programs. Most direct observation involved the use of global ratings of overall performance rather than ratings of specific, concrete behaviors. Only 5% of programs reported that they used no evaluation. Most evaluation is presently self-report. The authors advocate more evaluations of clinical interpersonal skills programs using objective behavioral observations of patient-doctor interactions.

Kahn, et.al. note several salient trends revealed by the survey. First, the teaching of interpersonal skills has become a valid and important aspect of medical education. The recent and rapid growth of interpersonal skills courses suggests a positive attitude on the part of medical education administrators towards this application of the behavioral sciences. Another prominent feature revealed by the survey was the large numbers of nonphysicians engaged in teaching interpersonal skills to medical students.

The survey indicated to Kahn, et.al. that more of the interpersonal skills programs should include the teaching of information-giving/counseling skills than are presently doing so. They also

advocate more programs directed to students in their clinical years as well as follow-up of preclinical programs in the clinical years to systematically reinforce previously learned skills. The authors believe that such measures are necessary because of the scarcity of effective role models for interpersonal skills and the emphasis on technical procedures in most clinical settings.

Specific Interpersonal Skills Programs for Health Professionals

In order to provide more detailed information regarding the variety of goals, teaching techniques, procedures, and evaluation methods utilized in interpersonal skills courses for health professionals, several studies are presented in this section. The studies are selective rather than comprehensive and involve a variety of health professionals.

Moreland, Ivey, and Phillips (1973) describe an experiment to evaluate the effectiveness of microcounseling as an interviewing training tool on 24 second-year medical students at the University of Oregon Medical School. The students were randomly selected from volunteers and assigned to either an experimental or control group. The experimental group followed the microcounseling format of teaching the skills of attending behavior, open-ended questions, minimal activity responses, paraphrases, reflections of feeling, and summarization. The control group received an equivalent, more traditional type of training involving interviewing experience and feedback.

Pre and post interviews with real patients were evaluated. The results indicated that the experimental group improved more than the

control group, though both groups improved their interviewing skills.
The experimental group improved significantly more than the control
group in their use of attending behavior and reflection of feeling.
In addition, the experimental group seemed to improve more than the
control group on behaviors not specifically covered in their training
indicating some generalization.

Meadow and Hewitt (1972) describe the successful use of profes-
sional actors and actresses as simulated patients in a communication
skills course for medical students during their pediatric residency.
The simulated interviews, in which students played the role of doctor,
were videotaped. At a later time, they were played back to the group
and discussed. The time lapse allowed the videotaped students to be
more objective in assessing their skills. The sets were as realistic
as possible and the videotaping equipment unobtrusive. Though no
formal evaluation procedure was described, the authors believe this
method to be superior to student roleplaying of all roles involved
because it was perceived by students as more credible.

Pacoe, Naar, Guyett, and Wells (1976) describe an experimental
course formulated to increase the capacity of medical students to com-
fortably discuss emotionally-laden subjects and to increase their
skills in Roger's facilitative conditions of accurate empathy, non-
possessive warmth, and congruence. The course format resembled
counselor training rather than medical interviewing training. Course
methods combined simulated interviews with students playing the parts
of counselor and counselee and an experiential group experience. Both
of these formats received an equal share of time in the course.

The authors found that the experimental group was significantly better able to disciminate good empathic responses and to respond empathically than was the control group. The experimental group also scored significantly higher than the control group on four subscales of the Personal Orientation Inventory. These gains indicate that interpersonal skills training appears to have a positive effect upon attitudes and beliefs in addition to increasing interpersonal skills.

Fine and Therrien (1977) evaluated the efficacy of a program designed to teach medical students to respond empathically to patients and treat them as persons rather than possessors of medical symptoms. The emphasis was on establishing initial rapport rather than conducting the entire medical interview.

Subjects were 43 first-year student volunteers, 20 who received the training and 23 who comprised a control group and received train- ing the following semester. The groups were not randomly selected so pretests were utilized to establish initial equivalency on the Truax Accurate Empathy Scale and on emphasis in student response, whether to the patient's physical problems and feelings about them or to the physical problems alone.

The course taught students to avoid those responses which impede communication and to utilize those responses which facilitate communi- cation as presented by Gordon (1970). Experiential learning was also included in the form of role-playing. Either the teacher played the part of the patient with the students playing the roles of doctor and evaluator, or the students took turns playing all the roles. Students were also urged to practice their communication skills between sessions

with patients, friends, and family.

A pretest and posttest consisting of audiotaped role-played patient statements describing typical initial complaints to a physician were used to assess the effects of instruction. The tests were evaluated by raters on the dependent variables of level of empathy and emphasis on either the discussion of medical problems alone or the discussion of medical problems and the patient's feelings about them.

Fine and Therrien found that the group that received training functioned significantly higher on level of empathy that did the control group. In addition, the experimental group was rated significantly higher than the control group on focusing on patients' feelings about medical problems rather than on the medical problems alone. The authors conclude that this study adds to the previous research evidence that empathic skills can be discerned, measured, and effectively taught to medical students. They believe the findings indicate that interpersonal skills training for medical students can establish an attitude conducive to personalized treatment of patients. Fine and Therrien further suggest that for continuing doctor-patient relationships, additional skills of geuineness and self-disclosure are also necessary.

Grayson, Nugent, and Oken (1977) point out that within medical education, most interpersonal skills training programs stress the important skill of empathy. Nevertheless, studies of patient satisfaction and compliance reveal other barriers to an effective working relationship which point to the need for additional skills. Practitioners must be able to communicate in understandable language, provide

sufficient information, treat the patient in a personalized manner, respect the patient's dignity, and attend to his/her comfort. The authors believe that in addition to empathy, the appropriate use of questions, a behavioral awareness of the patient and oneself, attention and response to the environment, and information-giving should be included in both a teaching program and its evaluation.

Grayson, et.al. describe a study using the Hopkins Interpersonal Skills Assessment (HISA) to measure the effects of interpersonal skills instruction given to 33 health associate students from Johns Hopkins University. A control group of 38 physician's assistant students was used in the study.

The goals of the course were: to help the students to explore the effect of their own feelings and attitudes on patient interaction; to teach students to analyze patient-practitioner behaviors; and to teach students ways of enhancing communication. Interpersonal skills were divided into five categories: "observation of social amenities; sensitivity to patients' feelings; interchange of information; organization and structure of interview; attention to environmental factors" (p. 908). The course process included self-exploration exercises, the use of coached patients in videotaped practice interviews, and instruction from clinical social scientists during patient interaction in the clinical setting.

The HISA was used to evaluate students' ability to discriminate and interpret interpersonal behaviors of videotaped simulated patient-practitioner interactions. The results indicated that those students taking the interpersonal skills course improved significantly in their

ability to perceive and interpret interpersonal behaviors. The control group had no significant change. Grayson, et.al. believe that the results support the use of the instructional methods employed, and more generally, the need for specific formal interpersonal skills training for skill acquisition.

Rasche, Bernstein, and Veenhuis (1974) devised a method of systematically teaching interviewing by categorizing all verbal responses of medical students interacting with patients into one of the following categories: evaluative, hostile, reassuring, probing, and understanding. The categories were initially defined and demonstrated to students through the use of a sample patient statement of feeling for which an example of each type of response was provided.

At the Medical College of Wisconsin, this method has been used in a sixteen-week course meeting for four hours weekly. The program was given to all second year students in student-instructor groups of 8-10. The weekly format consisted of student interviews of real patients followed by a group discussion of the interviews and a demonstration interview by the instructor followed by a subsequent discussion of the concepts and issues addressed.

The course was evaluated by means of a pre and post administration of the Physician-Patient Situation Test, a paper and pencil presentation of 35 patient statements to physicians. Multiple choice answers followed each situation representing one response from each category. The students were asked to select the most appropriate response. Students were also asked to tape their first and final interviews for the course. The tapes were coded and rated by five

members of the faculty who served as judges.

The results indicated that after training, students were more able to differentiate understanding responses and more likely to choose them as the most appropriate on a written measure. In addition, after training more understanding responses were used in actual interviews with patients. No control group was used in the study.

Jackson (1978) describes both the Florida Interpersonal Skills Training,(FIST), program for dental students at the University of Florida College of Dentistry and a multifaceted evaluation of the program. The goals of the program are directed towards teaching students how to develop facilitative relationships with others through listening and responding skills.

The first phase of the program focuses on discerning the concerns and feelings of others. This phase involves motivating students, introducing instructional material, and providing opportunity for skill practice. The second phase of the program focuses on responding to the concerns and feelings of others. Students are trained to make probing and understanding responses. These types of responses were found to be rarely used prior to instruction.

There has been an ongoing effort to evaluate the program using the following criteria: student behavior with patients; patient evaluation of dentists who follow FIST practices; student evaluation of the course; and opinions of practicing dentists and auxiliaries regarding the usefulness of the course material. Results indicated that: short-term chairside behavior of students who took the course improved significantly more than that of a control group of students;

lay subjects given written descriptions of dentists interacting with patients judged those dentists who followed the FIST program goals as more sensitive, altruistic, and warmer than other dentists; preclinical dental students who took the course rated it as relevant as the average course in the curriculum; experienced dentists and auxiliaries evaluated the usefulness of the course content very positively.

Scott, Donnelly, Gallagher, and Hess (1973) investigated the validity of interaction analysis as an assessment device in measuring interpersonal clinical skills. The interaction analysis method of categorizing types of doctor responses was presented through a training videotape and programmed booklet with instructor-guided practice. Students, over the course of the program, evaluated videotapes of student-patient interviews using interaction analysis. The interaction analysis method of assessment of the videotaped interviews was compared to ratings by expert judges. The two methods demonstrated statistically significant convergence.

Wepman (1977) points out that though research indicates that communication skills can be effectively taught to motivated subjects, often many dental students lack such motivation. Many don't see the relevance of communication skills courses to dentistry and distrust the mental health professionals teaching them.

To counter these obstacles, the New Jersey Dental School has instituted an interpersonal skills program in which small groups of students are led by dental faculty members. Prior to leading the groups, the relatively untrained faculty members did themselves experience the interpersonal skills course as participants. Programmed

materials provided the structure and basic content of the course.

The goals of the course included student discrimination and performance of effective communication skills. Students were asked to evaluate videotaped interactions involving dental situations and to provide responses to simulated dental situations. The main instructional methods of the course were role-playing exercises and discussion.

A pretest and similar posttest were used involving videotaped vignettes of dental office communications between dentists and patients, dentists and auxiliaries, and between auxiliaries. Wepman noted overall improvement from pretest to posttest, though there was no formal evaluation. The two important features of the course were the use of videotaped vignettes of dental office interaction to maximize relevance and the use of selected clinical dental faculty as group leaders to maximize instructor credibility.

Blanchard, Turner, Eschette, and Coury (1977) describe an assertiveness training course provided for 11 male dental students in the fifth term of a six-term program. Several in this group had been previously suspended for at least one term because they had not met clinical requirements. Various faculty members had recommended these students for inclusion in the course because of either an inability to manage patients effectively or to adequately interact with faculty in the clinic. The students did volunteer for the course, though there was some pressure from the dental school to do so. No control group was used.

The assertiveness training course included the following

components: definitions and descriptions of assertive and non-
assertive behaviors; modeling; role-playing of situations calling for
assertive behavior; feedback from trainers and peers; and verbal posi-
tive reinforcement for assertive responses. Homework assignments
involving noting situations which caused discomfort and attempting
assertive behavior were also utilized. These were reported to the
group at the following session. The first half of the sessions
emphasized dental school situations, and the last half emphasized
more generalized situations requiring assertive behavior.

To evaluate the effectiveness of assertiveness training, two
self-report instruments were given pre and post, the Rathus Assertive-
ness Scale and the Social Boldness Scale of the Guilford-Zimmerman
Temperament Survey. In addition, students were videotaped as they
responded to eight brief role-playing situations before and after the
course. The role-played behavior was rated for nonverbal and verbal
assertive behaviors.

On both self-report measures, students perceived themselves as
being more assertive. Their post-course scores on both measures were
significantly higher than their pre-course scores. On the videotaped
behavioral measure, students were rated significantly higher on the
post-course videotape than on the pre-course videotape. In addition,
eight of the eleven students were promoted. Two of the three who were
dismissed appealed their dismissals. Several faculty members and
participating students informally praised the course. Though a con-
trol group was lacking, both objective and subjective measures indi-
cated that the course successfully furthered the assertive behavior

of students with deficits in this area.

Levine (1979) describes an elective course for optometric students at Pacific University, College of Optometry designed to help student-optometrists develop better communication and counseling skills, interviewing techniques, and patient management. The course, entitled "Patient Communication", includes the following objectives: to make initial patient contacts positive; to enhance communication during patient interviews; to offer systematic training in interviewing and patient management skills; to heighten awareness of the patient as an individual; and to further an optimal doctor-patient relationship through the development of a better professional self-image.

The course consists of both theoretical and practical elements. It utilizes a microskills (Ivey and Authier, 1978) training approach which provides the opportunity for practice and immediate feedback. A rationale for the skills taught is included, and models of both effective and ineffective behaviors are utilized. Students also take turns role-playing the parts of doctor, patient, and observer. A final practice method involves the use of local actors and actresses who play the parts of patients during a 10-minute simulation of an initial interview. The actors and actresses portray various types of patients and enable the student-optometrist to practice the interpersonal skills taught earlier. Immediately after the videotaping sessions, the actors/actresses are questioned about what they liked and didn't like about the student-optometrist's behavior.

Evaluation consisted of written course examinations for

theoretical mastery. In addition, videotapes of students engaging in simulated doctor-patient initial interviews prior to training and towards the end of training were compared. Students were provided with rating forms to evaluate their progress. Though the means of evaluation were informal, Levine believes that the results indicated that interviewing skills are as teachable as technical optometric practices.

Greenberg, Billings, Reiser, and Stoeckle (1979) describe a course offered to second year optometry students at the New England College of Optometry. The purposes of the course were to further students' awareness of various aspects of the interview process and to increase their level of skill development in history-taking.

The course involved the use of videotaped interviews and feedback. Students were urged to discuss their thoughts and feelings during the interviews as well as to comment on what seemed to be problems in the interactions. The course consisted of material to help students overcome deficiencies in three areas: the general conduct of the interview; finding out the primary reason for the patient's visit and pinpointing specific problems; and patient education and counseling. The authors provide a detailed description of skills involved including: attending skills; responding skills; use of open-ended questions; summarizing; and use of clear, nontechnical language. The students were also encouraged to provide information and recommendations to patients in order to increase patient understanding and motivation regarding visual care.

The participating students completed a course evaluation questionnaire after taking the course. According to this survey, the

course was perceived by participating students as a valuable means of both assessing and improving their interviewing skills. They reported that viewing the videotapes motivated them to improve their interviewing techniques. No objective or controlled evaluation was done.

The instructors pinpointed two problem areas which seemed to represent a pattern. First, the optometry students gave far greater weight to the technical aspects of the eye examination than to information-gathering during the interview. The authors attribute this emphasis to their lack of experience in performing the exam. They also point out that the technical examination is emphasized over interpersonal elements throughout the teaching clinic. The second problem involved a small number of students who perceived the role of the optometrist in a very narrow sense and failed to attend to nonocular complaints of patients or broader systemic indications which may have required a referral to another medical specialty.

Interviewing Skills

Bernstein, Bernstein, and Dana (1974) view the interview as the means by which a relationship of mutual trust between clinician and patient is established. Because they maintain that a positive clinician-patient relationship is necessary for both a high quality of medical care and the best interests of the patient, they recommend specific training in interviewing skills.

Bernstein, et.al. believe that research evidence indicates that health care providers should be as skilled in communicating with patients as in correctly diagnosing and treating them. They cite

studies which show that a high percentage of maladies are functional. In addition, physiologically-based diseases often are exacerbated by psychological factors. Surveys of patient attitudes show that patients tend to have confidence in the medical expertise of their doctors, but often find them lacking in empathy, understanding, and a willingness to listen.

Because of differences in background and education between clinician and patient, there often are incongruities in both the understanding of medical problems and expectations of diagnosis and treatment. Bernstein, et.al. place the responsibility on the clinician for communicating with the patient to clarify misconceptions and bridge the perceptual gap between them. They believe that only by doing so, can the clinician gain the patient's cooperation, a vital component of successful treatment.

Bernstein, et.al. make several suggestions for improving communication in the interview setting. First, health care providers must go beyond social conversation. They must help the patient to discuss rather than to avoid feelings.

As a teaching device, the authors divide verbal responses into five basic categories: evaluative responses which judge the patient and imply what he/she should feel and do; hostile responses which anger or insult the patient; reassuring responses which deny the patient's problems and imply that the patient's feelings are inappropriate; probing responses which suggest that more information will result in the clinician's discovering the right solution; and understanding responses which communicate the clincian's empathy. The

authors recommend the understanding response as the means to facili-
tate patient exploration of feelings and attitudes.

Bernstein, et.al. ennumerate several conditions for effective
interviewing. They recommend that the clinician: engage in more
attentive listening than talking; create rapport with the patient by
showing interest and caring for the patient and his/her reasons for
coming; show a serious concern for the patient's problem by quickly
getting to it and not extend social conversation beyond introductory
amenities; arrange for freedom from interruptions; provide for physi-
cal privacy and confidentiality; and remain emotionally objective,
i.e., aware of one's own feelings and able to sufficiently control
them to focus on the needs of the patient. If a referral to a mental
health specialist or agency is indicated, the authors believe that it
is the responsibility of the clinician to explain and help the
patient accept the need for the referral.

Grayson, Nugent, and Oken (1977) have noted that empathy has
received much attention in interpersonal skills courses for medical
students. They believe that other skills in addition to empathy are
important in establishing an optimal clinical relationship between
doctor and patient. These skills include: communicating clearly in
understandable language; providing adequate information; using ques-
tions appropriately; attending and responding to the physical environ-
ment; being aware of the behaviors of the patient and of oneself;
personalizing treatment; and respecting the dignity of the patient.

Greenberg, Billings, Reiser, and Stoeckle (1979) believe that
the following interviewing skills are necessary for professional

optometric practice: introducing oneself; attending to the comfort of the patient; using clear language; attending to the physical setting including the position of the optometrist in relation to the patient; presenting an appropriate professional appearance; maintaining eye contact; using open-ended initial questions; using transitional explanations when shifting topics; summarizing findings; helping the patient to express his/her perspective; knowing the meaning of patient complaints to the patient; and educating and counseling the patient.

Cohen and Baker (1979) have developed a manual for teaching interpersonal skills which further effective clinical interviewing for all health care providers. The skills are specifically directed towards the interview between health care provider and patient. The authors divide the clinical interview into four steps: 1) preparing for the interview; 2) opening of the interview; 3) gathering information; and 4) informing and advising the patient. Exercises and checklists are provided for teaching each step.

Preparing for the interview involves all measures taken by the health care provider before actually seeing the patient. Such measures may include: reading accessible records; consulting with others who have had prior contact with the patient; familiarizing oneself with the patient's name and reason for coming; reflecting on any attitudes or feelings which may hinder interaction with the patient; and setting reasonable yet flexible goals for the interview. The authors believe that preparing for the interview in this way enhances the interview by developing a personalized approach which builds trust and

facilitates later information-gathering through better communication.

The goal of the next step, opening the interview, is to establish trust or rapport with the patient. The authors outline specific behaviors which they believe develop rapport. They suggest the following: greeting the patient appropriately; introducing oneself and stating one's role; arranging for patient comfort by observing the patient for signs of discomfort, inquiring about perceived discomfort, and doing whatever is possible to relieve it; position oneself at eye level with the patient at a distance optimal to communication; and continuing to observe the patient for signs of discomfort throughout the interview.

After attending to the comfort of the patient, the health care provider should ask for initial information, i.e., determine the reason for the visit. Cohen and Baker suggest the use of an open-ended question for this purpose. If there is any hesitation on the part of the patient to state the reason for the visit, the authors suggest that the provider respond to it.

Cohen and Baker stress the importance of non-verbal communication of interest and concern at the beginning as well as throughout the course of the interview. Such non-verbal behaviors include: an interested and relaxed facial expression; a receptive posture; an appropriate appearance; the elimination of distracting mannerisms; and an optimal distance from the patient. In addition, the physical setting should be conducive to communication.

The authors suggest that the patient's response is the best criterion for how effectively the provider is communicating interest

and concern to the patient. If the patient also demonstrates interest and a willingness to explore his/her problems, the provider has succeeded in this goal. In later interviews, the provider's goal becomes to maintain the trust initially established and to increase the personalization of his/her responses based upon what is now known about the patient's needs and style.

When initial rapport has been established, the next step in the interview is to gather information about the patient's problems as well as the patient's thoughts and feelings about the problems. Cohen and Baker believe that the patient's viewpoint is important for both better diagnosis on the part of the clinician and greater involvement on the part of the patient.

The means for gathering information include questioning and responding. Cohen and Baker suggest the use of open-ended questions to facilitate patient exploration and provide the patient's perspective. If specific necessary information has not been provided, direct questions are then appropriate. The authors caution against the use of leading questions. The role of the clinician at this stage is that of an active listener. Cohen and Baker describe the components of active listening as including: facilitative responses which encourage patient exploration; empathic responses which communicate understanding and acceptance of patients' feelings and meanings; and personalized responses which are attuned to the needs and characteristics of the patient.

At different stages in the relationship, the clinician will have different goals and needs. At the beginning, the clinician will want

to facilitate the patient in providing a detailed account of his/her problems. Open-ended questions and facilitative verbal and non-verbal responses are most conducive to this end. Later on, the clinician will want to create continuity with prior visits, narrow the clinical focus, evaluate progress, and offer an opportunity to look into new problems.

