

RECEPTIVITY OF SUBJECTS VARYING IN DEGREE
OF TRAIT ANXIETY TO COUNSELORS
EXHIBITING DIFFERENT TYPES
OF NONVERBAL BEHAVIOR

By

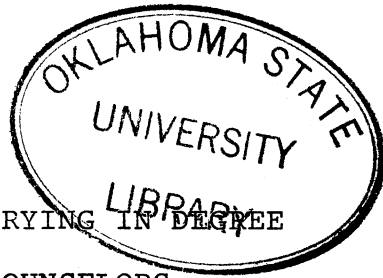
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Chapter I

General Introduction to the Area of Study

Introduction

With the advent of audio recording devices about 30 years ago, a more systematic analysis of the counseling process became possible. Such devices have provided a way for counselors to obtain more objectivity and greater feedback of a counseling interaction. As a result, much research has been conducted to objectively determine nonverbal qualifiers of verbal statements. In fact, several studies (Haase & Tepper, 1972; Lewis & Page, 1974; Speer, 1972) have reported nonverbal behavior (NVB) as the primary means of communicating affect. These studies have not, however, considered the client's emotional state, more specifically, the clients' level of trait anxiety and its implication regarding the outcome of the client-therapist interaction. As a result, prior research investigating nonverbal processes in therapeutic situations may have been confounded due to possible effects of the client's affective state during the counseling session. Consequently, a number of questions may be raised in this regard. What types of counselor nonverbal behaviors are favorably perceived by clients who vary in degree of trait anxiety? Are different

forms of counselor nonverbal behavior more favorably perceived by clients who vary in degree of trait anxiety? What types of characteristics do clients varying in trait anxiety attribute to therapists who display different types of nonverbal behavior?

The present investigation was designed to address these questions by assessing the effects of different types of nonverbal behavior by a therapist on a client's subsequent ratings of several therapist characteristics, while accounting for clients' trait anxiety level. This was accomplished by having subjects view video tapes of therapists displaying different forms of nonverbal behavior (i.e., independent variable) in a therapeutic context. Subjects then rated the therapists on a number of characteristics including attractiveness, trustworthiness, and expertness (i.e., dependent measures). Measures of subject trait anxiety level were taken prior to viewing the video tapes and later statistically analyzed by multivariate analysis of covariance to assess any impact on the counselor's ratings in the data analysis. Results will have implications for the efficacious use of nonverbal communication in a therapeutic context while considering the client's level of trait anxiety.

Statement of the Problem

Previous research has been instrumental in helping counselors better integrate the varied messages they send

and receive from their clients. Birdwhistell's (1952) "kinesics" were developed as a comprehensive system for categorizing NVB. Feldman (1959), Mahl (1968), and Ekman and Friesen (1968) addressed the psychoanalytical referents of nonverbal behavior. Hall (1973) focused his study on the interaction distance between two people and their affective states. Ekman (1965), Ekman and Friesen (1967, 1971) and Ekman, Friesen and Ellsworth (1972) investigated how affect is communicated by nonverbal behavior. Mehrabian (1972) and Birdwhistell (1974) investigated other functions of NVB besides the communication of affect. Seals and Prichard (1973) investigated counselor NVB and related it to counselor subroles.

The present study is significant because by helping ascertain the receptivity of individuals who vary in anxiety to particular nonverbal behaviors emitted by counselors in the counseling situation, counselors would be in a better position to mediate their non-verbal behaviors in dealing with clients.

The problem under investigation in this research project is: Is there a difference among the perceived receptivity of subjects who vary in their trait anxiety to a counselor who emits different types of nonverbal behaviors?

Research Questions

The following questions are posed in an effort to

resolve the problem stated above:

1. What types of counselor nonverbal behaviors are favorably perceived by subjects who vary in their degree of trait anxiety?
2. Are counselors who are more animated in their nonverbal behaviors more favorably perceived by subjects who vary in their degree of trait anxiety?
3. Are counselors who are less animated in their nonverbal behaviors more favorably perceived along the dimensions of attractiveness, expertness and trustworthiness by subjects who vary in their degree of trait anxiety?
4. Are counselors perceived as more attractive when they emit a particular nonverbal behavior to subjects who vary in their degree of trait anxiety?
5. Are counselors perceived as more expert when they emit a particular nonverbal behavior to subjects who vary in their degree of trait anxiety?
6. Are counselors perceived as more trustworthy when they emit a particular nonverbal behavior to subjects who vary in their degree of trait anxiety?

Purpose of the Study

Previous research has not addressed the interaction of client anxiety with respect to the different types of nonverbal behaviors emitted by a counselor in a therapeutic situation. Strong, Taylor, Bratton and Loper (1971) suggested that clients are more attracted to the more active and animated counselors and that the effects of being viewed more positively and being liked have been shown to affect the long term relationship between counselor and client and under certain conditions controls the counselor's ability to influence the client in short term interactions. Hill, Siegelman, Gronsky, Sturniolo, and Fretz (1981) found that arm movements were negatively correlated with favorable counselor perceptions. Tepper and Haase (1978) discovered that facial expression change emitted by counselors was an especially powerful determinant in the conveyance of empathy and respect. Fretz (1966) and Haase and Tepper (1972) posited that counselors who exhibit direct body orientation, forward trunk lean, and direct eye contact were more favorably perceived and were able to improve the evaluations of low level empathy messages. Counselors in that study were not animated, yet still received positive evaluations.

The present investigation was designed to account for the effects of the client's anxiety level in relation to different types of therapist nonverbal behavior and to ascertain whether subjects who vary in their degree of anxiety differentially respond to a therapist who emits

different types of nonverbal behavior. This was accomplished by having subjects view a videotaped presentation of a counselor emitting different types of nonverbal behaviors (head nods and facial expression changes, arm and hand movements, and minimal overt nonverbal behavior) and then rating the counselor along the dimensions of perceived attractiveness, expertness, and trustworthiness (i.e., dependent variable). Anxiety was the covariate in the study and was measured using the Spielberger Trait Anxiety Inventory (1970).

Summary

This chapter addressed the role of nonverbal communication in the counseling interaction and the part that videotaping equipment has played in providing feedback of those behaviors in a more objective manner. Research questions were raised regarding the impact of certain nonverbal behaviors on subjects who vary in their degree of trait anxiety.

Subsequent chapters set out to answer the research questions. Chapter two covers the pertinent review of the literature. Chapter three covers the methodology, research design and statistical instrument used. Chapter four reports the results and the discussion of the results and chapter five provides a summary of the study and suggests recommendations for future research.

Chapter II

Review of Selected Literature

Introduction

The present investigation focuses on the subjects' favorable or unfavorable perception of counselors' nonverbal channels of communication. Subjects vary according to the degree of state anxiety as measured by the Spielberger Trait Anxiety Inventory. The Counselor Rating Form-Short Version (CRF-S) was used to assess the subjects' perceived receptivity to the counselors' dimensions of attractiveness, trustworthiness and expertness. The discussion of the related literature will consist of five major areas: (1) nonverbal behavior in counseling, (2) nonverbal behavior and affect, (3) the use of videotape as a medium of stimulus presentation, (4) the different theories of anxiety, and (5) research on anxiety and performance.

Nonverbal Behavior in Counseling

Darwin (1896) was the first to investigate nonverbal behavior from a scientific point of view. In his book The Expression of the Emotion in Men and Animals he provided descriptions of body movements and facial expressions that he related to five specific emotions: (a) weeping and

suffering, (b) hatred and anger, (c) contempt, (d) surprise, and (e) shame.

The term "kinesics" arose out of the work by Birdwhistell (1952) where he characterized it as a systematic study of human communication. Particular movements and gestures provided information about what was communicated verbally. This term has given way to the now popular concept "nonverbal behaviors."

Gladstein (1974) did an extensive review of the literature where he studied 115 references and found great variations among conclusions. Through this work he arrived at some significant conclusions. First, classification of nonverbal behavior is possible. Secondly, paralanguage provides pertinent knowledge about interactions between individuals. Thirdly, integrally related to the area of counseling and affect is the interaction of paralanguage and kinesics. Fourthly, the impact that nonverbal communication has on individuals makes it imperative that counselors use this vehicle as a therapeutic tool.

Freud (1905) was aware of the importance of NVB in therapy with his statement "He that has eyes to see and ears to hear may convince himself that no mortal can keep a secret. If his lips are silent, he chatters with his fingertips, betrayal oozes out of him at every pore. (p. 105).

Berne cited by Dusay, (1971) substantiated this when he said that one could tell more about a person by observation

of subtleties than by verbal content of dramatic display of emotion. Just stand in front of a mirror and you will see what I mean. (p. 37).

Meharabian (1968) concluded that when messages were communicated verbally, only 7% of the message conveyed affect. Facial expressions and voice quality transmitted 55% and 38% respectively. Nonverbal behavior was expanded to include not only gestural and kinesic movements but more global behavior patterns as well. For example, a person who exhibits tardiness on a frequent basis may be manifesting avoidant behavior (Lifton, 1971).

Island (1967) devised an objective and measurable taxonomy of counselor nonverbal behaviors. They were divided into the following 14 categories: head movements, head nods, head turned away, head gestures only, smiles only, hand movement, arm movement, body position backward, body position upright, body position forward, talk, head support shift, body position shift and talk shift.

Gazda (1973) categorized nonverbal behavior into four subdivisions; nonverbal behavior using time, e.g., promptness and tardiness, nonverbal behaviors using the body, e.g., physiological determinants such as sweat, tears, blushing as well as gestural activity; nonverbal behavior using the vocal media, e.g., tonal qualities and rate of speech; nonverbal behaviors using the environment, e.g., distance between individuals.

Beier (1966) in his book The Silent Language of

Psychotherapy posited that the counselee can impact on the interaction with the counselor through nonverbal means. By lowering his voice or covering his mouth he forces the counselor to become more attentive. Harmon (1971) centered on both parties in the process:

. . . attention should not be focused only on the nonverbal behavior of the client. If we accept the fact that the client's nonverbal behavior can convey certain psychological meaning, we must also accept the fact that the counselor's nonverbal behavior will convey messages to the client. (p. 191)

Ekman (1964), Galloway (1971), Kaufman (1974) and Schefflen (1974) looked at nonverbal behavior and its ability to define relationships. They indicated that nonverbal behavior in the form of subtle indicators works to communicate changes in the quality and the direction of relationships by conveying affective messages.

