

1978

Effects of hotline voice quality on willingness to self-disclose

Nancy Sherman Musika

College of William & Mary - School of Education

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WILLINGNESS TO SELF-DISCLOSE.

THE COLLEGE OF WILLIAM AND MARY IN VIRGINIA,
ED.D., 1978

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EFFECTS OF HOTLINE VOICE QUALITY ON
WILLINGNESS TO SELF-DISCLOSE

A Dissertation
Presented to the
Faculty of the School of Education
College of William and Mary in Virginia

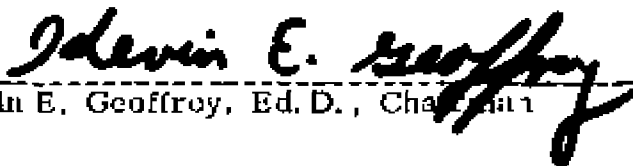
In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
Nancy S. Musika
April, 1978


APPROVAL SHEET

We the undersigned do certify that we have read this dissertation and that in our individual opinions it is acceptable in both scope and quality as a dissertation for the degree of Doctor of Education.

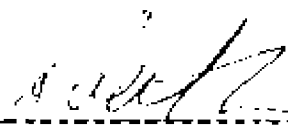
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**Effects of Hotline Voice Quality on
Willingness to Self-Disclose**

By

Nancy S. Musika

Chapter 1

Introduction

Growing emphasis on telephone crisis intervention centers characterizes a new dimension for counseling interaction. The emphasis for hotline counselors is geared toward assisting clients to deal effectively with their crises situations. The process of crisis intervention commences when the counselor has established the needed rapport, allowing the client to verbalize all the necessary aspects of the problem. This self-disclosure of pertinent feelings and information gives the counselor clues with which to aid clients as they work through problem areas and reach a viable solution. Without adequate levels of client self-disclosures, there can be no hope of handling the crisis situation.

The client, by virtue of a telephone call, has total control over the counseling situation. She/he is free to discontinue the call at any point or, if satisfied with the counseling service, she/he can disclose the nature of the problem. This client control points out the absolute necessity of establishing an immediate relationship needed to keep the client on the phone long enough to resolve the crisis.

Much work has been done to determine which aspects of counselor/client interaction are conducive to enhanced self-disclosure and better client/counselor relationships. Many have dealt with face-to-face situations with emphasis on evaluating elements of empathy, and positive regard (Welkowitz & Kuc, 1973; Truax et al.,

1966; Strupp et al., 1963). But no study has investigated the voice quality alone as a variable in creating an atmosphere for self-disclosure. Some centers use as part of their selection criteria for volunteers a telephone interview with the potential volunteer. The purpose of the telephone call is to determine the pleasant or unpleasant aspects of the voice, i.e., the voice a crisis caller will hear. These centers have no research rationale for this particular selection criteria; it is assumed that telephone voice qualities are important in a telephone counseling relationship (Brockopp & Lester, 1973).

It is common knowledge that babies sense mother's mood by the way words are spoken and not by the words themselves. Listening to a professor, lecturer or friend readily presents the speaker's attitudes and emotions as well as his prepared presentation or topic discussion. Speech pathologists have long recognized that specific attributes and variations in voice quality reinforce meanings and clarify the speaker's attitudes and emotions (Fisher, 1966).

Although research has been done which investigates the impact a speaker's voice has on a listener (Allport & Cantrel, 1934; McGehee, 1944; Pear, 1931; Taylor, 1934; Wolffe, 1943; Zucker, 1946), these studies have not dealt with the need for instant rapport and the possible relationship which can be achieved based on voice quality over the telephone hotline. These studies found that listeners tend to form stereotyped opinions of both physical

and psychological traits, based on the voice alone. The question is raised as to what role voice quality plays in counseling situations, especially via hotline crisis telephones where no other clues are available to the calling client. One wonders if the voice quality causes the callers to develop a mental image of traits and characteristics which assist them in their decision of whether or not to terminate the call.

Problem

This study was designed to evaluate the effect of voice quality on the level of self-disclosure. Further, it explored the personality characteristics that the Ss attribute to voices of different quality.

Population

The population consisted of a group of adults who were invited to view the movie, "What You Are is Where You Were When," produced by the University of Colorado, a film on values. Five hundred notices advertising the film were sent to peninsula agencies, churches, clubs and individuals.

Each individual coming to view the film was asked to sign a roster upon entering the building. The first 36 females and the first 36 males were asked to participate in the experiment. They were assigned to one of six groups, six females and six males in each group.

General Hypothesis

1. The level of self-disclosure on the Jourard Self-Disclosure

Questionnaire will be affected by:

- (a) the voice of the counselor
- (b) the sex of the counselor
- (c) the sex of the Ss
- (d) the interaction of voice of counselor by sex of counselor
- (e) the interaction of voice by sex of Ss
- (f) the interaction of sex of counselor by sex of Ss
- (g) the interaction of voice of counselor by sex of counselor
by sex of the Ss

2. A. The scores received on ACL Favorable Adjectives checked will be affected by:

- (a) the voice of the counselor
- (b) the sex of the counselor
- (c) the sex of the Ss
- (d) the interaction of voice of counselor by sex of
counselor
- (e) the interaction of voice by sex of Ss
- (f) the interaction of sex of counselor by sex of Ss
- (g) the interaction of voice of counselor by sex of
counselor by sex of the Ss

B. The scores received on ACL Unfavorable Adjectives checked will be affected by:

- (a) the voice of the counselor
- (b) the sex of the counselor
- (c) the sex of the Ss

- (d) the interaction of voice of counselor by sex of counselor
 - (e) the interaction of voice by sex of Ss
 - (f) the interaction of sex of counselor by sex of Ss
 - (g) the interaction of voice of counselor by sex of counselor by sex of the Ss.
- C. The scores received on ACL Self-Confidence Scale will be affected by:
- (a) the voice of the counselor
 - (b) the sex of the counselor
 - (c) the sex of the Ss
 - (d) the interaction of voice of counselor by sex of counselor
 - (e) the interaction of voice by sex of Ss
 - (f) the interaction of sex of counselor by sex of Ss
 - (g) the interaction of voice of counselor by sex of counselor by sex of the Ss
- D. The scores received on ACL Dominance Scale will be affected by:
- (a) the voice of the counselor
 - (b) the sex of the counselor
 - (c) the sex of the Ss
 - (d) the interaction of voice of counselor by sex of counselor
 - (e) the interaction of voice by sex of Ss

- (f) the interaction of sex of counselor by sex of Ss
 - (g) the interaction of voice of counselor by sex of counselor by sex of the Ss
- E. The scores received on the ACL Abasement Scale will be affected by:
- (a) the voice of the counselor
 - (b) the sex of the counselor
 - (c) the sex of the Ss
 - (d) the interaction of voice of counselor by sex of counselor
 - (e) the interaction of voice by sex of Ss
 - (f) the interaction of sex of counselor by sex of Ss
 - (g) the interaction of voice of counselor by sex of counselor by sex of the Ss
3. The score received by the counselors on the Warmth Scale will be affected by:
- (a) the voice of the counselor
 - (b) the sex of the counselor
 - (c) the sex of the Ss
 - (d) the interaction of voice of counselor by sex of counselor
 - (e) the interaction of voice by sex of Ss
 - (f) the interaction of sex of counselor by sex of Ss
 - (g) the interaction of voice of counselor by sex of counselor by sex of the Ss

4. The score received by the counselors on the Genuineness Scale will be affected by:
- (a) the voice of the counselor
 - (b) the sex of the counselor
 - (c) the sex of the Ss
 - (d) the interaction of voice of counselor by sex of counselor
 - (e) the interaction of voice by sex of Ss
 - (f) the interaction of sex of counselor by sex of Ss
 - (g) the interaction of voice of counselor by sex of counselor by sex of the Ss

Definitions

1. Crisis: a severe reduction in coping ability causing feelings of insecurity, anxiety, fear, etc., resulting in a level of disorganization wherein the intellectual control mechanism has become inoperative under an onslaught of unchecked, un-integrated emotional stimuli (Specter & Claiborn, 1973, p. 31).
2. Crisis intervention: the specific goal of restoring an individual to his pretraumatic level of overt functioning (Specter & Claiborne, 1973, p.9).
3. Genuineness: is a response in which the helper's verbal and non-verbal messages, whether they be positive or negative, are congruent with how he/she feels. Operationally, it will be measured on a 4-point scale modified from Carkhuff (1969) by Gazda (1974).

5. **Self-disclosure:** has been defined as the explicit communication to others of some personal information which the others would be unlikely to acquire unless the person disclosed it, and which is of such a nature that the individual is not likely to disclose it to everyone who asks for it (Jourard, 1971). Operationally, it will be measured by the 40-item JSDQ with the Panyard 6-point modification.
6. **Voice quality:** those aspects of voice which are under the speaker's control and can be acquired by copying others. They are loudness, tempo, continuity, pitch, rhythm, and register.

Voice quality also refers to those characteristics of a voice which are present all the time a person is talking. It involves the quality of the voice itself due to physical characteristics of the vocal system or to the way one physically sets their vocal organs when speaking. Features of voice quality are harshness, hoarsness, breathiness, nasality, and denasality (Marke1, 1969). See Appendix I.

7. **Warmth:** is when the helper is wholly and intensely attentive to the interaction, resulting in the helpee's feeling complete acceptance and significance. Operationally, it will be measured on a 4-point scale modified from Carkhuff (1969) by Gazda (1974).

Self-Disclosure Theory

Philosophically, Buber (1937) has stated that greater self-experience and a greater relationship with God comes from ever increasing intimate experiences between two individuals. Tillich (1952) also felt that it was the act of disclosing which designated that a person had the courage to be real with others. It was only through such self-disclosure that a person was being real with himself/herself, as well.

Self-disclosure has also been related, on a concrete level, with mental health and adjustment. Fromm (1955) said that the inability to self-disclose resulted in self-alienation as well as alienation from others. He based this statement on the existential viewpoint that feelings of loneliness and isolation were common to mankind. Relatedness to others was the only method of overcoming such feelings. Self-disclosure allowed relatedness and productive love - a basic tenant in fulfilling man's needs.

Jourard has by no means been the first to emphasize the need to discuss personal feelings with others, but he has made major contributions in the area of self-disclosure. Equating mental health with the ability to self-disclose, Jourard (1964) saw such freedom to express self as central to personal growth. Jourard (1964) has written at great lengths about the conventional roles society at large has placed on interpersonal relationships. Man is seen as having to assume masks and to

conceal feelings in order to exist comfortably in our complex society (Jourard, 1964; Hurley & Hurley, 1969). The side effects of such role playing results in self-alienation.

Jourard felt reduction in this self-imposed alienation from self and others came from the ability to self-disclose to a significant person. Such verbalizations act as a mirror reflecting information so that removal of the mask is possible. Self-disclosing to significant others allows authenticity. He also said ". . .it seems to be another empirical fact that no man can come to know himself except as an outcome of disclosing"(Jourard, 1964, p.5). Personal adjustment and good mental health comes as a result of feeling free enough to self-disclose personal information. Taylor, Altman and Frankfurt's study (1968) partially supported the contention, as Jourard hypothesized, that openness is related to good mental health.

Jourard defined self-disclosure as the proces of "my communication of my private world to you, in language which you clearly understand" (Jourard, 1964, p.5). His self-disclosure questionnaires were designed to measure the extent of self-disclosure to various persons. Research utilizing these questionnaires will be described in review of the literature section.

Rogers' (1957) self-theory believes that change in the person comes about as a result of self-exploration. This self-exploration allows the individual to become aware of past events which because of their self-threatening content, were maintained

at an unconscious level). Rogers described the necessary and sufficient conditions needed for self-exploration to commence and stated that ". . . self-disclosure is a convenient vehicle for therapeutic self-exploration in counseling" (Rogers, 1957, p.96). The three therapeutic conditions of empathy, non-possessive warmth, and genuineness and their relationship to progressive self-disclosure or self-exploration have been defined and frequently studied (Truax & Carkhuff, 1965).

Rogers (1961) saw acceptance of self by others as crucial to the ability to accept self. Basic to this premise was the conclusion that isolated people who defend their masks receive less feedback and less acceptance in these delicate, painful areas primarily because they are hidden. Only through self-disclosure of these areas can the person find the acceptance from others he/she needs to accept himself/herself.

Mowrer (1961) saw emotional problems as stemming from guilt. Failure to self-disclose bad deeds resulted in inability to feel good with self. The guilt came from fear of being found out. Confessing these sins to significant others allowed the fear surrounding the deed to be resolved. This, in turn, allowed the resolution of the emotional conflict stemming from the original problems and subsequent fears and guilts.

Mowrer also believed that the ability and willingness to be open with others is directly related to the degree of good mental health. Mowrer disagreed with Freudian concepts which held that

psychopathology was a direct result of repressed libidinal instincts. Instead, Mowrer felt that pathology is a direct result of social pressures. "Illness is caused by the failure to disclose to others one's immoral acts and secrets" (Mowrer, 1961, p.72). Mowrer's ego psychology theory uses self-esteem as the central component of good mental health. Self-esteem, a function of reputation, is influenced by personal behavior. Because man is a social animal, behavior, and ultimately self-esteem, depends upon the interaction with others. "To be human, man must disclose himself to others, his misdeeds and his feelings" (Benner, 1968, p. 108).