After the clinician understands the patient's problems and the patient's perspective on them, the informing and advising stage of the interview follows. Cohen and Baker believe that the degree of patient cooperation and involvement with the treatment plan depends upon the patient's acceptance of the clinician's viewpoint. The authors maintain that patient acceptance is more likely to be achieved when the clinician shows an empathic understanding of the patient's viewpoint and actively involves him/her in planning the treatment. The patient's active participation in the decision-making process is the goal.

Means of involving the patient include the following: asking for the patient's thoughts and feelings before providing information; furthering the patient's understanding where necessary; sharing findings appropriate to the patient's needs and characteristics; helping the patient to express and explore reactions to the findings; using facilitative and empathic skills to check out patient understanding and affective reactions; problem-solving or exploring alternatives with the patient; and scheduling follow-up procedures.

Among the various health care professions, there is considerable overlap in recommended interviewing skills. In general, the affective components of the interviewing process are emphasized focusing

primarily on the patient, but also including the health care provider. The goals are to personalize treatment, to further patient understanding and exploration of feelings, and to involve the patient in his/her own health care. There is great similarity in the literature in both objectives and in means suggested to teach the skills required to achieve the recommended interviewing objectives.

Empathy

The term, empathy, has changed considerably in meaning since first defined as a therapeutic construct by Carl Rogers. Hackney (1978) traces the origin and evolution of the concept of empathy over a twenty-year period beginning with its historical precedents up to its contemporary definitions and applications. He points out that the term, empathy, has been utilized and developed by practicing counselors/therapists, counselor/therapist educators, researchers, and lately the public. All who have used the term, have contributed to its meaning.

Although Rogers was the first to use empathy as a therapeutic construct, Hackney points out that the term had a more general definition prior to that. Empathic experiences were thought of as "emotional projections onto an object, event, or person" (Hackney, 1978, p. 35). The condition of empathy as defined by Rogers had previously been described by other psychotherapists in different terms. Hackney found that by 1968, there were 21 definitions of empathy in the counseling literature. He illustrates that empathy has evolved in meaning from an internal condition to an observable process.

Rogers' definition of empathy was "to perceive the internal frame of reference of another with accuracy, and with the emotional components and meanings which pertain thereto, as if one were the other person, but without ever losing the 'as if' condition (1959, p. 210). Rogers' definition focuses on perception, a nonbehavioral nonquantifiable state. Though Rogers recognized that empathy must be communicated in order to be effective, he distinguished between the state and its communication.

Later definitions expanded the concept of empathy to include both the unobservable state and the observable communication of the state. Carkhuff (1971) defined empathic understanding as the capacity to perceive and understand the feelings related to the verbal and behavioral expressions of another and to precisely communicate this perception and understanding.

Truax and Mitchell (1971) view therapist empathy as an interpersonal skill which can be learned and strengthened as well as an attitude or personality characteristic. Truax and Mitchell believe that for educational purposes, it is best thought of as a teachable response which can be shaped by feedback.

Truax and Mitchell clearly differentiate between therapist empathic understanding and empathic responding. They describe empathic understanding as an attitude or knowledge on the part of the therapist which may be present whether or not accurately empathic responses are made. Accurate empathic understanding may be demonstrated in other ways such as correct diagnosis and the facility to predict future client actions and feelings. Whereas empathic

understanding is a necessary prerequisite for accurately empathic responses, the responses need not necessarily be made.

Truax and Mitchell point out that when empathy is measured according to the therapist/counselor's responses to the client, it is an observable interpersonal skill, not an internal attitude or attribute that is being measured. A lack of empathic responding doesn't provide information about the depth or precision of understanding. There are two dimensions of empathy, understanding and communicating understanding.

The measurement of accurate empathy requires operationalization. Truax's (1961) accurate empathy scale operationalizes empathy by defining it as both perception of the other's immediate feelings and the verbal communication of that perception in language appropriate to those feelings. The accurate empathy scale departed from earlier attempts to measure empathy in that it focused on the communication aspect or therapist empathic responses rather than on attitude or accurate perception. Truax and Mitchell believe, however, "that responses represent relatively permanent attitudes and intentions modified by situational factors" (p. 319). Later accurate empathy scales were derived from the earlier Truax scale.

Hackney (1978) points out that most research in the counseling literature involving empathy focuses on the communication aspect. Truax and Mitchell (1971) describe the methodology utilized in the studies which provided evidence for the effectiveness of empathy on therapeutic outcome and process. The general procedure was to have trained raters use the accurate empathy scales to rate samples of

counseling/therapy interactions. Usually brief segments (three minutes) taken from the middle and last sections of the interview were used as samples; however, there was some variation in the time periods of the interview segments among the studies. Most studies used audiotaped samples, however some used videotaped samples. The ratings were examined in relation to process or outcome dependent variables.

Truax and Carkhuff (1967) provide extensive evidence in support of empathy as a facilitative condition. The authors note that there is variance among the many studies which have provided evidence indicating the efficacy and possible necessity of the therapeutic conditions of accurate empathy, nonpossessive warmth, and genuineness for successful counseling and psychotherapy. Despite differences in outcome measures and therapeutic goals of individual therapists, there were far more measures supporting the therapeutic value of empathy, warmth, and genuineness than against. In addition, almost all statistically significant differences between high and low (or control) therapeutic conditions indicated the effectiveness of high therapeutic conditions. The authors conclude that such significant statistical differences support the position that the general findings did not result from chance.

Truax and Mitchell (1971) concluded after examining both the earlier and later collected research evidence, that counselors and therapists who related to their clients with accurate empathy, nonpossessive warmth, and genuineness were in fact effective. The experimental results supporting this viewpoint were not affected by

either the training or theoretical position of the counselor/
therapist or by the type of client. The various studies involved
diverse client populations including: college students, juvenile
delinquents, hospitalized mental patients, and outpatients classified
as neurotic. In addition, the results occurred in both individual
and group therapy/counseling formats in various types of therapeutic
environments. Later research has supported the findings of the
original studies summarized by Truax and Carkhuff (1967).

Truax and Carkhuff believe that establishing the importance of
the therapeutic conditions in the counseling/therapy relationship has
implications for all other human relationships. The implications of
the research supporting the effectiveness of identified therapeutic
or facilitative conditions apply not only to the training of counse-
lors and therapists, but to other populations as well.

The necessity of empathy for successful counseling/therapy has
by no means been universally accepted. Hackney (1978) points out
that empathy became a controversial issue among counseling theorists
and practitioners. When Rogers first promulgated the concept of
empathy, he included it as one of the "necessary and sufficient" con-
ditions for a positive therapeutic outcome. Behaviorists and others
disagreed with the claim of sufficiency, and several counselor practi-
tioners and researchers raised the question of whether empahy was
even a necessary condition. Some claimed that the studies relating
counselor empathy to positive therapeutic outcome provided little
conclusive evidence. Problems in research, such as the lack of a
clear definition of positive therapeutic outcome and the arbitrary

distinction between process and outcome research obfuscated the issue.

Some recent popular counseling/therapeutic theories de-emphasize empathy. Other current theories include it, but not as a "necessary and sufficient condition". Hackney concludes that the term, empathy, has limited utility both as a research construct and as a concept for counselor education. He believes, however, that though empathy can no longer be considered a unified construct, its importance is not diminished.

Assertion

Assertion or assertive behavior was first defined in a general way. Wolpe and Lazarus (1966) characterized it as all socially acceptable manifestations or rights and emotions. Later definitions, such as Lazarus's (1973), designated more specific response classes of assertive behavior. Lazarus suggested that assertive behavior be divided into four categories: (1) being able to say no; (2) being able to make requests; (3) being able to express both positive and negative feelings; (4) being able to start, maintain, and conclude conversations. Jakubowski-Spector (1973) defines assertion as the honest, direct, and appropriate expression of one's legitimate rights, feelings, beliefs, and opinions in interpersonal situations without the violation of the rights of others. She points out that assertion consists of both verbal and nonverbal components.

Rich and Schroeder (1976) offer a definition that encompasses all of the various definitions and provides for operationalization: "Assertive behavior is the skill to seek, maintain, or enhance rein-forcement in an interpersonal situation through an expression of

feelings or wants when such expression risks loss of reinforcement or even punishment" (p. 1082). This definition in behavioral terms doesn't specify the types of feelings or situations involved.

Alberti and Emmons (1974) describe components of assertive responses as both verbal and nonverbal including aspects such as: eye contact, body posture, facial expression, speech characteristics, and socially appropriate content. These authors and others carefully distinguish between assertive and aggressive responses. What constitutes socially appropriate content has been found to vary among different ages, sexes, and subcultures.

The various definitions of assertion are in agreement though they differ in degree of specificity. The more recent ones are also broader than those formulated earlier.

Rich and Schroeder (1976) note that initially assertiveness was conceptualized as a generalized trait rather than a situational behavior. Salter (1949) believed it to be a broad trait established by classical conditioning. Wolpe (1958) also viewed assertiveness as a generalized trait. However, neither Salter nor Wolpe provided research evidence to support this view.

Contrarily, existing evidence supports the concept of assertiveness as situational in nature. Rich and Schroeder (1976) cite studies which provide research evidence for this view including: factor analysis of various assertiveness inventories which failed to produce a generalized trait; a study which showed variation in assertive responses depending on the stimulus person; and studies which indicated a lack of generalization of assertive behavior from one response

class to another after training. In summary, the authors conclude that assertiveness is best defined as "a group of partially independent situation-specific response classes" (p. 1083).

Classic works involving assertive behavior include that of Salter (1949) in which he describes what he called "excitatory reflexes" and their use in treating many diverse symptoms of persons seeking therapy. These excitatory reflexes are comparable to assertive behaviors and involve both verbal and nonverbal elements. Joseph Wolpe, another pioneer in the development of assertiveness training, provided the rationale of reciprocal inhibition to explain how assertiveness training counterconditions anxiety (1958). Generally, Wolpe believed that two incompatible responses, i.e., anxiety and assertion, cannot exist at the same time. Thus assertive responses, if repeatedly made, reciprocally inhibit and eliminate anxiety.

Contemporary theoretical bases of assertiveness training are both behavioral and cognitive (Lange and Jakubowski, 1976). Alberti and Emmons (1974) describe assertiveness training as the breaking of the maladaptive cycle of "inadequate behavior; negative feedback' attitude of self-depreciation; inadequate behavior" (p. 34). They believe that by changing behavior patterns, assertiveness training can reverse this cycle in the direction of self-enhancement, i.e., assertive behavior; positive feedback; feelings of self-worth; more assertive behavior. As assertive behavior is generally self-rewarding, they theorize that further assertive behavior is likely.

Behavioral theory is based on the belief that behavior can be

changed more easily than attitude and that changing behavior is usually more effective. Rich and Schroeder (1976) ennumerate several methods utilized in assertiveness training based on behavioral theory. They include: operant shaping; hierarchical stimulus presentation; role playing; role reversal; homework assignments; modeling; relaxation; instructions; coaching; external reinforcement; and self-reinforcement.

Wolpe and Lazarus (1966) emphasize the importance of assertion. They state that certain basic rights should be exercised for a healthy life adjustment. The failure to exercise these rights, they maintain, can result in anxiety, physical symptoms, and actual damage to vulnerable organs. Alberti and Emmons (1974) provide a sound rationale for the importance of assertive behavior based on individual rights and relate it to a humanistic philosophy. They use the terms "trainee" and "facilitator" rather than patient and therapist. This change in terminology shifts the focus to one of growth or education rather than therapy.

Lange and Jakubowski (1976) note that since 1970, there has been great activity within the helping professions in research and practice of assertiveness training. Training procedures have expanded and have become more sophisticated. Lange and Jakubowski describe assertiveness training as a semi-structured training approach which includes four components. They are: differentiating among assertion; agression, nonassertion, and politeness; discovering and accepting one's own personal rights and the rights of others; surmounting cognitive and emotional blocks which prevent assertive behavior; and developing

assertive skills through actual practice.

Rich and Schroeder (1976) state that whatever particular asser-
tiveness training model is used, assertiveness training programs
should provide for the following necessary steps: response acquisi-
tion; response reproduction; response shaping and strengthening;
cognitive restructuring; and transfer to real life situations. Proce-
dures or components necessary to implement these steps include:
instructions; modeling; response practice (e.g., behavioral rehearsal,
role-playing); feedback (e.g., audio or video playback, therapist
coaching, group reinforcement, therapist reinforcement); rational
emotive therapy; homework assignments; and graded structure.

Lange, Rimm, and Loxley (1975) provide a rationale for the
inclusion of empathic responding in assertiveness training. They
state two benefits. First, by viewing the situation from the other
person's perspective, the individual is less likely to see that per-
son as overwhelming, rejecting or evil. Secondly, because of this
altered view of the other person, the individual is less likely to
be either unassertive or aggressive. The authors suggest that an
empathic initiation of the direction of the conversation is in itself
an assertive behavior. Frequently it can facilitate the person in
meeting his/her own needs.

Pearlman, Coburn, Guest, and May (1975) provide the following
reasons for the inclusion of empathy training in their assertiveness
training model: to promote supportive group interaction; to elicit
reciprocal listening by including an empathic component in the
assertive response; to check out possible misunderstandings; to

reduce anxiety by concentrating on the other person's message; and to reduce anxiety caused by the fear of being perceived as aggressive.

Several models for assertiveness training are available with suggestions for use with a variety of populations including those by Lange and Jakubowski (1976), Pearlman, Coburn, Guest and May (1975), and Alberti and Emmons (1974).

Research on group assertiveness training has generally supported its efficacy, however several questions remain unanswered. Heimberg, Montgomery, Madsen, and Heimberg (1977) conclude that research findings to date have not substantiated the beneficial claims of the popular assertion literature. They point to several methodological problems such as only one group assigned to each treatment or condition and the use of a single therapist for all treatments or conditions. Though the agree that group assertion training has been shown to be more effective than no treatment, in comparison to placebo and discussion treatments, its relative efficacy is less definitive.

The authors find that for all populations, assertiveness training has resulted in greater behavioral changes than control or placebo conditions; however, especially in short-term treatment, self-reports of anxiety and assertiveness haven't been changed consistently. When assertiveness training is compared with other therapy techniques, there is little difference in the efficacy of treatments.

Heimberg, et.al. also find that not enough preliminary work has been done by experimenters to validate the contents of treatments. Methodological problems involving treatment specification, subject selection, experimental control, and statistical design have not been

adequately solved. Small changes produced by short treatments may not be easily detected by relatively insensitive measures such as self-reports. Follow-up, especially long-term, has not been done in many studies.

Rich and Schroeder (1976) describe the measurement of assertive behavior as presently including self-report inventories, observations of behavior and physiological monitoring. In evaluating the inventories, they find that only the Conflict Resolution Inventory (McFall and Lillesand, 1971) and the Assertion Inventory (Gambrill and Richey, 1975) have shown some validity and utility for assessment and screening functions.

Lange and Jakubowski (1976) note that many paper and pencil inventories have recently been devised for college populations and two for noncollege adults. The authors describe the Adult Self-Expression Scale (Gay, et.al., 1975) and the College Self-Expression Scale (Galassi, et.al., 1974) as most functional for assessing many types of assertive behavior. They rate the Conflict Resolution Inventory as excellent though limited to one class of assertive behavior, i.e., refusing requests. The Assertion Inventory is recommended because of its different format which measures both degree of discomfort and response probability. All of these instruments were normed on a white population, and none have a separate scale for assessing aggressive behavior.

Lange and Jakubowski suggest other procedures for measuring progress in assertion. They include: attending to the types of situations that group members wish to role-play, noting whether the level

of risk is increasing; monitoring progress reported to the group regarding the past week's assertive behaviors; monitoring progress reported in group members' logs, attending to types of frequencies of assertive behavior; and behavioral measures, i.e., simulation of real-life situations via role-playing and the rating of videotaped responses.

Characteristics of Optometry Students

Redmond and Allen (1979) report on a study conducted by the Manpower Resources Project of the American Optometric Association of first through fourth-year optometry students enrolled in schools and colleges of optometry during the 1975-1976 school year. The data, which were gathered from 12 of the 13 optometric teaching institutions include demographic, socioeconomic, and financial characteristics of students. From the 12 schools cooperating in the study, approximately 70% of the students responded.

Regarding geographical distribution, the study found that the Western census region had the highest ratio of students to population, 2.1 per 100,000. The South had the lowest ratio, 1.5 per 100,000; and the Northeast and North Central regions were in the middle with equal ratios of 1.9 per 100,000. The data suggested that the presence of an optometry school within a state affects the number of students from that state who attend optometry school. The data also revealed a strong positive relationship between region of residence and school attended. Though the researchers expected that private schools would be more diverse in geographical distribution of students, the data indicated a rather small degree of regional and state mobility. Students tended to attend optometry schools closest to their states of

residence.

A comparison of type of community, i.e., rural, suburban, or urban, of permanent residence with type of community of intended practice seemed to indicate a preference for less densely populated areas. Students from rural and suburban communities generally planned to practice in similar types of communities. Very few of the students from rural and suburban areas planned to practice in urban areas. On the other hand, students from urban communities seemed to show more of a desire to practice in less dense communities, especially suburban areas.

Regarding the proportion of optometry students by sex, 88% were male and 12% female. Regarding race, 92% of the students were white, 7% were black, Asian, or other, and 1% did not respond to this question. The proportion of nonwhite students differed considerably by sex, with a greater percentage of female students who were from minority groups (19%) than of male students (5%).

Several socioeconomic characteristics of the students' parents were investigated. Four-fifths of the students provided information regarding their estimation of parental combined annual income. The median parental income reported was $17,000. A comparison of the estimated median parental income of state schools with that of private schools showed no significant difference. There was some variation of median income among the schools.

Another indicator of socioeconomic status is level of education. Students were asked to indicate the highest educational level of each parent. The same level of education for both parents was indicated

by 45% of those students responding to this item. Twenty percent reported that both parents had finished high school. The level reported most frequently was "both parents completed high school". There was substantial variation among the schools on the educational level reported by the greatest proportion of students within a school. The data contradict the notion within the profession that optometry students substantially come from professional families in which one parent is an optometrist.

Pre-optometric education was another area of inquiry. Only 62% of the students responded to the item requesting information about post-high school education, major field and degrees. Of these, approximately 85% indicated at least bachelor's level pre-optometric education. Six percent reported master's level degrees and 9% reported associate level degrees. Only three students reported a doctoral level degree.

Regarding college major, 52% of the students responding to this item reported a major in the biological sciences. The second most frequently reported field was the social sciences. No other major field category was reported by 10% or more of the students. There was great variation among schools on this item.

A study of persons taking the Optometry College Admission Test (OCAT) from the years 1971-1978 provides additional information regarding characteristics of optometry students as well as apparent trends or changes in these characteristics over this time period. Since 1971, basic demographic information was gathered from students taking the OCAT. In 1973, numerous other items were added to the

biographical questionnaire yielding much valuable statistical informa-
tion concerning the characteristics of those applying to optometry
schools. Levine (1978) reports on these characteristics. Though the
data were derived from all applicants, not only those admitted as stu-
dents, it is from this group that all perspective optometry students
are selected.

Over the period from 1971-1978, the percent of female applicants
rose markedly from 5% to 19%. The college status of applicants
shifted significantly, with more seniors and fewer sophomores apply-
ing. The most typical college major, biology, rose from 45% to 62%.
Over this time period, applicants living in various geographical
regions of the country were consistently proportional to the popula-
tions of their respective regions.

The expanded survey yielded the following information over the
period from 1973-1978. More than three-quarters of the applicants
were single at the time they took the OCAT and had no plans for
marriage upon admission to optometry school. Fewer than 5% had one
child, and 2% had two or more children.

Regarding parental education, over half of the applicants'
fathers had some college education, and 23%-25% had attended graduate
or professional schools. Only 10% of the applicants' mothers had
graduate or professional training. Most applicants, 37%-34%, reported
attending high school as their mothers' highest level of education.

The most frequently appearing occupations of the applicants'
fathers included: small business proprietor; skilled craftsman;
professional; and executive. Only 6%-7% of the applicants' fathers

were optometrists. Half of the applicants' mothers were homemakers.

Regarding parental combined annual income, over a third reported $20,000 or more. Only 2% reported less than $5,000. Over half of the applicants were reared in suburban communities, the remainder about equally divided between urban and rural environments. The overwhelming majority of the applicants were white, 87%-79%. Orientals comprised 4%-7%, and blacks 3%. Regarding religious affiliation, slightly more than a third were Protestant, about one fourth Catholic, and 16%-12% Jewish.

Three fourths of the applicants reported grade point averages between C+ and B. The more recent years indicated a trend towards higher grade point averages.

The primary reason given for choosing optometry as a career was a desire to work with people, reported by 48%-43% of the applicants. Interest in the content of the profession was selected as the primary reason for 37%-43% of the applicants. Other primary reasons for career choice were rarely cited, e.g., prestige, monetary reward, poor vision. Levine points out that the candor of responses to this question, as well as others, could have been affected by the applicants' believing that certain answers were more acceptable and more likely to favorably influence their chances for admission to optometry school.

Summary

Interpersonal skills training originates from formal counselor/ therapist training programs. The initial identification of facilitative helper characteristics led to the development of concrete skills

which could be taught. The advances contributed by Rogers, Truax and Carkhuff, Carkhuff, Ivey and Authier, Kagan, Egan and Gordon have been cited. The concept of interpersonal skills training has been extended to increasingly large numbers of persons outside of the psychologically helping professions. Models have been developed specifically for teaching interpersonal skills to health care professional students.