Mahl (1968) addressed the ways that nonverbal behaviors validate or fail to validate verbal messages. Some nonverbal messages coincide with verbal content. Some nonverbal messages appear to be unrelated to verbal content. Some behaviors are contrary to verbal content and some nonverbal behaviors are directly related to the interaction.

Meharabian (1968) discovered that posture conveyed an important message of regard. In a study analyzing the nonverbal behaviors of counselors and counsees he found that counselors exhibiting forward body lean were judged to have higher positive regard for their clients. Counselors who were layed back tended to project an attitude of lack of concern and coldness.

Strong et al. (1971) studied the effect of nonverbal behavior on perceived counselor characteristics and found that: (a) observers' descriptions of counselors were directly influenced by counselor's nonverbal behavior; (b) counselors who were active in their manifestation of nonverbal behaviors were more positively perceived by clients; and (c) students' perceptions of counselors were judged to be warmer, less critical, more reasonable, relaxed, fair, interesting, alert, knowledgeable, talented, etc. when rating with audio and visual modes.

Graves and Robinson (1976) explored the relationship of proxemic behavior and verbal and nonverbal behavior. Individuals who convey incongruent messages generally maintain greater interpersonal distance. This was evidenced when nonverbal messages were negative while the verbal messages were positive. Also evidenced was a reduction of perceived counselor genuineness.

In a study analyzing the arm and leg positions of counselors related to warmth and empathy, Smith-Hanen (1977) discovered that counselors who maintained a posture with their arms crossed in front of them were judged to be cold and lacking empathy. Counselors were judged similarly when they crossed their legs so that the ankle rested on the opposite knee. Counselor positions that were not rated as cold or less empathic were legs that were crossed at the knee and legs that were positioned up with the feet resting on the chair.

In developing his taxonomy of 14 nonverbal categories, Island discovered that high rated and low rated counselors manifested differing levels of certain behaviors. Counselors who were rated low tended to exhibit higher levels of head movements, head nods, head turned away, lower face movements and smiles. The counselors who were rated high talked more and were more animated in their arm movements.

In another study using video, Condon and Ogston (1967) looked at "active" versus "still" counselors. Counselors who were more animated in their expression of nonverbal behavior were perceived as being more attractive, especially along the dimension of friendliness. Still counselors, on the other hand, were perceived as being more staid and serious.

Seay and Alterkruse (1979) studied the way that nonverbal behavior relates to judgments of facilitative conditions. Empathy, positive regard and genuineness were the variables which were considered as facilitative conditions. Examination of counselor eye contact showed that indice to be related to high genuineness. Longer eye contact was judged to be less genuine. Counselor smiling was perceived to convey empathy, regard and genuineness but was negatively judged under certain situations. Counselors who maintained a forward trunk lean were found to be favorably perceived on the dimensions of positive regard and genuineness.

Fretz, Corn and Tuemmler (1979) posited that counselors who maintain direct body orientation, high eye contact and a forward trunk lean position were more favorably perceived. They also concluded that low level empathy messages were improved when counselors incorporated these behaviors.

Nonverbal Behavior and Affect

Graham, Bitti and Argyle (1975), in a study to determine the role played by emotions, concluded that some emotions are revealed best by the fact alone and that the body does not provide any additional information.

Studies by Ekman (1965), Ekman and Friesen (1967, 1968, and 1971), and Ekman, Friesen and Ellsworth (1972) concluded that the most effective means of communication of affect is through the expression of nonverbal behavior. Affect that is transmitted verbally can be corroborated by nonverbal communications that are based in body acts, body position, facial expression and head orientation. Analysis of the four modes is helpful in determining the intensity of the emotions being displayed.

Ekman et al. (1972, 1975) indicated that the face is the primary vehicle for emotional expression. They further enumerated six emotional states that are directly transmitted through facial expression: surprise, anger, disgust, fear, sadness and happiness. They were also aware that these expressions could interact with one another to form 33 blends of emotional states.

Beier (1974) posited that individuals are able to favorably alter their emotional environment by manipulating body movements and voice tones. Mehrabian (1972) and Speer (1972) found that nonverbal behavior is a more accurate predictor of emotional states than is verbal behavior and that if there is an inconsistency between the two modes that nonverbal is more honest. Haase and Tepper (1972) believed that nonverbal behavior transmits twice as much empathy as verbal communications.

A book by Harper, Wiens and Matarazzo (1978) reviewed hundreds of studies assessing the role of nonverbal behaviors in interpersonal relations as well as in counseling and psychotherapy. Gladstein (1974) comprehensively reviewed much of the evidence relating nonverbal behavior to counseling. Much of the evidence about which nonverbal behaviors have an impact on the counseling process has been derived from studies showing very brief video segments that combine the various verbal and nonverbal conditions. This provides a high degree of control of the total stimulus situation (Haase & Tepper, 1972; Smith-Hanen, 1977; Tepper & Haase, 1978; Tipton & Rymer, 1978).

Results of the studies employing videotaping methods have indicated that eye contact, trunk lean, body orientation, leg position, vocal intonation and facial expression all affect the ratings that are given to counselors by persons viewing and rating tapes of their

counseling. Fretz (1966) and Haase and Tepper (1972) have concluded that high levels of eye contact (90% or more of segment time), forward trunk lean and body orientation (100% of the total segment time) have been associated with positive evaluation of counselors. LaCrosse (1975) found that a difference in eye contact between 40% of segment time and 80% of segment time proved significant in the ratings of counselors. LaCrosse (1975) and Strong et al. (1971) also discovered that "affiliative" nonverbal behaviors tend to be perceived as more attractive and warmer by clients. These nonverbal behaviors are conveyed by smiles, head nods, gestures with hands, eye contact, shoulder orientation of zero degrees and a 20% forward body lean.

Several studies have focused on nonverbal behavior and the kinesis channel. Spiegel and Machatka (1974) investigated the different placements of arms and legs on terms of "accessibility." Individuals who posed with closed arm positions were judged as cold, rejecting, shy and passive. Individuals with moderate open-arm position were perceived as warm and accepting. Those individuals with extreme open-arm positions were judged as immodest and exhibitionistic. Mehrabian (1968) discovered that negative feelings were generated by individuals who exhibited either extreme tension or extreme relaxation. Extreme tension conveyed an attitude of fear and extreme relaxation showed lowered respect.

Claiborn (1979) found that the counselor who displayed

responsive nonverbal cues was perceived as more attractive, trustworthy and expert than the counselor who used unresponsive verbal cues. In a study by Hill, Siegelman, Gronsky, Sturniolo and Fretz (1981) conflicting results were noted for vertical arm gestures. They were negatively correlated with client rated outcome. However counselor smiles and forward trunk lean were significantly correlated with counselor empathy, regard, congruence and unconditionality of regard as measured by the Barrett Lennard Relationship Inventory. Tepper and Haase (1978) in studying the contributions of facial expression of the counselor in the counseling process found that facial expression was especially powerful as a determinant of message variance in the judgment of facilitative conditions. They reported that the independent contribution of the facial expression main effect accounted for 26% and 40% of the message-variance in the judgment of empathy and respect. They further stated that this indicates an almost unbelievable power of facial expression.

The Use of Videotape as a Medium of Stimulus Presentation

Since videotape was used to present the stimulus, the purpose of this section is to address the issues concerning videotape as a medium. Videotaped recordings have become an important vehicle for the study of the counseling

relationship and provide an awareness into the nonverbal aspects of the process.

In reviewing the literature there appeared to be relatively few studies that directly compare the effects of different media forms in a counseling situation. One study from the field of jurisprudence investigated the differences between live versus videotaped presentation of legal evidence to actual jury panels. The areas of attorney credibility, retention of trial-related information, interest and motivation were examined with no significant differences found between the different presentations (Miller, Bender, Florence & Nicholson, 1974).

In a study using trained judges comparing counselor behavior as presented in audio, visual and audio visual modes, English and Jelenevsky (1971) discovered a relatively high reliability (above .50) for counselor empathy in all three media modes. No particular medium form, however, was proven to yield distinctively higher reliability ratings. Baum (1974) investigated the client's perception of problems as conveyed by various media. He found no significant differences between audio and videotaped presentations and the judged degree of client problem. Subjects who read the client interview, however, perceived the problems as being more serious than would subjects who perceived the interview by means of audio or videotape.

Since there is such a limited number of direct

comparison studies of the different media, inference could be taken from studies designed to evaluate the effects of videotape on behavior. Frankel (1971) discovered that counselors in training became more adept in their ability to focus on client feelings after receiving videotape feedback. Eisenberg and Delaney (1970) found that when subjects were exposed to a model being videotaped, it had a significant impact on their responses to simulated videotaped interactions involving clients. They proposed a practical recommendation for counselor training where they suggested that beginning counselors could respond to a client's videotaped communications.

Studies by Haase and Tepper (1972), Smith-Hanen (1977), Tepper and Haase (1978), Tipton and Rhymer (1978), Fretz (1966), Lacrosse (1975) and Strong et al. (1971) have obtained evidence about nonverbal behaviors which have an impact on the counseling process. They used very brief video segments that combined various verbal and nonverbal conditions. Significant results were achieved in all of the studies.

In summary, although there is not a prodigious amount of research regarding the specific stimulus value of videotape as compared to other forms of media presentation, the results did suggest that videotaped presentations do compare quite well with live presentations in terms of the conveyance of information, credibility, and the ability to affect behavioral and emotional change.

Theories of Anxiety

Freud (1924) was probably the first to put forth a meaning of anxiety. His description of anxiety was "something felt," an unpleasant emotional state or condition. In his observations of patients with anxiety neurosis he characterized anxiety as "all that is covered by the word 'nervousness', apprehension or anxious expectation and efferent discharge phenomena."

Spielberger (1966) reviewed Freud's early postulates concerning anxiety and stated that Freud believed that anxiety resulted from the discharge of repressed, unrelieved somatic sexual tensions (libido). When libidinal energy was blocked from normal expression, it was accumulated and automatically changed into anxiety, or into symptoms that were the equivalents of anxiety. Freud later revised his view in favor of a more global view of anxiety and believed that it served a very important role in service of the ego. He posited that anxiety was a signal that indicated the presence of a dangerous situation. He also distinguished the difference between objective anxiety and neurotic anxiety primarily on the basis of whether the source of the danger was from an external frame of reference or from internal impulsiveness.

There were several personality theorists who have added to the conceptualization of anxiety. Sullivan (1953) believed that anxiety was an intensely unpleasant state of inner tension that had its origins in experiencing

disapproval in interpersonal relations. When anxiety is aroused it distorts the individual's view of reality and limits the range of stimuli that are perceived. It also tends to cause a dissociation of the particular parts of the personality that the individual has disapproved.