Thus, three major personologists, Mowrer, Jourard, and Rogers contend that self-disclosure to others is therapeutically beneficial and a necessary step in the direction of resolving conflicts.

Research evidence has shown support for the relationship between self-disclosure and constructive personality change. Peres (1947) demonstrated that successful patients were almost twice as high in terms of personal references than unsuccessful patients. Seeman (1949) found that successful clients increased self-disclosure levels while unsuccessful clients demonstrated less. Depth of self-exploration through self-disclosure was correlated with outcome indices of constructive patients change by Truax and Carkhuff (1964).

Horney (1950) Fromm (1947) and Riesman (1950) also adhere to the theory that self-disclosure is important to personality functioning as well as interpersonal behavior. They mention societal

trends which teach hiding the self from others, thus presenting false fronts. This role playing reinforces alienation and estrangement from a person's real self. Consequently when overwhelmed by personal problems, an individual who has established roles with others feels too threatened to discard the mask with people he/she knows. Unless masks are removed and real issues dealt with, crises can not be handled successfully.

Researchers have shown that certain conditions enhance a client's willingness to discard their masks in favor of self-disclosure. Jourard and Landsman (1969) found that persons are more willing to disclose to those whom they like rather than those they see either negatively or neutral. Taylor, Altman and Sorrentino (1969) showed that a warm receptive atmosphere was more conducive to enhanced self-disclosure.

Janofsky's study (1970) demonstrating effectiveness of telephone hotlines validated, further, that a voice alone was enough to create the necessary ingredients needed for self-disclosure. Robertson and Musika (1976) suggested in their study that voice quality influences the perception a client may have about a hotline counselor. If they attribute the counselor with attributes of intelligence and competence, they profess a higher degree of willingness to disclose.

Because the need for self-disclosure becomes even more apparent when one views the basis of crisis theory it is crucial to determine if voices of differing quality do indeed affect

the level of self-disclosure.

Crisis Theory

Crisis counseling deals primarily with precipitating causes. Diagnosing the strengths and capabilities for ongoing functioning are essential (Turner & Cummings, 1967). A person reduced in functioning because of crisis must find alternate channels before self-activating can take place. "Mastery can be enhanced by catharsis, environmental and personal support and increased use of rational logical thinking" (Specter et al., 1973, p.19). The job of the crisis worker is to assist clients in overcoming their feelings of helplessness and hopelessness and to aid them in finding alternate modes of dealing with the situation.

The process of crisis intervention follows a general rationale but is especially applicable to crisis intervention telephone centers. The assumptions are as follows:

1. the effects of emotionally discriptive situations can be reduced.
2. the end result of many untreated cases that end in hospitalization can be avoided.
3. the growth aspects of most crises can be promoted and debilitating aspects minimized.
4. crisis intervention can frequently save time and effort on the part of mental health professionals.
5. a period of emotional crisis is the only

time a large segment of our population will seek mental health assistance and be amenable to it (Dillon, 1972).

Brockopp (1973) stated that an individual usually maintains a psychological equilibrium. Under stress the balance alters - stress is produced and energies activated until the stress is resolved. The amount of stress produced and degree of disequilibrium depends on the person's normal coping patterns accompanied by the amount of stress encountered. If the stress situation is one in which past coping behaviors do not apply and no alternatives are developed, the situation intensifies anxiety and produces ultimately, a crisis situation. Because it produces high levels of stress, resolution is demanded and all energies are directed towards this end. The person now becomes immobilized until the crisis is resolved. "The process of resolution may and often does, affect a whole class of events rather than just the one that precipitated the crisis situation" (Brockopp, 1973, p. 91).

Caplan (1959) felt that the outcome of crisis situations were dependent upon significant others in the person's life and that often minimal intervention restored personal equilibrium.

In a crisis intervention telephone center, the telephone becomes the significant other for that time period. In order for the worker to help facilitate the caller and help the caller mobilize his strengths, a certain amount of self-disclosure must

take place. That self-disclosure will take place only if the first phase of therapy is met - establishing a relationship.

Dillon (1972) said in his study of hotline centers that "telephone helping appears to make a difference, even during the first three minutes of interaction, in the level of self-exploration of callers" (p.x). Zunin (1972) hypothesized that four minutes was the average time during which strangers interacted before making a decision to continue or terminate a potential relationship. The importance of initial impressions becomes obvious, as this four minute barrier appears to be broken only if enough positive impressions emanate to make the interaction worthwhile.

Telephone facilitation rests on the need for empathy, warmth, and genuineness towards the client. The assumption is that if these conditions are present, the client will respond with the necessary self-disclosure to reduce the crisis level. McGee et al., (1972) found, while evaluating telephone crisis workers, that "listening with empathy is the a priori step in establishing contact with the caller" (p.199). If the caller is to feel safe and non-threatened, the telephone worker must create a positive relationship with the caller. This relationship creates a therapeutic environment, and the effect of this therapeutic environment determines the outcome of the call.

Specter et al., (1973) state that facilitative responses allow the caller to reduce the crisis and begin to pursue the

alternatives which are available to him/her.

Truax and Carkhuff (1967) state that

counselors who are accurately empathetic, non-possessively warm . . . and genuine are indeed effective; the greater the degree to which these elements were present in the therapeutic encounter, the greater the resulting constructive personality change (p.37).

Other research studies have shown that the counselor's orientation is not nearly so important as the level of facilitative conditions which are present (Whitehorn & Betz, 1952; Truax, 1963; Truax & Carkhuff, 1967; Goodman, 1972).

The need for counselors strong in the therapeutic triad, coupled with the four minute barrier, suggests that the clients pick up cues other than those emitted through verbal context when utilizing the telephone crisis program.

Dilley et al., (1971) found that counselors can transmit equally high levels over the telephones as in a face-to-face setting. It was further suggested that counselors-in-training learn as much as possible about voice communication including "tone of voice, manner and rate of speech, verbal patterns" (p.191).

Contrary to counseling or psychotherapy in a face-to-face interaction, in telephone counseling the power belongs to the caller. He/she has to make the decision to dial the phone and

he/she alone, holds the power to hang up if his/her needs are not met. He/she may decide, in that first four minutes, to terminate or he/she may decide to continue the conversation and build the relationship. It is the caller's decision (Brockopp, 1967).

And he/she must make that decision based on voice and content, he/she has no other variables from which to draw a conclusion. A caller is in an emotional crisis and from that base, he/she will reach a decision. The voice qualities of the listener will enter that emotional realm whereas content is an intellectual process and may or may not penetrate.

Chapter 2

Review of the Literature

Introduction

The review of the literature will concentrate on the necessity of self-disclosure, its relevance to crisis intervention, and its importance as a vital link to constructive client change. Research on crisis intervention programs will also be explored to the extent that they are available from a counselor/client relationship. Anonymity, the by-word for crisis clients calling crisis centers limits the extent and scope of research, consequently reducing the number available in the literature review.

In telephone counseling, the caller's initial introduction to the listener is the listener's voice. Since people often attribute positive or negative personality characteristics to others based on voice alone and will react to the other person based on those assumptions, it is important to review literature which pertains to stereotypical qualities being attached to different voice qualities. The efforts to quantify specific voice patterns into standard measurement techniques will be reviewed as a base line for the techniques to be utilized in this research.

Self-Disclosure

Since self-disclosure is necessary for constructive client change, it becomes necessary to review those aspects which influence the entire spectrum of self-disclosure: targets of self-disclosure, levels of self-disclosure, importance of self-disclosure, and

and measurement of self-disclosure.

Targets of Self-Disclosure

In order for clients to be willing to self-disclose, a positive, warm atmosphere must be present. Persons are more likely to self-disclose to those whom they like rather than to those they see neutral or negatively (Jourard & Landsman, 1960; Jourard & Lasakow, 1958; Worthey et al., 1969). The implication is that "subject's liking" is in some way dependent upon attributing positive qualities such as warmth, friendliness and closeness, to targets of self-disclosure (Pederson & Higbee, 1969).

Taylor, Altman and Sorrentino (1969) used sailors in an interaction with alleged future team mates over an intercom to determine levels of self-disclosure. The alleged future team mate, a confederate, proved that positive feedback resulted in more or less disclosure from the sailor, depending on whether the confederate agreed or disagreed with him. The study failed to analyze the content of the messages and the level of intimacy of the self-disclosures remained questionable. It does point out, however, that interchanges which included positive comments created more self-disclosure than when the discloser felt a negative atmosphere. For the purpose of the present research, it is important to note that a warm reception created a climate for more self-disclosure.

The previous study did not take into account the fact that the subjects were disclosing to the same sex, and research shows that same sex friends report more self-disclosure than opposite

sex friends (Dimond & Munz, 1967).

There is substantial research to show that females demonstrate higher levels of intimacy than males. This factor may be due to males having less empathy and insight than do females (Jourard, 1958; Jourard & Lasakow, 1958; Jourard, 1964).

Janofsky's study (1970) used 80 males and 80 females to determine the extent to which subjects were willing to talk about themselves and express their feelings over the telephone and in face-to-face interviews. Not only did results demonstrate the effectiveness of telephone hotlines, but it also supported, as have other studies, that females self-disclose at a higher level than males regardless of the technique used.

Dimond and Heilkamp (1969) and Doster and Strickland (1969) reported no sex differences in self-disclosure levels. Jourard (1964) and Plog (1965) suggested that these conflicting findings may be due to geographical differences. However, upon examination, there seems to be no pattern in terms of geographical areas to explain the conflict (Cozby, 1973). In fact, no study has ever reported males having higher disclosure than females. The lack of such data strongly suggests real sex differences in self-disclosure (Cozby, 1973).

Levels of Self-Disclosure

People disclose differing amounts of material depending upon their relationship with the recipient of the self-disclosure. Jourard and Landsman (1960) found that the amount a person will

self-disclose will correspond with the amount a colleague self-discloses, based on the degree of liking for the colleague. It was found that if one knew the other well enough to feel safe with the colleague that the level of self-disclosure rose. The idea of feeling safe is all-important, because Jourard (1971) found that liking did not necessarily correlate with knowing. In order to self-disclose, there must be safety and liking and this liking is dependent on positive qualities in the other person.

The need for safety was explored in depth by Rickers-Ovisiankina and Kusmin (1958) in their "Stranger on the Bus" phenomenon. They found that subjects would share intimate material with total strangers. The subjects were asked to whom they would rather disclose but the study did not test actual disclosure. Also, no attempt was made to seek the answer to why the subject was more willing to self-disclose to a stranger. The implication was drawn that subjects would rather disclose to a stranger because they would never see him/her again and would not have to suffer any possible negative consequences (Goodstein & Reinecker, 1974).

Because hotlines meet the criteria of being that "stranger on the bus," the chances of receiving negative feedback is reduced even further by contact being limited to verbal interaction.

Importance of Self-Disclosure

It is important not only to determine targets of self-disclosure

but also to show that self-disclosure is a necessary and vital part of any counseling setting. The basic aim in any counseling session is to aid the client in making positive moves, in attaining self-awareness, in becoming a self-actualized person (Rogers, 1957).

Self-disclosure has, in therapy, been a cue that clients are ready to make changes in their personal adjustment (Vargas, 1968).

Peres (1947) and Seeman (1949) demonstrated the importance of self-disclosure in counseling for personality change and "successful" therapy. Peres (1947) showed that successful patients in non-directive group counseling situations made almost twice as many personal references as did unsuccessful patients. Seeman (1949) also found that successful clients increased self-disclosure while unsuccessful clients demonstrated less.

Depth of self-exploration through self-disclosure was correlated with outcome indexes of constructive patient change by Truax and Carkhuff (1964). Thomas (1968), however, found no significant relationships between reported self-disclosure and counseling effectiveness with graduate students in a counseling and guidance program. Thomas' lack of results may have been influenced by the caliber of subjects chosen for the experiment. Being counseling "wise" they may have appeared to be self-disclosing without revealing intimate personal material.

Psychoanalytic theory sees self-disclosure as a method of reaching unconscious material. When verbalized, this public

account allows the client to reduce distortions through verbal reality testing (Nuttin, 1962). Throughout all counseling theories, there is the common thread that self-disclosure has the potential to produce constructive client change.

While hotlines generally do not attempt in-depth therapy, they do deal with the immediate crisis and in order to aid the caller in building an emotional equilibrium, the telephone worker must rely on establishing an immediate relationship in which the caller feels free to self-disclose.

There are aspects of self that differ in degree of significance to the individual (Fitzgerald, 1963; Jourard, 1964; Rickers-Ovisiankina, 1956). People hold some values, ideas, feelings and experiences more dear than others. These, then, become centrally significant to the person. As such, the important ones are more integrally related to the person's self-concept than other aspects. Because their self-concept is integrated within this significant portion of their life, it becomes necessary to guard against damage not only to this central portion but also to the attached self-concept. Self-disclosure involves the deliberate sharing of some critical or central part of himself/herself with the knowledge that such sharing may threaten his/her self-concept (Mowrer, 1961).

Measurement of Self-Disclosure

Several attempts have been made to provide a comprehensive way to measure self-disclosure.