Interpersonal skills training has become an accepted part of curricula in health professional schools. This movement reflects an increasing emphasis within health care on the doctor-patient relationship and the personalization of treatment. An overall description of the existing interpersonal skills programs within health professional education reveals: the lack of a unified definition of interpersonal skills; inadequate evaluation methods; increasingly diverse backgrounds of instructors; and an increase in the use of videotechnology.

Most of the studies reported in the literature relating to interpersonal skills training in the health professions involve programs in medical schools. Most medical schools now offer such programs and have implemented them relatively recently. The skills most commonly taught are those of interpersonal process, information-gathering, and psychological intervention.

Many different techniques and methods of instruction for teaching interpersonal skills to medical students have been reported in the literature. The goal of these various approaches and methods was the improvement of student communication skills through live or simulated practice, focused observation, and systematic feedback.

The desired outcome was an increased student sensitivity to both their own feelings and to those of patients. There is a need for more interpersonal skills programs directed to students in their clinical years.

Most program evaluation is either indirect or direct but limited to skill acquisition during or immediately after training. There is a need for follow-up studies, more specific patient outcome indices, and pretesting of student skills prior to training.

Selected studies illustrated the variety of health professional populations, skills taught, methods utilized, and evaluation efforts. Populations included medical students, dental students, health associate students, and optometry students. Program content included: attending and responding skills; interviewing techniques; empathy, warmth, and congruence; self-awareness of feelings; and assertiveness. Methods included: microcounseling; modeling; the use of real and simulated patients; role-playing; use of videotechnology; and counselor-type training. Evaluation ranged from no formal assessment of efficacy to experimental designs using control groups. Evaluation methods included: paper and pencil instruments; ratings of pre and post videotaped or audiotaped interviews; student evaluation of course effectiveness; interaction analysis; and cognitive tests. There was no formal evaluation of any interpersonal skills program for the population of optometry students.

Interviewing skills were described as the means by which doctor-patient rapport is established. Several attitudinal and behavioral conditions for effective interviewing were ennumerated.

Among the various health care professions, there is considerable over-
lap in recommended interviewing skills. In general, the affective
components of the interviewing process are emphasized focusing pri-
marily on the patient, but also including the health care provider.
The goals are to personalize treatment, to further patient understand-
ing and exploration of feelings, and to involve the patient in his/her
own health care. There is great similarity in the literature in both
objectives and in means suggested to teach the skills required to
achieve the recommended interviewing objectives.

Empathy has been defined as both an unobservable characteristic
or attitude and an observable interpersonal skill which can be learned
and strengthened. When empathy is measured according to the counse-
lor's responses to the client, it is the interpersonal skill which is
being measured. There are two dimensions of empathy, understanding
and communicating understanding. Most research in the counseling
literature focuses on the communication aspect. Ample research
evidence supports empathy as a facilitative condition. The establish-
ment of empathy as a facilitative condition has implications not only
to the training of counselors and therapists, but to other populations
as well.

Several definitions of assertion were provided which could be
briefly summarized as the appropriate expression of one's feelings
and/or needs. Research evidence indicates that assertion is situa-
tional behavior rather than a generalized personality trait. Asser-
tiveness training was described as a semi-structured training approach
based upon behavioral and cognitive theories and techniques. The

component steps of assertiveness training were included and several assertiveness training models were cited. Research on group assertiveness training has demonstrated that assertiveness training is more effective in increasing assertion than no treatment. For all populations, assertiveness training has resulted in greater behavioral changes than control or placebo conditions; however, especially in short-term treatment, self-reports of anxiety and assertiveness haven't been changed consistently. When assertiveness training is compared with other therapy techniques, there is little difference in the efficacy of treatments. There have been methodological problems involved in many of the studies on assertiveness training, and there is a need for further research. The measurement of assertion was discussed and several specific assertion inventories cited.

Optometry students were characterized as primarily white, male, single, and middle class, most commonly majoring in biology prior to entering optometry school. The percentage of female students has been increasing markedly in recent years. Students were likely to attend optometry schools closest to their states of residence.

CHAPTER III

METHODOLOGY

The purpose of this study is to measure change in interviewing

skills, empathy and assertion in fourth-year optometry students at the

Illinois College of Optometry who take the elective course, Interpersonal

Skills for Optometrists, as compared to a control group. The primary

focus of the empathic and interviewing skills training is directed

towards the professional role; however, personal and social applications

are also included. The assertion training is more generalized in scope,

applying to personal and professional situations.

This chapter consists of a description of the methodology used to

evaluate the effects of the course. The sections will include: the

research design; the setting; the population; the pilot study; the

sample; the instruments; the behavioral test; the administration of

tests; the ratings; the instructor; the treatment; the hypotheses; and

the methods of data analysis.

The Research Design

Because this experiment is applied research in a field setting, the

ideal experimental condition of randomization of subjects was not pos-

sible. Instead, a variation of Campbell and Stanley's Nonequivalent

Control Group Design, (1963) was used. This design is frequently used

in educational settings where pre-existing groups or self-selected

groups commonly existed. This design consists of experimental and

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control groups which are not randomly selected and therefore cannot be assumed to have pre-experimental equivalency. In this study, the experimental group was self-selected, i.e., they elected to take the course. The control group, though randomly selected from a similar population of fourth-year optometry students, did not elect to take the course. Therefore, a pretest was necessary to establish inital equivalency.

As Campbell and Stanley point out, even a nonequivalent control group is superior to a One-Group Pretest-Posttest Design in establishing internal and external validity. The presence of a control group helps to control for the confounding effects of history, maturation, testing, and instrumentation. The greater the equivalence of the two groups, as established by the pretest, the greater the control of the self-selection factor.

In this situation, there were plausible reasons for expecting differences between the two groups. Students could have elected to take the course either because they were more introverted and deficient in interpersonal skills or because they were more extroverted and proficient in them. Both possibilities indicated the need for a pretest to establish initial equivalency.

The Setting

The Illinois College of Optometry is a private, independent institution providing optometric education to approximately 600 students. It is located on the south side of Chicago in an area which includes medical facilities, educational institutions, and some industry. It consists of a building which includes classrooms, laboratories, a

library, and a clinic staffed by supervised interns (third and fourth-year students) who provide optometric services to the community. There is also a residence hall located nearby, primarily for first-year students.

The Illinois College of Optometry awards two earned degrees, the degree of Doctor of Optometry (O.D.) and the degree of Bachelor of Science in Visual Science (B.S.V.S.). The Doctor of Optometry degree is awarded upon the successful completion of the four year professional program; the Bachelor of Science in Visual Science degree is awarded upon the completion of specified pre-professional requirements in addition to two years of professional study. The Illinois College of Optometry is fully accredited and meets all the requirements of governmental and professional organizations regulating optometric education.

The Population

Available information concerning the demographic characteristics of fourth year students included data on sex, age, marital status, geographical distribution, undergraduate major, and relatives in the optometry profession. The distribution of students by ethnic/racial group and sex was available for the entire student body.

Of the 145 fourth year students, 130 (89.7%) were male and 15 (10.3%) female. The age range was 24-34 with the modal category within this range of 25-29.

Table 1 describes the distribution of the total student body by ethnic/racial group and sex. Students are primarily white and male. In all racial/ethnic categories but black, the males outnumber the females. There are no black males presently enrolled; however, there

Table 1

Distribution of Total Student Body by
Ethnic/Racial Group and Sex

Ethnic/Racial Group	Male	Female	Total
Alien	2	0	2
Black	0	4	4
American Indian or Alaskan Asian or Pacific Islander	17	6	23
Hispanic	2	0	2
Other (White)	486	78	564
Total	507	88	595

are four black females.

Regarding the distribution of fourth-year students by state, the largest number (42) come from Illinois. Other states with relatively large numbers of students include: New York (19); Wisconsin (18); Michigan (15); Iowa (10); and California (10).

Undergraduate major was defined as having completed an undergraduate degree prior to admittance to optometry school. The most common undergraduate major was biological science, selected by 41 students. The numbers of students having other undergraduate majors included the following: psychology (11); chemistry (6); natural science (1); business (2); other (26). The remaining students did not complete a degree prior to entering optometry school. This group consisted of 58 students.

Thirty-two of the students had a relative practicing optometry. For 19, the relative was a father. For the remaining 13, the relative was a brother, uncle, or cousin.

The Pilot Study

Because the course, Interpersonal Skills for Optometrists, was new and never offered before at the school, the researcher believed that a pilot study was indicated for several reasons. First of all, it was not known whether optometry students would be receptive to the course. This type of interactive, experiential course was very different from the didactic or technical courses which comprised the curriculum. There was the important question of whether a sufficient number of students would choose this course as an elective.

Secondly, an assessment was required to measure existing skills

and attitudes. Several questions regarding the students' present level of interpersonal functioning required answers. Were students presently using optimum interviewing skills? What areas were adequate, and what deficiencies existed? Did students tend to respond empathically to patients? Were students presently behaving assertively and feeling comfortable while doing so?

Thirdly, gathering information through pretesting was necessary to establish course objectives according to assessed needs. Once objectives were established, course content could be developed and implemented.

Fourth, course content effectiveness could be evaluated by assessing change in interviewing skills, empathic responding, and assertion by comparing pretest and posttest measures on an informal level and surveying subjective impressions of the pilot study group.

Fifth, the adequacy of measurement instruments and procedures could also be evaluated and further developed if necessary.

The course was offered during the Spring Quarter, 1979, as an elective for fourth-year students. It was taught by the researcher. Twelve male students enrolled, indicating interest on the part of some students for a course of this type and providing a pilot study group. The pilot study course closely paralleled the course used in the present study in objectives, content, specific skills taught, and methods (See the description of the treatment in this chapter).

It was evaluated informally in several ways. A videotaped behavioral measure was used to assess clinical interviewing skills. Students were videotaped while engaged in a four-minute simulated

interview with a coached patient at the beginning and towards the end of the course. The videotapes were compared by the class and critiqued using the criteria of the Checklist of Interviewing Skills adapted by the researcher from Cohen and Baker (1979). Two paper and pencil measures were used. The Patient Response Style Indicator was developed by the researcher as a cognitive measure of the likelihood of responding empathically to patients. The Assertion Inventory (Gambrill and Richey, 1975) was used to measure degree of discomfort in various situations requiring an assertive response and response probability, i.e., likelihood of behaving assertively in the various situations (See the description of the instruments in this chapter). In addition, a self-report measure of skill development and an evaluation of the various components of the course was given to the pilot study group.

Pretesting revealed virtually no tendency to respond empathically to patients, either in attitude or actual response. The mean score on the Patient Response Style Indicator was 1.08 out of a maximum score of 12. The median and modal scores were both 0. Though the behavioral test was not formally rated, informal viewing by the experimenter and the class revealed almost a total absence of empathic responding.

Regarding other interviewing skills, the pretest videotapes indicated the following general impressions: variable use of eye contact, attentive posture, interested facial expression, introductions, and greetings; little use of open-ended questions; and almost total neglect of the patient's feelings. In general, pretesting indicated the need for interviewing skills training.

The Assertion Inventory pretest scores of the pilot study group were fairly close to the male norm groups on degree of discomfort but were higher than the two largest male norm groups on response probability. Only 17% of the pilot study group could be categorized as assertive when considering both scores together. The pilot study pretest indicated a need for assertiveness training among the large majority of the group.

Table 2 compares the mean pretest and posttest scores of the pilot study group on the Patient Response Style Indicator and the Assertion Inventory. Posttest scores on the Patient Response Style Indicator were markedly higher, indicating a strong increase in the tendency to respond empathically to patients. On the Assertion Inventory, posttest discomfort scores were only very slightly lower than pretest scores indicating little change in level of anxiety when in a situation requiring assertive behavior. Posttest response probability scores were clearly lower, indicating an increase in the likelihood of assertive behavior.

The posttest videotapes revealed better interviewing skills and increased responding to feeling. Further course evaluation included a subjective questionnaire in which course participants were asked to assess their own skill development in the various areas treated in the course. In most categories, the majority of students indicated a moderate increase in skills applied in their professional role and a moderate or slight increase in skills applied more generally in their personal lives. Table 3 indicates the modal responses for the various

Table 2

A Comparison of Mean Scores on Pretest and Posttest Measures
of the Pilot Study Group on the Patient Response Style
Indicator and the Assertion Inventory

	Pre	Post	Change
Patient Response Style Indicator	1.08	7.75	6.66
Assertion Inventory*			
Degree of Discomfort	95.08	94.08	-1.0
Response Probability	111.25	100.58	-10.67

*A decrease in Assertion Inventory scores indicates less
discomfort and a higher probability of assertive behavior.

Table 3

Self-Assessed Modal Responses of Pilot Study Group Regarding
Skill Development Resulting from Course Participation

Skill	Modal Response
Regarding role as optometrist:	
Attending skills	3
Conveying a caring attitude	3
Responding to feeling	3 & 4 (bimodal)
Awareness of own feelings	3 & 2 (bimodal)
Awareness of patients'feelings	3
Expressing self directly and appropriately	2
Regarding generalized application (as person):	
Awareness of own feelings	2
Awareness of feelings of others	2 & 3 (bimodal)
Responding to feelings of others	3
Expressing self directly and appropriately	2

Skills were rated numerically according to the following scale:

4 Greatly increased
3 Moderately increased
2 Slightly increased
1 No change

skill areas.

The questionnaire also provided the opportunity for students to evaluate the course content. Virtually all components of the course were rated as "somewhat effective" or "very effective". Those aspects of the course most frequently described as "very effective" were: class exercises, role-playing, and discussion. Table 4 demonstrates the modal responses for these components.

In addition, students were asked to express their opinions of the time allocated to various subject areas. Most all of the students believed that the right amount of time was spent on attending skills, awareness of own feelings, and awareness of others' feelings. On the other hand, the majority of students indicated that more time should have been spent on assertion.

In summary, all measures indicated both behavioral and cognitive changes in the direction of improved interviewing skills, greater awareness of patients' feelings and more empathic responding to patients. Some students showed gains in assertion. All students evaluated the course as effective and perceived some degree of skill development on their parts. In general, the measures were positive and indicative of the efficacy of the course. However, only raw data with no statistical analysis was used for this assessment. In addition, the videotapes were informally rated by the class and the instructor rather than by the independent raters.

As a result of feedback from the pilot study group, changes were made in the course content used in the present study. These changes included less time on self-awareness and self-disclosure exercises and

Table 4

Modal Responses of Pilot Study Group's
Evaluation of Course Content

Course component	Modal response
Journals	2
Container projects*	2
Class exercises	3
Text	2
Roleplaying	3
Lectures	2
Discussion, i.e., sharing with group	3

The various course components were evaluated according to the following scale:

3 Very effective
2 Somewhat effective
1 Ineffective

*Container projects were items, e.g., bags, boxes, hats, made by students to represent their inner and outer selves. The projects were used in a lengthy self-disclosure exercise.

more time on assertion. These exercises took too much time and pre-
vented enough time being available for assertiveness training.

The Sample

Selection

Subjects consisted of 25 fourth-year students who registered for
the elective two credit-hour course, Interpersonal Skills for Opto-
metrists (Optometric Science Course, 410-A), and 20 randomly selected
fourth-year students. Students taking the course during the Fall
Quarter, 1979, comprised the experimental group. Those students ran-
domly selected and not taking the course (who consented to participate
in the study) served as a nonequivalent control group.

To publicize the course, which had been offered only once
before, a course announcement and description was placed in the mail-
boxes of all fourth-year students. In addition, a course outline was
available in the registrar's office. Students learned of the course
either by hearing about it or via the announcements. Registration
was restricted to 25 students.

The control group was obtained by randomly selecting 65 fourth-
year students by computer. Students who were selected but registered
for the course were excluded. The remaining students were asked to
participate in the study in the order in which they were selected.
Not all students selected consented to participate. If one refused,
the next on the list was asked until a total number of 20 students
was obtained as a control group. (See Appendix A for letter to
control group.)

Students were informed that their participation in either

experimental or control groups involved their completing two paper and pencil psychometric instruments and their participation in a four-minute videotaped simulated interview with a coached patient on two separate occasions. They were also told that the resulting data would be used in a research project. Confidentiality regarding the evaluation and use of research data was assured. Control group subjects were paid $10.00 for their participation upon completion of their committment. Experimental group subjects were not paid because the experimental procedures were part of regular course activities. Signed consent forms were obtained from all subjects (See Appendix B).

Characteristics

Table 5 describes demographic characteristics of the experimental and control groups. (See Appendix C for Personal Data Sheet.) The data suggest both similarities and differences between the two groups. The experimental group was older than the control group and had a higher percentage of females, though females comprised a small minority in both groups. The experimental group was more diverse than the control group in religion, with lower percentages of Protestants and Jews and nearly a quarter of members designating "no religion". There were no control group members designating "no religion". Regarding marital and parental status, the two groups were similar.

Geographically, the experimental group was slightly more diverse than the control group. Both groups had the largest percentages of members from the Midwest, but the control group had more members from the Midwest and the East and fewer from the West. The control group had more members coming from small towns and suburbs of large cities.

Table 5

Demographic Data of Experimental and Control Groups

	Experimental	Control	Total
Mean age	26.2	25.4	--
Sex			
Male	22 (88%)	19 (95%)	41
Female	3 (12%)	1 (5%)	4
Religion			
Protestant	6 (24%)	10 (50%)	16
Catholic	5 (20%)	3 (15%)	8
Jewish	6 (24%)	7 (35%)	13
Other	2 (8%)	0	2
None	6 (24%)	0	6
Marital Status			
Married	13 (52%)	11 (55%)	24
Single	12 (48%)	9 (45%)	21
Parental Status (having children)	2 (8%)	2 (10%)	4
Regional Origin			
East	4 (16%)	4 (20%)	8
Midwest	16 (64%)	14 (70%)	30
Central	0	0	0
South	1 (4%)	0	1
West	4 (16%)	2 (10%)	6

Table 5 (cont.)

	Experimental	Control	Total
Size of city or town			
Large city	3 (12%)	2 (10%)	5
Medium-sized city	8 (32%)	0	8
Small town	6 (24%)	8 (40%)	14
Suburb of large city	8 (32%)	10 (50%)	18
Undergraduate major (not necessarily a degree)			
Science	22 (88%)	17 (85%)	39
Combination science/ non-science	1 (4%)	1 (5%)	2
Non-science	2 (8%)	2 (10%)	2

Nearly one-third of the experimental group came from medium-sized cities; no members of the control group came from this category.

Undergraduate majors were distributed similarly in both groups, the large majority of students having science majors. In general, though the two groups were similar in many respects, the experimental group was more diverse in several characteristics. These differences and the self-selection of the experimental group indicate the need for pretesting to establish initial equivalency on the dependent variables.

Instruments

The two paper and pencil instruments used in this study were the Patient Response Style Indicator and the Assertion Inventory (See Appendix D).

Patient Response Style Indicator

This instrument was developed by the research as a cognitive, attitudinal indicator of the likelihood of optometry students to respond empathically to patients. It is not a behavioral measure. The Patient Response Style Indicator consists of 12 patient statements typical of clinical optometric situations. Each statement expresses a feeling about a situation. Students were asked to assume that the students were made to them by patients that they were examining in the clinic. They were to choose the response most like the one they would give in the situation. Each patient statement is followed by four possible responses, one of which is accurately empathic. Others are advising, information-giving, humorous, questioning, judgmental, reassuring, or inaccurately empathic. In several items, the empathic

response is paired with another type of response to combine empathy with more usual types of responses emphasized in clinical training.

The Patient Response Style Indicator was validated by expert opinion. Five faculty members (Ph.D. level) with clinical and teaching experience related to interpersonal skills training in the Guidance and Counseling or Psychology Departments at Loyola University of Chicago were mailed a copy of the instrument used in the pilot study and an accompanying letter (See Appendix E). They were requested to respond to this instrument in several ways. First, they were instructed to circle each response to the patient statements which they judged as empathic. Secondly, they were asked to comment on any aspect of the instrument, e.g., language, appropriateness of empathy in the situation. Finally, they were asked to answer the following question: "In your judgment, in light of the instructions given on the instrument, would this instrument provide a cognitive or attitudinal, not necessarily behavioral, measure of the likelihood of optometry students to respond empathically to patients?"

Four of the five faculty members responded. There was a strong consensus regarding which responses were empathic. Several comments and suggestions were offered and utilized to improve the instrument. All four responding faculty members evaluated the original instrument positively as an attitudinal measure of the likelihood of optometry students to respond empathically to patients.

Suggestions for improvement included the following: shortened empathic responses to more realistic conversational lengths; greater variation in the format of empathic responses (less "You are..."

beginnings); inclusion of an inaccurate empathic response; combination of an empathic response with another type of response such as information-giving or reassurance to make the empathic response more consonant with professional training; and the elimination of stilted language. These suggestions were used to revise the original version of the Patient Respose Style Indicator.

After revisions were made, the faculty members were sent a copy of the revised form of the Patient Response Style Indicator and a second evaluation letter (See Appendix E). They were requested to follow these directions: "For each numbered patient statement, circle the response, if any, which you would consider accurately empathic. The response which you consider empathic may have other components as well, such as information-giving or reassurance; however, it should communicate an awareness of the patient's feeling and the reason for the feeling."

The faculty members were again asked whether the Patient Response Style Indicator would provide an attitudinal measure of the likelihood of optometry students to respond empathically to patients. All five faculty members responded positively to this question. The revised form of the instrument was subsequently used in this study as an attitudinal measure of the likelihood of optometry students to respond empathically to patients.