May (1950) conceptualized anxiety as a state of apprehension that is triggered by a threat to some value which the individual holds essential to his existence. The threat may be to physical or psychological life or it may be related to some other value which the individual identifies with his existence. May believed that anxiety threatens the individual's security pattern.

Rank's (1945) conceptualization of anxiety rested on an apprehension of separation. He believed that life is composed of an endless series of separations where anxiety is described as the vague uneasy feeling that is directly related with these separations. Rank posited that anxiety was comprised of either life anxiety or death anxiety. Life anxiety was the fear of moving forward, severing the maternal ties and becoming an individual. On the other hand, death anxiety was the fear of going backward or losing one's individuality.

Horney's (1945) view of anxiety had its basis in the individual's feelings of frustration. The frustration, however, had to threaten some interpersonal relationship which the individual valued. Hostility played a predominant role in her view of anxiety and she believed that anxiety

sprang forth out of a conflict between dependency and hostility. The uncomfortable feelings came from the fear of hostility by others. This usually has its origins in childhood when the child had feelings of dependency upon his parents while at the same time experiencing feelings of hostility because he feared their hostility.

Some of the most rigorous research in the area of anxiety has been performed by experimental psychologists. Dollard and Miller (1950), for instance, considered anxiety to be a powerful secondary drive that was reinforced by the primary drive of pain. They believed that individuals learned to fear not only the stimulus itself but all of the things associated with it. In addition, the individuals learned to fear similar objects and conditions. They also posited that individuals who have been exposed to intense fear in their developing years were more likely to develop a high propensity for anxiety in later life. Furthermore, anxiety may arise from a conflict that has its basis in approach and avoidance.

There were different conceptualizations of anxiety as a result of research that has progressed through the years. Yerkes and Dodson (1908) conducted research on drive and learning and proposed that there was a curvilinear relationship that existed between anxiety and performance. They posited that there are increases in arousal associated with concomitant increases in the quality of performance up to a certain point. Beyond that point, any additional

increases in arousal result in decreasing performance. They concluded that the optimal drive level lies somewhere in the middle between low drive level and high drive level. Low drive level affects learning slightly and high drive level interferes with learning ability. Research by Matarazzo and Phillips (1955) and Matarazzo, Ulett and Saslow (1955) corroborated research by Yerkes and Dodson that high and low anxious groups learned more slowly while optimal performance was achieved by those in the middle range.

Research originating from the University of Iowa has conceptualized anxiety as an acquired drive which should facilitate performance in learning. Taylor (1951a), Spence (1964), Taylor and Spence (1952) and Spence (1964) stated that individuals who are highly anxious performed significantly better than low anxious individuals. Taylor and Spence (1952) and Montague (1953) discovered that in learning situations which involved the presence of competing responses (trial and error), the subjects who were highly anxious performed lower in relation to low anxious subjects. This underscored the role that task complexity plays in performance. Spence, Farber and McFann (1956) found that high anxious subjects were superior to low anxious students when there was little competition among responses. As the tendency for incorrect responses increased, the reverse situation occurred. Taylor (1951b) devised the Manifest Anxiety Scale as a measure of general anxiety level.

Mandler and Sarason of Yale University opposed the Iowa

Theory and posited that individuals differ in their degree of anxiety according to the specific situation. Their research focused on test anxiety since they believed the vast majority of individuals have experienced this at one time or another. Mandler and Sarason (1952) and Sarason (1958) discovered that subjects' perceptions of how well or how poorly they had done combined with their level of anxiety determined their performance level. Subjects low in anxiety performed best when apprised of their success ratio. On the other hand, high anxious individuals performed better when no references were made to the testing situation. When reassuring instructions were given to high anxious subjects, it facilitated performance. Low anxious individuals experienced lower performance to the point that drive level dropped significantly. Sarason and Palola (1960) discovered that the combination of high task difficulty and highly motivating instructions had detrimental effects on the performance of high-anxious individuals.

Research on Anxiety and Performance

The findings that have resulted from research in the area of anxiety and performance are discussed in this section. Also discussed are the learning theories related to anxiety.

Cattell and Scheier (1958; 1961) have identified two distinct forms of anxiety: state anxiety and trait anxiety. The trait anxiety factor was described as measuring anxiety

as a stable individual difference in a unitary and relatively constant personality characteristic. The state anxiety factor was formulated by a pattern of variables that covaried over instances of measurement and defined anxiety as a transitory state or condition of the individual which varied over time. The individual components of the variable that loaded the trait anxiety factor included "ergic tension," "ego weakness," "guilt proneness," "suspiciousness" and "tendency to embarrassment" (Cattell & Scheier, 1961, p. 57, 182). There were physiological variables such as respiratory rate and systolic blood pressure that heavily influenced the state anxiety factor, but impacted minimally on trait anxiety.

Cattell identified a list of physiological and somatic measures that were discovered to be associated with anxiety. He enumerated these physiological factors in an approximate order of degree of confidence in confirmation through experimental study. They are as follows:

- Increase in systolic pulse pressure
- Increase in heart rate
- Increase in respiration (respiratory) rate
- Increase in basal and current metabolic rate
- Increase in phenylhydracrylic acid in urine
- Decrease in electrical skin resistance
- Increase in hippuric acid in the urine
- Increase in 17-OH ketosteroid excretion
- Decrease in alkalinity of saliva

Decrease in cholinesterase in serum

Decrease in neutrophils and less clearly,
eosinophils

Increase in phenylalanine, leucine, glycine and
serine

Increase in histidine in urine

Decrease in urea concentration

Decrease in glucuronidase in urine and in serum

Spielberger (1977) expanded on the two anxiety factors and posited that anxiety as an emotional state (A-State) was characterized by subjective, consciously perceived feelings of tension, apprehension and nervousness that was accompanied by or associated with an arousal of the autonomic nervous system. He believed that A-State varied over time as a function of the stresses that impact on the individual. The level of intensity of an anxiety state has been ascertained by such self-report scales as the Affect Adjective Check List or by variations in the physiological measures that were related to activation of the autonomic nervous system, (e.g. heart rate, blood pressure and galvanic skin response).

Trait anxiety (A-Trait) refers to rather stable individual differences in anxiety proneness, specifically to differences in and between individuals and their disposition to perceive a wide range of situations as threatening. These individuals tended to respond to these situations differentially with elevations in state anxiety. A-Trait

dispositions were reactive and tended to remain latent until they were activated by the stress associated with a specific threatening situation. On the basis of the studies of stress, anxiety and learning, individuals who were high in their propensity for anxiety were disposed to perceive greater threat in relationships with other individuals. This seemed to involve direct attacks to their self-esteem in which they responded to these ego threats with increased elevations in state anxiety. High and low A-Trait anxious individuals did not appear to differ in their reactions to threats posed by physical dangers.

Spielberger (1966) also conceptualized A-Trait as reflecting components of past experience that in some way determined individual differences in anxiety proneness. Those experiences that were most influential on the level of A-Trait probably date back to childhood which involved parent-child relationships that focused on punishment situations. The level of A-Trait was not expected to impact on A-State responses to all stimuli but only to particular classes of stimuli. Stimuli that had little or no threat value obviously were not expected to elicit an A-State response. However, the threat of a particularly painful stimulus, such as electric shock, may be sufficiently global so that most individuals would respond with higher levels of A-State regardless of their level of A-Trait. For such stimuli, individual differences in A-State reaction seemed to vary as a result of other acquired behavioral

dispositions. It has been observed that the threat of electric shock produced significant elevations in A-State that were unrelated to the level of A-Trait, but were at the same time correlated with the fear of shock.

Spielberber (1966) stated that individuals who were given to anxiety proneness experienced state anxiety in more situations than those individuals who were low on trait anxiety. Also, they did not necessarily tend to experience it more intensely. The intensity of the situation appeared to be a function of the nature of the situation as well as their personal characteristics.

Cratty (1970) took a position that paralleled the Yerkes-Dodson law, that a certain amount of anxiousness was necessary and was beneficial to performance. However, once an individual has gone beyond the peak level of anxiety, the effects were usually deleterious and negatively affected performance. He also divided anxiety into two subdivisions which he called "harm anxiety" and "failure anxiety." "Failure anxiety" was seen as the inability to live up to society's, family's or one's own personal expectations. "Harm anxiety" indicated a general fear of physical injury which might accompany participation in skiing, football, hunting and other dangerous sports. Cratty stated that in a variety of performance situations which involved vigorous physical output "failure anxiety" has been found to impact upon the individual's performance more than the individual's fear of personal injury.

Martens (1977) has characterized competitive trait anxiety as another perceived threat to the individual. He posited that trait anxiety was a propensity to view competitive situations as dangerous and threatening and to react with feelings of apprehension or tension. The literature has shown consistent findings that high-trait-anxious individuals manifest greater state anxiety than low-trait-anxious individuals under stressful conditions (Hodges, 1967, Hodges & Durhan, 1972; Sarason, 1960, 1968).

There were additional studies which showed that the Taylor Manifest Anxiety Scale was able to separate subjects into high and low anxiety groups. These studies confirmed Taylor and Spence's findings that anxiety tended to have deleterious effects as the strength and number of incorrect and competing responses involved in the task increased. However, high anxious individuals usually did better when the correct answer predominated (Farber & Spence, 1953; Lazarus, Deese & Hamilton, 1954; Lucas, 1952; Montague, 1953; Spence, Taylor & Ketchell, 1956; Taylor & Chapman, 1955).

Reed (1960) conducted an extensive review of the literature on anxiety and how it impacted on learning. He concluded that high levels of anxiety and very low levels of anxiety tended to interfere with learning. Moderate anxiety, however, tended to provide a more conducive atmosphere for learning.

Studies by Cowen (1952) and Coleman (1966) posited that stereotypic response patterns were noticed in individuals who were high in their anxiety. These individuals who were highly anxious tended to be more rigid and inflexible as they approached new problems and situations. Coleman (1966) addressed the effects that anxiety has on constricting and distorting an individual's perceptual field. Individuals tended to withdraw their attention from other areas of the field to which they become responsive.

Postman and Bruner (1948) indicated that when individuals were under stress they were unable to benefit from practice on perceptual skills. Eventually these skills became careless under high degrees of stress. Kahn (1954) discovered that there was an inverse proportion of the amount of stress an individual has undergone and the quantity of materials that he could correctly reproduce.