Taylor and Altman (1966) pooled 671 topics in their development

of a self-disclosure scale. Thirteen categories, including religion, love, sex, and family hobbies, were developed and scaled according to levels of intimacy.

Rickers-Ovislankina and Kusmin (1958) have described a 50 item Social Accessibility Scale which differs from Jourard's scale in that subjects are asked what they would disclose rather than what they have disclosed and target persons are stranger, an acquaintance and a best friend. Jourard's scale used mother, father, best opposite sex friend and best same-sex friend.

These tests make use of group means to identify levels of self-disclosure. As such, significant individual differences might be overlooked. Finances may hold low intimacy value but if an individual is about to lose his/her home due to loss of a job, he/she may hold finances at a high level of intimacy. Goodstein and Reinecker (1974) have suggested that individual intimacy ratings rather than group ratings be used to allow for individual differences which might be obliterated by group means on self-disclosure measures.

A more sophisticated attempt at measuring self-disclosure was developed by Jourard (1958). His 60 item scale was designed to tap intimacy value of personal information. The items were sorted into six categories of 10 items each, producing two general groups of disclosure: high and low. The high disclosure cluster involved attitudes, opinions, tastes, interests and work; the low disclosure cluster was about finances, personality and body.

These patterns were found to be highly similar over sex, race, and several national groups (Jourard, 1959b; Jourard, 1961; Melikian, 1962; Plog, 1965).

Not only is the Jourard Self-Disclosure Questionnaire (JSDQ) the most sophisticated, it is also the most widely used instrument to assess individual differences in self-disclosure (Cozby, 1973, p. 73). Pedersen and Higbee (1969) stated that variations of the JSDQ, as shown in research, differed on a number of dimensions including length of questionnaire, target persons, instructions and nature of items. Despite these differences "there has been a tacit assumption that the various measures are equivalent (Cozby, 1973).

Pedersen and Breglio (1968) correlated two self-disclosure measures developed by Jourard (SD-60 and SD-25) and 40 item Self-Disclosure Questionnaire (40-JSDQ). Each of the Jourard measures yielded four scores which indicated the extent the Ss claimed they had self-disclosed to mother, father, best male friend and best female friend. The 40-JSDQ yielded separate scores of actual depth of self-disclosure in five topic areas (interest, personality, studies, body, and money). Scores were obtained from a total depth of disclosure score (sum of separate depth scores and a total amount of disclosure score-count of words used to answer the five questions).

Correlations between the JSDQ scale and 40-JSDQ scales showed that (a) total depth of disclosure was highly correlated

with amount of disclosure (.84); (b) both total depth and total amount of disclosure correlated with M, F and total disclosure on the SD-60 and M M SD-25; (c) studies are only consistently related to claimed disclosure.

The biggest criticism of this self-disclosure questionnaire relates to the very nature of its make up. Information obtained from clients on the questionnaire is derived from "past" views of self-disclosure to significant people in the client's life. In order to measure actual disclosure, the subject would be disclosing to an experimenter or to others that he/she has never met. The questionnaire cannot control for the uniqueness of a new situation and all its variables. Assuming that the client is able and willing to give an accurate appraisal of past behavior, studies have shown that it is not a predictor of future willingness to disclose (Hurley & Hurley, 1969; Lubin & Harrison, 1964). Several other limitations using this instrument have been cited. The information, typically, was gained long after the self-disclosure took place. Past disclosure to significant target persons was not necessarily representative of future disclosure levels. Drag (1968) Jaffe (1970) Small (1970), however, found that individuals, via the Self-Disclosure Questionnaire could, themselves, predict accurately their own expected self-disclosure levels. The present study will follow this format of Ss predicting their own self-disclosure levels. Ss will be asked to predict their own levels of disclosure using the 40-item JSDQ when using a counselor's voice as

target person. Another limitation often stated is the ambiguousness of the 4-point scale such as "fully revealed one's self." This statement allows for many individual interpretations. This study will use Panyard's (1971) modification in order to reduce the ambiguity of the present rating scale.

Panyard's (1973) study was designed to determine if the JSDQ measured the amount of personal information one individual disclosed to another. Each member of 26 pairs of friends indicated on the 60 item JSDQ, with the Panyard 1 - 6 modification, the amount of personal information disclosed to his/her friend with the amount received from his/her friend. Reports showed a correlation of $P < .01$ was obtained between the amount the subject reported he/she had disclosed and the amount the friend reported he/she had received.

The consensual validation of the amount of personal information exchanged between friends suggested that the Self-Disclosure Questionnaire is a valid measure of self-disclosure to a specific target person.

The Jourard Self-Disclosure Questionnaire does, in fact, measure what it claims to measure (Panyard, 1973, p. 66).

Other researchers (Himelsteen & Kimbrough, 1963; Hurley & Hurley, 1969) had noted that self-disclosure questionnaires did not predict actual behavior in an experimental setting. This is

not so surprising, since the investigators were expecting that a subject's report of past disclosure to parents and closest friends would forecast the extent of disclosure to strangers encountered in the psychological laboratory. While there is a tendency for people to be characteristically open or reserved, the influence of the situation and the identity and number of confidants cannot be neglected (Jourard, 1971, p. 121).

Allen, J (1974) paired 60 undergraduate males, with one member interviewing the other about sexual experience. Four measures of self-disclosure were obtained: respondent's 21-JSDQ Questionnaire, E's rating of respondent's self-disclosure, respondent's post-interview self-ratings of self-disclosure, and interviewer's ratings of respondent's self-disclosure. There was no agreement among interviewers, respondents, and E's self-disclosure ratings. However, respondents self-disclosure questionnaires were positively correlated with self-rating.

Drag (1968) utilized the specially designed 40 item JSDQ that asked subjects which topics they had disclosed in the past to somebody and which items they would be willing to disclose to a stranger of the same sex. Half the items were of high intimacy value and half were low intimacy, based on median ratings given by independent judges. The experiment was designed to determine if the type of relationship established between experimenter and subject is an important situational determinant of subject self-disclosure behavior. Results

demonstrated that subjects with whom the experimenter entered into a dialogue of mutual disclosure (Group I) were more self-disclosing than Group II which was merely an interview session. Drag found the JSDQ a good predictor of the subjects actual disclosure behavior in Group II. "Thus personality questionnaires may indeed forecast behavior in impersonal situations" (Jourard, 1971, p.111).

Jaffe (1970) also asked Ss to signify which topics of a personal nature they had disclosed to someone else in the past and which they would be willing to reveal to Jaffe, using the 40 item modified JSDQ. All four groups in her study were subjected to various levels of self-disclosure by the experimenter. As in Drag's study (Jourard, 1971), Jaffe found that levels of actual self-disclosure were enhanced above stated expectancies with the JSDQ Scale. Both agreed that alterations were caused by experimenter creating conditions above Ss expectations. Unfortunately Jaffe failed to utilize a control group demonstrating impact of no favorable conditions. Expectations, based on Drag's study, would have been that when no manipulations were available, the 40-JSDQ would have been an accurate predictor of self-disclosure.

Small (Jourard, 1971, p. 118-121) provides further evidence of the value of 21-item JSDQ for prediction of self-disclosure. He found that an open, self-disclosing interviewer invites equivalent subject disclosure regardless of their personal values. He had separated groups based on B-Factor, "enjoyment and progress in

action" and E-Factor, "sensuous enjoyment" (Jourard, 1971, p.118). The correlation between past disclosure and actual tape-rated disclosure for the B-Factor Ss under "open" interviewing conditions was .75 ($P < .01$). For the B-Factor subjects interviewed by the "closed" method, the rho was $-.82$ ($P < .01$). For these subjects, their past disclosure forecasted their actual self-disclosure to an experimenter when he showed himself to be open and self-disclosing. When the experimenter did not disclose himself, the B-Factor Ss reversed their behavior (Jourard, 1971, p. 119-120). The E-Factor subjects demonstrated that their past disclosure predicted level of disclosure regardless of the technique the experimenter used.

Small also found rho's of .38 between past disclosure and tape-rated disclosure ($n = 40, P < .01$). The two questionnaire measures of disclosure did demonstrate modest predictive validity.

Small's scoring of the tape recorded Ss responses was highly questionable. He rated the subjects personally, on the four intimate topics as opposed to "mere talk." Only one other judge was involved to establish the inter-rater reliability which was surprisingly high, .98. This writer was not convinced that an objective measure of the subject's disclosure was obtained.

In summary, self-disclosure is seen as an important variable to counseling progress. In order for clients to make changes in their life style or behavior, they must first disclose to the therapist their feelings and/or actions. Self-disclosure allows

the client to self-explore and leads to constructive personality change. Research has shown that a person will self-disclose significant material in an atmosphere of empathy, warmth, and genuineness. If these elements are missing, then a person will withhold information which is vital to this growth process.

In a crisis intervention telephone center, the qualities of safety, empathy, warmth, genuineness must be conveyed by a voice. And on a crisis phone, the first element toward building relationship with a distressed person is the quality of the voice heard.

Crisis Intervention Research

Research on the effectiveness of crisis intervention hotline centers is limited. The nature of the service and its basic philosophy insures the caller of anonymity; consequently the ethical implications alone involving such research limit evaluation techniques. Apsler and Hodas (1975) used simulated callers to evaluate various counselors responses to a standard problem. Results indicated a relationship between length of call, amount of information provided and rating of the counselor. Longer calls resulted in more information being provided by the counselor and a more positive counselor rating by the caller. Counselors tended to give the male caller more referral information than the female caller, indicating possible sexual bias.

Slaikou, et al., (1978) taped telephone calls to a suicide prevention service and analyzed the content in an effort to

single out variables which would relate to "show" or "no show" outcomes for referrals. Results indicated that if the listener were specific and concrete in instructions and listened carefully to the problems of the caller, the caller would be more likely to show up for the referral.

Speer and Schultz (1975) devised a method of obtaining caller reactions to a crisis telephone service. Callers, willing to participate, rated their call to the crisis service along with their most recent call to a friend or relative or acquaintance. The telephone counselors came out higher in ratings than friends, family, or acquaintance.

Dillon (1972) analyzed three minute excerpts from recorded sessions on a hotline. Among the variables studied were self-disclosure levels of callers and personality characteristics of the listeners. Helper genuineness was found to be significantly correlated with the length of call and caller self-exploration.

All of these studies have indicated, from various aspects, efforts to evaluate crisis telephone communications. One additional study needs to be included here, although it is not strictly a crisis situation. This study by Janofsky (1970) validated the "useability" of a telephone for counseling purposes. Comparing interaction by telephone and by face-to-face interview situations, the study demonstrated the telephones were equally as effective as the face-to-face sessions.

Janofsky (1970) used 80 males and 80 females in an

experiment to determine the extent to which subjects were willing to talk about themselves and express their feelings over the telephone and in face-to-face interviews.

Eighty interviews were conducted, 40 telephone and 40 face-to-face. Ten interviews were run in each cell of the experimental $2 \times 2 \times 2$ factorial design. Interviews were 10 minutes in duration with each subject participating in only one interview. Male and female interviewers were paired with same and opposite sex subjects. Each interview was recorded. Three scores were derived from each interview, total-references, affectual self-references, and the ratio of affective to total self-references. Scores were obtained by two judges.

Results supported the use of telephones for counseling purposes as clients were equally willing to talk via telephone as in the face-to-face interviews. No interaction was found between sex of interviewee and sex of interviewer. Females, however, talked more about themselves and their feelings regardless of interview technique.

In summary, much if not most work done in the field of crisis intervention is done over the telephone. And the telephone has been shown to be as effective for relieving anxieties as face-to-face counseling situations. It was further found that often clients who did not show up for counseling sessions stated that they felt much better after their phone call and didn't need to come (Slaikeu, et al., 1973).

While the therapeutic triad is valuable in any counseling situation, the voice is the instrument which must convey those feelings across the telephone at a crisis center. It is therefore important to determine how voices of differing qualities are perceived, and what effect this perception has on levels of self-disclosure.

Voice Research

Sapir (1927) wrote:

We are taught that when a man speaks he says something that he wishes to communicate. That, of course, is not necessarily so. He intends to say something as a rule, yet what he actually communicates may be measurably different from what he started out to convey. We often form a judgment of what he is by what he does not say, and we may be very wise to refuse to limit the evidence for judgment to the overt content of speech. One must read between the lines, even when they are not written on a sheet of paper(p.892).

Despite Sapir's interest and proposed hypotheses concerning acts of speech and language content, very little research has been conducted emphasizing any aspect of speech. Osgood said (1953):

in terms of its central relevance to general psychological theory and its potential applicability to complex social problems, no other area of experimental psychology so greatly demands attention as language behavior and in the past has received so little (p. 727).

Sapir's (1927) emphasis with speech was that of hypothesizing a relationship between speech and personality. It was his contention that voice was a mode of expressing personality

traits.

Studies have shown that people do judge people from their speech (Allport & Cantril, 1934; McGehee, 1944; Pear, 1931; Taylor, 1934; Wolffe, 1943; Zucker, 1946). These studies dealt primarily with the general impressions the voices made upon listeners. Allport and Cantril's (1934) study involved judges being asked to make statements about physical and psychological traits after hearing the voice of a speaker. "These authors found, as did Pear and Taylor, that the agreement among the judges was often greater than the accuracy, due to the presence of judgmental stereotypes" (Sanford, 1942, p. 837).