Assertion Inventory

Gambrill and Richey's (1975) measure, the Assertion Inventory (AI) was designed for heterogeneous subjects. It consists of 40 items and assesses three areas of information: degree of discomfort;

likelihood of engaging in assertive behavior; and situations in which
one wants to behave more assertively. Only the first two areas are
used in this study. Response classes include:

> (1) turning down requests; (2) expressing personal limitations
> such as admitting ignorance in some areas; (3) initiating social
> contacts; (4) expressing positive feelings; (5) handling criti-
> cism; (6) differing with others; (7) assertion in service situa-
> tions; (8) giving negative feedback (Gambrill and Richey, 1975,
> p. 551).

Normative data were derived from both college students and women
taking assertiveness training. Test-retest reliability for the inven-
tory was high, $r = .87$ for degree of discomfort and $r = .81$ for response
probability, as determined in an undergraduate sample ($n = 49$). Some
evidence for validity includes the identification of an unassertive
group among social science students and the comparison of the clinical
and undergraduate samples. The mean discomfort score for the 19
women seeking assertiveness training was significantly higher prior
to training than scores of two or the undergraduate samples. However,
Rich and Schroeder (1976) point out the lack of a correlation of
Assertion Inventory scores with behavioral tests of assertion.

For all undergraduate samples, the mean discomfort and response
probability scores for men and women were fairly similar. Standard
deviations for all undergraduate samples showed a fairly wide range
indicating that assertion varies widely within a normal population.
Discomfort scores were usually lower than response probability scores.
Males tended to have more of a discrepancy between discomfort and
probability scores. Gambrill and Richey speculate that the greater
discrepancy could result from a greater denial of or hesitation to
admit anxiety and/or their higher probability scores.

The Assertion Inventory was chosen for use in this study because of its unique format yielding both discomfort and response probability scores, its high reliability, and partial evidence for validity. Its normative data derived from college students and mature women are also appropriate to this study.

Evaluation Instruments Used in the Behavioral Test

A behavioral test was used to measure interviewing skills and level of empathy. It consisted of a four-minute simulated interview with a coached patient which was videotaped before and after treatment. Two independent raters evaluated subjects using an adapted combination of two checklists of interviewing skills (Cohen and Baker, 1979) and Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement (Carkhuff, 1969) to evaluate empathy (See Appendix F).

The Checklist of Interviewing Skills, adapted from Cohen and Baker's (1979) Chapter 2 checklist, "Opening the Interview" (pp. 22-23) and Chapter 3 checklist, "Gathering Information" (pp. 44-46) closely follows course objectives and covers course content. It meets the criteria for effective use of checklists described by McPherson (1974). Reliability criteria for checklists include the following: items should be clearly expressed in behavioral terms; only important items should be included; checklist shouldn't be too long; checklist should provide for unanswered items with space for explanations. Validity criteria include: items should reflect instructional objectives; items should reflect established performance criteria of skills; items should cover all critical points of skills; items should not be

trivial or repetitious; and items should be presented in the natural order of sequence in the performance of skills.

The Checklist of Interviewing Skills consists of the skills evaluated, behavioral criteria for each, criteria ratings of "yes", "no", or "no answer", and space for comments. Skills for opening the interview include: introducing; arranging for patient comfort; asking for initial information; and communicating interest nonverbally. Skills for information-gathering include: use of open-ended questions; use of facilitative responses; use of empathic responses; use of personalized language; and the use of direct questioning.

Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement (Carkhuff, 1969) is a rating scale developed to evaluate the communication of empathy. It provides a qualitative measure which is not possible in a dichotomous instrument such as a checklist. Because the communication of empathy may be demonstrated in varying degrees, it is important to include a qualitative measure of empathic behavior in this study.

Scale 1 Empathic Understanding... consists of five levels, one being the lowest and five the highest. Partial descriptions for the five levels are as follows:

Level 1
The verbal and behavioral expressions of the first person either do not attend to or detract significantly from the verbal and behavioral expressions of the second person(s) in that they communicate significantly less of the second person's feelings than the second person has communicated himself.
Level 2
While the first person responds to the expressed feelings of the second person(s), he does so in such a way that he subtracts noticeable affect from the communications of the second person.
Level 3
The expressions of the first person in response to the expressed

feelings of the second person(s) are essentially <u>interchangeable</u>
with those of the second person in that they express essentially
the same affect and meaning.
Level 4
The responses of the first person add noticeably to the expres-
sions of the second person(s) in such a way as to express feel-
ings a level deeper than the second person was able to express
himself.
Level 5
The first person's responses add significantly to the feeling and
meaning of the expressions of the second person(s) in such a way
as to (1) accurately express feelings levels below what the person
himself was able to express or (2) in the event of on going deep
self-exploration on the second person's part, to be fully with
him in his deepest moments (Carkhuff, 1969, pp. 315-317).

Scale 1 Empathic Understanding... was developed as a measure of

counselor/therapist empathy. Communicating high levels of empathy

is an accepted primary function of counselors/therapists. The primary

function of optometrists is to provide visual care. The expectations

for optometrists are different from expectations for mental health

professionals. Therefore, an optometrist who is communicating empathy

at Level 3 is adequately responding to patients' feelings within the

parameters of that professional role. Functioning at Levels 1 or 2

would likely impede an optimum doctor-patient relationship, and func-

tioning at levels 4 and 5 may go beyond what is optimum.

Carkhuff (1969) provides documentation for the scale's validity.

This scale is derived in part from "A Scale for the Measurement
of Accurate Empathy," which has been validated in extensive pro-
cess and outcome research on counseling and psychotherapy (sum-
marized in Truax and Carkhuff, 1967), and in part from an
earlier version that had been validated in extensive process and
outcome research on counseling and psychotherapy (summarized in
Carkhuff, 1968; Carkhuff and Berenson, 1967). In addition,
similar measures of similar constructs have received extensive
support in the literature of counseling and therapy and education.
The present scale was written to apply to all interpersonal pro-
cesses and represents a systematic attempt to reduce ambiguity
and increase reliability. In the process many important
delineations and additions have been made, including, in parti-
cular, the change to a systematic focus upon the additive,

subtractive, or interchangeable aspects of the levels of communication of understanding. For comparative purposes, level 1 of the present scale is approximately equal to stage 1 of the Truax scale. The remaining levels are approximately correspondent; level 2 and stage 2 and 3 of the earlier version; level 3 and stages 4 and 5; level 4 and stages 6 and 7; level 5 and stages 8 and 9. The levels of the present scale are approximately equal to the levels of the earlier version of this scale (p. 315).

The Behavioral Test

The behavioral test consisted of a four-minute simulated interview with a coached patient. For the pretest, the coached patient was a 20 year-old female communications major with acting experience from a local university. For the posttest, the coached patient was a professional radio and television actress in her late thirties. The situations given to the coached patients, as well as the feelings they were instructed to express (See Appendix G) were similar. They were also both females. It was desirable to both maximize control (two female patients with similar emotions) and to minimize pretest reactivity (two different patients with different situations).

The coached patients were instructed to provide both verbal and nonverbal cues to communicate their emotions and to be as natural as possible. They were also told to be consistent with each student in terms of the confines of the given situation but to react to the student spontaneously depending on his/her behavior, i.e., usual role-playing procedure. They were advised that the interactions may be very different depending on the dynamics of each interaction.

Administration of Tests

Pretesting

At the first class session, prior to instruction, all subjects

in the experimental group completed the Patient Response Style Indicator and the Assertion Inventory and participated in the behavioral test. For the paper and pencil measures, directions were read aloud and also printed on the instruments. Control group subjects were read the same instructions individually and directed to complete the two paper and pencil instruments within a few days and return them. All were completed and returned. A small number of the control group took the behavioral test on the same day as the experimental group, but the majority of the control group members took it nine days later because of the difficulty in contacting all control group members and finding a time when they were available.

Videotaping was done in the studio of the learning resources department at the Illinois College of Optometry. One camera and colored film were used. Microphones that clipped onto clothing were relatively unobtrusive. The set consisted of two movable chairs and a small table. Clinic examination forms and coats were provided to simulate the clinic situation as closely as possible. Students were videotaped individually with only the coached patient and the two recording technicians present.

Subjects were instructed to pretend that they were seeing the patient for the first time. They were told to conduct the interview the way they ordinarily would. Subjects were encouraged to relax and act naturally. To further decrease anxiety, the experimental group was assured that they would not be graded on their performance.

Posttesting

At the 11th class sessions, subjects in the experimental group

were posttested on the same measures and following the same procedures as specified for the pretesting. The control group completed the behavioral test two days later and returned the paper and pencil instruments within that same week.

Completion of Measures

Of the experimental group, all 25 completed the pretest and posttest Patient Response Style Indicator and the Assertion Inventory. However, two students missed the behavioral pretest resulting in only 23 pretest scores on the Checklist of Interviewing Skills and ratings on the Scale 1 Empathic Understanding.... All 25 of the experimental group completed the behavioral posttest.

Of the control group, all 20 completed the pretest and posttest Patient Response Style Indicator and the Assertion Inventory. One control group member missed the behavioral pretest. In addition, a technical error resulted in the loss of four of the video portions on the behavioral pretest. Because the raters could not score the Checklist of Interviewing Skills without the video portions, there were only 15 scores available for the pretest on this instrument. The raters did, however, express confidence in rating the salvaged audio portions of the damaged tape on Scale 1 Empathic Understanding.... Therefore, 19 pretest scores were obtained for level of empathy. All 20 control group members completed the behavioral posttest.

Rating of the Behavioral Test

Raters consisted of two doctoral students in the Guidance and Counseling program at Loyola University of Chicago. Rater 1 is a female, 31 year-old, second-year student with an advanced degree in

Counseling. Rater 2 is a male, 24 year-old, first-year student with
an advanced degree in Counseling Psychology. Both raters had con-
siderable experience in rating audio and video tapes in classes and
practicums.

In rating the pretest videotapes, raters were deceptively
instructed that they would be viewing experimental and control group
subjects at random. They were not told whether they were viewing
pretests, posttests, or a combination. Pretest videotapes were
actually presented as recorded, alternating the four cassettes in
this order: experimental group, control group, experimental group,
control group. The pretest videotapes were not interspersed randomly
with the posttest videotapes because of the different coached
patients. The viewing of pretest and posttest videotapes separately
would provide greater uniformity and increase control on this
variable. Prior viewing of pretest videotapes by the researcher and
others indicated no apparent differences between the two groups
which could prejudice the raters.

The posttest videotapes were presented to the raters in random
order determined prior to the rating session. The cassettes were
switched accordingly. A barrier covering the cassette deck on the
monitor prevented the raters from seeing whether the cassettes were
actually switched. The same sounds were made after each interview
whether the cassettes were switched or not.

Though the raters had considerable prior experience in rating
video and audio tapes, it was important that they clearly understood
the evaluating instruments and their criteria. A short training

session preceded the ratings in which all items on the Checklist of Interviewing Skills were read and explained and the levels of Scale 1 Empathic Understanding... were discussed. Raters were encouraged to ask questions. They also received the situations portrayed by the coached patients. At later rating sessions, this training procedure was repeated. Raters were asked to write their degree of confidence in the ratings for the four interviews lacking video components. Both expressed sufficient confidence in their ratings.

The raters' individual and combined ratings were analyzed for both the Checklist of Interviewing Skills and Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement. The Pearson Product Moment Correlation Coefficient was utilized to assess interrater reliability by measuring the degree of association between the ratings of Rater 1 and Rater 2.

Table 6 provides a correlational matrix. For the Checklist of Interviewing Skills scores, pre and posttest correlations were .613 and .617 respectively. For ratings on Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement, correlations were .321 and .538 respectively. The posttest ratings indicated a strong interrater reliability. The pretest ratings indicated a moderate to strong interrater reliability.

The Instructor

The instructor (and researcher) is a part-time counselor and faculty member at the Illinois College of Optometry. She also counsels in a private practice in association with Psychological Consultation Services, Oak Park, Illinois. She is a Ph.D. Candidate

Table 6

Correlational Matrix

	Pre R1/CL	Pre R1/ER	Pre R2/CL	Pre R2/ER	Post R1/CL	Post R1/ER	Post R2/CL	Post R2/ER
Pre								
R1/CL	--	.367*	.613**	.362*	.060	-.129	.219	-.004
Significance		.012	.0001	.013	.360	.219	.093	.495
R1/ER		--	.269	.321**	-.147	-.186	-.143	-.093
Significance			.051	.019	.175	.119	.182	.279
R2/CL			--	.638*	.243	-.027	.259	.156
Significance				.0001	.071	.436	.058	.175
R2/ER					.034	-.061	.077	.056
Significance					.414	.351	.313	.361
Post								
R1/CL					--	.743*	.617**	.616*
Significance						.0001	.0001	.0001
R1/ER						--	.501*	.538**
Significance							.0001	.0001
R2/CL							--	.718*
Significance								.0001
R2/ER								--
Significance								

*p is less than .05   **p is less than .05 on interrater reliability
R1 is Rater 1   R2 is Rater 2
CL is Checklist of Interviewing Skills   ER is Scale 1 Empathic Understanding in Inter-
                                                              Personal Processes: A Scale for Measurement

in Guidance and Counseling at Loyola University of Chicago, where
she received her M.Ed. in the same department in 1977. She has
extensive experience in leading groups and teaching with specific
emphasis in assertiveness and communication skills training with a
wide variety of populations. Her approach to structured groups is
primarily behavioral and cognitive using behavioral techniques,
i.e., modeling, coaching, feedback, and positive reinforcement, and
developing a belief system supportive of learning goals. The
instructor's philosophy of teaching emphasizes the modeling of
target skills by the instructor in the teaching process and other
interactions with students.

The Treatment

Treatment consisted of successfully completing the course,
Interpersonal Skills for Optometrists, a credited elective course
meeting over the twelve week Fall Quarter, 1979. It consisted of
twelve weekly two-hour sessions, two spent on assessment (See
Appendix H for class activities). Pass/fail grading was used to
decrease anxiety and encourage honesty of response on evaluation
instruments. Passing the course depended on completion of course
requirements, participation in activities, and attendance rather
than level of skill development. Regular attendance was required.
All experimental subjects did pass the course.

This course is new at Illinois College of Optometry, first
offered as an elective to fourth-year students in the Spring
Quarter, 1979. It was developed by the instructor combining portions
of two existing models of interpersonal skills training for health

professionals (Anthony and Carkhuff, 1977; Cohen and Baker, 1979) an assertiveness training model (Pearlman, et.al., 1975), and diverse structured exercises to enhance self-awareness and further self-disclosure. These components were adapted to the optometric situation.

The overall instructional process for the course was organized basically according to the Preparing, Implementing, Monitoring, and Feedback (P.I.M.F.) model (Cohen and Baker, 1979) for teaching inter-personal skills in the clinical setting. It assumes the instructor's mastery of the course content and stresses that instruction cannot be mechanized.

Preparing for instruction included analyzing optometric clinical tasks involving interpersonal skills, learning the present level of skill development, and developing objectives. Implementing instruction included motivating students, modeling skills, and providing ample opportunity for practice and feedback. Monitoring included deciding on what skills would be monitored and the monitoring process. Feedback included viewing videotapes of performance, asking students for opinions regarding their own performances relative to skill criteria, asking students for suggestions for improvement, sharing of concrete observations and suggestions by the group and the instructor, and plan-ning for future practice.

The skills-teaching process followed the "tell, show, do" model of Anthony and Carkhuff (1977). The "tell" stage included defining the skill, providing a rationale for teaching it, and identifying the sequence of observable skill components. The "show" stage consisted of modeling the skill. The "do" stage allowed for skill practice both

within and outside of the training situation. Coaching, feedback, and positive reinforcement were utilized in the "do" stage.

Videotaping was utilized in the course for initial skills assessment, immediate feedback, and monitoring of progress. By viewing their actual interactions with coached patients, students were able to directly observe their assets and deficits. Students viewed their pretraining videotape at the 6th class session after they had learned basic attending, responding, and interviewing skills and were able to critique their behavior according to skills criteria. They viewed their posttest videotape at the 12th class session.

The following course description was written for the catalog:

> This course is designed to define the elements of a helping rela-
> tionship and incorporate them into the professional role of the
> optometrist. It is an interactive, experiential, and cognitive
> group experience. Content includes self-awareness of feelings,
> attitudes, and values, attending verbal and nonverbal behavior,
> responding to feeling, appropriate use of questions, and asser-
> tion. Activities will include structured exercises, group
> discussion, short lectures, readings, modeling, coaching, and
> roleplaying. Videotaping will be done twice during the quarter.
> Practical applications to the clinical situation will be empha-
> sized and ample opportunity for practice will be provided.

Learning goals for the course include behavioral and attitudinal elements, listed in Table 7. Course content was taught both didacti- cally and experientially. Table 8 provides an outline of the course content.

The course was taught both didactically with lectures and reading and experientially with exercises and roleplaying. The required text- book was The Art of Health Care (Anthony and Carkhuff, 1977). Several handouts and an optional reading list provided supplementary material.

Course requirements included: class attendance; completing

Table 7

Learning Objectives for Interpersonal Skills for Optometrists

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1. To become aware of the importance of effective doctor-patient communication

2. To develop self-awareness of feelings, attitudes, and values which enter into the doctor-patient relationship

3. To increase awareness of others through improved attending skills

4. To build rapport with patients by communicating a caring attitude

5. To use questions appropriately in the clinical situation

6. To respond to patients' feelings

7. To identify interpersonal rights

8. To identify rights of optometrists and patients

9. To differentiate among assertive, nonassertive, and aggressive behaviors

10. To develop a brief system supportive of assertive behavior

11. To be assertive in professional and personal situations by expressing self directly and appropriately

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Table 8

Interpersonal Skills for Optometrists:
Course Outline

I. Introduction and overview

    A. Need for course

    B. Course objectives

    C. Course requirements

II. Self awareness as the basis of good communication

    A. Increasing openness: Johari window

    B. Identifying internalized messages about feelings

    C. Bodily cues to feelings

    D. Becoming aware of values

        1. The perfect patient

        2. The perfect doctor

III. Awareness of others

    A. Nonverbal attending behaviors

        1. Eye contact

        2. Body position and posture

        3. Space and distance

    B. Identifying typical response style

IV. Developing rapport with patients

    A. Importance of initial contact

    B. Greeting patient

    C. Introducing self

    D. Use of silence

Table 8 (cont.)

E. Use of personalized comments

F. Asking reason for visit

V. Verbal responding

  A. Use of minimal verbal responses

  B. Defining empathy

  C. Reflecting feeling to communicate empathy

  D. Enlarging feeling work vocabulary

  E. Responding to meaning

VI. Using questions appropriately

  A. Open questions

  B. Closed questions

  C. Patients' questions

VII. Assertion

  A. Identifying rights of optometrist and patient

  B. Identifying interpersonal rights

  C. Differentiating among assertive, nonassertive, and aggressive behaviors

  D. Clarifying the situation

  E. Components of an assertive response

  F. Roleplaying

VIII. Special patient problems

  A. Verbose patient

  B. Anxious patient

  C. Belligerent patient

Table 8 (cont.)

    D. Poorly motivated patient

    E. Children

    F. Physically or mentally handicapped patient

    G. Elderly patient

IX. Communicating with other professionals and nonpatients

    A. Teachers

    B. Clinic supervisors and other optometrists

    C. Other health care professionals and auxiliaries

    D. Relatives of the patient

 X. Building confidence through rational thinking

    A. Considering all possible outcomes of events

    B. Irrational ideas as cause of anxiety

Note: Topics VIII. through X. on this outline were not taught in this chronological order, but were incorporated in the preceding sections as situations for skills practice, examples of skills applications, or in conjunction with other topics.

assigned readings; participating in class discussion and exercises; completing pretest and posttest videotaping sessions; completing the pretest and posttest on the Assertion Inventory and the Patient Response Style Indicator; and submitting a personal journal.

The personal journal was assigned for processing class activities, readings, and outside experiences relevant to course material. Its purpose was to promote awareness of feelings and interpersonal behavior. Journals consisted of 2-4 pages and were submitted weekly. They were intended to be selective, not a daily diary or summary of class activities. The instructor would return the journals the following week with supportive comments, questions, or suggestions.

The class ambience was informal with much student-instructor interaction. Students were encouraged to ask questions, make comments, or share reactions. To facilitate interaction, a circular seating arrangement was used. The instructor would begin the class with a greeting, observe the students, and ask how the group was feeling. By beginning this way, she modeled attending behavior and creating rapport. The instructor would use self-disclosure and empathic responding whenever appropriate in class. She also pointed out and positively reinforced assertive behavior within the class.

Typically, each class session would begin with sharing of outside experiences related to course material or the specific out-of-class assignment for that week. All successes or any attempt to work towards course goals were positively reinforced. A cognitive presentation and discussion usually came next, followed by some experiential activity, i.e., a structured exercise or roleplaying. There was

always a homework assignment involving self-observation, observation
of others, or skills practice to further application of course material
in real-life situations.

Hypotheses

The hypotheses tested in this study are stated in the null form.
The purpose of testing is to reject the null hypotheses at the .05
level of significance.

1. The post-treatment scores on the Checklist of Interviewing
Skills of the experimental group will not be significantly higher than
those of the control group.

2. The post-treatment Patient Response Style Indicator scores
of the experimental group will not be significantly higher than those
of the control group.

3. The post-treatment ratings on the Scale 1 Empathic Under-
standing in Interpersonal Processes: A Scale for Measurement of the
experimental group will not be significantly higher than those of the
control group.

4. The post-treatment degree of discomfort scores on the
Assertion Inventory of the experimental group will not be significantly
lower* than those of the control group.

5. The post-treatment response probability scores on the
Assertion Inventory of the experimental group will not be significantly
lower than those of the control group.

*Lower scores on the Assertion Inventory indicate higher levels
of assertion.