In summarizing the effects, of anxiety it appears that the research corroborates the theory of Yerkes and Dodson (1908) that with moderate stress there is an elevated alertness and awareness of outside performance. In addition, severe stress seems to restrict the perceptual field as well as lower the quality of performance. Individuals tend to become less flexible in their approach to situations and less adroit in their performance.

Chapter III

Methodology

The literature reviewed in Chapter II examined the areas of anxiety and nonverbal behavior related to the counseling process. Chapter III provides a description of the research methodology employed in the present study. Areas include selection of subjects; instrumentation; research design; selection; training and videotaping of counselors, procedure and data analysis.

Subjects

Subjects for this study were taken from a college population enrolled in undergraduate psychology courses from a major southwestern university. Sixty-three students from three undergraduate classes were randomly divided into the three treatment groups containing 21 subjects per group. With 21 subjects per cell the power of the statistics, which is the probability of finding a real difference if there is one, is .80 and the probability of a Type I error is .05 (Cohen & Cohen, 1975).

The use of intact groups constitutes a sampling bias. It may be difficult to generalize to all undergraduate psychology students because of some unique characteristic

present in this sample. Subjects received extra credit for their participation in this study. This may also constitute a sampling bias in that subjects who receive extra credit may differ in some respects from subjects who do not receive extra credit for participation.

Instrumentation

Spielberger Trait Anxiety Inventory.

The A-Trait scale of the State-Trait Anxiety Inventory (Spielberger, 1970) was used to measure anxiety in this study. The A-Trait scale was selected because of its ability to determine psychological stress with different levels of state anxiety. The scale consists of 20 Likert-type statements that require individuals to describe how they generally feel (1 = low anxious, 4 = high anxious) with total scores ranging from low anxious (20 points) to high anxious (80 points). Research by Spielberger (1966, 1970) indicated that the A-Trait scale is a stable indicator of anxiety over time and also suggested that individuals who are high in trait anxiety perceive more situations as threatening than those individuals with low trait anxiety. Test-retest reliabilities for the normative sample of undergraduate college students using the A-Trait are as follows: time elapsed equal to 1 hour; males .84, females .76; time elapsed equal to 20 days; males .86, females .76; time elapsed equal to 104 days; males .73, females .77 (Spielberger, 1970). Concurrent validity correlations

between the A-Trait scale and the Institute for Personality and Ability Testing Anxiety Scale (IPAT) (Cattell & Scheier, 1961) ranged from .75 to .77 and from .79 to .83 for the Taylor Manifest Anxiety Scale (Taylor, 1951b).

Counselor Rating Form-Short Version CRF-S.

Scores on the Counselor Rating Form-Short Version (CRF-S) were the dependent variables used in this study the instrument consisted of 12 bipolar items, four each for the three attributes of attractiveness, expertness and trustworthiness. The original Counselor Rating Form (CRF) was developed using both rational and empirical methods (Barak and LaCrosse, 1975). The shortened version was validated from the original CRF in the structure of each item by eliminating the use of negative adjectives. Also, the number of items used to assess attractiveness, expertness and trustworthiness was reduced. The revisions were based on empirical evidence from previous studies of Barak and LaCrosse (1975).

The three dimensions of the CRF -- attractiveness, expertness and trustworthiness -- each contain 4 items that are rated using a 7 point Likert-type Scale. The items are anchored at each end by the words, "not very", and "very" ("Not very" = 1; "very" = 7). The scores for each of the three dimensions range from a low score of 4 to a high score of 28.

In their validation of the CRF-S, Corrigan and Schmidt

(1983) sought to increase reliability of each scale by choosing items that showed high loading in previous factor analyses. Interitem correlations for the CRF-S equaled or exceeded interitem correlations reported for the original CRF. The interitem correlations for the attractiveness dimension ranged from .89 to .93; for the expertness dimension .85 to .94; and for the trustworthiness dimension .82 to .91. Concurrent validity was shown by Corrigan and Schmidt (1983) who reported that the factor loadings were relatively high with most of them greater than .75.

Selection, Training and Videotaping of Counselors

The selection of the counselor for the videotaped segments was accomplished by taking photographs of five male doctoral level therapists and showing these photographs to ten undergraduate psychology students. The students rated the counselors along the dimensions of perceived attractiveness, warmth, expertness and trustworthiness using a 7 point Likert-type scale. This was done in an effort to control for the confounding effects of counselor characteristics. The scores were then averaged and the counselor who scored at the median was chosen to participate in this study.

A script (see Appendix A) containing both counselor and client responses was presented to the counselor to aid in providing congruent nonverbal behaviors with the verbal

responses. After a brief training period the counselor then made three 3-minute videotaped segments with a male counterpart in the role of the client. A male client was used with a male counselor in order to keep gender consistent and to control for differences in perception that might arise by using participants of different gender. Each videotaped segment contained a different type of nonverbal behavior. In the first condition the counselor exhibited high head nod and facial expression change behavior. The term "high" refers to the predominant means of communication of nonverbal behavior in the treatment condition. Head nods were any vertical movements of the head not directly associated with a horizontal movement. Facial expression changes included raising of one or both eyebrows and/or changes in the contour of the mouth region as a turning upward of the lips in a smile or a show of concern. The second condition consisted of the counselor emitting high arm and hand movements with minimal head nods and facial expression changes. Arm and hand movements were any vertical or horizontal movements of the arms with the hand being in an open and relaxed position. Care was taken to not utilize any rigid hand movements such as a hardened fist or a stiff pointing finger. The third condition consisted of the counselor exhibiting nonverbal behavior with very minimal overt behavior. Direct body orientation, forward trunk lean and high counselor eye contact were exhibited in all three conditions.

In order to capture the nonverbal behaviors of the counselor and also to help personalize the experience for the subjects who viewed the filmed segments, the camera (Panasonic Model 3150) was positioned directly over the shoulder of the client approximately fifty-five inches away from the counselor. This enabled the counselor to look directly into the camera while exhibiting the specific nonverbal behaviors as well as allowing the subject to view the counselor just as the client did. The videotape recorder used in this study was a Panasonic Model 1220 VHS.

In each of the two conditions that required an overt display of nonverbal behavior, the counselor emitted the specific nonverbal behaviors during responses given to the client and intermittently during the time that the client was responding to the counselor. The counselor verbally communicated ten times to the client while emitting the specific nonverbal communicators. The total number of head nods and facial expression changes for nonverbal Condition I was 46. For nonverbal Condition II the total number of arm and hand movements was 39. After the tapes were made a panel of three judges, which included 2 doctoral level and one masters level therapists, rated the segments for the occurrence of nonverbal behaviors. The judges were provided with a sheet of paper with a vertical line halfway down the page. On the left side of the page was the heading "Facial Expression Changes and Head Nods" and on the right side of the page was the heading "Arm and Hand Movements". The

videotape recorder was stopped at 5-second intervals to allow the judges to record the occurrence or non-occurrence of the particular nonverbal behaviors. The percentage of agreement on the occurrence of the categorized nonverbal behaviors is contained in Table 1. This was calculated by first tabulating the number of segments in which there was total agreement among the judges and multiplying by 1.000; then tabulating the number of segments in which two of the three judges agreed and multiplying by .666; then tabulating the number of segments in which there was no agreement and multiplying by 0.00; and finally dividing by the total number of segments. This procedure was similar to that employed by Hill et al. (1981) in their rating of the occurrences of nonverbal behaviors.

Procedure

A sample of 63 undergraduate psychology students consisting of 19 males and 44 females who ranged in age from 19 years to 54 years old was randomly divided into three treatment conditions. The treatment conditions consisted of three videotaped interviews of a counselor emitting a particular type of nonverbal behavior while engaged in a counseling interaction. Subjects viewed the filmed segments in groups ranging from four to eight people. Prior to being exposed to the treatment condition, the Spielberger Trait Anxiety Inventory was administered to the subjects.

The subjects entered an audio-visual classroom (15' x

TABLE 1

Percentage of Agreement on the Occurrence
of the Categorized Non-Verbal Behavior

	Condition I	Condition II	Condition III
Facial Expression and Head Nods	88%	89%	95%
Arm and Hand Movements	99%	92%	99%

20') that was equipped to present videotaped presentations. The subjects were asked to sit at desks that were approximately 55 inches from the 19 inch RCA portable television. This distance was chosen to approximate the distance found by Kelly (1972) and Harper, Wiens and Matarazzo (1978) to have a neutral effect on clients as compared to closer or farther distances. Students were each given a copy of the Counselor Rating Form-Short Version (CRF-S) and were read the instructions. Subjects then viewed the videotaped segment and scored the CRF-S.

Research Design

The research design of this study was a modification of the Posttest-Only Control Group design (Campbell & Stanley, 1963). It consisted of three treatment conditions with a covariate added to the design. The three treatment conditions consisted of: (a) the counselor emitting high head nods and facial expression changes; (b) the counselor emitting high arm and hand movements with minimal head nods and facial expression changes (c) the counselor exhibiting nonverbal behavior with very minimal overt behavior. Anxiety as measured by the Spielberger Trait Anxiety Inventory was the covariate.

The Posttest-Only Control Group design controls for the following sources of internal invalidity as addressed by Campbell and Stanley (1963): history, maturation, testing, instrumentation, regression, mortality and the interaction

of selection and maturation. A source of external invalidity was the interaction of testing and the treatment. Since the dependent measure was presented directly before the treatment effect, this may have constituted a threat. Another possible threat to external validity involved the interaction effects of selection biases and the experimental variable. This threat refers to the use of intact groups whereby there is an inability to fully control for extraneous variables that would be distributed over the groups if there were a randomized selection of subjects.

A further possible source of external invalidity was the reactive effects of experimental arrangements. This source of invalidity refers to the use of videotape equipment to record and show the counseling interaction rather than the use of an "in vivo" presentation. Under these circumstances generalizability might be hampered by using mechanical means of presenting the experimental variables. Research by English and Jelenevsky (1971), Miller et al., (1974), Frankel (1971), and Eisenberg and Delaney (1970) suggested that a videotaped presentation does compare favorably with a life presentation in terms of information, credibility, motivation of the viewer and the ability to affect behavioral and emotional change. Also, the use of nonverbal behaviors has been demonstrated to have measurable impact on the counseling process by means of eye contact, trunk lean, distance, body orientation, movement, facial expression, vocal intonation, gestures and selected

features of the spatial environment (Broekman & Moller, 1973; Chaikin, Derlega, & Miller, 1976; Dinges & Oetting, 1972; Ekman & Friesen, 1968; Graves & Robinson, 1976; Haase & DiMattia, 1970).