Pear (1931) analyzed radio audiences who responded to nine different readers they heard on the air. An actor and a clergyman were identified most consistently. The errors made in guessing the speaker's profession demonstrated a consistency suggesting that certain voices follow a stereotype of occupation even though it may not match up with the speaker's true occupation.

Taylor (1934) also found in his attempt to match personality traits with voice that there was a "high degree of social agreement in judging the personality traits of people with speech as the only guide" (p. 248). The social agreement of the judges, however, bore no significant relationship to personality traits of the individual readers.

Estimation of introversion-extroversion based on speaker's voices, conducted by Fay and Middleton (1942) showed no success.

Their efforts at estimating sociability (1940) from speaker's voices using the speaker's scores on the Bernreuter Inventory as the criteria, demonstrated equally poor success. In both cases, however, they found a significant interjudge agreement which was interpreted as vocal stereotyping. Reviews of the literature by Sanford (1942) and Starkweather (1961) gave the same general concensus. Listener-judges agree better with each other than they do with the external criteria. This agreement again concluded the existance of stereotyped voices.

Kramer's (1964) interpretation of these studies and their stereotyped judged results asks the reader to consider another alternative. His contention is that listener's judgments are as valid a measure of trait as are the test scores. He felt that the tests may have been picking up different attributes than those qualittites assessed by the judges. As such, with enough judges participating they too could be considered a measuring device.

Soskin (1953) divided verbal communication into two areas: one consisting of articulated patterns of sounds making up words and sentences, the second being the affectual information depicted by the qualities of the voice. The present study is interested in the second portion, the qualities of the voice.

The earliest method of using meaningless content was conducted by Skinner (1935) when he had subjects say "ah" after listening to music. The subjects then read passages designed

to create happy or sad emotional states. Happiness "ahs" had higher pitch and greater force than sadness "ahs."

Dusenbury and Kower (1939) used single alphabet letters to conduct a study involving emotions. They had individuals repeat the letters attempting to put one of eleven emotions into each letter. Matchings were obtained with significantly greater than chance accuracy by judges. Kower (1941) obtained significant results when attempting to have judges recognize extended emotions from people whispering letters.

Pollack et al., (1969) had neutral sentences read under different noise ratios. Emotional state of the reader was recognizable when sentence content was obliterated by the noise factor. Even when the sentences were whispered, the same results were obtained. Some recognition of the emotionality persisted even when extremely short samples and sections of the recorded samples were removed at periodic intervals.

These studies are important for two reasons: they were able to separate speech content and they were able to pick up a specific aspect of a voice - the emotional state of the person. The studies substantiate that much of what is being said goes beyond the spoken word and conclusions are drawn about people from their tone of voice.

All these studies demonstrated efforts to match voice to specific personality attributes but they evidenced no methods of coding the voice qualities. Without such a coding device

the voice qualities cannot be described reliably and consequently are not reproducible in further investigating efforts.

Markel (1965) attempted to remedy this by comparing the voice dynamics of one speaker to that of other speakers. Markel's definition of dynamics included the attributes of pitch, loudness, and tempo. With the use of a rating scale he was able to place a speaker's voice dynamics on a continuum, thus separating the most significant aspect. Markel decided that the specific attributes of pitch, loudness, and tempo would be most amenable to a rating scale reliability evaluation. His results showed high inter-rater and test-retest reliabilities, as well as high inter-rater reliability of judges with no previous training.

Utilizing these attributes of pitch, loudness, and tempo, Markel (1969a) examined personality traits as judged by MMPI profiles in relation to their voice dynamics profile. Each subject was assigned to one of the three voice-dynamic profiles, of pitch, loudness, or tempo. Analysis of variance demonstrated a significant difference between the MMPI profiles of the three groups. Results demonstrated that the three voice-dynamic profile groups represented three different personality types.

Because Markel's aim was that of demonstrating a relationship between personality and voice dynamics he categorized each voice only on its most outstanding attribute. Consequently over-

all voice dynamics were ignored. In addition, his scoring for pitch, loudness, and tempo, respectively, were: low-high, soft-loud, and slow-fast. These ratings are limited in scope failing to include all the dynamics included under pitch, loudness, and tempo. In addition, Markel fails to include the other important voice dynamic attributes. Consequently, with his rating technique it is impossible to obtain an overall numeric value for a voice.

The study by Robertson and Musika (1976) was designed to explore the perception others have of a voice. Consequently an overall voice quality rating as developed by speech pathologists was used, resulting in a total numeric score for each voice.

In an attempt to show that voice is, in fact, a variable in counseling, this study demonstrated college student's perceptions of voices. Thirty students were asked to listen to ten tape recorded counselor voices, five male and five female. The voices had been rated by five speech pathologists on specific voice attributes of rate, pitch, quality, and loudness (Fisher, 1966). They were ranked from one to five, one being poor and five being excellent, with one voice chosen at each level of the scale. Students listened to a role play taped segment of an empathic, three-line statement, approximately forty-five seconds in duration, by each counselor. At the end of each statement, students were to rate the counselor on attributes of perceived intelligence, competence, and degree of willingness to disclose.

Each attribute was rated on a 7-point Likert Scale. Results showed a significant correlation between high ranked voice, intelligence, competence, and reported willingness to self-disclose personal material. A further correlation was shown between the way pathologists rated voices and the way college students rated the same voices. The implication made was that voice qualities influence overall perception of an individual. The importance of this implication was verbalized by Cochran (1974) who said, "Voice quality has been a missing link in the investigation of communication, as it is essential in fully conveying the therapist's message" (p.1).

In summary, it has been found that voice qualities are significantly important in any situation and that people stereotype others depending on their perception of the voice qualities. Not only is stereotyping done, but judges were able to label emotions through a single syllable. This indicates that voice has a great deal of power to manipulate, calm, convey, and teach. Often the voice qualities alone mark a person as intelligent, competent, empathic, warm, or friendly.

The purpose of this study was to demonstrate that voice quality did have an impact on the level of self-disclosure and, as such, is an important variable in the counseling relationship.

Chapter 3

Population

The population consisted of a group of adults who responded to the invitation to view a movie on values, "What You Are Is Where You Were When," produced by the University of Colorado. Five hundred notices advertising the movie were sent to area churches, social agencies, civic clubs, and individuals. The movie was shown at Contact House, Newport News, Virginia. 128 people attended. Demographic data of age, race, sex, marital status and educational level was obtained.

The population consisted of 36 females ranging in age from 21 to 57 with a mean age of 38.8, and 36 males ranging in age from 26 to 57 with a mean age of 36.7. The total population mean was 37.4. Educational level for the females ranged from high school graduate through doctorate level with the mean being 15.4 years of education. The males ranged from high school graduates to doctorate level with a mean level of 15.5 years of education. The total group mean was 15.5 years of education. Seventy whites and two blacks took the tests. Twenty-four females were married, five were divorced and seven were single. Twenty-five males were married, three were divorced and eight were single.

Sampling

Each individual was asked to sign a roster upon entering the building. The first 36 females and the first 36 males were asked to participate in the experiment. Two of the first 36 females and four of the first 36 males refused to participate. The next

names listed were asked and all agreed to be subjects. All were assigned to one of six groups, six females and six males in each group. The first six females and first six males were assigned to group 1, the second six to the second group, etc.

Instrumentation

Jourard's Self-Disclosure Questionnaire

Jourard's Self-Disclosure Questionnaire (1958) has been the primary method through which self-disclosure has been investigated (Jourard, 1971; Jourard & Lasakow, 1958; Pedersen & Higbee, 1969). With the self-report instrument, the individual is asked to check a 4-point scale (ranging from none to total disclosure) the amount they have revealed themselves regarding specific questions to selected target persons. The 60 questions on the scale were designed so that they may be divided into six subscales of 10 items which tap areas of attitudes and opinions, tastes and interests, work (school), money, personality, body.

Panyard (1971) attempted to improve the sensitivity of the JSDQ by extending its rating scale. The items originally were rated on a 4-point scale indicating amount of disclosure to specific target persons.

Panyard's modification extended the scale as follows:

1. Have lied or misrepresented myself.
2. Have disclosed nothing about this aspect of myself.
3. Have talked very little about this area.
4. Have talked in general terms about this aspect of myself.

5. Have disclosed quite a bit about this area.
6. Have disclosed fully on this topic.

The odd-even split-half correlations for the JSDQ with the extended rating scale was found to .91 (n = 41). The cross validation of the extended rating scale, readministered 5 months later, provided a split-half coefficient of .93 (n = 80) and a test-retest reliability coefficient of .91 (n = 37). Examination of the questionnaires revealed that individuals . . . made use of the entire range of levels of self-disclosure. The magnitude of the correlations obtained demonstrates the value of the extended rating scale (Panyard, 1971, p.606).

Jourard (1971) found in test-retest situations that the scale had from .75 to .90 reliability. And other investigators found split-half reliabilities in the mid-eighties after correction with the Spearman-Brown formula for the JSDQ (Jourard, 1964).

Fitzgerald (1963) computed split-half, odd-even reliability coefficients on a modified version of Jourard's 60 item questionnaire when assessing self-esteem, likeability and willingness to self-disclose.

The Spearman-Brown correlation formula was

applied and the resulting reliability coefficients ranged from .78 to .99 with 20 of the 24 having values over .99. Hence the self-disclosure questionnaire was considered a reliable instrument (Fitzgerald, 1963, p. 47).

Pedersen and Higbee (1969) found evidence for convergent and discriminant validity of the 60 and 25 item JSDQ. The JSDQ appears to be independent of intelligence (Halverson & Share, 1969).

In the past, there has been little evidence that the JSDQ would predict actual disclosure, but Jourard and his associates have begun using a 40 item questionnaire which does predict actual disclosure (Drag, 1968; Resnick, 1970) and thus has predictive validity.

This researcher used the 40 item JSDQ (See Appendix II) with the Panyard (1973) modification to the rating scale. Despite differences in the 21, 40, and 60 item questionnaire, they have been shown to be equivalent (Cozby, 1973).

Adjective Check List

The Adjective Check List (ACL) was developed by Gough in 1952. It was assembled by the factor analytic approach. The 300 adjectives used in the test yield twenty-four separate scale scores for application to normal adult and adolescent subjects. The adjectives are keyed for various scales which are representative

of an aspect of personality.

The reliability studies of the ACL are divided into three parts: the test-retest reliability of the total list of words; the reliability of scales and scored variables; the agreement among observers.

The test-retest reliability of the list of words ranges from a low of 1.01 to 1.86. For the test-retest reliability of scales after 10 weeks, .45 to .90; after 6 months, .31 to .75; after five and one-half years, .25 to .77. In reliability for agreement of observers, the scores range from .61 to .75.

The validity of the ACL is computed by amassing data comparing the ACL with numerous other personality tests. Some of these are EPPS, CPI, MMPI, Guilford Creativity Battery, Terman Concept Mastery Test. The ACL has been shown to correlate positively with the CPI (California Psychological Inventory) and the MMPI (Minnesota Multiphasic Personality Inventory).

The ACL has been used in a number of studies where an individual was asked to choose the adjectives which described another person, as it was utilized in this study.

Gerard (1972) assessed personality characteristics associated with "good" volunteers at 150 crisis intervention centers using the Gough Adjective Check List. The director at each center chose two persons judged to be most effective in handling crisis calls and two judged to be least effective. These four persons took the ACL. The director was asked to fill out one ACL, checking

those adjectives he felt described an "ideal" volunteer. Most effective counselors tended to score higher on the scales of self-confidence and dominance and lower on the scale of abasement, with all scores being within the normal range.

The ACL has been used by many in a variety of settings but with a common bond which binds the usage to this present investigation - all to be mentioned utilized the method where one person rated another on the ACL. Masterson's (1975) summary and critique of the ACL reported that teachers rated students, patients rated therapists, parents rated children and employees rated managers. Thus the evidence continues to pile up indicating that the ACL, by its widening use, is proving its desirability as a testing tool.

Gough (1980) believed the ACL to be equally reliable and valid when describing others as when used to evaluate self. Scarr (1966) found that "the ACL scales correlated systematically with both direct and indirect measures of . . . behavior, lending confidence in the validity of the ACL scales (when used by an observer)" (p.122). He also found that general ACL protocol ratings of one subject were comparable.

Statistical analysis was conducted on the ACL to determine if the selected subscales were significantly correlated to voice levels.

This researcher was primarily interested in self-disclosure and the client's willingness to self-disclose to the different

voices. However, since the study by Robertson and Musika (1976) showed certain characteristics attributed to the voices, this researcher was interested in seeing how the subjects rated the voices on the genuineness and warmth. Much research has demonstrated the necessity of the therapeutic triad in any counseling situation (Whitehorn & Betz, 1954; Betz, 1963a, 1963b; Truax, 1961a, 1963, 1966a; Barrett-Lennard, 1962; Wargo, 1962; Carkhuff & Truax, 1965a, 1965b; Truax, Altman & Millis, 1974).

Genuineness Scale

Genuineness was assessed by a revision of Carkhuff's (1969) 5-point scale. Gazda (1974) revised the scale to a 4-point scale with level three being minimally helpful. Level four shows "intense nonverbal communication" (p. 88) and when used appropriately is the most helpful method of communication. Levels one and two are not helpful (Gazda, 1974). (See Appendix III).