Analysis of the Data

One-way Analysis of Variance and Eta were the statistical techniques used to analyze the data. Analysis of variance was selected to determine initial equivalency of the experimental and control groups and treatment effects on the continuous dependent variables, i.e., the Checklist of Interviewing Skills, the Patient Response Style Indicator, and both degree of discomfort and response probability scores on the Assertion Inventory. Eta was selected as more appropriate to perform the same functions on the raters' individual and combined ratings on Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement because this variable could not be classified as continuous.

These statistics were derived from the Statistical Package for the Social Sciences (Nie, et.al., 1970) computer programs. Although a one-tailed test was more appropriate to this study, the two-tailed test utilized in the Statistical Package for the Social Sciences was acceptable because of its more rigorous standard for significance. The use of the two-tailed test in conjunction with the directionality of the means provided a satisfactory test of positive change.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

The purpose of this chapter is to present the statistical analysis used to measure changes in fourth-year optometry students taking a one-quarter elective course entitle Interpersonal Skills for Optometrists, as compared to a control group. The changes of interest to this study included: level of interviewing skills; likelihood of empathic responding to patients; behavioral demonstration of empathic responding to patients; level of discomfort when involved in situations requiring assertive behavior; and probability of responding assertively in situations requiring assertive behavior.

Analysis was based on a comparison of the experimental and control groups on the following posttest measures: scores on the Checklist of Interviewing Skills; ratings on Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement; scores on the Patient Response Style Indicator; and degree of discomfort and response probability scores on the Assertion Inventory. Initial equivalency of the experimental and control groups on the dependent variables was established by the statistical comparison of pretest measures on these same instruments. The order of presentation is as follows: first, differences between pretest scores of the experimental and control groups; and second, differences between posttest scores of the experimental and control groups.

Analysis of the Data

One-way Analysis of Variance and Eta were the statistical tech-
niques used to analyze the data. One-way Analysis of Variance is the
appropriate statistic for looking for differences between groups on
continuous dependent variables to see if the separate means of groups
differ significantly from each other. One-way Analysis of Variance
was selected to determine the initial equivalency of the experimental
and control groups and the treatment effects on the continuous depen-
dent variables, i.e., the Checklist of Interviewing Skills, the Patient
Response Style Indicator, and both degree of discomfort and response
probability scores on the Assertion Inventory. Eta, a nonparametric
measure of association, was selected as more appropriate to determine
the initial equivalency of the experimental and control groups and the
treatment effects on the dependent variable which could not be clearly
classified as continuous, the raters' individual and combined ratings
on Scale 1 Empathic Understanding in Interpersonal Processes: A Scale
for Measurement. Eta is described as "basically an indication of how
dissimilar the means on the dependent variable are within the categories
of the independent variable" (Nie, et.al., 1970, p. 230).

Initial Equivalency of the Two Groups

Because the experimental group was self-selected, it was neces-
sary to pretest the groups to determine initial equivalency. A one-
way Analysis of Variance was used to compare the groups on Checklist
of Interviewing Skills scores, Patient Response Style Indicator
scores, and degree of discomfort and response probability scores on
the Assertion Inventory. The results, summarized in Tables 9 through

16, indicated that there were no significant pretest differences between the experimental and control groups on these dependent variables.

Pretest ratings on Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement were analyzed for pretest differences using the Eta statistic. Tables 17 through 19 illustrate the distribution of frequencies for the raters both individually and combined. The results indicated that there were no significant pretest differences between the experimental and control groups on this dependent variable.

The two groups were initially equivalent on all dependent variables. According to these measures, students who elected to take the course were neither more nor less proficient in interviewing skills, likely to respond empathically to patients, empathic in actual behavior with patients, comfortable in situations requiring assertive behavior, or likely to behave assertively than students who didn't elect to take the course.

Hypothesis 1

The null Hypothesis 1 stated that the posttest scores on the Checklist of Interviewing Skills of the experimental group will not be significantly higher than those of the control group. One-way Analysis of Variance was used to analyze these scores. Table 20 presents the summaries of the analyses of variance scores on the Checklist of Interviewing Skills for Rater 1, Rater 2, and Raters 1 and 2 combined. For all three, the F-ratios indicated a significant difference at the .0001 level between the experimental and control groups. Table 21

Table 9

One-Way Analysis of Variance with Group as Independent Variable and Pretest
Scores on the Checklist of Interviewing Skills as Dependent Variable

Rater 1

Source of Variation	Sum of Squares	DF	Mean Square	F	Significance of F
Explained	.20	1	.20	.028	.8680
Residual	253.62	36	7.04		
Total	253.82	37	6.86		

Rater 2

Explained	2.15	1	2.15	.151	.7000
Residual	513.42	36	14.26		
Total	515.57	37	13.93		

Raters 1 & 2 Combined

Explained	1.04	1	1.04	.031	.8610
Residual	1212.03	36	33.67		
Total	1213.07	37	32.79		

Table 10

A Comparison of Experimental and Control Groups on Pretest Ratings on the
Checklist of Interviewing Skills

Rater 1

Group	Sum	Mean	Standard Deviation	Variance	Number
Experimental	429.00	18.65	2.44	5.96	23
Control	282.00	18.80	2.96	8.74	15
Total	711.00	18.71	2.62	6.86	38

Rater 2

Experimental	370.00	16.09	3.62	13.08	23
Control	234.00	15.60	4.01	16.11	15
Total	604.00	15.89	3.73	13.93	38

Raters 1 & 2 Combined

Experimental	799.00	34.74	5.34	28.56	23
Control	516.00	34.40	6.46	41.68	15
Total	1315.00	34.60	5.72	32.78	38

Table 11

One-Way Analysis of Variance with Group as Independent Variable and Pretest
Patient Response Style Indicator as Dependent Variable

Source of Variation	Sum of Squares	DF	Mean Square	F	Significance of F
Explained	.640	1	.640	.221	.641
Residual	124.560	43	2.897		
Total	125.200	44	2.845		

Table 12

A Comparison of Experimental and Control Groups on Pretest Patient
Response Style Indicator Scores

Group	Sum	Mean	Standard Deviation	Variance	Number
Experimental	66.00	2.64	1.22	1.49	25
Control	48.00	2.40	2.16	4.67	20
Total	114.00	2.53	1.69	2.85	45

Table 13

One-Way Analysis of Variance with Group as Independent Variable and Pretest
Degree of Discomfort Scores on the Assertion Inventory as Dependent Variable

Source of Variation	Sum of Squares	DF	Mean Square	F	Significance of F
Explained	10.89	1	10.89	.035	.8520
Residual	13300.26	43	309.30		
Total	13311.15	44	302.53		

Table 14

A Comparison of Experimental and Control Groups on Pretest Degree of
Discomfort Scores on the Assertion Inventory

Group	Sum	Mean	Standard Deviation	Variance	Number
Experimental	2409.00	96.36	17.95	322.24	25
Control	1947.00	97.35	17.12	292.98	20
Total	4356.00	96.80	17.39	302.53	45

Table 15

One-Way Analysis of Variance with Group as Independent Variable and Pretest
Response Probability Scores on the Assertion Inventory as Dependent Variable

Source of Variation	Sum of Squares	DF	Mean Square	F	Significance of F
Explained	26.70	1	26.70	.184	.670
Residual	6221.70	43	144.69		
Total	6248.40	44	142.01		

Table 16

A Comparison of Experimental and Control Groups on Pretest Response
Probability Scores on the Assertion Inventory

Group	Sum	Mean	Standard Deviation	Variance	Number
Experimental	2630.00	105.20	11.95	142.83	25
Control	2135.00	106.75	12.13	147.04	20
Total	4765.00	105.89	11.92	142.01	45

Table 17

Frequencies of Pretest Ratings of Rater 1 on Scale 1
Empathic Understanding in Interpersonal Processes:
A Scale for Measurement by Group

Group	Empathy Level			
	1	2	3	Row Total
Experimental				
Count	8	13	2	23
Row %	34.8	56.5	8.7	54.8
Column %	88.9	44.8	50.0	
Total %	19.0	31.0	4.8	
Control				
Count	1	16	2	19
Row %	5.3	84.2	10.5	45.2
Column %	11.1	55.2	50.0	
Total %	2.4	38.1	4.8	
Column Total				
Count	9	29	4	42
%	21.4	69.0	9.5	100.0

Eta = .2871

Level of Significance = .0664

Table 18

Frequencies of Pretest Ratings of Rater 2 on Scale 1
Empathic Understanding in Interpersonal Processes:
A Scale for Measurement by Group

Group	Empathy Level				
	1	2	3	4	Row Total
Experimental					
Count	10	7	5	1	23
Row %	43.5	30.4	21.7	4.3	54.8
Column %	76.9	36.8	55.6	100.0	
Total %	23.8	16.7	11.9	2.4	
Control					
Count	3	12	4	0	19
Row %	15.8	63.2	21.1	0.0	45.2
Column %	23.1	63.2	44.4	0.0	
Total %	7.1	28.6	9.5	0.0	
Column Total					
Count	13	19	9	1	42
%	31.0	45.2	21.4	2.4	100.0

Eta = .1160

Level of Significance = .1182

Table 19

Frequencies of Pretest Combined Ratings of Rater 1 and Rater 2
on Scale 1 Empathic Understanding in Interpersonal Processes:
A Scale for Measurement by Group

Group	Combined Empathy Levels*					
	2	3	4	5	6	Row Total
Experimental						
Count	4	8	6	3	2	23
Row %	16.0	32.0	24.0	12.0	8.0	55.6
Column %	80.0	80.0	33.3	60.0	50.0	
Total %	8.9	17.8	13.3	6.7	4.4	
Control						
Count	1	2	12	2	2	19
Row %	5.0	10.0	60.0	10.0	10.0	44.4
Column %	20.0	20.0	66.7	40.0	50.0	
Total %	2.2	4.4	26.7	4.4	4.4	
Column Total						
Count	5	10	18	5	4	45
%	11.1	22.2	40.0	11.1	8.9	100.0

Eta = .0593

Level of Significance = .1880

*Because the individual ratings were summed, the number of
possible levels of empathy was doubled to expand the range of ratings
for statistical purposes. The levels on this table do not correspond
to the levels of empathy on Scale 1 Empathic Understanding in Inter-
personal Processes: A Scale for Measurement.

Table 20

One-Way Analysis of Variance with Group as Independent Variable and Posttest
Scores on the Checklist of Interviewing Skills as Dependent Variable

Rater 1

Source of Variation	Sum of Squares	DF	Mean Square	F	Significance of F
Explained	134.72	1	134.72	20.41*	.0001
Residual	237.62	36	6.60		
Total	372.34	37	10.06		

Rater 2

Explained	144.00	1	144.00	17.16*	.0001
Residual	360.80	43	8.39		
Total	504.80	44	11.47		

Raters 1 & 2 Combined

Explained	679.47	1	679.47	32.22*	.0001
Residual	906.84	43	21.09		
Total	1586.31	44			

*$p < .05$

illustrates that the means of the experimental group were significantly higher than those of the control group. The results indicate that the null hypothesis 1 be rejected. The interviewing skills of the experimental group were rated significantly higher than those of the control group on this behavioral measure, indicating that the treatment had a positive effect on interviewing skills.

Hypothesis 2

The null Hypothesis 2 stated that the posttest Patient Response Style Indicator scores of the experimental group will not be significantly higher than those of the control group. One-way analysis of variance was used to analyze these scores. Table 22 presents a summary of the analysis of variance of the Patient Response Style Indicator scores. The F-ratio indicated a significant difference at the .0001 level between the experimental and control groups. Table 23 illustrates that the experimental group mean was significantly higher than that of the control group. The experimental group demonstrated a markedly higher likelihood of responding empathically to patients on this attitudinal measure than did the control group. The findings indicate that the treatment had a positive effect on the attitudinal set to respond empathically to patients.

Hypothesis 3

The null Hypothesis 3 stated that the posttest ratings on Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement of the experimental group will not be significantly higher than those of the control group. The nonparametric statistic,

Table 21

A Comparison of Experimental and Control Groups on Posttest Ratings
on the Checklist of Interviewing Skills

Rater 1

Group	Sum	Mean	Standard Deviation	Variance	Number
Experimental	568.00	22.72	2.23	4.96	25
Control	370.00	18.50	2.89	8.37	20
Total	938.00	20.84	3.28	10.82	45

Rater 2

Experimental	475.00	19.00	2.89	8.33	25
Control	308.00	15.40	2.91	8.46	20
Total	783.00	17.40	3.39	11.47	45

Raters 1 & 2 Combined

Experimental	1043.00	41.72	4.48	20.04	25
Control	678.00	33.90	4.73	22.41	20
Total	1721.00	38.24	6.00	36.05	45

Table 22

One-Way Analysis of Variance with Group as Independent Variable and Posttest
Patient Response Style Indicator Scores as Dependent Variable

Source of Variation	Sum of Squares	DF	Mean Square	F	Significance of F
Explained	334.89	1	334.89	52.73*	.0001
Residual	273.11	43	6.35	•	
Total	608.00	44	13.82		

*p < .05

Table 23

A Comparison of Experimental and Control Groups on Posttest
Patient Response Style Inventory Scores

Group	Sum	Mean	Standard Deviation	Variance	Number
Experimental	211.00	8.44	2.87	8.26	25
Control	59.00	2.95	1.99	3.94	20
Total	270.00	6.00	3.72	13.82	45

Eta, was used to analyze these ratings. Tables 24 through 26 present
the distribution of frequencies for the ratings of each rater indivi-
dually and both raters combined. The posttest ratings of the experi-
mental group were significantly higher than those of the control
group. The values of Eta indicated significant differences at the
.0119 level for Rater 1, the .0025 level for rater 2, and the .0119
level for the combined ratings of Raters 1 and 2. The results indicate
that the null Hypothesis 3 be rejected. The experimental group was
rated as behaviorally demonstrating greater empathic responding to
patients than the control group by both raters individually and their
combined ratings. The findings indicate that the treatment had a posi-
tive effect on responding empathically to patients.

Hypothesis 4

The null Hypothesis 4 stated that the posttest degree of discom-
fort scores on the Assertion Inventory of the experimental group will
not be significantly lower than those of the control group (Lower
scores on the Assertion Inventory indicate a lower degree of discom-
fort and a higher response probability). One-way analysis of
variance was used to analyze these scores. Table 27 presents a summary
of the analysis of variance of the degree of discomfort scores on the
Assertion Inventory. The F-ratio did not indicate a significant dif-
ference between the experimental and control groups. Table 28 illu-
strates that the experimental group mean was lower, indicating a
lesser degree of discomfort than the control group mean, though not
significantly so. The results indicate that the null hypothesis be
accepted. The experimental group did not indicate a significantly

Table 24

Frequencies of Posttest Ratings of Rater 1 on Scale 1
Empathic Understanding in Interpersonal Processes:
A Scale for Measurement by Group

Group	Empathy Level			
	2	3	4	Row Total
Experimental				
Count	3	16	6	25
Row %	12.0	64.0	24.0	55.6
Column %	23.1	64.0	85.7	
Total %	6.7	35.6	13.3	
Control				
Count	10	9	1	20
Row %	50.0	45.0	5.0	44.4
Column %	76.9	36.0	14.3	
Total %	22.2	20.0	2.2	
Column Total				
Count	13	25	7	45
%	28.9	55.6	15.6	100.0

Eta = .4336*

Level of Significance = .0119

*$p < .05$

Table 25

Frequencies of Posttest Ratings of Rater 2 on Scale 1
Empathic Understanding in Interpersonal Processes:
A Scale for Measurement by Group

Group	Empathy Level				
	1	2	3	4	Row Total
Experimental					
Count	0	15	9	1	25
Row %	0	60.0	36.0	4.0	55.6
Column %	0	55.6	90.0	100.0	
Total %	0	33.3	20.0	2.2	
Control					
Count	7	12	1	0	20
Row %	35.0	60.0	5.0	0.0	44.4
Column %	100.0	44.4	10.0	0.0	
Total %	15.6	26.7	2.2	0.0	
Column Total					
Count	7	27	10	1	45
%	15.6	60.0	22.2	2.2	100.0

Eta = .5455*

Level of Significance = .0025

*p < .05

Table 26

Frequencies of Posttest Combined Ratings of Rater 1 and Rater 2
on Scale 1 Empathic Understanding in Interpersonal Processes:
A Scale for Measurement by Group

Group	Combined Empathy Levels*						
	3	4	5	6	7	8	Row Total
Experimental							
Count	0	3	11	6	4	1	25
Row %	0.0	12.0	44.0	24.0	16.0	4.0	55.6
Column %	0.0	33.3	57.9	85.7	100.0	100.0	
Total %	0.0	6.7	24.4	13.3	8.9	2.2	
Control							
Count	5	6	8	1	0	0	20
Row %	25.0	30.0	40.0	5.0	0.0	0.0	44.4
Column %	100.0	66.7	42.1	14.3	0.0	0.0	
Total %	11.1	13.3	17.8	2.2	0.0	0.0	
Column Total							
Count	5	9	19	7	4	1	45
%	11.1	20.0	42.2	15.6	8.9	2.2	100.0

Eta = .5592*

Level of Significance = .0119

*p < .05

*Because the individual ratings were summed, the number of possible levels of empathy was doubled to expand the range of ratings for statistical purposes. The levels on this table do not correspond to the levels of empathy on Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement.

Table 27

One-Way Analysis of Variance with Group as Independent Variable and Posttest
Degree of Discomfort Score on the Assertion Inventory as Dependent Variable

Source of Variation	Sum of Squares	DF	Mean Square	F	Significance of F
Explained	185.87	1	185.87	.575	.4520
Residual	13902.64	43	323.32		
Total	14088.51	44			

Table 28

A Comparison of Experimental and Control Groups on Posttest Degree of
Discomfort Scores on the Assertion Inventory

Group	Sum	Mean	Standard Deviation	Variance	Number
Experimental	2314.00	92.56	20.26	410.34	25
Control	1933.00	96.65	14.61	213.40	20
Total	4247.00	94.38	17.89	320.19	45

lower degree of discomfort when in a situation requiring assertive behavior than did the control group on this self-report measure. The findings suggest that the treatment had no effect on degree of discomfort in a situation requiring assertive behavior.

Hypothesis 5

The null Hypothesis 5 stated that the posttest response probability scores on the Assertion Inventory of the experimental group will not be significantly lower than those of the control group. One-way analysis of variance was used to analyze these scores. Table 29 presents a summary of the analysis of variance of the response probability scores on the Assertion Inventory. The F-ratio indicated a significant difference at the .017 level between the experimental and control groups. Table 30 illustrates that the experimental group mean was significantly higher than the control group mean. The results indicate that the null Hypothesis 5 be rejected. The experimental group was more likely to behave assertively in situations requiring assertive behavior than was the control group according to this self-report measure. The findings indicate that the treatment had a positive effect on assertive behavior.

Summary

The experimental and control groups were found to be equivalent on all dependent variables by pretesting. Therefore analysis of the data was based on posttest comparisons of the two groups on: Checklist of Interviewing Skills scores; Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement ratings; Patient

Table 29

One-Way Analysis of Variance with Group as Independent Variable and Posttest
Response Probability Score on the Assertion Inventory as Dependent Variable

Source of Variation	Sum of Squares	DF	Mean Square	F	Significance of F
Explained	1388.80	1	1388.80	6.15*	.017
Residual	9702.79	43	225.65		
Total	11091.59	44	252.08		

*$p < .05$

Table 30

A Comparison of Experimental and Control Groups on Posttest
Response Probability Scores on the Assertion Inventory

Group	Sum	Mean	Standard Deviation	Variance	Number
Experimental	2378.00	95.12	16.44	270.19	25
Control	2126.00	106.30	13.01	169.38	20
Total	4504.00	100.09	15.88	252.08	45

Response Probability scores; and degree of discomfort and response probability scores on the Assertion Inventory.

Four of the five null hypotheses were rejected in that there were significant differences between the two groups. The rejected null hypotheses include the following:

1. The posttest scores on the Checklist of Interviewing Skills of the experimental group will not be significantly higher than those of the control group.

2. The posttest Patient Response Style Indicator scores of the experimental group will not be significantly higher than those of the control group.

3. The posttest ratings on the Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement of the experimental group will not be significantly higher than those of the control group.

5. The posttest response probability scores on the Assertion Inventory of the experimental group will not be significantly lower than those of the control group.

The one null hypothesis which was not rejected was the following:

4. The posttest degree of discomfort scores on the Assertion Inventory of the experimental group will not be significantly lower than those of the control group.

The results of data analysis indicate that the treatment had a positive effect on: interviewing skills; likelihood of responding empathically to patients; behavioral responding empathically to

patients; and probability of behaving assertively in situations requiring assertive behavior. The results did not indicate that the treatment had a positive effect on degree of discomfort when in a situation requiring assertive behavior. Possible reasons for the lack of apparent efficacy of the treatment on this variable will be discussed in Chapter V.

CHAPTER V

SUMMARY, DISCUSSION, LIMITATIONS AND RECOMMENDATIONS

The Problem

Interpersonal skills training has become an accepted part of
the curricula in health professional schools within recent years.
There have been numerous studies reported in the health professional
literature, primarily medicine, which have supported the efficacy
of specific courses designated to enhance the interpersonal skills of
students and improve doctor-patient relations. Most all of these
interpersonal skills courses were designed to teach interpersonal
process and information-gathering skills. There was no course
described in the literature which combined all of the components of
the course evaluated in the present study, i.e., interviewing skills,
empathy training, and assertiveness training. Within the profession
of optometry, the introduction of interpersonal skills courses is
still more recent. Evaluations of the two courses described in the
literature were either informal or self-report. Objective evalua-
tion and the use of a control group were lacking in both. The problem
was to assess the effects of a specific course with its unique combi-
nation of interpersonal skills on the specific population of optometry
students using objective evaluation methods and controlling for
extraneous variables.