Data Analysis

The statistical design used in this study was a one-way MANCOVA (Hair, Anderson, Tatham & Grablovsky, 1979). The three levels of the independent variable of counselor nonverbal behaviors were: (a) high head nods and facial expression change; (b) high hand and arm movements; and (c) counselor non-verbal behavior with very minimal overt manifestations. The dependent construct consisted of the three dimensions of the Counselor Rating Form-Short Version (CRF-S): (a) attractiveness; (b) expertness; and (c) trustworthiness. Anxiety as measured by the Spielberger Trait Anxiety Inventory was the covariate in this study. Table 2 presents the statistical design of the study.

The following statistical hypothesis was formulated:

With trait anxiety as the covariate there are no significant differences among the counselor dimensions of attractiveness, expertness, and trustworthiness as a result of different types of counselor nonverbal behavior.

Computations were done using SPSSX (Nie et al., 1983). The minimum requirement for significance was set at an experimentwise error rate of .05. The first step involved examination of the covariate to determine its contributions

Table 2

One-Way MANCOVA

Group	Covariate	Dependent Variable	Independent Variable	Dependent Variable
I	Trait	Dimensions of Attractiveness,	Nonverbal Condition I	Dimensions of Attractiveness,
II	Anxiety	Expertness and Trustworthiness	Nonverbal Condition II	Expertness and Trustworthiness
III			Nonverbal Condition III	

to the analysis. If the error correlation matrix exceeded .30, the next step was to examine the multivariate test. If that was significant, the next step was to examine the univariate tests. If the univariate was significant, then Scheffe's S Test was used for specific comparisons. Also, Omega squared was used as a strength of association measure. If the error correlation matrix was less than .30 then there was an examination of the univariate tests.

Chapter IV

Results and Discussions

Introduction

This chapter includes two sections; the first presents the results of the statistical analyses in relation to the research questions. To determine the relationship of anxiety, counselor nonverbal behavior and subject-perceived attractiveness, expertness and trustworthiness, a one-way multivariate analysis of covariance (MANCOVA) with Wilks lambda criterion was performed. This analysis was used because the three dimensions of the dependent measure were correlated.

The multivariate analysis of covariance (MANCOVA) did not achieve significance $F(3,57) = .16500$ $p > .05$. The covariate anxiety did not significantly contribute to the dependent measures of attractiveness, expertness and trustworthiness with the correlations ranging from .0081 to .0414. Therefore, a one-way multivariate analysis of variance (MANOVA) was used to determine whether there were significant differences among the main effects. This was followed by a univariate analysis of variance (ANOVA), a stepdown F procedure and post hoc examinations. The second

section of this chapter presents a discussion of the results of the statistical analyses.

The Results of the Response Variable in
Relation to the Research Questions

The multivariate analysis of covariance revealed that the covariate, trait anxiety, did not significantly contribute to the analysis (Wilks lambda = .99139, $F(3,57) = .16500, p > .05$). However, the multivariate analysis of variance (MANOVA) indicated significant main effects ($F(6,116) = 3.77, p < .05$). Post hoc examination of the univariate F tests indicated that the major contributors to the construct were attractiveness ($F(2,60) = 9.24, p < .05$) and trustworthiness ($F(2,60) = 6.19, p < .05$) (see Table 3). Further examination of the Roy-Bargman Stepdown F-tests (see Table 4) revealed that the dimension of trustworthiness ($F(2,58) = 1.91, p > .05$) was no longer significant when independent of attractiveness ($F(2,60) = 9.24, p < .05$).

Tukey's pairwise comparison procedures were used to test for post hoc comparisons 3.17 for $q(2,60) = 2.83$. The mean difference between nonverbal Condition I (facial expression change and head nods $\bar{X} = 16.10$) and nonverbal Condition III (minimal overt nonverbal behavior $\bar{X} = 9.33$) was significant ($q = 6.76, df = 3,60, p < .05$). In addition, the mean difference between nonverbal Condition II (arm and hand movement, $\bar{X} = 13.43$) and nonverbal Condition

Table 3

Univariate Source Table

Variable	df	Hypothesis Sums of Squares	Error Sums of Squares	Hypothesis Mean Squares	Error Mean Squares	F
Attractiveness	2,60	487.24	1581.62	243.62	26.36	9.24*
Expertness	2,60	167.65	1988.09	83.83	33.14	2.53
Trustworthiness	2,60	362.51	1756.38	181.25	29.27	6.19*

* $p < .05$

Table 4

Roy-Bargman Stepdown F Source Table

Variable	df	Hypothesis Mean Squares	Error Mean Squares	Stepdown F
Attractiveness	2,60	243.62	26.36	9.24*
Expertness	2,59	12.43	17.22	0.72
Trustworthiness	2,58	22.57	11.83	1.91

* $p < .05$

III (minimal overt nonverbal behavior, $\bar{X} = 9.33$) was also significant ($q = 4.06$, $df = 3,60$, $p < .05$). Scheffe's multiple comparison test was used to compare the means of nonverbal Conditions I and II with nonverbal Condition III. The analysis revealed there were significant differences ($F(2,60) = 15.65$, $p < .05$) indicating that the more animated nonverbal behavior is more favorably perceived ($\bar{X} = 14.76$) along the dimension of attractiveness than the less animated nonverbal behavior ($\bar{X} = 9.33$). Strength of association measure using Omega squared analysis revealed that type of nonverbal behavior accounts for approximately 21 percent of the variation in attractiveness ratings. Table 5 contains the means and standard deviations used in the analyses.

The results of the statistical analyses led to the following answers to the research questions:

1. What types of counselor nonverbal behaviors were favorably perceived by subjects who varied in their degree of trait anxiety? Both animated conditions of nonverbal behaviors achieved significance. The condition that had minimal overt counselor nonverbal behavior did not achieve significance. There were, however, differences in the number of nonverbal behaviors in the animated conditions. There were 46 head nods and facial expression change behaviors and only 39 arm and hand nonverbal behaviors. These differences made it difficult to ascertain whether the significant differences were a result of the type of nonverbal behaviors or the number of nonverbal behaviors.

Table 5

Means and Standard Deviations

	N	Attractiveness		Expertness		Trustworthiness	
		M	SD	M	SD	M	SD
NVB I	21	16.09	6.17	14.43	7.21	18.57	5.42
NVB II	21	13.43	4.52	13.71	4.68	16.05	5.38
NVB III	21	9.33	4.53	10.67	5.05	12.71	5.43
For Entire Sample		12.95	5.78	12.94	5.90	15.78	5.85

2. Were counselors who were more animated in their nonverbal behaviors more favorably perceived by subjects who varied in their degree of trait anxiety? The results indicated that the more animated counselor was more favorably perceived. However, since there was a difference between the number of nonverbal behaviors in the more animated conditions, it was difficult to determine whether it was the type of nonverbal behaviors or the number of nonverbal behaviors that led to statistical significance.

3. Were counselors who were less animated in their nonverbal behaviors more favorably perceived by subjects who varied in their degree of trait anxiety? Counselors who were less animated in their expression of nonverbal behaviors were less favorably perceived.

4. Were counselors perceived as more attractive when they emitted a particular nonverbal behavior to subjects who varied in their degree of trait anxiety? Counselors were perceived as more attractive when they were more nonverbally expressive than when they were less animated in their nonverbal behaviors.

5. Were counselors perceived as more expert when they emitted a particular nonverbal behavior to subjects who varied in their degree of trait anxiety? The results contraindicate that counselors were more favorably perceived along the dimension of expertness when they emitted a particular nonverbal behavior.

6. Were counselors perceived as more trustworthy when

they emitted a particular nonverbal behavior to subjects who varied in their degree of trait anxiety? Trustworthiness was found to be significant. However, when it was analyzed independent of attractiveness, it no longer achieved significance. Therefore, counselors were not perceived as more trustworthy when they exhibited particular types of nonverbal behaviors.

Discussion

According to the multivariate analysis of covariance (MANCOVA), the covariate, trait anxiety, was not a significant contributor to the analysis. One of the factors that may have contributed to nonsignificance is that the subjects involved in this study did not perceive the videotaped presentation as threatening. Even though research indicates that individuals high in trait anxiety perceive more situations as threatening, perhaps the subjects in this study did not project themselves into the counseling interaction due to an inability to identify with the problem presented or because they were not personally involved with the counselor on a one to one basis.

The multivariate analysis of variance (MANOVA) indicated significant main effects. Table 3 revealed that both attractiveness and trustworthiness achieved significance. However, the stepdown F-tests in Table 4

showed that trustworthiness was not significant independent of attractiveness.

Tukey's pairwise comparison and Scheffe's multiple comparison tests revealed significant differences between the nonverbal conditions. The results indicated that the more animated a counselor is in nonverbal behaviors, the more favorably perceived he is along the dimension of attractiveness. Attractiveness was defined using a 7 point Likert-type scale measuring the counselor on: friendliness, likability, sociability and warmth. This supports research by Tepper and Haase (1978) indicating that facial expression change and head nodding behaviors are more favorably perceived but conflicts with a study by Hill et al. (1981) which posited that arm movements were negatively correlated with positive counselor perceptions. Therefore, this study suggested that counselors who work in a college setting may consider incorporating increased facial expression changes and head nodding behavior as well as increasing arm and hand movements as a means of conveying more empathetic understanding and accentuating their verbal messages.

Chapter V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter consists of three sections. The first section summarizes generally the purpose, the hypothesis, and the methods used to test the hypothesis. The second section addresses the conclusions drawn from the study. The final section discusses recommendations for further research concerning the present study.

Summary

The focus study was to determine whether subjects who varied in their degree of trait anxiety would differentially perceive a counselor who exhibited different types of nonverbal behavior. Trait anxiety was used as a covariate and was measured by the Spielberger Trait Anxiety Inventory which asks individuals to respond to the questions according to the way they generally feel. The inventory consists of 20 questions using a 4-point Likert-type scale. The dependent measure was the subjects' perceptions of the counselor's nonverbal behaviors using the Counselor Rating Form-Short Version which rated the counselor along the dimensions of attractiveness, expertness and trustworthiness. The CRF-S consisted of four items for each dimension and

used a 7-point Likert-type scale. The independent variable consisted of three different types of counselor nonverbal behavior. Nonverbal Condition I consisted of the counselor exhibiting a high rate of facial expression change and head nodding behavior. Nonverbal Condition II consisted of the counselor exhibiting a high rate of arm and hand movements. Nonverbal Condition III consisted of the counselor exhibiting very little overt nonverbal behavior. The three conditions were rated by a panel of three judges for the occurrence or non-occurrence of the specific nonverbal types.