Warmth Scale

The warmth assessment was taken using Gazda's 4-point scale (1974). Gazda separated warmth from Carkhuff's 5-point scale in which Carkhuff combined respect and warmth (1969). Level 3.0 is minimally helpful; a level 4.0 implies "show(ing) warmth through his tone of voice . . ."; level 2.0 implies a flat voice tone; level 1 visibly shows disinterest. (See Appendix IV).

Treatment

Six counselor voices, three males and three females were audio taped as they each read a four minute segment of a typical

counselor's response (See Appendix V). This method is designed to allow listeners to focus on voice quality rather than on word content. Having all six read the same response follows Kramer's (1964) review of many studies involving speech patterns. Markel (1969a) stated, "in general, in these investigations, speech samples have been obtained by having Ss read the same paragraph . . ." (p. 61).

The counselor's voices used were obtained from a previous experiment by Robertson and Musika (1976). Three male and three female voices were chosen, one male and one female at each level, to represent a Level I voice, a Level III voice, and a Level V voice. The Level I voices are characterized by nasality, denasality, monotone, too high or too low pitch, or rapidity of speech. The Level III voices are characterized by a moderate amount of speech irregularities. The Level V voices are characterized by having a moderate pitch, moderate rate of speech, correct articulation, and a pleasant tone. These voices were ranked by speech pathologists and college students.

Research Design

Seventy-two subjects were assigned to one of six treatment groups, six males and six females in each group (See Table I). Prior to hearing the taped voice, each group was asked to fill out Jourard's Self-Disclosure Questionnaire. Instructions were as follows:

I would like for you to fill out this

Table 1

Research Design

	Level 1 Voice	Level 3 Voice	Level 5 Voice
Female	6 Males	6 Males	6 Males
	6 Females	6 Females	6 Females
Male	6 Males	6 Males	6 Males
	6 Females	6 Females	6 Females

questionnaire. Please read the directions carefully.

After completing this questionnaire, each group listened to one voice (Level I, Level III or Level V, male or female) and was asked to take the Questionnaire again, fill out the ACL and rate the counselor on the Warmth and Genuineness Scales. Instructions were as follows:

I am now going to ask you to listen to one four minute segment of a counselor reading a paragraph. This is to allow you to hear the counselor's voice.

Listen closely to the voice. After four minutes the tape will be stopped.

I want you to fill out the same Questionnaire again stating how much you will be willing to self-disclose to that voice. Please indicate on the 6-point scale the amount you would be willing to disclose to the counselor you heard on the tape, based on how you feel about his/her voice.

Answer each question honestly. All material will be kept strictly confidential and all Questionnaires will be given numbers only. Now, rate the

voice on the Warmth and Genuineness Scale. Circle one number on each scale which describes the voice. Then take the ACL and black in the adjectives which you feel best describes the counselor.

Statistical Procedures

Using a SPSS package, a three way analysis of variance was conducted to determine the effects of voice quality, sex of the therapist, and sex of the Ss upon Ss level of self-disclosure, ACL subscale scores, and Gazda's Warmth and Genuineness Scales.

An analysis of covariance (SPSS package) was conducted with the JSDQ posttest as the dependent variable and the JSDQ pretest as the covariate. The voice, sex of counselor, and sex of Ss were the independent variables. The analysis of covariance was run to determine its impact, if any, on the results.

Statistical Hypothesis

1. The level of self-disclosure on the Jourard Self-Disclosure Questionnaire will not be affected by:
 - (a) the voice of the counselor
 - (b) the sex of the counselor
 - (c) the sex of the Ss
 - (d) the interaction of voice of counselor by sex of counselor
 - (e) the interaction of voice by sex of Ss

- (f) the interaction of sex of counselor by sex of Ss
 - (g) the interaction of voice of counselor by sex of counselor by sex of the Ss
- 2 A. The scores received on ACL Favorable Adjectives checked will not be affected by:
- (a) the voice of the counselor
 - (b) the sex of the counselor
 - (c) the sex of the Ss
 - (d) the interaction of voice of counselor by sex of counselor
 - (e) the interaction of voice by sex of Ss
 - (f) the interaction of sex of counselor by sex of Ss
 - (g) the interaction of voice of counselor by sex of counselor by sex of the Ss
- 2 B. The scores received on ACL Unfavorable Adjectives checked will not be affected by:
- (a) the voice of the counselor
 - (b) the sex of the counselor
 - (c) the sex of the Ss
 - (d) the interaction of voice of counselor by sex of counselor
 - (e) the interaction of voice by sex of Ss
 - (f) the interaction of sex of counselor by sex of Ss
 - (g) the interaction of voice of counselor by sex of counselor by sex of the Ss
- 2 C. The scores received on ACL Self-Confidence Scale will not be affected by:

- (a) the voice of the counselor
- (b) the sex of the counselor
- (c) the sex of the Ss
- (d) the interaction of voice of counselor by sex of counselor
- (e) the interaction of voice by sex of Ss
- (f) the interaction of sex of counselor by sex of Ss
- (g) the interaction of voice of counselor by sex of counselor by sex of the Ss

2 D. The scores received on ACL Dominance Scale will not be affected by:

- (a) the voice of the counselor
- (b) the sex of the counselor
- (c) the sex of the Ss
- (d) the interaction of voice of counselor by sex of counselor
- (e) the interaction of voice by sex of Ss
- (f) the interaction of sex of counselor by sex of Ss
- (g) the interaction of voice of counselor by sex of counselor by sex of the Ss

2 E. The scores received on the ACL Abasement Scale will not be affected by

- (a) the voice of the counselor
- (b) the sex of the counselor
- (c) the sex of the Ss
- (d) the interaction of voice of counselor by sex of counselor
- (e) the interaction of voice by sex of Ss

- (f) the interaction of sex of counselor by sex of Ss
 - (g) the interaction of voice of counselor by sex of counselor by sex of the Ss
3. The score received by the counselors on the Warmth Scale will not be affected by:
- (a) the voice of the counselor
 - (b) the sex of the counselor
 - (c) the sex of the Ss
 - (d) the interaction of voice of counselor by sex of counselor
 - (e) the interaction of voice by sex of Ss
 - (f) the interaction of sex of counselor by sex of Ss
 - (g) the interaction of voice of counselor by sex of counselor by sex of the Ss
4. The score received by the counselors on the Genuineness Scale will not be affected by:
- (a) the voice of the counselor
 - (b) the sex of the counselor
 - (c) the sex of the Ss
 - (d) the interaction of voice of counselor by sex of counselor
 - (e) the interaction of voice by sex of Ss
 - (f) the interaction of sex of counselor by sex of Ss
 - (g) the interaction of voice of counselor by sex of counselor by sex of the Ss

Chapter 4

Analysis of Data and Findings

The purpose of this study was to determine if (1) level of Ss self-disclosure on JSDQ was affected by counselor's level of voice, sex of counselor or sex of Ss; (2) subscales checked on ACL were affected by counselor's level of voice, sex of counselor or sex of Ss; (3) the score received by counselors on the Warmth Scale was affected by counselor's level of voice, sex of counselor or sex of Ss; (4) the score received by the counselors on the Genuineness Scale was affected by counselor's level of voice, sex of counselor or sex of Ss.

In analyzing the data, it was found that the main effects were significant; none of the interaction effects showed significance. Therefore, in discussion of the findings, only the main effects will be considered.

Hypothesis 1

A three way analysis of variance of posttest JSDQ scores by voice, counselor sex and Ss sex with pretest JSDQ scores as covariate was conducted. Scores indicate that the Ss mean scores on the pretest JSDQ were equivalent. See Table 2 for results. Pretesting did have an impact on results ($p < .002$). See Table 3.

(a) Table 3 shows that the voice of the counselor significantly ($p < .000$) affected the level of self-disclosure. Mean scores showing effects of voice level on self-disclosure can be

Means and Standard Deviation of Pretest JSDQ
by Counselor Voice, Counselor Sex and Ss Sex

Variable	Sum	Mean	Std Dev	Variance	N
For Entire Population	12156.0000	169.2500	25.4883	649.0549	72
Voice V	3887.0000	161.9583	27.1269	735.8678	24
Male Counselor	1879.0000	156.5833	32.8729	1080.6288	12
Male Ss	949.0000	158.1667	36.6683	1344.5667	6
Female Ss	930.0000	155.0000	32.0437	1026.8000	6
Female Counselor	2008.0000	167.3333	19.8737	394.9697	12
Male Ss	954.0000	159.0000	22.6451	512.8000	6
Female Ss	1054.0000	175.6667	13.7647	189.4667	6
Voice III	4276.0000	178.1667	23.7773	565.3623	24
Male Counselor	2242.0000	186.8333	14.8864	221.6061	12
Male Ss	1076.0000	179.3333	13.8804	192.6667	6
Female Ss	1166.0000	194.3333	12.6438	159.8667	6
Female Counselor	2034.0000	169.5000	28.2247	796.6364	12
Male Ss	1039.0000	173.1667	28.1099	790.1667	6
Female Ss	995.0000	165.8333	30.4986	930.1667	6
Voice I	4023.0000	167.6250	23.7282	563.0272	24
Male Counselor	1980.0000	165.0000	22.2343	494.3636	12
Male Ss	968.0000	161.3333	20.8199	433.4667	6
Female Ss	1012.0000	168.6667	24.9373	621.8667	6
Female Counselor	2043.0000	170.2500	25.8426	667.8409	12
Male Ss	1018.0000	169.6667	28.0832	788.6667	6
Female Ss	1025.0000	170.8333	26.0723	679.7667	6
Total	Cases = 72				

Table 2

Table 3

A Three Way Analysis of Variance of Posttest JSDQ
by Counselor Voice, Counselor Sex and Ss Sex
with Pretest JSDQ as Co-variant

Source of Variation	Sum of Squares	Df	Mean Square	F	Signif of F
Covariates	8393.461	1	8393.461	10.858	0.002*
Pretest JSDQ	8393.461	1	8393.461	10.858	0.002*
Main Effects	30414.695	4	7603.672	9.837	0.000*
Counselor Voice	20071.773	2	10035.887	12.983	0.000*
Counselor Sex	5417.117	1	5417.117	7.008	0.010*
Ss Sex	5374.230	1	5374.230	6.952	0.011*
Significant F*					
Multiple Classification Analysis					
Grand Mean = 156.26					
Variable + Category	N	Unadjusted Dev'n	Adjusted for Independents + Covariates Dev'n		
Voice					
V	24	19.74	24.09		
III	24	-6.14	-11.46		
I	24	-13.60	-12.63		
Counselor					
Male	36	-8.54	-8.67		
Female	36	8.54	8.67		
Ss Sex					
Male	36	7.21	8.68		
Female	36	-7.21	-8.68		

found in Table 4. The Level V voice received significantly higher levels of self-disclosure than either Level I or Level III voice.

(b) The counselor's sex also affected ($p < .010$) level of self-disclosure. See Table 3. Mean scores, shown in Table 4, indicate that female counselors elicited higher levels of self-disclosure at all voice levels.

(c) Ss sex was significantly ($p < .011$) related to levels of self-disclosure with male Ss self-disclosing at a higher level than female Ss; female Ss self-disclosed higher levels to female counselors at all voice levels; male Ss appeared to be self-disclosing at comparable levels with both male and female counselors. See Table 4 for results.

Hypothesis 2

A. ACL Favorable Adjectives Checked

A three way analysis of variance was conducted to determine significance of voice, counselor sex and Ss sex on ACL Favorable Adjectives Checked. Only the variable of sex of the counselor was significant ($p < .007$). See Table 5 for results. Female counselors received more favorable adjectives than male counselors. See Table 6 for mean scores.