The Purpose

The purpose of this study was to measure change in fourth-year optometry students at the Illinois College of Optometry who took the elective course, Interpersonal Skills for Optometrists, as compared to a control group. More specifically, the study focused on the effects of the course on increasing student empathy and assertion and improving interviewing skills. The primary focus of empathy and interviewing skills training and evaluation was directed towards the professional role; however, personal and social applications were also included. The focus of assertiveness training and evaluation was more generalized, applying to both personal and professional situations.

The Hypotheses

The hypotheses tested in this study are stated in the null form. The direction of testing is to reject the null hypotheses at the .05 level of significance using a two-tailed test.

1. The posttest scores on the Checklist of Interviewing Skills of the experimental group will not be significantly higher than those of the control group.

2. The posttest Patient Response Style Indicator scores of the experimental group will not be significantly higher than those of the control group.

3. The posttest ratings on the Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement of the experimental group will not be significantly higher than those of the control group.

4. The posttest degree of discomfort scores on the Assertion Inventory of the experimental group will not be significantly lower* than those of the control group.

5. The posttest response probability scores on the Assertion Inventory of the experimental group will not be significantly lower* than those of the control group.

*Lower scores on the discomfort scale of the Assertion Inventory indicate a lower degree of discomfort; lower scores on the response probability scale of the Assertion Inventory indicate a higher response probability.

The Instruments

Two paper and pencil self-report instruments were used in this study. They were the Patient Response Style Indicator and the Assertion Inventory. The Patient Response Style Indicator was developed by the researcher as a cognitive, attitudinal indicator of the likelihood of optometry students to respond empathically to patients. The Assertion Inventory, developed by Gambrill and Richey (1975), is a self-report measure which assesses three areas: degree of discomfort when in a situation requiring assertive behavior; likelihood of behaving assertively in such situations; and the identification of those situations in which one wants to behave more assertively. Only the first two areas were used in this study.

The Behavioral Test

A behavioral test was used to measure interviewing skills and level of empathy. It consisted of a four-minute simulated interview

with a coached patient which was videotaped at the beginning and at the end of the Fall Quarter. Two independent raters evaluated subjects using the Checklist of Interviewing Skills to measure interviewing skills and Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement to measure the communication of empathy. The Checklist of Interviewing Skills was adapted from two checklists (Cohen and Baker, 1979, pp. 22-23, pp. 44-46) and assesses skills for opening the interview and information gathering. Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement (Carkhuff, 1969) is a rating scale developed to provide a qualitative measure of the communication of empathy.

The Design

The design of this study was a variation of Campbell and Stanley's Nonequivalent Control Group Design (1963). This design is frequently used in educational settings where pre-existing groups or self-selected groups are common. In this study, the experimental group was self-selected, i.e., they elected to take the course. The control group, though randomly selected from a similar population of fourth-year optometry students, did not elect to take the course. Therefore, a pretest was necessary to establish initial equivalency on the dependent variables.

The Sample

The sample consisted of 25 fourth-year students who registered for the elective two credit-hour course, Interpersonal Skills for Optometrists, and 20 randomly selected fourth-year students. Students

taking the course during the Fall Quarter comprised the experimental group. Those students randomly selected and not talking the course (who consented to participate in the study) served as a non-equivalent control group. Pretesting indicated no significant differences between the two groups on the dependent variables.

Procedure

All students completed the Patient Response Style Indicator and the Assertion Inventory and participated in the behavioral test both at the beginning and at the end of the Fall Quarter. Because pretesting indicated that the experimental and control groups were equivalent on the dependent variables, evaluation consisted of the statistical comparison of the posttest scores and ratings for the two groups.

Results

One-way Analysis of Variance and Eta were the statistical techniques used to analyze the data. The following null hypotheses were rejected:

1. The posttest scores on the Checklist of Interviewing Skills of the experimental group will not be significantly higher than those of the control group.

2. The posttest Patient Response Style Indicator scores of the experimental group will not be significantly higher than those of the control group.

3. The posttest ratings on the Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement of the

experimental group will not be significantly higher than those of the control group.

5. The posttest response probability scores on the Assertion Inventory of the experimental group will not be significantly lower than those of the control group.

Statistical analysis revealed significant differences between the experimental and control groups on level of interviewing skills (p = .0001), likelihood of responding empathically to patients (p = .0001), demonstration of empathic responding to patients (p = .0025) (p = .0119), and likelihood of behaving assertively in situations requiring assertive behavior (p = .0170). On the behavioral measures, the experimental group demonstrated higher levels of interviewing skills and empathy that did the control group. On the nonbehavioral measures, the experimental group demonstrated a greater likelihood of responding empathically to patients and of responding assertively in situations requiring assertive behavior. The results indicate positive effects of the treatment on these dependent variables.

The following null hypothesis was not rejected:

4. The posttest degree of discomfort scores on the Assertion Inventory of the experimental group will not be significantly lower than those of the control group.

Statistical analysis revealed no significant difference between the experimental and control groups on degree of discomfort when in a situation requiring assertive behavior. The mean of the experimental group was lower (indicating a lesser degree of discomfort) than the control group mean, though not significantly so. The results indicate

no treatment effect on this nonbehavioral measure.

Discussion

The first issue to be discussed is whether pretesting indicated a need for interpersonal skills training for optometry students (See Appendix J for pretest scores). The indications were as follows:

Regarding interviewing skills, measured by ratings on the behavioral test, pretest findings showed the lack of many interviewing skills. Mean ratings for the combined experimental and control groups were 18.71 by Rater 1 and 15.90 by Rater 2 out of a possible 27 points. Though the students did show mastery of some interviewing skills, there was a need for improvement in several areas, e.g., responding to patient discomfort, empathic responding, use of questions.

Regarding the tendency to respond empathically to patients, pretesting indicated a definite negative set. The mean Patient Response Style Indicator score for the combined experimental and control groups was 2.53 out of a possible 12. Over half chose the empathic response two or fewer times. The typical pre-course response set towards patients was advice-giving, questioning, or reassuring rather than empathizing. Such responses are reinforced by optometric professional training and the concern of the students to appear professional and confident, i.e., the expert role.

Regarding assertion, degree of discomfort and response probability scores were similar to the norms collected by Gambrill and Richey (1975) from undergraduate samples. Gambrill and Richey found that in a normal population individuals were widely distributed along the assertive continuum. The sample in this study did follow this

pattern.

Gambrill and Richey divided discomfort and response probability scores into high and low categories. A score of 96 and higher indicated a high degree of discomfort, 95 and lower a low degree of discomfort. A score of 105 and higher indicated a low response probability, 104 and lower a high response probability. Using these dichotomies, over half of the combined experimental and control groups had high degree of discomfort and low response probability scores. In other words, pretesting indicated that over half the sample reported that they would not be able to behave assertively in situations requiring assertive behavior or to feel comfortable while doing so. Though this population may be no different from other normal populations, pretesting indicated a need for assertiveness training by a majority of the sample.

To summarize, pretesting indicated a need for improvement on the part of most optometry students in interviewing skills; a more positive attitudinal set towards responding empathically to patients; greater communication of empathy to patients; less discomfort when in a situation requiring assertive behavior; and a higher probability of responding assertively when in a situation requiring assertive behavior. These results point to the need for interpersonal skills training for most optometry students in at least some areas.

The next issue to be discussed is the meaning of the positive results of this study. Level of interviewing skills, likelihood of responding empathically to patients, and demonstration of empathic responding to patients showed significant improvement. Interviewing

and the communication of empathy are behavioral skills which can be broken down into components, taught, and observed. The likelihood of responding empathically to patients is an attitude or predisposition to respond in a certain way which can be inferred from behavior or assessed through self-report. The positive effects on these variables indicate that both skills and attitudes can be changed through systematic training which includes cognitive and affective components as well as the behavioral component.

The results corroborate previous research on interviewing skills and empathy training on other populations (Truax and Carkhuff, 1967; Ivey and Authier, 1978) and specifically other populations of health professionals (Moreland, et.al., 1973; Pacoe, et.al., 1976; Fine and Therrien, 1977; Grayson, et.al., 1977; Jackson, 1978) which support the position that these interpersonal skills can be taught through systematic training.

Regarding assertion, the likelihood of responding assertively in situations requiring assertive behavior showed significant improvement. Response probability was measured by a self-report instrument. This positive result corroborates the findings of earlier research in assertiveness training, summarized in Heimberg, et.al. (1977) which found group assertiveness training to be more effective than no treatment. Heimberg, et.al. also concluded that especially in short-term treatments, self-reports of anxiety and assertiveness hadn't changed consistently in the studies reviewed. The results of this study support the position that estimates of assertive behavior can be improved substantially enough through systematic training to be

reflected in self-report measures.

The next issue to be discussed is the meaning of the lack of positive results on one dependent variable in this study. There was no significant improvement on degree of discomfort when in a situation requiring assertive behavior. Several meanings are possible.

The fact that response probability improved and degree of discomfort didn't could indicate that behavior is more easily changed than feelings. Individuals motivated to become more assertive may go through a period of anxious performance in which they behave assertively but feel discomfort while doing so. It is possible that the discomfort would decrease with time and practice. For some individuals, the discomfort may be more deep-seated and difficult to change. A longer training period and/or different types of treatment may be required to change feelings.

The lack of improvement on degree of discomfort could also be explained by the relatively short treatment and/or the insensitivity of the self-report measure to small changes. Earlier research summarized in Heimberg, et.al. (1977) indicated inconsistent changes in self-reports of anxiety and assertiveness especially in short-term treatments.

Another explanation for the lack of improvement on this variable could be the nature of the course itself. Increasing self-awareness of feelings and self-disclosure were important components of course objectives and content. Although changes in these areas were not measured in this study, it is plausible and consistent with the instructor's observations of class discussion and journal entries

that after taking the course, students were more able to recognize and willing to report discomfort or anxiety. Therefore, higher discomfort scores could possibly indicate greater self-awareness and genuineness of response rather than no improvement or regression in level of discomfort.

The next question to be discussed involves the authenticity of response on evaluation measures. One cannot say that moviations to please the instructor by "giving the right answers" or to pass the course were nonexistent. The desire to please the instructor may in fact be an important motivational factor in any learning process. However, every effort was made to minimize these concerns including pass/fail grading and pass grades based on completion of course requirements and attendance rather than improvements on measures. Participants were repeatedly assured that they would not be evaluated on behavioral or written measures and that all results would be treated with confidentiality.

The next issue to be discussed involves individual differences. The results of this study were based on the statistical analyses of means. The effects of the course on individuals were not addressed formally in this evaluation. However, questions regarding individual differences require some attention. Did all individuals improve on the various dependent variables? Were there individuals who didn't improve? Were the improvements or lack of improvements consistent on all measures? What possible explanations exist for those who didn't seem to improve on the various measures? An examination of the pre to post raw difference scores of the experimental group (See

Appendix J) is useful in looking at individual differences. In this discussion, improvement is defined as a positive difference score (ignoring chance variation).

Regarding interviewing skills, an examination of the pre to post difference scores of the experimental group on the Checklist of Interviewing Skills (using the combined raters' "yes" scores) showed a range of -10 to +17 with no clearly defined mode. Most individuals improved on this measure. Overall, there were differential effects ranging from great improvement to regression. Only two individuals showed regression; both had high pretest scores indicating less expectation for change.

Regarding the attitudinal measure of the likelihood of responding empathically to patients, an examination of the pre to post difference scores of the experimental group on the Patient Response Style Indicator showed a range of -1 to +10 with a mode of +5. Overall, changes were overwhelmingly positive and substantial. Of the two individuals who showed no improvement, one had a fairly high pretest score indicating an initial tendency to respond to patients empathically and therefore less expectation of change.

Regarding the behavioral measure of the communication of empathy, an examination of the pre to post differences of the experimental group on the combined empathy ratings of Raters 1 and 2 on Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement showed a range of -2 to +5 with a mode of +2. Most individuals improved and many markedly on this measure. Only six individuals showed no improvement or regression. One possible explanation

for this lack of improvement on the part of these individuals could be the interference of anxiety caused by the videotaping situation itself. Four of those who showed no improvement or regression on the empathy ratings also showed little or no improvement or regression on the Checklist of Interviewing Skills, both of which were based on the videotaped behavioral test.

Regarding the self-report measure of degree of discomfort when in a situation requiring assertive behavior, an examination of the pre to post difference scores of the experimental group on this scale of the Assertion Inventory showed a range of -43 to +37 with no clearly defined mode (lower scores indicate a lesser degree of discomfort). Changes on this measure were extremely variable. A large group, 12 individuals, either showed no improvement or regressed on the discomfort scale. Several plausible explanations for this result were discussed earlier in this section in regard to group differences. In viewing individual differences, seven of the twelve demonstrated low levels of discomfort prior to taking the course. If these individuals were already assertive prior to taking the course, little change would be expected.

Regarding the self-report measure of the likelihood of actually behaving assertively when in a situation requiring assertive behavior, an examination of the pre to post difference scores of the experimental group on this scale of the Assertion Inventory showed a range of -31 to +18 with no clearly defined mode (lower scores indicate a higher probability of behaving assertively). Most individuals improved on this measure, with only four showing no improvement or regression.

Three of these indicated a high response probability on the pretest score; therefore change was not expected. The remaining one had a borderline pretest score, just under the cut-off point for a high response probability.

Overall, many individuals seemed to improve on all measures and only one (with incomplete data) failed to improve on at least one. The course had generally positive but variable effects on the attitudes and behaviors of individuals. This finding would be expected in view of the interaction of attitudes, feelings, and learned behaviors in the development of interpersonal skills. Interpersonal skill deficits could result from an absence of the skill in the behavioral repetoire, inhibition of the skill by anxiety, or a nonsupportive belief system. Different interventions are required for these different problems, not all of which were utilized equally in the course. In addition, some individuals require a longer time period for change to occur on a behavioral level and may only show some attitudinal change.

Limitations and Recommendations for Further Research
Measuring Instruments

The instruments used in this study, the Patient Response Style Indicator and the Assertion Inventory, are self-report paper and pencil measures rather than behavioral ones. They are limited in that they cannot purport to measure behavior. Several course participants provided informal corroboration of their scores on these instruments in their journal entries, class discussion, and/or private discussions with the instructor. They verified their scores in terms of their self-observations of attitudes and behavior.

The Patient Response Style Indicator is an attitudinal measure of the likelihood of responding empathically to patients. The fact that the experimental group received significantly higher behavioral ratings on the behavioral test for the communication of empathy to patients as well as significantly higher Patient Response Style Indicator scores than the control group provides some evidence for the validity of the Patient Response Style Indicator as an attitudinal measure and as a predictor of behavior. Studies correlating Patient Response Style Indicator scores with behavioral measures of empathy would provide further information regarding the association of self-report measures of empathic responding with actual behavior.

The Assertion Inventory is also a self-report rather than a behavioral measure. It is a self-assessment of discomfort or anxiety when in a situation requiring assertive behavior and a self-estimate of actual behavior when in the situation. A behavioral test of assertion was not included in this study. Future studies including a behavioral test of assertion would provide a stronger basis for determining the effects of the course on assertive behavior.

The Behavioral Test

The behavioral test in this study was a simulation rather than a real-life situation. The simulated interview with a coached patient provided control but also had disadvantages. The videotaping of the interviews occurred on a set in the audio-visual studio rather than in the usual setting of a clinic examining room. The lights, camera, and technicians were visible and likely to be intimidating or inhibiting to some degree. Though every effort was made to simulate the

actual situation and relax participants, the videotaping procedure
could cause some stiffness or unnatural behavior. Several students
complained in their journals of the artificial situation and the
videotaping process.

The Rating Process and Evaluation Instument

Despite the strong interrater reliability on posttest measures
of the behavioral test, there were some aspects of the rating process
and evaluating checklist which could be improved. Both raters felt
that some items on the Checklist of Interpersonal Skills were ambig-
uous. Though there was a training session preceding the ratings in
which items were explained and questions answered, it would be
desirable in future studies to have a longer training period consist-
ing of a practice tape and actual prior use of the Checklist of Inter-
viewing Skills. Actual practice would resolve any ambiguity which
might not be anticipated and assure a common understanding of items
by the raters. Other recommendations include a revision of designated
ambiguous items and the addition of several elements which were
omitted including tone of voice, pace, and facial expression. Measure-
ment possibilities for future studies include a rating scale rather
than a checklist for a more qualitative measure of interviewing skills
and a wider range of choices on the empathy rating scale using .5
gradations.

Transfer of Training

Whether the skills apparent on the posttest videotapes are
carried into actual practice has not been determined by this study.
Future studies designed to assess the transfer of interpersonal skills

training to real doctor-patient interactions after training would be desirable.

Stability of Effects

The results of this study measured effects immediately after training. Whether these improvements will be maintained over time has not been determined. It is possible that without the stimulation and positive reinforcement of the class, improvements may not be maintained. On the other hand, good interpersonal skills are most often positively reinforced in real-life situations by the favorable responses of others or are self-reinforcing. Follow-up studies of the stability of interpersonal skills of optometrists and other health professionals are needed to measure the stability of changes measured immediately after training.

Effects on Patients

Future studies using patient indices such as satisfaction or compliance with treatment recommendations would provide further evidence for the value of well-developed interpersonal skills in the practice of optometry and other health professions.

Confounding of Effects

In the teaching of interpersonal skills, the mastery and modeling of skills taught by the instructor are essential. This study has measured the effects of a specific interpersonal skills course taught by one instructor. An important limitation of this study is that the unique growthful effects of the instructor could be confounded with the effects of the course experience. Replication studies using this course model taught by other qualified instructors would provide

further clarification of the effects of the course independent of the particular instructor.

Motivational Differences between Groups

In this study, the experimental group was self-selected, i.e., students chose to take the course. Even though pretesting indicated that the experimental and control groups were equivalent on the dependent variables, the experimental group would likely be more highly motivated to improve their interpersonal skills. A less motivated group may not change in the same way as a result of the course. Only a randomized research design could control for the motivational factor. Future studies, comparing either groups who elected to take an interpersonal skills course or groups who were randomly selected to take one would provide further information regarding the effects of the course on equally motivated or unmotivated groups.

Course Content

In this study, the treatment, i.e., the course, has been viewed in its entirety. There has been no attempt to determine the relative effectiveness of its different teaching methods except for the informal survey done in the pilot study. Further studies focusing on refining the most effective elements of the course, e.g., use of videotechnology, structured exercises, roleplaying, journals, readings, would be desirable in increasing course effectiveness.

Individual Differences

Finally, as discussed earlier, the course affected individuals differently. Some persons improved on all measures, others only on

some or one measure. There is a need for single case research to look more closely at individual differences to help answer the question of what particular treatment is most effective with what particular individual.

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APPENDIX A

Dear_____,

   You have been randomly selected from among the fourth year class
here at ICO to participate in a research project. Participation should
be an interesting and stimulating experience which may lead to increased
personal growth for participants and will involve only a brief time
commitment. Participants will receive a compensation of $10.00 for
their participation. Optional feedback on the instruments will be
offered at the end of the Fall Quarter.

   Specifically, participation involves the completion of two
paper and pencil instruments, the Patient Response Style Indicator
and the Assertion Inventory, at the beginning and the end of the
Fall Quarter. Completion of these instruments should take no longer
than thirty minutes for both of them. In addition, participation
involves two four-minute simulated interviews with a coached patient
which will be videotaped at the beginning and the end of the Fall
Quarter.

   Participation in this research project involves no risk. All
written instruments and videotapes will be treated as confidential.
To insure confidentiality, participants will be coded and data
recorded according to code number.

   It is extremely important that all measures be completed, so
please be sure that you are willing to fulfill this commitment when
you volunteer. Your participation will benefit the development of
the interpersonal skills curriculum here at ICO.

   Please call Sharon Greenburg at 743-5635 regarding whether or
not you wish to participate or if you have any questions.

APPENDIX B

CONSENT FORM

Project Title: THE EFFECTS OF AN INTERPERSONAL SKILLS TRAINING

COURSE ON FOURTH YEAR OPTOMETRY STUDENTS

     I, _____, state that I am over 18 years of age
and that I wish to participate in a program of research being conducted
by Sharon Greenburg.

     Participation involves the completion of two paper and pencil
instruments, the Patient Response Style Indicator and the Assertion
Inventory, at the beginning and the end of the Fall Quarter. Partici-
pation also involves a four-minute simulated interview with a coached
patient which will be videotaped at the beginning and end of the Fall
Quarter.

     All written instruments and videotapes will be treated as con-
fidential. To insure confidentiality, subjects will be coded and
data recorded according to code number.

     Participation should be an interesting and stimulating experience
which may lead to increased personal growth for participants. Feedback
on the instruments will be offered at the end of the Fall Quarter.

     I acknowledge that Sharon Greenburg has fully explained to me
the need for the research; has informed me that I may withdraw from
participation at any time without prejudice; has offered to answer
any inquiries which I may make concerning the procedures to be fol-
lowed; and has informed me that I will be given a copy of this consent
form. I freely and voluntarily consent to my participation in the
research project.

                             _____
                             (Signature of Volunteer)

_____
(Signature of Staff Member)

_____
Date

APPENDIX C

PERSONAL DATA SHEET

Name:_____

Telephone number:_____

Age:_____

Sex:_____

Religion:

     Protestant:_____Jewish:_____Catholic:_____Other:_____None:_____

Marital Status:_____

Number of children:_____

Region: (where reared)

     East:_____

     Midwest:_____

     Central:_____

     South:_____

     West:_____

Size of city or town:

     Large city:_____

     Medium-sized city:_____

     Small town:_____

     Suburb of large city:_____

Undergraduate major:_____

     Please complete this personal data sheet. The above information is necessary for a description of the sample in this study. Your names will not be used. Thank you.