The subjects for the investigation consisted of 63 students enrolled in either abnormal psychology or general psychology courses at a large southwestern university. Ages of the subjects ranged from 19 to 54 years and included 19 males and 44 females. Subjects were randomly assigned to treatment conditions and received extra credit for their participation. Each group included 21 subjects.

The following research questions for this study were examined on the constructs of attractiveness, expertness and trustworthiness. These were measured by the CRF-S.

1. What types of counselor nonverbal behaviors are favorably perceived by subjects who vary in their degree of trait anxiety?
2. Are counselors who are more animated in their nonverbal behaviors more favorably perceived

by subjects who vary in their degree of trait anxiety?

3. Are counselors who are less animated in their nonverbal behaviors more favorably perceived along the dimensions of attractiveness, expertness and trustworthiness by subjects who vary in their degree of trait anxiety?
4. Are counselors perceived as more attractive when they emit a particular nonverbal behavior to subjects who vary in their degree of trait anxiety?
5. Are counselors perceived as more expert when they emit a particular nonverbal behavior to subjects who vary in their degree of trait anxiety?
6. Are counselors perceived as more trustworthy when they emit a particular nonverbal behavior to subjects who vary in their degree of trait anxiety?

The statistical analysis employed in this study utilized multivariate analysis of covariance (MANCOVA) to remove the variance associated in the response variable explainable by process of trait anxiety. Multivariate analysis of variance (MANOVA) was used subsequent to the finding that the covariate, anxiety, was not significant. The multivariate analysis of variance tested the difference

between treatment group means for statistically significant differences at the $p < .05$ level.

Conclusions

The results of the statistical findings and considerations of the limitations and assumptions of this study warrant the following conclusions regarding the research questions. No significant differences existed with anxiety as the covariate between the mean scores on the response variables (attractiveness, expertness and trustworthiness) for the treatment groups.

Covariate.

No significant differences existed as a result of the covariate anxiety. In fact, the correlation between the covariate anxiety and the counselor dimensions of attractiveness, expertness and trustworthiness was so low as to indicate that no relationship existed at all.

Treatment Variable Differences.

Significant differences were found between the mean scores when the treatment variable and the response variable were analyzed by multivariate analysis of variance. Univariate F tests revealed that the counselor dimensions of attractiveness and trustworthiness contributed to the significance. The stepdown F-tests, however, showed that

trustworthiness was not significant independent of attractiveness.

Tukey's pairwise comparison revealed significant differences between the means of facial expression change and head nods when compared with minimal overt nonverbal behavior. Significant differences were also found between arm and hand movements and minimal overt nonverbal behavior. Scheffe's multiple comparisons test yielded significance, indicating that with this population counselors who are more nonverbally active are more favorably perceived than counselors who exhibit minimal overt nonverbal behavior. Omega squared analysis revealed that type of nonverbal behavior accounts for 21 percent of the variation in attractiveness ratings.

Summary.

This study investigated how three groups of 21 subjects who varied in their degree of trait anxiety differentially perceived a counselor who exhibited different types of nonverbal behaviors. There were three 3-minute videotaped segments. In each total segment the counselor manifested a particular nonverbal behavior. In the first 3-minute segment the counselor displayed predominant head nod and facial expression change behaviors. In the second segment the counselor exhibited high arm and hand behaviors. In the final segment the counselor showed very minimal overt nonverbal behaviors. In all three of the videotaped

segments, the counselor maintained a forward trunk lean, direct body orientation and high eye contact.

The subjects for this study were enrolled in undergraduate psychology courses at a large southwestern university. They were administered the Spielberger Trait Anxiety Inventory four days prior to their watching the videotaped segment. This instrument was used for its ability to ascertain subjects' predispositions to react to a wide range of situations in an anxious manner.

Groups of between five and nine subjects viewed the videotaped segments. After viewing the segment, the subjects then completed the Counselor Rating Form-Short Version. This instrument measured the subjects' perceptions of the counselor along the dimensions of attractiveness, expertness and trustworthiness.

In general, the findings of this study demonstrated that for the population investigated, subjects' anxiety did not significantly contribute to their favorable or unfavorable perceptions of a counselor exhibiting different types of nonverbal behaviors. Subjects did, however, perceive the counselor as being more attractive (friendly, likable, sociable and warm) when the counselor was more animated in behavior than when the counselor exhibited less overt behavior. The dimensions of expertness and trustworthiness did not achieve significance. Therefore, the major conclusion of this study was that counselors who worked with clients from a college population would tend to

be perceived as more attractive by their clients when the counselors exhibited more animated nonverbal behaviors.

Recommendations

The present study has contributed to the area of investigation of the effects of specific types of counselor nonverbal behaviors on the counseling interaction. The results of the present study led to the conclusion that different types of counselor nonverbal behavior did not differentially affect subjects who vary in their degree of trait anxiety. The findings did support the literature that showed videotaped counselors who are more animated in their expression of nonverbal behaviors are more favorably perceived by college students along the dimension of attractiveness. Suggestions for further research based on the findings and conclusions of this study include at least the following recommendations:

1. The current literature indicates that high trait anxious individuals perceive more situations as threatening. The subjects in this study, however, may not have perceived the situation in that manner. Ego involved individuals who are predisposed to reacting in an anxious manner are more likely to manifest anxious behavior in a situation they perceive as threatening. (Wine, 1972; and Sarason, 1972). A recommendation for further research would include a suggestion to attempt to measure the impact of specific counselor nonverbal behaviors by elevating the anxiety

levels of the subjects prior to viewing the videotaped segment. This could be accomplished by conveying to the subjects that their ratings of the videotaped segments were a reflection of their ability to intelligently perceive situations. They could be told that their results would be posted on the chalkboard during the next class period and that those subjects who scored low could meet with a psychologist who would help them to become more perceptive.

2. Another recommendation for further research would include a suggestion to ascertain the effects of specific nonverbal interventions on individuals varying in their degree of anxiety by using individuals from a real life counseling interaction. Individuals in this setting already have a legitimate presenting problem. Prior to the intake interview, the subject would complete the Spielberger Trait Anxiety Inventory. The intake interview could then be videotaped (with the client's permission) with the counselor conducting the interview exhibiting a particular type of nonverbal behavior. Subsequent to the interview the client would then complete the Counselor Rating Form-Short Version to ascertain his or her perceptions of the counselor.

3. A further recommendation would include a suggestion to measure the impact of counselor and client gender with individuals who vary in their degree of trait anxiety. This could be accomplished by ascertaining whether subjects varying in their degree of trait anxiety differentially perceive counselors of different gender. Videotaped

counseling segments could consist of: female counselors with female clients; female counselors with male clients; male counselors with male clients; and male counselors with female counselors. If significant differences appear between the conditions, then counselor training procedures could be altered to accomodate those differences.

4. This study indicates that counselors who are more animated in their nonverbal behaviors are more favorably perceived. A practical recommendation would include a suggestion to train beginning counselors to exhibit more expressive nonverbal means of communication. This could be accomplished using videotaping equipment to provide feedback on nonverbal expressions. By practicing in a role playing situation, counselors can learn to smoothly integrate these behaviors into their repetoire.

Selected Bibliography

- Amendon, E. L., & Hough, J. B. (1967). Interaction analysis: Theory, research and association. New York: Addison-Wesley Publishing Company.
- Athinson, J. W. (1964). An introduction to motivation. Princeton, NJ: Van Nostrand.
- Averback, S. M. (1973). Effects of orienting instructions, feedback information, and trait-anxiety level on state-anxiety. Psychological Reports, 33, 779-786.
- Barak, A., & LaCrosse, M. B. (1975). Multidimensional perception of counselor behavior. Journal of Counseling Psychology, 22, 471-476.
- Baum, D. D. (1974). Equivalence of client problems perceived over different media. Journal of Counseling Psychology, 39, 333-339.
- Beier, E. G. (1966). The silent language of psychotherapy. Chicago: Aldine.
- Beier, E. G. (1974, October). Nonverbal communication: How we send emotional messages. Psychology Today, pp. 52-55.
- Berger, M. M. (1948). Nonverbal communication in group psychotherapy. International Journal of Group Psychotherapy, 8 (1948), 161-178.
- Birdwhistell, R. L. (1952). Introduction to kinesics. Louisville: University of Louisville.
- Birdwhistell, R. L. (1974). The language of the body: The natural environment of words. In A. Silverstein (Ed.), Human Communication. Hillsdale, NJ: Halstead Press.
- Broekman, W. C. & Moller, A. T. (1973). Preferred seating position and distance in various situations. Journal of Counseling Psychology, 20, 504-508.

- Butler, J., Rice, L. N., & Wagstaff, A. K. (1962). On the naturalistic definition of variables: An analogue of clinical analysis. In H. H. Strupp & L. Lubarsky (Eds.), Research in psychotherapy. (pp. 178-205). Washington, DC: American Psychological Association.
- Campbell, D. T. & Stanley, J. C. (1963). Experimental and quasi-experimental designs for research. Chicago: Rand McNally.
- Cattell, R. B. (1966). Anxiety and motivation: Theory and crucial experiments. In C. D. Spielberger (Ed.), Anxiety and behavior. New York: Academic Press, 1966.
- Cattell, R. B. & Scheier, I. H. (1958). The nature of anxiety: A review of thirteen multivariate analyses comprising 814 variables. Psychological Reports, 4, 351-388.
- Cattell, R. B. & Scheier, I.H. (1961). The meaning and measurement of neuroticism and anxiety. New York: Ronald Press.
- Chaikin, A. L., Derlega, V. J. & Miller, S. J. (1976). Effects of room environment on self discipline in a counseling analogue. Journal of Counseling Psychology, 23, 479-481.
- Claiborn, C. D. (1979). Counselor verbal intervention, nonverbal behavior and social power. Journal of Counseling Psychology, 28, 378-383.
- Cohen, J., & Cohen, P. (1975). Applied multiple regression/correlation analysis for the behavioral sciences. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Coleman, J. C. (1966). Personality dynamics and effective behavior. Chicago: Scott, Foresman & Company.
- Condon, W. S., & Ogston, W. D. (1967). A segmentation of behavior. Journal of Psychiatric Research, 5, 221-235.
- Corrigan, J. D., & Schmidt, L. D. (1983). Development and validation of revisions in the counselors rating form. Journal of Counseling Psychology, 30:(1), 64-75.
- Cowen, E. L. (1952). The influence of varying degrees of psychological stress on problem solving rigidity. The Journal of Abnormal and Social Psychology, 47, 512-519.
- Cratty, B. J. (1970). Coaching decisions and research in sport psychology. Quest, 33, 46-50.