B. ACL Unfavorable Adjectives Checked

A three way analysis of variance was conducted to determine the effects of voice, counselor sex and Ss sex on Unfavorable Adjectives Checked. Voice quality of the counselor was significant ($p < .005$). See Table 7 for results. Level I voice received

Table 4

Means and Standard Deviations of Posttest JSDQ
by Counselor Voice, Counselor Sex and Ss Sex

Variable	Sum	Mean	Std Dev	Variance	N
For Entire Population	11251.0000	156.2639	35.8581	1258.8026	72
Voice V	4224.0000	176.0000	31.6365	1000.8696	24
Male Counselor	2054.0000	171.1667	32.7604	1073.2424	12
Male Ss	1092.0000	182.0000	32.9363	1088.8000	6
Female Ss	962.0000	160.3333	31.5383	994.6667	6
Female Counselor	2170.0000	180.8333	31.1210	968.5152	12
Male Ss	1051.0000	175.1667	36.4934	1331.7667	6
Female Ss	1119.0000	186.5000	26.8682	721.9000	6
Voice III	3603.0000	150.1250	35.0581	1229.0707	24
Male Counselor	1756.0000	146.3333	38.2773	1465.1515	12
Male Ss	990.0000	165.0000	33.9823	1154.8000	6
Female Ss	766.0000	127.6667	35.1037	1232.2667	6
Female Counselor	1847.0000	153.9167	32.7621	1073.3561	12
Male Ss	955.0000	159.1667	35.7235	1276.1667	6
Female Ss	892.0000	148.6667	31.9228	1019.0667	6
Voice I	3424.0000	142.6667	33.1750	1100.5797	24
Male Counselor	1508.0000	125.6667	24.1485	583.7515	12
Male Ss	761.0000	126.8333	29.4035	864.5667	6
Female Ss	747.0000	124.5000	20.3740	415.1000	6
Female Counselor	1916.0000	159.6667	32.9775	1087.5152	12
Male Ss	1036.0000	172.6667	31.5637	996.2667	6
Female Ss	880.0000	146.6667	31.4749	990.6667	6
Total Cases = 72					

Table 5

Three Way Analysis of Variance of ACL Favorable Adjectives
Checked by Counselor Voice, Counselor Sex and Ss Sex

Source of Variation	Sum of Squares	Df	Mean Square	F	Signif of F
Main Effects	1500.417	4	375.104	3.224	0.018*
Counselor Voice	522.528	2	261.264	2.246	0.115
Counselor Sex	924.500	1	924.500	7.946	0.007*
Ss Sex	53.389	1	53.389	0.459	0.501
*Significant of F					
Multiple Classification Analysis					
Grand Mean = 33.14					
Variable + Category	N		Unadjusted Dev'n		
Voice					
Y	24		3.65		
III	24		-0.89		
I	24		-2.76		
Counselor Sex					
Male	36		-3.58		
Female	36		3.58		
Ss Sex					
Male	36		0.86		
Female	36		-0.86		

Table 6

Means and Standard Deviation of Favorable Adjectives
By Counselor Voice, Counselor Sex and Ss Sex

Variable	Sum	Mean	Std Dev	Variance	N
For Entire Population	2386.0000	33.1389	12.0097	144.2340	72
Voice V					
Male Counselor	883.0000	36.7917	11.1394	124.0851	24
Male Ss	418.0000	34.8333	10.0697	120.3333	12
Female Ss	245.0000	40.8333	10.4960	110.1667	6
	173.0000	28.8333	8.2563	68.1667	6
Female Counselor	465.0000	38.7500	11.4346	130.7500	12
Male Ss	209.0000	34.8333	8.4004	70.5667	6
Female Ss	256.0000	42.6667	13.4263	180.2667	6
Voice III					
Male Counselor	774.0000	32.2500	11.1716	124.8043	24
Male Ss	381.0000	31.7500	10.7798	116.2045	12
Female Ss	222.0000	37.0000	10.9545	120.0000	6
	159.0000	26.5000	8.3367	69.5000	6
Female Counselor	393.0000	32.7500	12.0085	144.2045	12
Male Ss	199.0000	33.1667	14.3863	206.9667	6
Female Ss	194.0000	32.3333	10.4817	109.8667	6
Voice I					
Male Counselor	729.0000	30.3750	13.1771	173.6359	24
Male Ss	265.0000	22.0833	5.5996	31.3561	12
Female Ss	124.0000	20.6667	4.1312	17.0667	6
	141.0000	23.5000	6.8629	47.1000	6
Female Counselor	464.0000	38.6667	13.4795	181.6970	12
Male Ss	225.0000	37.5000	13.9535	194.7000	6
Female Ss	239.0000	39.8333	14.2045	201.7667	6

Total cases = 72

Table 7

Three Way Analysis of Variance of Unfavorable Adjectives

Checked by Counselor Voice, Counselor Sex and Ss Sex

Source of Variation	Sum of Squares	Df	Mean Square	F	Signif. of F
Main Effects	3150.472	4	787.618	3.192	0.019*
Counselor Voice	2849.778	2	1424.889	5.775	0.005*
Counselor Sex	62.347	1	62.347	0.253	0.617
Ss Sex	238.347	1	238.347	0.966	0.330
*Significant F					
Multiple Classification Analysis					
Grand Mean = 51.90					
Variable + Category	N	Unadjusted Dev'n			
Voice					
V	24			-8.11	
III	24			0.89	
I	24			7.22	
Counselor Sex					
Male	36			0.93	
Female	36			-0.93	
Ss Sex					
Male	36			1.82	
Female	36			-1.82	

the largest number of unfavorable adjectives. Level V voice received the least number of unfavorable adjectives. See Table 8 for mean scores.

C. ACL Self-Confidence Scale

A three way analysis of variance was conducted to determine the effect of voice, counselor sex and Ss sex on the Self-Confidence Scale. Voice was the only main effect which showed significance ($p < .053$). See Table 9 for results. Mean scores for counselor voice levels suggested that Level I voice received a substantially lower score. Level III and Level V voice means showed little variation. See Table 10.

D. ACL Dominance Scale

A three way analysis of variance was conducted to determine significance of voice, counselor sex and Ss sex on the Dominance Scale. Voice was seen as significant ($p < .018$) and sex of counselor significant ($p < .018$). See Table 11. Mean scores for counselor voice levels suggested that Level I voice received a substantially lower score. Level III and Level V voice means showed little variation.

Mean scores for sex of counselor demonstrated that female counselors at all voice levels received higher scores on the Dominance Scale. See Table 12 for results.

E. ACL Abasement Scale

A three way analysis of variance was conducted to determine significance of voice, counselor sex and Ss sex on the Abasement

Table 8

Means and Standard Deviations of Unfavorable Adjectives
Checked by Counselor Voice, Counselor Sex and Ss Sex

Variable	Sum	Mean	Std Dev	Variance	N
For Entire Population	3737.0000	51.9028	17.0188	289.6383	72
Voice V					
Male Counselor	1051.0000	43.7917	5.9926	35.9112	24
Male Ss	512.0000	42.6667	6.4994	42.2424	12
Female Ss	247.0000	41.1667	3.0605	9.3667	6
	265.0000	44.1667	8.8412	78.1667	6
Female Counselor					
Male Ss	539.0000	44.9167	5.4848	30.0833	12
Female Ss	289.0000	48.1667	6.1779	38.1667	6
	250.0000	41.6667	1.6330	2.6667	6
Voice III					
Male Counselor	1267.0000	52.7917	18.1682	330.0851	24
Male Ss	575.0000	47.9167	19.5050	380.4470	12
Female Ss	294.0000	49.0000	28.0642	787.6000	6
	281.0000	46.8333	6.8240	46.5667	6
Female Counselor					
Male Ss	692.0000	57.6667	16.0586	257.8788	12
Female Ss	368.0000	61.3333	18.1292	328.6667	6
	324.0000	54.0000	14.3666	206.4000	6
Voice I					
Male Counselor	1419.0000	59.1250	20.1048	404.2011	24
Male Ss	815.0000	67.9167	21.6352	468.0833	12
Female Ss	417.0000	69.5000	24.9620	623.1000	6
	398.0000	66.3333	20.0167	400.6667	6
Female Counselor					
Male Ss	604.0000	50.3333	14.4369	208.4242	12
Female Ss	319.0000	53.1667	15.4197	237.7667	6
	285.0000	47.5000	14.1951	201.5000	6
Total cases = 72					

Table 9

Three Way Analysis of Variance of ACL Self-Confidence Scale
by Counselor Voice, Counselor Sex and Ss Sex

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	557.667	4	139.417	1.626	0.179
Counselor Voice	527.861	2	263.930	3.079	0.053*
Counselor Sex	1.681	1	1.681	0.020	0.889
Ss Sex	28.125	1	28.125	0.328	0.569
*Significant F					
Multiple Classification Analysis					
Grand Mean = 44.65					
Variable + Category	N		Unadjusted	Dev'n	
Voice					
V	24		2.43		
III	24		1.35		
I	24		-3.78		
Counselor Sex					
Male	36		0.15		
Female	36		-0.15		
Ss Sex					
Male	36		-0.63		
Female	36		0.63		

Table 10

Means and Standard Deviations of ACL Self-confidence Scale

by Counselor Voice, Counselor Sex and Ss Sex

Variable	Sum	Mean	Std Dev	Variance	N
For Entire Population	3215.0000	44.6528	9.1562	83.8355	72
Voice V	1130.0000	47.0833	10.0948	101.9058	24
Male Counselor	556.0000	46.3333	10.6458	113.3333	12
Male Ss	282.0000	47.0000	13.1301	172.4000	6
Female Ss	274.0000	45.6667	8.7101	75.8667	6
Female Counselor	574.0000	47.8333	9.9255	98.5152	12
Male Ss	278.0000	46.3333	9.7707	95.4667	6
Female Ss	296.0000	49.3333	10.7641	115.8667	6
Voice III	1104.0000	46.0000	8.8857	78.9565	24
Male Counselor	582.0000	48.5000	9.2883	86.2727	12
Male Ss	284.0000	47.3333	10.4817	109.8667	6
Female Ss	298.0000	49.6667	8.7560	76.6667	6
Female Counselor	522.0000	43.5000	8.0735	65.1818	12
Male Ss	263.0000	43.8333	10.3231	106.5667	6
Female Ss	259.0000	43.1667	6.0470	36.5667	6
Voice I	981.0000	40.8750	7.4151	54.9837	24
Male Counselor	475.0000	39.5833	6.5291	42.6288	12
Male Ss	230.0000	38.3333	6.1860	38.2667	6
Female Ss	245.0000	40.8333	7.1949	51.7667	6
Female Counselor	506.0000	42.1667	8.2884	68.6970	12
Male Ss	248.0000	41.3333	8.4301	71.0667	6
Females Ss	258.0000	43.0000	8.8544	78.4000	6

Total Cases = 72

Table 11

Three Way Analysis of Variance of ACL Dominance Scale
by Counselor Voice, Counselor Sex and Ss Sex

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	1890.333	4	472.583	4.553	0.003
Counselor Voice	1256.861	2	628.430	6.055	0.004*
Counselor Sex	618.347	1	618.347	5.957	0.018*
Ss Sex	15.125	1	15.125	0.146	0.704
*Significant F					
Multiple Classification Analysis					
Grand Mean = 45.90					
Variable + Category	N		Unadjusted Dev'n		
Voice					
V	24		3.18		
III	24		2.72		
I	24		-5.90		
Counselor Sex					
Male	36		-2.93		
Female	36		2.93		
Ss Sex					
Male	36		-0.46		
Female	36		0.46		

Table 12

Means and Standard Deviations of ACL Dominance Scale

with Counselor Voice, Counselor Sex and SS Sex

Variable	Sum	Mean	Std Dev	Variance	N
For Entire Population	3305.0000	45.9028	11.0850	122.8777	72
Voice V	1178.0000	49.0833	9.4681	89.6449	24
Male Counselor	572.0000	47.6667	9.2867	86.2424	12
Male Ss	292.0000	48.6667	11.7927	139.0667	6
Female Ss	280.0000	46.6667	6.9474	48.2667	6
Female Counselor	606.0000	50.5000	9.8396	96.8182	12
Male Ss	294.0000	49.0000	9.0111	81.2000	6
Female Ss	312.0000	52.0000	11.2428	126.4000	6
Voice III	1167.0000	48.6250	9.6900	93.8967	24
Male Counselor	571.0000	47.5833	9.9037	98.0833	12
Male Ss	291.0000	48.5000	11.0408	121.9000	6
Female Ss	280.0000	46.6667	9.5847	91.8667	6
Female Counselor	596.0000	49.6667	9.7918	95.8788	12
Male Ss	304.0000	50.6667	11.3783	129.4667	6
Female Ss	292.0000	48.6667	8.8919	79.0667	6
Voice I	960.0000	40.0000	11.8798	141.1304	24
Male Counselor	404.0000	33.6667	12.0101	144.2424	12
Male Ss	182.0000	30.3333	10.1915	103.8667	6
Female Ss	222.0000	37.0000	13.6675	186.8000	6
Female Counselor	556.0000	46.3333	7.9582	63.3333	12
Male Ss	273.0000	45.5000	6.5651	43.1000	6
Female Ss	283.0000	47.1667	9.7245	94.5667	6

Total cases = 72

Scale. Counselor voice was seen as significant ($p < .008$) and counselor sex was significant ($p < .053$). See Table 13. Comparison of means showed that Level I voices received the highest abasement score. Level III and Level V voice means showed little variation. See Table 14 for mean scores results.

Analysis of mean scores for counselor sex revealed that male counselors received higher abasement scores for Level III and Level V voices. See Table 14.

Hypothesis 3

A three way analysis of variance was conducted to determine significance of voice, counselor sex and Ss sex on the Warmth Scale. Voice showed significance ($p < .002$). See Table 15. Analysis of the mean scores showed that Level V voice received the highest scores. Both Level III and Level I voices were below the Grand Mean score. See Table 16 for results.

Hypothesis 4

A three way analysis of variance was conducted to determine significance of voice, counselor sex and Ss sex on the Genuineness Scale. Only voice was significant ($p < .000$). See Table 17. Analysis of mean scores showed that Level V voices received the highest scores. Both Level III and Level I voices scored below the Grand Mean. See Table 18 for results.