APPENDIX D

PATIENT RESPONSE STYLE INDICATOR

Pretend that the following 12 statements were made to you by patients whom you were examining in the clinic. Circle the letter of the initial response most like the one you would choose in the situation.

1. I can't remember ever having my eyes examined. What are you going to do to me?
   a. Didn't you ever have your eyes examined as a child?
   b. You seem to be uneasy about not knowing what to expect. If you like, I'll explain what I am going to do as we go along.
   c. Just relax and don't worry about a thing. There's nothing to it.
   d. I'll be giving you several tests and examining the inside of the eye as well.

2. People around here think you have nothing to do but wait around all day.
   a. Very often we get behind schedule because patients are late.
   b. The waiting makes you feel that your time is not valued here and you resent that.
   c. You're confused about the delay.
   d. When you come to a clinic, you really should expect to wait. If often can't be helped.

3. Don't you think you've taken enough tests now?
   a. It sounds like you're getting tired. Would you like to rest a few minutes?
   b. The tests are really all important and should be done.
   c. (Jokingly) You think you're sick of them? I have to see two more patients today.
   d. We really need all of these tests for a proper examination. Try to be patient for just a little longer.

4. I'd like to see better, but I look lousy in glasses.
   a. Glasses come in all kinds of styles and colors today and are quite attractive. You may even look better in them.
   b. What is more important, your looks or your sight?
   c. How do you know you won't look nice in glasses? Have you ever worn them before?
   d. You want to correct your vision, but you want to feel attractive too.

5. What! Contact lenses cost that much?
   a. What did you think they would cost?
   b. The way prices have gone up today for everything, contact lenses are a bargain at this price.
   c. Whatever the cost, the improvement to your appearance and vision is well worth it.
   d. You seem shocked at the price.

6. Nobody in my family has ever worn glasses. Are you sure you did those tests right?
   a. I'm quite sure that I've done the tests correctly.
   b. Perhaps other members of your family may need them as well.
   c. Since the rest of your family don't seem to need glasses, you're skeptical about your needing them.
   d. You really shouldn't compare yourself to others in your family. Each person is different.

7. This clinic stinks! There's nowhere to park.
   a. The parking situation is terrible here. I had trouble parking myself today.
   b. You really would be better off taking the bus or a cab.
   c. Did you try a little north of here on Michigan Avenue?
   d. You sound really frustrated about the tight parking around here. It's a problem for all of us who drive.

8. I don't want any students using me for a guinea pig. I want a real doctor.
   a. I can assure you that I am competent to give you a professional examination. Our training is very thorough before we come to the clinic.
   b. (Jokingly) What do you think I am, Count Dracula?
   c. You're worried that because I am an intern, I can't give you a professional examination. I assure you that I have been well prepared for it.
   d. Have you ever had a bad experience with a student before?

9. Can I still play football and baseball if I need glasses? (11 year-old boy)
   a. Let's find out whether you need them before you worry about them.
   b. You really like to play ball, don't you?
   c. You're worried that wearing glasses would interfere with your ballplaying. Sure you could play ball with glasses.
   d. If your vision needs correcting, wouldn't that hurt your ballplaying?

10. I don't need my eyes examined. I'm only here because my boss insisted.
    a. It's annoying to you that you had to come here when your eyes weren't bothering you.
    b. Your boss probably observed that you weren't seeing well or he wouldn't have sent you here.
    c. It's really important to have your eyes examined periodically even if they seem to be fine.
    d. Have you been making any mistakes on the job because you've misread things?

11. I've always wanted contact lenses, but the though of something in my eye makes me squeamish.
   a. There is an adjustment at first, but people quickly get used to wearing them.
   b. They're really very thin. It's irrational to be squeamish about wearing contacts these days.
   c. Have you ever known anyone who ears them? It might help to talk with someone who does.
   d. You see the advantages of wearing contacts, but the thought of them actually in your eyes makes you nervous.

12. I always worry that I won't give the right answers. Will the fact that I've been working hard and feel tired affect the examination?
   a. You'll do just fine. Don't worry about it.
   b. You want to do your best and you're concerned that being tired might affect your responses.
   c. How long have you worked today? Is it more than usual?
   d. (Jokingly) Well, it's okay if you don't get 100%. I won't fail you.

Your Name:_____ Date:_____

Sex:_____Age:_____.

ASSERTION INVENTORY*

Many people experience difficulty in handling interpersonal situations requiring them to assert themselves in some way, for example, turning down a request, asking a favor, giving someone a compliment, expressing disapproval or approval, etc. Please indicate your degree of discomfort or anxiety in the space provided before each situation listed below. Utilize the following scale to indicate degree of discomfort:

    1 = none
    2 = a little
    3 - a fair amount
    4 = much
    5 = very much

Then, go over the list a second time and indicate after each item the probability or likelihood of your displaying the behavior if actually presented with the situation. For example, if you rarely apologize when you are at fault, you would mark a "4" after that item. Utilize the following scale to indicate response probability:

    1 = always do it
    2 = usually do it
    3 = do it about half the time
    4 = rarely do it
    5 = never do it

NOTE: It is important to cover your discomfort ratings (located in front of the items) while indicating response probability. Otherwise, one rating may contaminate the other and a realistic assessment of your behavior is unlikely. To correct for this, place a piece of paper over your discomfort ratings while responding to the situations a second time for response probability.

Degree of Discomfort	SITUATION	Response Probability
_____	1. Turn down a request to borrow your car.......	_____
_____	2. Compliment a friend.........................	_____
_____	3. Ask a favor of someone.....................	_____
_____	4. Resist sales pressure......................	_____
_____	5. Apologize when you are at fault............	_____
_____	6. Turn down a request for a meeting or date....	_____

*Gambrill and Richey, 1975

Degree of Discomfort		SITUATION	Response Probability
_____	7.	Admit fear and request consideration.........	_____
_____	8.	Tell a person you are intimately involved with when he/she says or does something that bothers you................................	_____
_____	9.	Ask for a raise..............................	_____
_____	10.	Admit ignorance in some area.................	_____
_____	11.	Turn down a request to borrow money..........	_____
_____	12.	Ask personal questions.......................	_____
_____	13.	Turn down a talkative friend.................	_____
_____	14.	Ask for constructive criticism..............	_____
_____	15.	Initiate a conversation with a stranger......	_____
_____	16.	Compliment a person you are romantically involved with or interested in..............	_____
_____	17.	Request a meeting or date with a person......	_____
_____	18.	Your initial request for a meeting is turned down and you ask the person again at a later date......................................	_____
_____	19.	Admit confusion about a point under discussion and ask for clarification..............	_____
_____	20.	Apply for a job..............................	_____
_____	21.	Ask whether you have offended someone........	_____
_____	22.	Tell someone that you like them..............	_____
_____	23.	Request expected service when such is not forthcoming, e.g., in a restaurant..........	_____
_____	24.	Discuss openly with the person his/her criticism of your behavior...................	_____
_____	25.	Return defective items, e.g., store or restaurant...................................	_____
_____	26.	Express an opinion that differs from that of the person you are talking to.............	_____

Degree of Discomfort	SITUATION	Response Probability

_____ 27. Resist sexual overture when you are not
interested................................._____

_____ 28. Tell the person when you feel he/she has done
something that is unfair to you............._____

_____ 29. Accept a date..............................._____

_____ 30. Tell someone good news about yourself......._____

_____ 31. Resist pressure to drink...................._____

_____ 32. Resist a significant person's unfair demand._____

_____ 33. Quit a job.................................._____

_____ 34. Resist pressure to "turn on"..............._____

_____ 35. Discuss openly with the person his/her
criticism of your work....................._____

_____ 36. Request the return of borrowed items......._____

_____ 37. Receive compliments........................_____

_____ 38. Continue to converse with someone who dis-
agrees with you............................_____

_____ 39. Tell a friend or someone with whom you
work when he/she says or does something
that bothers you..........................._____

_____ 40. Ask a person who is annoying you in a
public situation to stop..................._____

Lastly, please indicate the situations you would like to handle more
assertively by placing a circle around the item number.

Please be sure that you have left no blank unanswered. To help me
score this inventory accurately, please total your scores:

Degree of Discomfort   Response Probability

Total:_____   Total:_____

APPENDIX E

July 26, 1979

The accompanying instrument was developed by me for use in my dissertation as a cognitive, attitudinal measure of the likelihood of optometry students to respond empathically to patients. It consists of twelve patient statements followed by four possible optometry student responses, <u>one</u> of which was intended to be empathic. Others are humorous, advice-giving, questioning, judgemental, reassuring, etc.

I am asking for your help, as an expert in the field of guidance and counseling and/or psychology, to validate this instrument by following the directions on this page. This procedure will take very little time and will be greatly appreciated.

<u>Directions</u>:

Please disregard the instructions on the Patient Response Style Indicator and follow these instead. For each numbered patient statement, circle the response, if any, which you would consider empathic.

If you should wish to comment on any item, please write the number of the item and the comment on the back of page 2. of the instrument.

Sample comments:

    2. Language seems stilted.
    3. Empathy seems inappropriate here.

Finally, please answer the following question: In your judgment, in light of the instructions given <u>on the instrument</u>, would this instrument provide a cognitive or attitudinal, not necessarily behavioral, measure of the likelihood of optometry students to respond empathically to patients?

Yes_____ No_____

Comments (if any):_____

_____

Your signature:_____Title:_____

Date:_____

Please return as soon as possible in enclosed, stamped envelope.

November 16, 1979

Thank you again for your prior approval of the instrument which I developed as a cognitive, attitudinal measure of the likelihood of optometry students to respond empathically to patients, the Patient Response Style Indicator.

I tried to incorporate as many of the suggestions for improvement as possible in the instrument which I used in my study. Those suggestions included: a shortening of some of the empathic responses to a more realistic conversational response; greater variation in the format of the empathic responses (less "You are..." beginnings); the inclusion of an inaccurate empathic response; the combination of an empathic response with another type of response such as information-giving or reassurance in order to make an empathic response more consonant with their professional training; the elimination of stilted language.

Would you please validate this final version by disregarding the instructions on the PRSI and following these instead. For each numbered patient statement, circle the response, if any, which you would consider accurately empathic. The response which you consider empathic may have other components as well, such as information-giving or reassurance; however, it should communicate an awareness of the patient's feeling and the reason for the feeling.

Finally, please answer the following question:

In your judgment, in light of the instructions given on the instrument, would this instrument provide a cognitive or attitudinal, not necessarily behavioral, measure of the likelihood of optometry students to respond empathically to patients?

Yes_____ No_____

Your signature:_____Title:_____

Date:_____

Please return as soon as possible in enclosed, stamped envelope. (Both this page and the PRSI with your choices of empathic responses).

APPENDIX F

CHECKLIST*

OPENING THE INTERVIEW

SKILL	CRITERIA	CRITERIA RATING			COMMENTS
		YES	NO	N/A	
Introducing	1. Greets patient appropriately e.g., name, amount of formality, physical contact.	___	___	___	_____
	2. Introduces self and role.	___	___	___	_____
	3. Shakes hands with patient.	___	___	___	_____
Arranging for Patient Comfort	1. Demonstrates understanding of patient needs (e.g., privacy, position of chair).	___	___	___	_____
	2. Responds to signs of patient discomfort.	___	___	___	_____
Asking for Initial Information	1. Asks for patient's statement of reasons for visit.	___	___	___	_____
	2. Responds to any patient hesitancy about discussing reason for visit.	___	___	___	_____

*Adapted from: Cohen, B. F., & Baker, R. M., Using Interpersonal Skills in the Clinical Setting, Carkhuff Assoc., 1979.

SKILL	CRITERIA	CRITERIA RATING			COMMENTS
		YES	NO	N/A	
Communicating Interest Non-Verbally	1. Same eye-level as patient.	___	___	___	_____
	2. Maintains eye contact.	___	___	___	_____
	3. Posture open.	___	___	___	_____
	4. Distance appropriate (roughly 3-4 feet) and no barriers.	___	___	___	_____
	5. Eliminates distractions (e.g., nervous behavior, prior business).	___	___	___	_____
Use of Open-Ended Questions	1. Questions encourages more than "yes" or "no" response.	___	___	___	_____
	2. Question does not "lead" patient.	___	___	___	_____
	3. Patient's response to question is to provide more relevant material.	___	___	___	_____
Use of Facilitative Responses	1. Does not interrupt patient.	___	___	___	_____
	2. Encourages patient by use of verbal facilitation (e.g., "Go on, mm hmm").	___	___	___	_____
	3. Encourages patient by use of non-verbal facilitation (e.g., nod).	___	___	___	_____
	4. Encourages patient by use of silence.	___	___	___	_____

SKILL	CRITERIA	CRITERIA RATING			COMMENTS
		YES	NO	N/A	
Use of Empathic Responses	1. Demonstrates understanding of what patient is feeling by using accurate feeling word or phrase.	___	___	___	_____
	2. Demonstrates understanding of why patient thinks she/he feels the way he/she does.	___	___	___	_____
Language is Personalized	1. Uses terms patients can understand and/or explain technical terms used.	___	___	___	_____
	2. Solicits patient understanding of technical terms used.	___	___	___	_____
	3. Provider uses interpersonal skills to facilitate process.	___	___	___	_____
Use of Direct Questioning	1. Does not "lead" patient.	___	___	___	_____
	2. Use is necessary (e.g., patient doesn't give needed content, time requires use of direct question).	___	___	___	_____
	3. Use if effective (e.g., patient provides necessary information).	___	___	___	_____
	TOTAL:	___	___	___	_____

A scale to measure its communication*

Level 1_____

Level 2_____

Level 3_____

Level 4_____

Level 5_____

SCALE 1
EMPATHIC UNDERSTANDING IN INTERPERSONAL PROCESSES:
A SCALE FOR MEASUREMENT

Level 1

The verbal and behavioral expressions of the first person either <u>do not attend to</u> or <u>detract significantly</u> from the verbal and behavioral expressions of the second person(s) in that they communicate significantly less of the second person's feelings than the second person has communicated himself.

EXAMPLES: The first person communicates no awareness of even the most obvious, expressed surface feelings of the second person. The first person may be bored or uninterested or simply operating from a preconceived frame of reference which totally excludes that of the other person(s).
    In summary, the first person does everything but express that he is listening, understanding, or being sensitive to even the feelings of the other person in such a way as to detract significantly from the communications of the second person.

Level 2

While the first person responds to the expressed feelings of the second person(s), he does so in such a way that he <u>subtracts noticeable affect from the communications</u> of the second person.

EXAMPLES: The first person may communicate some awareness of obvious surface feelings of the second person, but his communications drain off a level of the affect and distort the level of meaning. The first person may communicate his own ideas of what may be going on, but these are not congruent with the expressions of the second person.
    In summary, the first person tends to respond to other than what the second person is expressing or indicating.

Level 3

The expressions of the first person in response to the expressed feelings of the second person(s) are essentially <u>interchangeable</u> with those of the second person in that they express essentially the same affect and meaning.

EXAMPLE: The first person responds with accurate understanding of the surface feelings of the second person but may not respond to or may misinterpret the deeper feelings.
    In summary, the first person is responding so as to neither subtract from nor add to the expressions of the second person; but he does not respond accurately to how that person really feels beneath the surface feelings. Level 3 constitutes the minimal level of facilitative interpersonal functioning.

Level 4

The responses of the first person add noticeably to the expressions of the second person(s) in such a way as to express feelings a level deeper than the second person was able to express himself.

EXAMPLE: The facilitator communicates his understanding of the expressions of the second person at a level deeper than they were expressed, and thus enables the second person to experience and/or express feelings he was unable to express previously.

In summary, the facilitator's responses add deeper feeling and meaning to the expressions of the second person.

Level 5

The first person's responses add significantly to the feeling and meaning of the expressions of the second person(s) in such a way as to (1) accurately express feelings levels below what the person himself was able to express or (2) in the event of on going deep self-exploration on the second person's part, to be fully with him in his deepest moments.

EXAMPLES: The facilitator responds with accuracy to all of the person's deeper as well as surface feelings. He is "together" with the second person or "tuned in" on his wave length. The facilitator and the other person might proceed together to explore previously unexplored areas of human existence.

In summary, the facilitator is responding with a full awareness of who the other person is and a comprehensive and accurate empathic understanding of his deepest feelings.

Carkhuff, R. R. Helping and human relations: A primer for lay and professional helpers (Vol. II). New York: Holt, Rinehart & Winston, 1969.

APPENDIX G

Pretest Situation

The patient is a 20 year-old female college student who is planning a career in broadcasting. She works part-time as a cashier. She has come to the clinic because of frequent headaches and difficulty in seeing things in the distance.

She is nervous about being in the clinic and anxious about the idea that she may need glasses. She feels that glasses would ruin her image and interfere with her career aspirations. In addition, she finds the idea of wearing contacts repugnant, as the thought of putting foreign bodies in her eyes makes her squeamish.
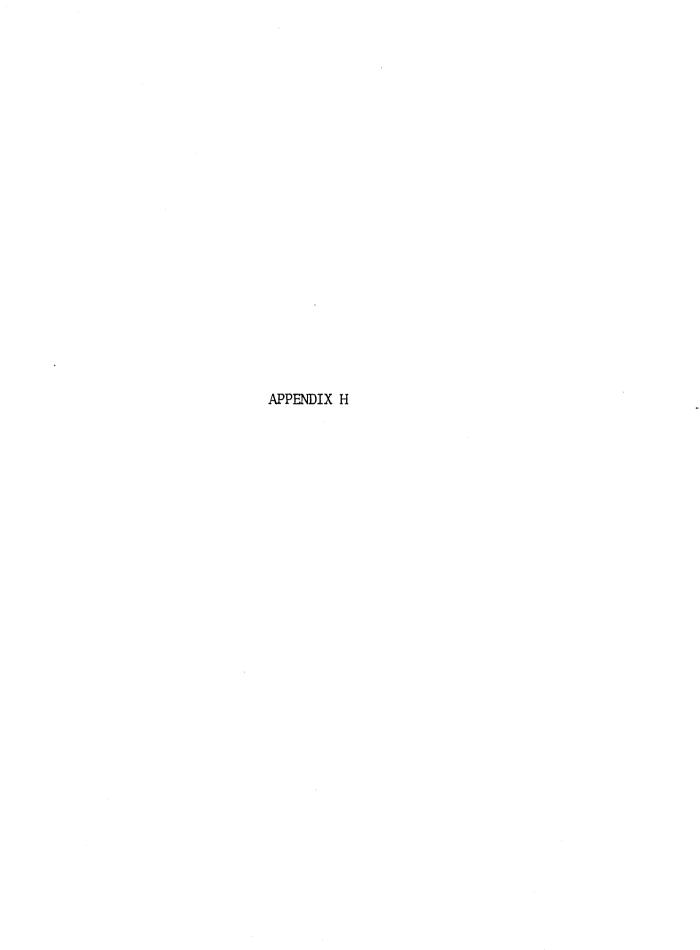
Posttest Situation

The patient is a vivacious and expressive woman in her late 30's. She is an actress who works primarily in radio and television commercials. She has come to the clinic because she has been experiencing a blurriness in her vision when looking at things from a distance. She has also noted that her eyes seem to tire quickly, more than they used to. She is upset about these changes in her vision in that she feels that she is deteriorating (aging). The idea of getting older makes this patient anxious. She finds aging distasteful and worries that it will adversely affect her career.

Suggestions: carry a large bag which you seem to have no place for; hesitate before discussing reason for visit (shrug).

Instructions to Actresses

Provide both nonverbal and verbal cues to indicate the emotions that you are experiencing (underlined above). At first, probably the nonverbal cues can be emphasized. I do want each student to have some verbal cues as well. You needn't exaggerate either however. I would like you to be as natural as possible, the way a real person in this situation might act. Although I want you to be consistent with each student/doctor in terms of the confines of this role, react to the student/doctor as you naturally would depending on his/her behavior. Things will take very different turns depending on the dynamics between you.

APPENDIX H

CLASS ACTIVITIES

Session I.

A. Introduction of instructor including background and experience; brief group introductions.

B. Explanation of purposes and procedures of pretesting (Patient Response Style Indicator, Assertion Inventory, videotaped interview with simulated patient); pretesting.

C. Explanation of ground rules: confidentiality; expression of discomfort; taking responsibility for statements by using "I"; option to pass.

D. Small group brainstorming of specific professional goals for the course; sharing with group as whole by recorders of each group.

E. Lecture-discussion
    1. Myths surrounding interpersonal skills in health care (Anthony and Carkhuff, 1977).
    2. Need for course.
    3. Trend within health care professions towards affective education.
    4. Trend within optometry towards affective education.
    5. Consequences of poor doctor-patient relations.
    6. The teaching process (Anthony and Carkhuff, 1977).
    7. Rationale for interpersonal skills in health care (Anthony and Carkhuff, 1977).
    8. Overview and explanation of course outline.

F. Personal Awareness Exercise I.: You are a person (Silverman, et. al., 1975).
    Purpose: To increase awareness of the different roles we take on and how we behave differently in each.

Assignment: Buy text, The Art of Health Care (Anthony and Carkhuff, 1976).

Session II.

A. Questions or problems (sessions always begun in this way to model caring as well as attending and responding skills).

B. Shield Exercise
    Purpose: To establish a norm of self-disclosure and build cohesion within the group.
    On large sheet of paper, use crayons to draw a shield. Use symbols, pictures, and colors to depict yourself as others see you. Turn paper over and do the same, depicting parts of yourself that others probably don't see. Share with the group.