- Darwin, C. (1896). The expression of the emotions in man and animals. New York: Appleton and Co.
- Dinges, N., & Oetting, E. R. (1972). Interaction distance anxiety in the counseling dyad. Journal of Counseling Psychology, 19, 146-149.
- Dollard, J., & Miller, N. E. (1950). Personality and psychotherapy. New York: McGraw-Hill.
- Duffy, E. (1957). The psychological significance of the concept of 'arousal' or 'activations'. Psychological Review, 64, 265-275.
- Duffy, E. (1962). Activation and behavior. New York: Wiley.
- Dusay, J. M. (1971). Eric Berne's studies of intuition, 1949-1962. Transactional Analysis Journal, 1:(1), 34-44.
- Eisenberg, S., & Delaney, D. J. (1970). Using video simulation of counseling for training counselors. Journal of Counseling Psychology, 17, 15-19.
- Eisenberg, S., & Patterson, L. E. (1979). Fundamental precepts of effective helping In L. E. Patterson (Ed.), Helping clients with special concerns. Chicago: Rand McNally.
- Ekman, P. (1964). Body position, facial expression and verbal behavior during interviews. Journal of Abnormal and Social Psychology, 68, 295-301.
- Ekman, P. (1965). The differential communication of affect by head and body cues. Journal of Personality and Social Psychology, 2, 726-735.
- Ekman, P., & Friesen, W. V. (1967). Head and body cues in the judgment of emotion: A reformulation. Perceptual and Motor Skills, 24, 711-723.
- Ekman, P., & Friesen, W. (1968). Nonverbal behavior in psychotherapy research. In J. M. Schlien (Ed.), Research in Psychotherapy, (Vol. 3). Washington, DC: American Psychological Association.
- Ekman, P., & Friesen, W. V. (1971). Constants across culture in the face and emotion. Journal of Personality and Social Psychology, 17, 124-129.
- Ekman, P., & Friesen, W. V. (1975). Unmasking the face. Englewood Cliffs, NJ: Prentice-Hall, Inc.

- Ekman, P., Friesen, W. V., & Ellsworth, P. (1972). Emotion in the human face. New York: The Pergamon Press.
- English, R. W., & Jelenevsky, S. (1971). Counselor behavior was judged under audio, visual, and audiovisual communication conditions. Journal of Counseling Psychology, 18, 509-513.
- Farber, I. E., & Spence, K. W. (1953). Complex learning and conditioning as a function of anxiety. Journal of Experimental Psychology, 45, 120-125.
- Feldman, S. (1959). Mannerisms of speech and gestures in everyday life. New York: International University Press.
- Frankel, M. (1971). Effects of videotape modeling and self-confrontation techniques on microcounseling behavior. Journal of Counseling Psychology, 18, 465-471.
- Fretz, B. R. (1966). Postural movements in a counseling dyad. Journal of Counseling Psychology, 13, 335-343.
- Fretz, B. R. (1979). Corn, R. & Tuemmler, J. M. Counselor nonverbal behavior and client evaluations. Journal of Counseling Psychology, 26:(4), 304-311.
- Freud, S. (1905). Fragment of an analysis of a case of hysteria. Collected Papers (Vol. 3), 1905. New York: Basic Books.
- Freud, S. (1924). Collected papers. (Vol. 1). London: Hogarth Press.
- Freud, S. (1936). The problem of anxiety. New York: Norton.
- Galloway, Charles M. (1971). The challenge of nonverbal research. Theory Into Practice, 10, 227-230.
- Gaundry, E., & Poole, C. (1972). The effects of an experience of success or failure on state-anxiety level. Journal of Experimental Education, 41, 18-21.
- Gazda, G. M. (1973). Human relations development. Boston: Allyn and Bacon.
- Gelso, C. J. (1972). The effect of audio and video recording on clients. College Park, MD: University of Maryland Counseling Center Research Report.
- Gill, D., & Martens, R. (1977). The role of task type and success-failure in group competition. International Journal of Sports Psychology, 8, 160-177.

- Gladstein, J. (1974). Nonverbal communication and counseling/psychotherapy: A review. Journal of Counseling Psychology, 4, 34-57
- Graham, J., Bitti, P., & Argyle, M. (1975). A cross cultural study of the communication of emotion by facial and gestural cues. Journal of Human Movement Studies, 1, 66-77.
- Graves, J. R., & Robinson, J. D. (1976). Proxemic behavior as a function of inconsistent verbal and nonverbal messages. Journal of Counseling Psychology, 23, 333-338.
- Haase, R. F. (1970). The relationship of sex and instructional set to the regulation of interpersonal distance in a counseling analogue. Journal of Counseling Psychology, 17, 233-236.
- Haase, R. F., & DiMattia, D. J. (1970). Proxemic behavior: Counselor administrator and client preferences for seating arrangement in dyadic interaction. Journal of Counseling Psychology, 17, 319-325.
- Haase, R. F., & Tepper, D. T. (1972). Nonverbal components of empathic communication. Journal of Counseling Psychology, 19:(5), 417-424.
- Hair, J. F., Jr., Anderson, R. E., Tatham, R. L., & Gralbowski, B. J. (1979). Multivariate data analysis. Tulsa: Petroleum Publishing Co.
- Hall, E. T. (1973). A system for the notation of proxemic behavior. American Anthropologist, 65, 1003-1026.
- Harmon, R. L. (1971, January). Nonverbal behavior in counseling. The School Counselor, pp. 189-192.
- Harper, R. G.; Wiens, A. N., & Matarazzo, J. D. (1978). Nonverbal communication: The state of the art. New York: Wiley-Interscience Publication.
- Hill, C. E., Siegelman, L., Gronsky, B. R., Sturniolo, F., & Fretz, B. R. (1981). Nonverbal communication and counseling outcome. Journal of Counseling Psychology, 28, 203-212.
- Hodges, W. F. (1967). The effects of success, failure and threat of shock on physiological and pemonological indices of state anxiety. (Unpublished doctoral dissertation, Vanderbilt University.)

- Hodges, W. F., & Durham, R. L. (1972). Anxiety ability and digit span performance. Journal of Personality and Social Psychology, 24, 401-406.
- Horney, K. (1945). Our inner conflicts, a constructive theory of neurosis. New York: W. W. Norton and Co.
- Ishiguro, S. (1965). Motivational instructions and GSR on memory, especially as related to manifest anxiety. Psychological Reports, 16, 786.
- Island, D. D. (1967). The development and analysis of categories of nonverbal behavior of counselors in filmed interviews. (Unpublished doctoral dissertation, University of Minnesota.)
- Kahn, H. (1954). The effects of variations of intensity of experimentally induced stress situations upon certain aspects of perception and performance. Journal of Genetical Psychology, 85, 289-304.
- Kaufman, P. A. (1974). The effects of nonverbal behavior on performance and attitudes in the college classroom. (Unpublished doctoral dissertation, Oklahoma State University.)
- Kelly, F. D. (1972). Communicational significance of therapist proxemic cues. Journal of Consulting and Clinical Psychology, 39, 345.
- LaCrosse, M. B. (1975). Nonverbal behavior and perceived counselor attractiveness and persuasion. Journal of Counseling Psychology, 22, 563-566.
- LaCrosse, M. B., & Barak, A. (1976). Differential perception of counselor behavior. Journal of Counseling Psychology, 23, 170-172.
- Lawther, J. D., & Cooper, J. N. (1953). Methods and principles of teaching physical education. Fifty-Sixth Annual Proceedings College Physical Education Association, 107-108.
- Lazarus, R. S., Deese, J., & Hamilton, R. (1954). Anxiety and stress in learning: The role of interserial duplication. Journal of Experimental Psychology, 47, 111-114.
- Lazarus, R. S., Deese, J., & Osler, S. J. (1952). The effects of psychological stress upon performance. Psychological Bulletin, 49, 293-317.
- Lery, L. H. (1963). Psychological interpretations. New York: Holt.

- Lewin, K. K. (1965). Nonverbal cues and transference. Archives of General Psychiatry, 12:(4), 391-394.
- Lewis, P. V., & Page, Z. (1974). Educational implications of nonverbal communication. ETC., 31:(4), 371-375.
- Lifton, W. M. (1971). Groups, facilitating individual growth and societal change. New York: John Wiley and Sons, Inc.
- Lucas, J. D. (1952). The interactive effects of anxiety, failure and intersocial duplication. American Journal of Psychology, 45, 59-66.
- Mahl, G. (1968). Gestures and body movements in interviews. In J. M. Schlein (Ed.), Research in Psychotherapy. Washington, DC: American Psychological Association.
- Mandler, G., & Sarason, S. B. (1952). A study of anxiety and learning. Journal of Abnormal and Social Psychology, 47, 166-173.
- Martens, R. (1977). Sport competition anxiety. Champaign, IL: Human Kinestics Publishers.
- Martens, R., & Landers, D. M. (1970). Motor performance under stress: A test of the inverted-U hypothesis. Journal of Personality and Social Psychology, 16, 29-37.
- Matarazzo, J. D., & Phillips, J. S. (1955). Digit symbol performance as a function of increasing levels of anxiety. Journal of Consulting Psychology, 19, 131-134.
- Matarazzo, J. D., Ulett, G. A., & Saslow, G. (1955). Human maze performance as a function of increasing levels of anxiety. The Journal of General Psychology, 53, 79-95.
- Matus, I. (1974). Select personality variables and tension in two muscle groups. Psychophysiology, 11, 91.
- May, R. (1950). The measuring of anxiety. New York: Ronald Press.
- McAdoo, W. G., Jr. (1970). The effects of success, mild-failure, and strong-failure feedback on A-state for subjects who differ in A-trait. (Unpublished doctoral dissertation, Florida State University.