Table 13

Three Way Analysis of Variance of ACL Abasement Scale
by Counselor Voice, Counselor Sex and Ss Sex

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	1238.389	4	309.597	3.600	0.011
Counselor Voice	904.361	2	452.180	5.258	0.008*
Counselor Sex	333.680	1	333.680	3.880	0.053*
Ss Sex	0.347	1	0.347	0.004	0.950
*Significant F					
Multiple Classification Analysis					
Grand Mean = 46.90					
Variable + Category	N		Unadjusted Dev'n		
Voice					
V	24		-1.32		
III	24		-3.53		
I	24		4.85		
Counselor Sex					
Male	36		2.15		
Female	36		-2.15		
Ss Sex					
Male	36		0.07		
Female	36		-0.07		

Table 14

Means and Standard Deviations of ACL Abasement Scale
by Counselor Voice, Counselor Sex and Ss Sex

Variable	Sum	Mean	Std Dev	Variance	N
For Entire Population	3377.0000	46.9028	9.9409	98.8214	72
Voice V	1094.0000	45.5833	7.3421	53.9058	24
Male Counselor	544.0000	45.3333	7.4386	55.3333	12
Male Ss	278.0000	46.3333	5.9217	35.0667	6
Female Ss	266.0000	44.3333	9.1797	84.2667	6
Female Counselor	550.0000	45.8333	7.5659	57.2424	12
Male Ss	276.0000	46.0000	9.1214	83.2000	6
Female Ss	274.0000	45.6667	6.5320	42.6667	6
Voice III	1041.0000	43.3750	9.2634	85.8098	24
Male Counselor	531.0000	44.2500	8.7399	76.3864	12
Male Ss	270.0000	45.0000	9.6540	93.2000	6
Female Ss	261.0000	43.5000	8.5732	73.5000	6
Female Counselor	510.0000	42.5000	10.0680	101.3636	12
Male Ss	262.0000	43.6667	9.5429	91.0667	6
Female Ss	248.0000	41.3333	11.3431	128.6667	6
Voice I	1242.0000	51.7500	11.2259	126.0217	24
Male Counselor	691.0000	57.5833	11.9046	141.7197	12
Male Ss	330.0000	55.0000	13.8996	193.2000	6
Female Ss	361.0000	60.1667	10.1275	102.5667	6
Female Counselor	551.0000	45.9167	6.8948	47.5379	12
Male Ss	275.0000	45.8333	4.8751	23.7667	6
Female Ss	276.0000	46.0000	8.9889	80.8000	6

Total Cases = 72

Table 15

Three Way Analysis of Variance of Warmth Scale
by Counselor Voice, Counselor Sex and Ss Sex

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	636.055	4	159.014	4.556	0.003
Counselor Voice	498.583	2	249.292	7.142	0.002*
Counselor Sex	82.347	1	82.347	2.359	0.130
Ss Sex	55.125	1	55.125	1.579	0.214

*Significant F

Multiple Classification Analysis

Grand Mean = 23.79

Variable + Category	N	Unadjusted Dev'n
Voice		
V	24	3.71
III	24	-1.58
I	24	-2.13
Counselor Sex		
Male	36	-1.07
Female	36	1.07
Ss Sex		
Male	36	-0.88
Female	36	0.88

Table 16

Means and Standard Deviations of Warmth Scale
by Counselor Voice, Counselor Sex and Ss Sex

Variable	Sum	Mean	Std Dev	Variance	N
For Entire Population	171.30000	2.37917	.65798	4.32940	72
Voice V	66.00000	2.75000	.70711	5.00000	24
Male Counselor	33.00000	2.75000	.58387	3.40909	12
Male Ss	17.00000	2.83333	.51640	2.66667	6
Female Ss	16.00000	2.66667	.68313	4.66667	6
Female Counselor	33.00000	2.75000	.83937	7.04545	12
Male Ss	14.00000	2.33333	.68313	4.66667	6
Female Ss	19.00000	3.16667	.81650	6.66667	6
Voice III	53.30000	2.22083	.48542	2.35634	24
Male Counselor	26.30000	2.19167	.38720	1.49924	12
Male Ss	13.50000	2.25000	.41833	1.75000	6
Female Ss	12.80000	2.13333	.38297	1.46667	6
Female Counselor	27.00000	2.25000	.58387	3.40909	12
Male Ss	13.50000	2.25000	.61237	3.75000	6
Female Ss	13.50000	2.25000	.61237	3.75000	6
Voice I	52.00000	2.16667	.61972	3.84058	24
Male Counselor	22.50000	1.87500	.22613	.51136	12
Male Ss	11.00000	1.83333	.25820	.66667	6
Female Ss	11.50000	1.91667	.20412	.41667	6
Female Counselor	29.50000	2.45833	.75252	5.66288	12
Male Ss	13.50000	2.25000	.61237	3.75000	6
Female Ss	16.00000	2.66667	.87560	7.66667	6

Total Cases = 72

Table 17

Three Way Analysis of Variance of Genuineness Scale
by Counselor Voice, Counselor Sex and Ss Sex

Source of Variation	Sum of Squares	Df	Mean Square	F	Signif of F
Main Effects	796.528	4	199.132	4.860	0.002*
Counselor Voice	727.083	2	363.542	8.873	0.000*
Counselor Sex	68.056	1	68.056	1.661	0.202
Ss Sex	1.389	1	1.389	0.034	0.855
*Significant F					
Multiple Classification Analysis					
Grand Mean = 26.25					
Variable + Category	N	Unadjusted Dev'n			
Voice					
V	24		4.17		
III	24		-0.63		
I	24		-3.54		
Counselor Sex					
Male	36		-0.97		
Female	36		0.97		
Ss Sex					
Male	36		-0.14		
Female	36		0.14		

Means and Standard Deviations of Genuineness Scale

of Counselor Voice, Counselor Sex and Ss Sex

Variable	Sum	Mean	Std Dev	Variance	N
For Entire Population	189.00000	2.62500	.73518	5.40493	72
Voice V	73.00000	3.04167	.64127	4.11232	24
Male Counselor	35.50000	2.95833	.58225	3.39015	12
Male Ss	18.50000	3.08333	.58452	3.41667	6
Female Ss	17.00000	2.83333	.60553	3.66667	6
Female Counselor	37.50000	3.12500	.71111	5.05682	12
Male Ss	16.00000	2.66667	.40825	1.66667	6
Female Ss	21.50000	3.68333	.66458	4.41667	6
Voice III	61.50000	2.56250	.74180	5.50272	24
Male Counselor	32.00000	2.66667	.68534	4.69697	12
Male Ss	17.00000	2.83333	.87560	7.66667	6
Female Ss	15.00000	2.50000	.44721	2.00000	6
Female Counselor	29.50000	2.45833	.81068	6.57197	12
Male Ss	15.50000	2.58333	.97040	9.41667	6
Female Ss	14.00000	2.33333	.68313	4.66667	6
Voice I	54.50000	2.27083	.62518	3.90851	24
Male Counselor	23.50000	1.95833	.49810	2.48105	12
Male Ss	12.50000	2.08333	.58452	3.41667	6
Female Ss	11.00000	1.83333	.40825	1.66667	6
Female Counselor	31.00000	2.58333	.59671	3.56061	12
Male Ss	14.50000	2.41667	.58452	3.41667	6
Female Ss	16.50000	2.75000	.61237	3.75000	6

Total Cases = 72

Table 18

Chapter 5

Introduction

The study evaluated the effects of counselor voice quality on self-disclosure levels, ACL Subscale ratings, and Warmth and Genuineness Scales.

Of 72 Ss who came to view a movie on values, the first 36 males and the first 36 females were asked to participate in the study. The first six males and the first six females on the roster were assigned to group one; the second six males and six females were assigned to group two until six groups were completed with six males and six females in each group.

Instrumentation included the 40-item JSDQ, rated on Panyard's 6-point modification scale, the ACL (from which selected subscales were drawn), the Warmth Scale and the Genuineness Scale by Carkhuff with Gazda's 4-point revision.

Treatment consisted of three male voices (Level I, III, V) and three female voices (Level I, III, V) varying in qualities such as nasality, denasality, tempo, and articulation. These voices were ranked by speech pathologists and validated by college students. Each read the same four minute excerpt of a typical counseling response.

The research design was a randomized block design, three levels of voice quality by sex of counselor by sex of client.

Each Ss was asked to fill out the 40-item JSDQ indicating the amount they had self-disclosed in the past. They then listened to the counselor's voice via a tape recording. Following

the recording, they were asked to retake the JSDQ indicating the amount they would self-disclose to the voice they heard. Next, they chose the adjectives on the ACL which they thought described the counselor and then rated the counselor on the Warmth and Genuineness Scales.

Conclusions

Hypothesis 1

A good voiced counselor (Level V) male or female received equally high levels of self-disclosure with the level of self-disclosure being significantly higher than at either Level I or Level III voices. Level I and Level III voices showing no significant differences in self-disclosure scores suggested that little distinction was made by Ss between the lower quality voice levels.

However, at all levels of voice quality, female counselors elicited significantly higher ratings of self-disclosure than male counselors. A Level I female voice will do better than a Level I male with the same being true for Level III voices.

Level V voices showed the same trend, but with much less difference in scores. Ss feel more willingness to reveal personal data to female counselors, especially if the comparison is between medium or low voices. This phenomenon raises the question of stereotyping females in the role of "mothers" who may be seen as nurturing and accepting. It further hints at the concept of the male being seen more in the role of an

authoritarian/punishing figure and hence not receptive to self-disclosure.

Male Ss self-disclosed at higher levels than females. This is in contradiction to existing research which has found that females have self-disclosed more or that neither sex showed varying levels of self-disclosure (Jourard, 1961; Janofsky, 1970).

Perhaps male's educational level had a bearing on enhanced self-disclosure. The population itself may have been a variable which may set the Ss apart from other research subjects. It also might be an indicator of the cultural trends where dealing with feelings and talking about "self" is more acceptable for males than when previous studies were conducted.

Hypothesis 2

A. ACL Favorable Adjectives Checked

Female counselors received more favorable adjectives than male counselors at all voice levels. This may coincide with higher self-disclosure levels for female counselors, suggesting that Ss disclose more because they see females more favorably. This supports data by Jourard and Landsman (1969) indicating conditions that enhance self-disclosure. It raises the question, however, as to why females are seen in such a manner.

It is interesting to note, for all ACL scales used, that Ss are attributing specific personality characteristics to voices heard. This implies mental images are being formed with very specific characteristics named. Such speculative concern

leads to an array of research possibilities between voice and inter-personal attraction and between Ss characteristics and those attributed to voices heard.

B. ACL Unfavorable Adjectives Checked

Level I voices received the highest number of unfavorable adjectives with Level V voices receiving the least number. The best voice is seen as most favorable. This further validates mounting evidence which suggests self-disclosure is given to those counselors seen most favorable.

C. ACL Self-Confidence Scale

Level V voice was given the lowest score with Level III and Level V voices showing little variation in scores. Poor voices are seen as lacking in self-confidence while medium and good voices show higher levels on this scale. Self-confidence appears to be an attribute which contributes to the level of self-disclosure. Research by Gerard (1972) is substantiated by these findings.

D. ACL Dominance Scale

Level I voices received much lower scores on dominance than either Level III or Level V voices. Level III and Level V voices showed little variation in scores. Medium and good voices were seen as dominant while low voices were not. Dominance appears to be an attribute which contributes to the level of self-disclosure. Once again, Gerard's (1972) research was substantiated.

E. ACL Abasement Scale

Level I voices showed significantly higher abasement scores with Level III and Level V voices showing little variation. Results indicate that those voices receiving higher abasement scores will, at the same time, receive far less self-disclosure from Ss. Ss appear to be assigning attributes to the voices and, as Gerard (1972) suggested may consider a counselor to be good based on the self-confidence attributes.

Hypothesis 3

Warmth proved to be an attribute designated only to the Level V voices with neither Ss sex or counselor sex having any influence on the results. This says that a good voice is seen as warm, and it can be implied that warmth may be a characteristic which elicits higher levels of self-disclosure. This validated research by Carkhuff (1967) and Taylor et al., (1969).

Hypothesis 4

Level V voices, regardless of Ss sex or counselor sex, received significantly higher levels of genuineness ratings. This further validates Carkhuff's (1967) research on the necessary ingredients in counselor effectiveness, especially in light of significantly high self-disclosure ratings received by the Level V voices. It also substantiates Dillon's (1972) research on the effectiveness of genuineness of hotline counselors. The good voice will be seen as more genuine and this apparently contributes to heightened self-disclosure.

Limitations

The population was a select, homogeneous group; therefore, generalizations can not be made. Because the subjects were not in a crisis situation, it is not possible to generalize how crisis clients would respond over a hotline to differing voice qualities.

The predicted or willingness to self-disclose may not, when placed in a real counseling situation, be at the estimated level.

The ACL subscales have questionable reliability especially with the small sample used.

Warmth and Genuineness Scales may not be valid as Ss were not trained in their use prior to the experiment.

Research

Further research might be conducted to determine if a generalization about "good" voices could be made. This would entail larger numbers of good voices being used in an experiment.

Level Y male and female voices, using a randomized block design of voice by sex of counselor by sex of client should be evaluated using the same instrumentation and population as in the research study.

Good voices with different accents, dialects, and from different areas could also be studied in view of their impact on self-disclosure. Voices varying in quality attributes, but still rated at the same voice level, should be studied to

determine if all voices within that level are viewed the same way.

Enhanced level of self-disclosure for female counselors needs to be verified through additional study as well as the attributes assigned to females. It also would be interesting to determine if this phenomenon remained in face-to-face situations as well as via voice alone for both males and females.