C. Values and Role Expectations Exercise
    Purpose: To increase awareness of values and expectations of both self in professional role and of patients; to identify unrealistic expectations; to create awareness of affective components of professional practice.
    Divide into small groups and choose a recorder for each. Brainstorm 8-10 adjectives which describe the terms "perfect doctor"

and "perfect patient". Large group re-forms; recorders read lists and instructor writes on board. Discuss possibility of meeting all criteria and the feelings which may arise when they are not met.

Assignment: Read Anthony and Carkhuff, Forward, Preface, and Chapter 1; write journal.

Session III.

A. Questions or problems.
B. Constructive openness: Use of Johari Window to illustrate blind, hidden, unknown and open areas; provide rationale for increasing open area.
C. Internalized messages from family, school, media, society regarding feelings.
   Discussion: What feelings were acceptable to express in your family when you were growing up? What feelings were unacceptable? How might these messages about feelings affect your interactions with patients?
D. Ways to increase awareness of feelings. Discuss how we know when we are angry, tense, happy, etc.? What are some bodily cues, postures, or movements?
E. Response Style Exercise (Pearlman, et.al., 1975)
   Purpose: To identify typical response style when presented with someone else's problems.
   Instructor reads three statements assumed to be made by a friend. Write your responses. Using a different sample statement, the instructor demonstrates various different response styles, e.g., boss, reassurer, cross-examiner.... As each style is demonstrated, the group is asked what effect each of them is likely to have on the person with the problem. The instructor then goes around the group asking each person how they responded to the statements and if they can identify a pattern or style to their responses.
F. Experiencing Nonattending and Attending Behavior Exercise
   Purpose: To experience nonattending, self-centered, and attending behaviors and the feelings they elicit in the speaker.
   Instructor models nonattending behavior and then asks group to divide into dyads and take turns as speaker and listener. Listeners are asked to use nonattending behavior. After each partner has had a turn as speaker, each person is asked how it felt. The process is repeated twice more with the listener consistently shifting the focus to him/herself and the listener using attentive listening. The effects on the speaker are processed in the same way.

Assignment: Anthony and Carkhuff, Chapter 2; write journal.

Session IV.

A. Questions or problems.
B. Review of last session and continuation of attending behavior.
C. Facial Expression Exercise (Anthony and Carkhuff, 1976).
   Purpose: To learn to routinely focus attention on the facial

expressions, posture, and body language of another.

Divide into dyads. Each person write down a minimum of four possible feeling states, e.g., fear, skepticism, anger, sadness, confusion, pleasure, fatigue. Person A tries to convey a variety of feelings using only nonverbal cues, i.e., eyes, facial expression, gestures, or posture. Person B tries to guess what the other person is feeling based on observations. Reverse roles. Person A provides feedback on accuracy of Person B's observations.

D. Space and Distance Exercise

Purpose: To experience the effects of space and distance on communication.

Divide into dyads. Take turns as speaker and listener in the following positions:
1. Speaker stands, listener sits
2. Speaker sits, listener stands
3. Speaker is ten feet from listener
4. Speaker is three-four feet from listener on same level

Processing: How did you feel as speaker in each of these situations? How did you feel as listener? What arrangements impeded good communication? What arrangements facilitated good communication?

E. Discussion: What non-verbal activities which can be performed in an optometric setting would convey your caring for him/her as a person? (e.g., in a private office: shake hands; stand up when patient enters; in the clinic: walk to door; point out water fountain; waiting room: provide reading material; hang up coat).

Assignment: Observe own behavior regarding space and distance with patients. Attend to others' nonverbal indicators of feelings and try to mentally guess their emotional states; write journals.

Session V.

A. Questions or problems.
B. Brief review of last session: eye contact and attending to patients' nonverbal behaviors.
C. Summarize basic attending skills: eye contact; distance of three to four feet; face patient squarely; eliminate distracting mannerisms.

Instructor models

Try out in dyads and share reactions

D. Attending to patient physically (e.g., shake hands; take patient's arm).
E. Components of a friendly attitude that express caring:

Instructor models and describes
1. Greeting the patient
2. Introducing yourself
3. Using attending verbal responses (e.g., How are you doing today?)
F. Attending Skills and Communication of Caring Exercise

Purpose: Practice for skill acquisition and feedback.

Divide into triads. Person A takes role of doctor. Greet

patient and introduce yourself. Use attending verbal response. Use basic nonverbal attending skills. Person B takes role of patient. Respond to the doctor as you would naturally. Person C takes role of observer. Note the doctor's behavior and its effect upon the patient. Provide feedback on what was effective and what needed improvement. Switch roles so that everyone experiences all three. Instructor circulates among the groups.

Assignment: Anthony and Carkhuff, Chapter 3; Practice attending behavior with patients, family, roommates, and others; note responses and how you felt; record in journals.

Session VI.

A. Questions or problems.
B. Sharing of experiences involving the practice of attending skills; instructor positively reinforces all successful experiences and attempts to practice.
C. Responding Skills
   Responding to feeling: skill defined; rationale for skill provided; skill broken down into component parts.
   Instructor models reflection of feelings (with volunteer).
   Responding to meaning: skill defined; rationale for skill provided; skill broken down into component parts.
   Instructor models responding to meaning (with volunteer).
D. Instructor provides a beginning structure for responding to meaning, i.e., "You're feeling _____ because _____."
E. Feeling word handout distributed and feeling words discussed in terms of intensity.
F. Class lists feeling words of various degrees of intensity, mild, moderate, and strong for general emotional categories, e.g., anger, sadness, confusion.
G. Responding to Meaning Exercise
   Purpose: Practice for skill acquisition and feedback.
   Instructor reads patient statements. After each one, a group member responds to the meaning, i.e., the feeling and the reason for the feeling. Instructor and other group members provide feedback.
H. Around the Group Exercise
   Purpose: Practice for skill acquisition and feedback.
   Leader goes around the group discussing a problem as if she were talking with one person. Group members take turns responding to meaning. Instructor and other group members provide feedback.
I. Responding to Meaning Exercise in Triads
   Purpose: Practice for skill acquisition and feedback.
   Each group member writes at least five statements which patients have made or might make related to their problems or the optometric examination. Group divides into triads and take turns with roles of doctor, patient, and observer. The patient reads a statement as realistically as possible. The doctor responds to the patient's feeling and the reason for the feeling. The observer provides feedback regarding the behaviors of the doctor and patient. The

patient provides feedback regarding the accuracy of the doctor's response. The instructor circulates among groups to provide additional help.
Assignment: Practice responding to meaning with patients and others. Note the effect on the speaker and how you felt; journals.

Session VII.

A. Questions or problems.
B. Sharing of experiences involving the practice of responding to meaning, i.e., discussing with whom, in what situation, effect on speaker, own feelings. Instructor positively reinforces all successes and attempts to practice behavior.
C. Brief review and practice of skills learned in last session.
D. Use of questions
   Discuss effects of questions on patients in terms of directing communication to the needs of the doctor. Explain seemingly irrelevant patient responses to questions as attempts to meet their emotional needs. Stress the use of "how" and "what" questions rather than "why" questions because they usually elicit more information and don't put the patient on the defensive or ask for insights which the patient may lack (Collins, M., 1977).
E. Define and provide examples of open, closed, and leading questions. As class to provide examples of each.
F. Review and explanation of Checklist of Interviewing Skills.
G. Viewing videotapes for pretest interviews with a coached patient and using Checklist of Interviewing Skill to critique. Person critiques self first, beginning with what was done well and including areas for improvement. Feedback from other class members and instructor follows, using same order.
Assignment: Continue to practice attending skills, conveying a friendly attitude, and responding to meaning. Practice using preliminary open questions with patients; journals.

Session VIII.

A. Questions or problems.
B. Sharing of experiences involving responding to meaning and using open-ended questions. Instructor positively reinforces all successes and attempts to practice the behavior.
C. Brief review of open, closed, and leading questions. Class writes examples of each. Go around group to check out understanding.
D. Brief practice of responding to meaning in dyads.
E. Responding with information: attending to patient's indications of need for information; observing patient's reactions to information presented; responding to feeling resulting from information presented; differentiating need for information from need for understanding or empathy.
F. Choosing appropriate responses
   Responses to meaning not always appropriate; depends on situation. It is important to know who has the problem (Gordon T., 1974).

When: Appropriate Response:

Other has problem   Response to feeling and content
No problem exists   Any response
I have problem   Assertive message ("I" message)
Both have problem   Conflict resolution

Discuss appropriateness of response in terms of Gordon's rectangle of acceptable and nonacceptable behaviors. Transition to assertion.

G. Assertiveness Training
    Instructor defines and models assertive, nonassertive, and aggressive behaviors. Instructor differentiates among them using distributed handouts containing the characteristics of each behavior. Discuss verbal and nonverbal components of each behavior using distributed handout.
H. Nonverbal Assertive, Aggressive, and Nonassertive Stance Exercise
    Purpose: To experience the nonverbal characteristics of each behavior and to increase awareness of comfort with each.
    Instructor coaches group in trying out nonverbal elements of each behavior, e.g., posture, gestures, facial expression, direction of eyes. Processing consists of discussing how each stance felt in terms of comfort and which seemed typical.
Assignment: Assess your own patterns of nonassertion, assertion, and aggression. Become aware of as many situations as you can where you are uncomfortable with your behavior. Look for cues of discomfort, e.g., sweaty palsm, nervous stomach, headache, and regret for not having behaved differently. Continue to practice communication skills; journals.

Session IX.

A. Questions or problems.
B. Sharing of experiences involving the practice of earlier acquired skills and observations regarding own behavior in terms of assertion, nonassertion, and aggression.
C. Discussion of situational nature of assertiveness; instructor provides examples and discusses own patterns of assertion; group members try to identify theirs.
D. Review the three types of behavior using the handout, "A Comparison of Assertive, Nonassertive, and Aggressive Behaviors".
E. Check discrimination among the three types of behaviors by using examples from Alberti-Emmons (1974). Instructor reads situations and asks class to label responses as assertive, nonassertive, or aggressive. Instructor then reads either an aggressive or nonassertive response to a given situation. Group members are asked to identify the type of response and to supply an assertive response to the situation.
F. Need to develop a belief system about rights: rationale provided.
G. Identification of Rights Exercises
    Purpose: To develop a belief system supportive of assertive behavior through the awareness and acceptance of basic interpersonal

rights in professional and personal situations.

Divide into small groups and select a recorder. Brainstorm a a list of interpersonal rights. Instructor provides some examples and points out that acceptable interpersonal rights will vary among individuals. After lists are recorded, each group shares list with group as a whole and instructor incorporates lists on the board. As rights are listed, questions are raised and discussed.

Sample rights:

to be treated with respect

to your own feelings

to make and refuse requests

Following the same procedure, brainstorm a list of basic rights that you have in your professional role as an optometrist or optometry student, i.e., in relation to patients, supervisors, others.

Sample rights:

to your own professional opinion

to receive payment for services

to control the course of the examination

Following the same procedure, brainstorm a list of rights which belong to patients.

Sample rights:

to an explanation of fees

to refuse any test or treatment and accept consequences

to get a consulting opinion

H. Instructor provides help in clarifying situations in terms of interpersonal rights. The following questions are provided as a means of analyzing situations to facilitate assertive behavior:

1. What do you want in this situation?

2. How reasonable is the goal?

3. Are you comfortable with your rights (Pearlman, et.al., 1975)

Assignment: Choose a relatively low-stress situation in which you would like to behave assertively. Clarify the situation using three questions. Try to respond assertively in the situation. Continue to practice communication skills. Journals.

Session X.

A. Questions or problems.

B. Sharing of experiences involving assertion. Discuss in terms of outcome, feelings about self, or obstacles to assertive behavior. Instructor positively reinforces all successes and attempts to practice assertive behavior.

C. Relate importance of nonverbal attending in assertion as well as in communicating caring; relate conveying a friendly attitude as a kind of assertive behavior.

D. Review discrimination of assertion, nonassertion, and aggression using situations and responses from Lange and Jakubowski (1976). Label the responses and provide examples of what the other two behaviors would sound like.

E. Components of an assertive response:
   Instructor explains that a response to feeling or empathic response is often helpful as part of an assertive response; however, there are times when it is not desirable or necessary. An assertive response consists of telling the other person what you want or are feeling. A preceding response to the other person's feelings and situation is optional.
F. Instructor models three assertive responses (with volunteer) illustrating making requests, expressing feelings and needs, and refusing requests with an empathic component.
G. Behavior rehearsal; rationale provided; procedure outlined; emphasis on positive reinforcement; provision of feedback on effective elements and areas for improvement; instructor (with volunteer) models behavioral rehearsal process two times.
H. Behavior Rehearsal Exercises
   Purpose: To provide opportunity for skill acquisition and feedback.
   Divide into triads and take turns refusing requests assertively. One person be observer. One person makes a request that the other wishes to refuse. The other person refuses the request. Switch roles so that all have an opportunity to play all roles. Feedback is provided by all participants.
I. Use behavior rehearsal process to role-play situations of concern which were previously identified. Instructor rotates among groups.
Assignment: Practice assertive behavior in situations requiring it; designate a specific situation of concern that is not too threatening; journals.

Session XI.

A. Questions or problems.
B. Sharing of successes and attempts to behave assertively. Instructor positively reinforces all successes and attempts to practice assertive behavior.
C. Instructor provides directions for posttest videotaping (to be done individually during the class session).
D. Class comples the Patient Response Style Indicator and personal data sheets. The Assertion Inventory directions are reviewed and the instrument to be completed out of class and returned at the next session.
E. Discuss blocks to assertive behavior (Pearlman, et.al., 1975) including anger, pleading, and authority figures. Help students to identify blocks. Role-play relevant situations.
F. Discuss irrational believes as sources of anxiety caused by imagined negative outcomes; point out irrationality of always expecting worst possible outcome and believing oneself incapable of dealing with it (Ellis, A., in Pearlman, et.al., 1975).
G. Provide examples of irrational beliefs and replace them with rational beliefs.
H. Behavior rehearsal
   Divide into two groups and continue to practice situations of concern; instructor alternate between the groups.

Assignment: Continue to practice assertive behavior and all pre-
viously learned skills; journals.

Session XII.

A. Questions or problems.
B. Sharing of successes and attempts to behave assertively.
C. Instructor suggests ways to continue work on problem areas in
    assertion after completion of class including: paying attention
    to bodily cues regarding feelings; clarifying situations accord-
    ing to goals and rights (in advance if possible); using positive
    imagery to build confidence; reading books on assertiveness;
    practice with mirror, tape recorder, or friend.
D. Explanation of Assertion Inventory scores and norms provided.
E. Explanation of Patient Response Inventory scores.
F. Review of Checklist of Interviewing Skills.
G. Viewing of last videotapes of interview with coached patient using
    Checklist to critique. Person critiques self first, beginning
    with what was done well and including areas for improvement.
    Feedback from other class members and instructor follows, using
    same order.
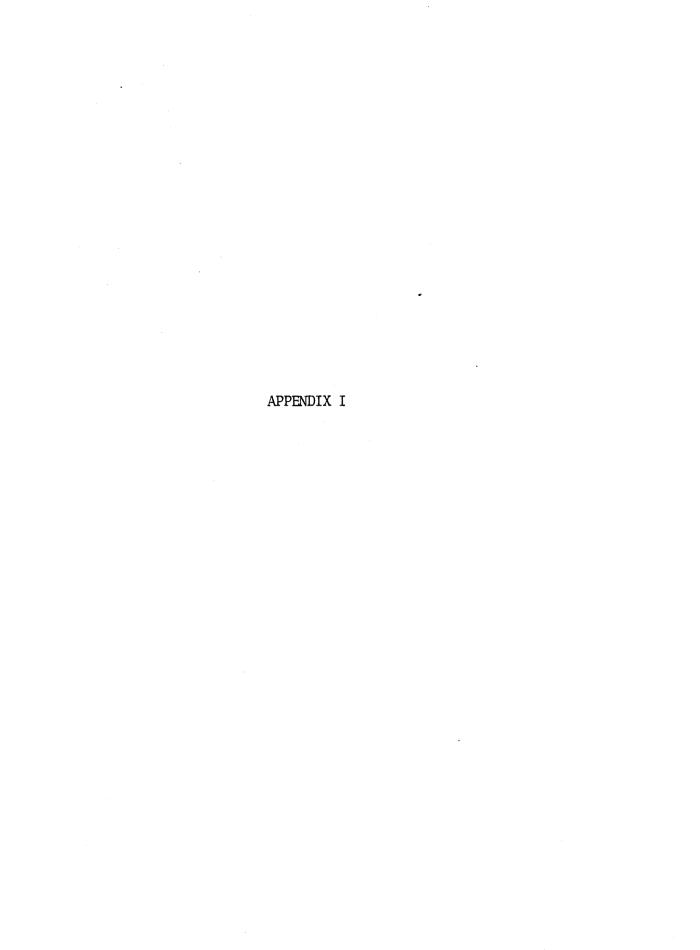
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*indicates highly recommended.

APPENDIX I

PRETEST MEANS AND STANDARD DEVIATIONS FOR COMBINED
EXPERIMENTAL AND CONTROL GROUPS

N = 45

Assertion Inventory

Degree of Discomfort		Response Probability
Mean:	96.80	105.89
Standard Dev.	17.39	11.92

N = 45

Patient Response Style Indicator

Mean:	2.53
Standard Dev.	1.69

N = 38

Checklist of Interviewing Skills

Rater 1	Yes	No	No Answer
Mean:	18.71	10.32	.10
Standard Dev.	2.62	2.62	.51

Rater 2

	Yes	No	No Answer
Mean:	15.89	10.45	.66
Standard Dev.	3.73	3.84	1.02

N = 42

Scale 1 Empathic Understanding in Interpersonal Processes: A Scale for Measurement

	Rater 1	Rater 2
Mean:	1.88	1.95
Standard Dev.	.55	.79

APPENDIX J

Pre, Post, and Difference Scores on "Yes" Items on the
Checklist of Interviewing Skills Using Combined Raters' Scores

Individual	Pre	Post	Difference
1	34	48	14
2	33	45	12
3	39	40	1
4	32	38	6
5	38	47	9
6	34	39	5
7	--	42	-
8	36	40	4
9	45	38	-7
10	37	39	2
11	31	32	1
12	30	35	5
13	46	36	-10
14	40	41	1
15	24	40	16
16	34	47	13
17	41	50	9
18	--	44	-
19	33	45	12
20	29	43	14
21	28	40	12
22	30	44	14
23	34	41	7

Individual	Pre	Post	Difference
24	39	40	1
25	32	49	17

Pre, Post, and Difference Scores on the Patient Response
Style Indicator for the Experimental Group

Individual	Pre	Post	Difference
1	5	11	6
2	1	9	8
3	2	12	10
4	4	11	7
5	1	6	5
6	2	7	5
7	5	4	-1
8	3	8	5
9	3	12	9
10	3	12	9
11	1	7	6
12	1	4	3
13	2	7	5
14	5	11	6
15	3	7	4
16	2	10	8
17	3	4	1
18	3	8	5
19	3	11	8
20	2	11	9
21	3	12	9
22	2	8	6
23	3	3	0

Individual	Pre	Post	Difference
24	3	10	7
25	1	6	5

Note: Maximum score on the Patient Response Style Indicator is 12.

Pre, Post, and Difference Ratings on Scale 1 Empathic
Understanding in Interpersonal Processes: A Scale for
Measuring Using Combined Raters' Ratings

Individual	Pre	Post	Difference
1	3	6	3
2	4	7	3
3	2	5	3
4	4	4	0
5	5	6	1
6	3	5	2
7	-	5	-
8	3	5	2
9	6	4	-2
10	3	5	2
11	4	4	0
12	5	5	0
13	6	5	-1
14	5	5	0
15	2	6	4
16	4	7	3
17	4	6	2
18	-	7	-
19	4	6	2
20	2	7	5
21	3	6	3
22	3	5	2

Individual	Pre	Post	Difference
23	2	5	3
24	3	5	2
25	3	8	5

Pre, Post, and Difference Scores on the Degree of Discomfort and Response
Probability Scales of the Assertion Inventory for the Experimental Group

Individual	Degree of Discomfort			Response Probability		
	Pre	Post	Difference	Pre	Post	Difference
1	78	78	0	110	97	-13
2	105	106	1	111	108	-3
3	92	77	-15	77	85	8
4	91	92	1	111	98	-13
5	95	75	-20	89	72	-17
6	92	89	-3	126	110	-16
7	77	114	37	98	116	18
8	91	99	8	95	111	16
9	97	84	-13	95	70	-25
10	104	108	4	119	113	-6
11	140	151	11	105	114	9
12	98	89	-9	100	98	-2
13	106	110	4	108	106	-2

	Degree of Discomfort			Response Probability		
Individual	Pre	Post	Difference	Pre	Post	Difference
14	81	76	-5	98	85	-13
15	99	68	-31	104	73	-31
16	124	117	-7	118	100	-18
17	101	89	-12	98	93	-5
18	87	87	0	100	82	-18
19	126	120	-6	116	105	-11
20	108	65	-43	95	67	-28
21	64	73	9	104	86	-18
22	117	107	-10	123	111	-12
23	87	91	4	127	122	-5
24	66	69	3	105	79	-26
25	83	79	-4	98	77	-21

Note: Negative difference scores indicate lower degree of discomfort and higher response probability.

<u>APPROVAL SHEET</u>

The dissertation submitted by Sharon L. Greenburg has been read and approved by the following committee:

    Dr. Gloria J. Lewis, Director
    Chairperson, Guidance and Counseling, Loyola

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

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

11-18-80
Date   Director's Signature