- Meharabian, A. (1968). Influence of attitudes from the posture, orientation and distance of the communicator. Journal of Counseling and Clinical Psychology, 32, 296-308.
- Meharabian, A. (1971). Silent messages. Belmont, CA: Wadsworth Publishing Co.
- Meharabian, A. (1972). Nonverbal communication. Chicago: Aldine-Atherton Company.
- Miller, G., Bender, D., Florence, T., & Nicholson, H. (1974). Real vs. Reel: What's the verdict? Journal of Communication, 24, 99-111.
- Montague, E. K. (1953). The role of anxiety in serial role learning. Journal of Experimental Psychology, 45, 91-96.
- Nie, N. H., Hull, C. D., Jenkins, J. G., Steinbrenner, K., & Bent, D. H. (1981). Statistical package for the social sciences (2nd ed). New York: McGraw-Hill.
- Poling, E. G. (1968). Video-tape recordings in counseling practicums. Counselor Education and Supervision, 8, 53-58.
- Postman, L., & Bruner, J. S. (1948). Perception under stress. Psychological Review, 55, 314-323.
- Prichard, CH. (1972). A study of manifested counselor nonverbal behavior within counseling subroles. (Unpublished doctoral dissertation, Oklahoma State University.)
- Rank, O. (1945). Will therapy and truth and reality. New York: Knopf.
- Reed, H. B., Jr. (1960). Anxiety: The ambivalent variable. Harvard Educational Review, 30, 141-153.
- Roberts, D., & Renzaglia. (1965). The influence of a tape recording on counseling. Journal of Counseling Psychology, 12, 10-16.
- Sarason, I. G. (1956). Effect of anxiety, motivational instructions and failure on serial learning. Journal of Experimental Psychology, 51, 253-260.
- Sarason, I. G. (1958). Effects on verbal learning of anxiety, reassurance, and meaningfulness of material. Journal of Experimental Psychology, 56, 472-477.

- Sarason, I. G. (1960). Empirical findings and theoretical problems in the use of anxiety scales. Psychological Bulletin, 57, 403-415.
- Sarason, I. G. (1968). Verbal learning, modeling and juvenile delinquency. American Psychologist, 23, 254-266.
- Sarason, I. G. (1972) Experimental approaches to test anxiety: Attention and the uses of information. In C. D. Spielberger (Ed.), Anxiety: Current trends in theory and research (Vol. 2). 381-403. New York: Academic Press.
- Sarason, I. G., & Palola, E. G. (1960). The relationship of test and general anxiety, difficulty of task, and experimental instructions to performance. Journal of Experimental Psychology, 59, 185-191.
- Scanlon, T. K. (1977). The effects of success-failure on the perception of threat in a competitive situation. Research Quarterly, 48, 144-153.
- Schefflen, A. (1974). How behavior means. Garden City, NY: The Anchor Press.
- Seals, J., & Prichard, C. (1973, December). Nonverbal behavior as a dimension of counselor subrole. Counselor Education and Supervision, pp. 150-152.
- Seay, T. A., & Alterkruse, J. K. (1979). Verbal and nonverbal behavior in judgments of facilitative conditions. Journal of Counseling Psychology, 26:(2), 108-119.
- Sidowiki, J. B., & Eason, R. G. (1960). Drive, verbal performance and muscle action potentials. Journal of Experimental Psychology, 60, 365-370.
- Sieber, J. E., O'Neil, H. F., Jr., & Tobias, S. (1977),. Anxiety, learning and instruction. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Smith, R. P. (1973). Frontalis muscle tension and personality. Psychophysiology, 10, 311.
- Smith-Hanen, S. S. (1977). Effects of nonverbal behaviors on judged levels of counselor warmth and empathy. Journal of Counseling Psychology, 24:(2), 87-91.
- Speer, D. (1972). Nonverbal communication of affective information. Comparative Group Studies, 3:(4), 409-423.

- Spence, K. W. (1964). Anxiety (drive) level and performance in eyelid conditioning. Psychological Bulletin, 61, 129-139.
- Spence, K. W., Farber, I. E., & McFann, H. H. (1956). The relation of anxiety level to performance in competition and non-competition paired associates learning. Journal of Experimental Psychology, 52, 296-305.
- Spence, K. W., Taylor, J., & Ketchell, R. (1956). Anxiety level and degree of competition in paired associates learning. Journal of Experimental Psychology, 52, 306-310.
- Spiegel, P., & Machatka, P. (1974). Messages of the body. New York: New York Free Press.
- Spielberger, C. D. (1966). Anxiety and behavior. New York: Academic Press.
- Spielberger, C. D. (1970). The state-trait anxiety inventory test manual, Form X. Palo Alto, CA: Consulting Psychologists Press.
- Spielberger, C. D. (1977). Stress and anxiety. Washington, DC: Hemisphere Publishing.
- Spielberger, C. D. (1979). Understanding stress and anxiety. New York: Harper & Row Publishers.
- Spielberger, C. D., & Gorsuch, R. L. (1966). Mediating processes in verbal conditioning. (Final Report to the National Institute of Health, U. S. Public Health Service on Grants, MH 7229, MH 7446, and HD 947).
- Spielberger, C. D., & Lushere, R. E. (1968). The state-trait anxiety inventory, preliminary test manual for form X. Tallahassee, FL: Florida State University.
- Stennett, R. G. (1957). The relationship of performance level to level of arousal. Journal of Experimental Psychology, 54:(1), 54-61.
- Strong, S. R. (1972). Nonverbal behavior and perceived counselor characteristics. Journal of Counseling Psychology, 19:(4), 349-350.
- Strong, S. R., & Dixon, D. N. (1971). Expertness, attractiveness, and influence in counseling. Journal of Counseling Psychology, 18, 562-570.

- Strong, S. R., Taylor, R. G., Bratton, J. C., & Loper, R. G. (1971). Nonverbal behavior and perceived counselor characteristics. Journal of Counseling Psychology, 18, 554-561.
- Sullivan, H. S. (1953). The interpersonal theory of psychiatry. New York: Norton.
- Tanney, M., & Gelso, C. (1972). Effect of recording on clients. Journal of Counseling Psychology, 19:(4), 349-350.
- Taylor, J., & Chapman, J. (1955). Anxiety and the learning of paired associates. American Psychology, 68, 671.
- Taylor, J. A. (1951a). The relationship of anxiety to the conditioned eyelid response. Journal of Experimental Psychology, 41, 81-92.
- Taylor, J. A. (1951b). A personality scale of manifest anxiety. Journal of Abnormal and Social Psychology, 48, 285-290.
- Taylor, J. A., & Spence, K. W. (1952). The relationship of anxiety level to performance in serial learning. Journal of Experimental Psychology, 44, 61-64.
- Tepper, D. T., Jr. & Haase, R. W. (1978). Verbal and nonverbal communication of facilitative conditions. Journal of Counseling Psychology, 25, 35-44.
- Tipton, R. M., & Rymer, R. A. (1978). A laboratory study of the effects of varying levels of counselor eye contact on client-focused and problem-focused counseling styles. Journal of Counseling Psychology, 25, 200-204.
- Van Atta, R. (1969). Excitatory and inhibition effects of various methods of observation in counseling. Journal of Counseling Psychology, 16:(5), 443-439.
- Wine, J. (1972). Test anxiety and direction of attention. Psychological Bulletin, 76, 92-104.
- Yerkes, R. M., & Dodson, J. D. (1908). The relation of strength of stimulus to rapidity of habit formation. Journal of Comparative Neurology and Psychology, 18, 459-482.

APPENDIXES

APPENDIX A

COUNSELOR-CLIENT DIALOGUE

COUNSELOR-CLIENT DIALOGUE

- CLIENT: I've been really feeling down lately. I don't feel like doing anything; my grades are falling and all I do is just sit around and do nothing.
- COUNSELOR:
(1) What seems to be making you feel so down and depressed to the point where you just don't want to do anything?
- CLIENT: Well, about a month ago the girl I had been dating for a year broke off with me and I just feel so empty and hurt.
- COUNSELOR:
(2) It really hurts when someone you care about so deeply just up and leaves.
- CLIENT: Yeah, I hurt so bad that I've even been crying myself to sleep at night.
- COUNSELOR:
(3) It's a natural thing to cry when we really hurt. In other words, it's O.K. to cry.
- CLIENT: You know, it doesn't seem worthwhile for me to go on anymore without her. I feel like I just want to die.
- COUNSELOR:
(4) You feel so down and so hurt that life doesn't hold much value for you.
- CLIENT: I just love her and miss her so much that she is all I've been thinking about. I just can't get her out of my mind.
- COUNSELOR:
(5) So your love for her is so great that it just consumes your thinking.
- CLIENT: Yeah, I just find myself second guessing things that I've done and wondering if I should have done more, then maybe we would still be together.
- COUNSELOR:
(6) You're thinking that it was all your fault that you and her are not together.

- CLIENT: Well, I think a lot of it was my fault. There are times when I was so wrapped up in myself that I neglected her and didn't give her the love she needed.
- COUNSELOR: You were wrapped up in yourself? Can
(7) you tell me about that?
- CLIENT: Well, my major is Computer Science and I'm carrying 20 hours and I had been real busy studying and running programs that I put my relationship on the back burner.
- COUNSELOR: So it may not be that you were
(8) neglecting her on purpose but that you were so loaded down with school work?
- CLIENT: But I'm the one who enrolled in the 20 hours and I'm the one who studied all of the time.
- COUNSELOR: And now you're blaming yourself for
(9) working too hard on your classes and neglecting her.
- CLIENT: Well, it is my fault. I did neglect her. I mean, I didn't do it on purpose. I wanted to graduate early so we could get married. But, now she is gone.
- COUNSELOR: And you had been working so hard for
(10) what you thought was for the both of you, and now she's gone and you blame yourself.

APPENDIX B

INSTRUCTIONS

INSTRUCTIONS

"You will be watching a brief videotaped interview of a counseling session. You are asked to focus your attention on the counselor's way of relating to the client. In order to help you focus on the counselor, the camera has been placed behind the client so you will be able to view the counselor only. After viewing the film you will be asked to complete the Counselor Rating Form-Short Version (CRF-S). We ask you to rate the counselor according to your impressions. You will notice that there are 12 attributes upon which you are to grade the counselor. To the right of each attribute is the word "not very" followed by 7 dashes and the word "very". You are to place an "x" on the dashed line that best describes your impression of the counselor on that particular attribute. For example, if the counselor impressed you as being very friendly, you might put an "x" at the 6th or 7th dashed line. If the counselor impressed you as being moderately friendly, you might put an "x" at the 3rd, 4th or 5th dashed line. If the counselor did not impress you as very friendly then you might put an "x" at the 1st or 2nd dashed line. Thank you for your cooperation."

Subjects then viewed the videotaped segment and scored the CRF-S.

VITA ²

John Lee O'Donnell

Candidate for the Degree of
Doctor of Philosophy

Thesis: RECEPTIVITY OF SUBJECTS VARYING IN DEGREE OF
TRAIT ANXIETY TO COUNSELORS EXHIBITING
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