The contradictory findings in this study concerning higher self-disclosure measures for males certainly needs further investigation. Male Ss from different parts of the country as well as different age groups and educational status need to be studied to determine if all self-disclose at the same level as noted in this research. Males and females should be compared at differing levels of age, education, and occupation. College students as well as blue collar workers could be compared using the same randomized block design of voice quality by counselor sex by Ss sex with the same instrumentation as in the present study.

Research also needs to be conducted to determine if predicted self-disclosure behavior would, in an actual telephone counseling situation, be at the estimated level.

The ACL Subscales need further validation not only with larger numbers of Ss involved but also in terms of validation. Because its reliability is in question, cross validation with other more reliable measures should be considered where possible.

Research also might be conducted to determine which characteristics in a voice are viewed as warm and genuine. Are all

Level V voices viewed as warm and genuine? Is it possible for a lower level voice to achieve a warm tone? Will these qualities of warmth and genuineness always cause higher levels of self-disclosure regardless of level of voice? These are speculations for additional research.

Artificial inducement of stress of Ss would give a more accurate approximation of how individuals calling a crisis line would react to the varying levels of voice. Different levels of stress could also be induced to determine the effect it has on self-disclosure and the attributes assigned to the counselor.

General Implications and Summary

Self-disclosure theory indicates that loneliness, isolation, emotional problems are reduced through self-disclosure. Further, good mental health comes as a result of being able to self-disclose to another person. This suggests that when a person is distressed by any of these factors he/she may choose a hotline as a method of reducing his personal crisis. Crisis theory states that the need to help the individual work through this stress is imperative, with self-disclosure being the way to success. The theory that success depends on establishing contact within four minutes suggests that voice is the key variable.

It has been shown that four minutes is a sufficient time period to make definite opinions about the voice heard. Further, good level voices are proving to be a necessary ingredient to effective self-disclosure. Recruitment techniques for crisis

lines should consider including voice evaluation of prospective volunteers. The fact that the females received higher levels of self-disclosure also suggests that recruitment be aimed with females in mind.

Utilizing testing devices which tap into the attributes of self-confidence, dominance and abasement might also be a valuable selection tool.

This research has attempted to demonstrate the impact voice quality has on levels of Ss self-disclosure as well as the attributes attached to voices. It is hoped that these results, which have raised more questions than answers, will generate interest and further study into an area too long neglected.

Appendix I

Terms Used in Voice Analysis

The terms which may be used in criticism of voice are listed in outline form for easy reference:

A. Loudness of voice

1. Too loud means your loudness is excessive for the situation and space. It may interfere with intelligibility, be annoying, or even be painful to the listener's ears.
2. Too soft means your voice is not loud enough. It may be difficult to hear or even inaudible.
3. Fading normally means a noticeable drop in loudness toward the ends of sentences, though the fade could occur at any point. When the voice fades, speech becomes unintelligible.

B. Quality of voice

1. Harsh quality sounds hard, low-pitched, strained, flat. It suggests a personality which is unsympathetic, aggressive, overbearing, cold.
2. Hoarse quality has the sound of strained or gargling breathiness - as if the speaker has laryngitis, or the production of voice is painful and difficult.
3. Breathy quality sounds like breath escaping with the tone, as if the speaker were half-whispering. It sometimes suggests a sultry or over-relaxed type of personality, or person who is out of breath from running.

4. Nasal quality has a whining, honking sound. It may sound complaining, or like some of the singing of "country" music.
5. Denasal quality is a stuffy-nose sound. It sounds cottony and dull. Comedians use this voice in impersonating a "punchy" fighter or a child with enlarged adenoids.

C. Pitch

1. Too-low or too-high modal pitch. Modal (moe-d'1) pitch is the pitch you use most often, except for strongly emphasized words or at the ends of sentences.
2. Narrow range refers to the extent of pitch change used to reinforce meanings.
3. Monotone, which is actually quite rare, is an extreme manifestation of narrow range. It means literally that your pitch never changes, that it stays at modal pitch all the time.
4. Stereotyped intonations are monotonously repeated patterns of pitch change which are not related to and fail to reinforce meanings. Starting each sentence on a high pitch and drifting downward in pitch during the sentence is stereotyped intonation. So is ending each sentence (even positive statements) on rising pitch. Though your emphasis on important words may be quite good in other respects, unless your pitch changes reinforce your

meanings, your intonations are stereotyped.

D. Rate

1. Poor phrasing means that you do not properly group your words into units of thought.
2. Hesitancies include vocalized pauses (er or ah) or the repetition of one or more syllables at the beginning of a new phrase.

Appendix II

Self-Disclosure Questionnaire

Introduction

People differ in the extent to which they let other people know them. We are seeking to investigate how much people tell others about themselves. Some of the things about yourself you will regard as more personal and private than others; people differ widely in what they consider appropriate to let others know, and what they consider is nobody's business but their own.

Instructions

Below is a list of topics that pertain to you. You have also been given a special answer sheet. We want you to indicate on the answer sheet the degree to which you have let people in your life know this information about you. Would you indicate on the answer sheet the extent to which you have let any significant person(s) know these important facts about yourself.

Circle the number that best describes you for each item.

1. Have lied or misrepresented myself.
2. Have disclosed nothing about this aspect of myself.
3. Have talked very little about this area.
4. Have talked in general terms about this aspect of myself.
5. Have disclosed quite a bit about this area.
6. Have disclosed fully on this topic.

-
1. What you dislike about your overall appearance.
 2. The things about your appearance that you like most, or are

- proudest of.
3. Your chief health concern, worry, or problem, at the present time.
 4. Your favorite spare-time hobbies or interests.
 5. Your food dislikes at present.
 6. Your religious activity at present - whether or not you go to church; which one; how often.
 7. Your personal religious views.
 8. Your favorite reading materials - kinds of magazines, books, or papers you read.
 9. What particularly annoys you most about your closest friend of the opposite sex or (if married) your spouse.
 10. Whether or not you have sex problems, and the nature of these problems.
 11. An accurate knowledge of your sex life up to the present, e.g., the names of your sex partners in the past and present, if any; your ways of getting sexual gratification.
 12. Things about your own personality that worry you or annoy you.
 13. The chief pressures and strains in your daily work.
 14. Things about the future that you worry about at present.
 15. What you are most sensitive about.
 16. What you feel the guiltiest about, or most ashamed of in your past.
 17. Your views about what is acceptable sex morality for people to follow.

18. The kinds of music you enjoy listening to the most.
19. The subjects you did not, or do not like at school
20. Whether or not you do anything special to maintain or improve your appearance, e.g., diet, exercise, etc.
21. The kind of behavior in others that most annoys you, or makes you furious.
22. The characteristics of your father that you do not like or did not like.
23. Characteristics of your mother that you do not like, or did not like.
24. Your most frequent daydream - what you daydream about most.
25. The feelings you have the most trouble controlling, e.g., worry, depression, anger, jealousy, etc.
26. The biggest disappointment that you have had in your life.
27. How you feel about your choice of life work.
28. What you regard as your chief handicaps to doing a better job in your work or studies.
29. Your views on the segregation of whites and Negroes.
30. Your thoughts and feelings about other religious groups than your own.
31. Your strongest ambition at the present time.
32. Whether or not you have planned some major decision in the near future, e.g., a new job, break engagement, get married, divorce, buy something big.
32. Your favorite jokes - the kind of jokes you like to hear.

34. Whether or not you have savings; if so, the amount.
35. The possessions you are proudest of, and take greatest care of, e.g., your car, or musical instrument, or furniture, etc.
36. How you usually sleep, e.g., well, or poorly, or with drugs.
37. Your favorite television programs.
38. Your favorite comics.
39. The groups or clubs or organizations you belong to, e.g., fraternity, lodge, bridge club, YMCA, professional organization, etc.
40. The beverages you do not like to drink, e.g., coffee, tea, coke, beer, liquor, etc., and your preferred beverages.

Appendix III

Genuineness Scale

1.0	A response which the helper attempts to hide his feelings or uses them to punish the helpee.	1.5	The helper responds according to some preconceived role. His responses are congruent with the role he is taking but are incongruent with his true feelings.	2.0	2.5	3.0	3.5	4.0
			A controlled expression of feelings which facilitates the development of the relationship. The helper refrains from expressing feelings which could impede the development of the relationship.					A response in which the helper's verbal and non-verbal messages, whether they be positive or negative, are congruent with how he feels. These feelings are communicated in a way that strengthens the relationship.

KEY WORDS - Genuineness

- Level 4 - Genuine/honest
- Level 3 - Controlled expression
- Level 2 - role-played
- Level 1 - phony, punishing

Appendix IV

Warmth Scale	
1.0	The helper appears disinterested
1.5	
2.0	Expressions are absent or neutral; voice sounds mechanical or rehearsed.
2.5	
3.0	Shows attention and interest clearly.
3.5	
4.0	The helper is wholly and intently attentive to the interaction, resulting in the helpee's feeling complete acceptance and significance.

KEY WORDS - Warmth Scale

- Level 4 - intense nonverbal communication
- Level 3 - clear nonverbal responses
- Level 2 - gestures absent or neutral, voice sounds mechanical
- Level 1 - disapproving or disinterested

Appendix V

Counselor's Taped Response

You are very concerned about what will happen to your relationship with your family once you begin to change and become more of an adult. I think it is important for you to understand the stages that your family will go through as you begin to break your old patterns of behavior.

Whenever change occurs in a relationship, the member who is being forced to change will go through a loss process. This process has three basic stages before full acceptance occurs. As these stages begin, you must be aware of what is happening so that you will not be caught into reacting in an old established manner.

As you begin to relate to your family as an adult, the first stage is denial. Your family will deny that you are not your "old self." You will hear phrases such as, "I just don't know what has come over you." They will attempt to get you to react in the way or manner with which they are accustomed. They will deny that you really mean what you say - excuses will be made, such as, "You just don't feel well," or "when this stressful period is over, you'll be your old self." These statements tend to produce guilt. Don't let this happen. Remember you like what you are becoming.

In the second stage, the family will try bargaining. They'll bargain with you, God, family members in order to get you to change

back into the person you once were. Statements, such as, "If you will behave, I'll give you what you want, " or, "If you don't shape up, I'll withhold my love from you." Or even more severe, "If you continue to act this way, I'll just have to get someone to talk some sense into you." Again, don't give in, you have too much to gain by sticking to what you believe and the way you want to be. Remember to remain calm and assertive in your new behaviors.

The third stage will be acceptance through depression or acceptance but with some physical difficulties. The family member or members will outwardly act like they accept the new you but will heave sighs when dealing with you or develop physical symptoms because they are having difficulty accepting your actions. This is another time you might be prone to feel guilty. But it is crucial that you realize that those sighs and/or pains are of their own making and that they own that problem. You cannot do anything about it - only they can change that. Don't let their problem become your problem or you will find yourself back at the first stage.

You must be very careful not to give in at any stage or you'll have lost any ground you have gained. Once you have progressed through all three stages with them, they'll begin to accept you as a peer and treat you as an adult rather than the child they are accustomed to.

It is very difficult to break longstanding patterns of

relating to others, but you are intelligent with a lot of awareness, and I know you can accomplish your goal. Also remember, that once the goal is accomplished, your relationship with them will be better than ever. All of you will have grown as people and will have established totally new and healthy patterns of interacting.

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Abstract

The study evaluated the effects of counselor voice quality on self-disclosure levels, ACL Subscale ratings, and Warmth and Genuineness Scales.

Of 72 Ss who came to view a movie on values, the first 36 females and the first 36 males were asked to participate in the study. The first six males and the first six females on the roster were assigned to group one; the second six males and six females were assigned to group two until six groups were completed.

Instrumentation included the 40-item JSDQ rated on Panyard's 6-point Modification Scale, the ACL (from which selected subscales were drawn), the Warmth Scale and the Genuineness Scale by Carkhuff with Gazda's 4-point revision.

Treatment consisted of three male voices (Level I, III, V) and three female voices (Level I, III, V) varying in qualities such as nasality, denasality, tempo, and articulation. These voices were ranked by speech pathologists and validated by college students. Each read the same four minute excerpt of a typical counseling response.

The research design was a randomized block design, three levels of voice quality by sex of counselor and sex of client.

Each Ss filled out the 40-item JSDQ indicating the amount they self-disclosed in the past. They then listened to a counselor's voice via a tape recording. After listening, they were asked to retake the JSDQ indicating the amount they would self-disclose to the voice they heard. Next, they chose the adjectives

on the ACL which they thought described the counselor and then rated the counselor on the Warmth and Genuineness Scales.

A three way analysis of variance and analysis of co-variance, using a SPSS package, were conducted.

Results showed that Ss self-disclosure level was significantly higher for Level V voices than either Level I or Level III voices. Female counselor voices elicited significantly higher ratings of self-disclosure than male counselors at all voice levels. Male Ss self-disclosed at higher levels than females.

Female voiced counselors received more ACL favorable adjectives than males at all voice levels. Level I voices received the highest ACL unfavorable adjectives with Level V voice receiving the least number. Level I voices received significantly less ACL self-confidence scores and dominance scores with voice Levels III and V showing little variation in scores. Level I voice received significantly higher ACL abasement scores with Level III and V voices showing little variation.

High warmth and genuineness scores were attributed to Level V voices only.

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