The effects of nonverbal warm-up exercises upon group counseling effectiveness with adolescent groups

Charles Grayson Guyer II

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THE EFFECTS OF NONVERBAL WARM-UP EXERCISES
UPON GROUP COUNSELING EFFECTIVENESS WITH
ADOLESCENT GROUPS.

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

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THE EFFECTS OF NONVERBAL WARM-UP EXERCISES
UPON GROUP COUNSELING EFFECTIVENESS
WITH ADOLESCENT GROUPS

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

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

by
Charles G. Guyer II
May 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.

Accepted May 1978 by

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Acknowledgments

I should like first to acknowledge the Invaluable help of Ms. Rosemary Thompson, who facilitated both counseling groups, and who aided in securing the high school students used as subjects in this study. Her expenditure of effort and time aided greatly in the success of this project.

I wish to express my appreciation to Dr. Art Butter, Director of the Chesapeake City Schools' pupil personnel services, for his aid in clearing the way administratively, for his support, and for his friendship through the months of preparation and implementation of this study.

Very special thanks must go to Ms. Helen Simons and Ms. Nancy Allison who gave so freely of their time and energy in viewing and rating the video tapes implemented in this study.

Last but not least, I am indebted to Dr. Charles Matthews and to Dr. Kevin Geoffroy, Doctoral Committee members, whose insight and suggestions added much strength to my research. I am also indebted to Dr. Curtis O'Shell, Doctoral Committee Chairman, for his continued support and encouragement, not only in this project but throughout my doctoral studies.
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THE EFFECTS OF NONVERBAL WARM-UP EXERCISES
UPON GROUP COUNSELING EFFECTIVENESS
WITH ADOLESCENT GROUPS
Chapter 1

Introduction

All theories and styles of psychotherapy and counseling have as their final goal to change behavior and feelings in the client, particularly about himself. Since Moreno first introduced the term "group therapy" in 1920, the notion of implementing counseling and therapy in a group setting has become an established practice. This can be seen easily just by glancing over the voluminous works which deal with group counseling and psychotherapy. The importance of self-disclosure in effecting the changes in behavior and feelings has long been recognized (Butler, 1977). Yalom (1975) finds that the group setting enhances this self-disclosure by allowing for interpersonal contact. Many group counselors and therapists (Bates & Johnson, 1972; Fagan & Shephard, 1970, James & Jongword, 1971; Morris & Cinnamon, 1975; Perls, 1969; Vemy, 1974) feel that group counseling and therapy can be enhanced by the use of certain nonverbal experiences. Therapists have, over the past few years, outlined therapeutic approaches for groups which emphasize nonverbal communication. An example is the Gestalt approach of Perls (1969). This approach emphasizes minute body movements and gestures (e.g., tapping foot, clinched fist, et cetera). Vemy (1974) acknowledges many of the numerous suggestions as to how nonverbal exercises and nonverbal cues may aid the group therapist in his direction of the group process. The use of nonverbal exercises is steadily working its way into group
treatment as a standard approach. It is assumed that empathy can be more effectively communicated nonverbally, thus facilitating self-disclosure and support for group members (Bowers, Banquer, & Bloomfield, 1973). Some researchers and therapists suggest that more proof is needed to gauge the success of nonverbal group exercises on increased empathy and behavior changes (Haase & Tepper, 1972; Hill, 1971). Currently, there is an overall paucity of experimental research on the topic of nonverbal group exercises and their effect on behavior and psychological change in group participants.

Statement of the Problem

The purpose of the present study is to investigate certain parameters of nonverbal exercises in group settings when compared with a purely verbal group setting. The two groups are drawn from a "normal" population of adolescents. The groups are both facilitated by the use of the extensional group counseling approach. Both groups are guided by the same group counselor. The only difference in the treatment of the two groups is that in one nonverbal exercises are utilized, while in the other they are not. The present study attempts to answer two major questions. The first question is: Do nonverbal group exercises effect changes in the behavior of group members toward each other in the group setting? The second question is: Do the nonverbal group exercises effect change in the group members' feelings, particularly toward themselves?

All groups are assessed for changes in feelings about others and themselves via the Tennessee Self Concept Scale (TSCS). A pilot
study was carried out which suggested specific changes do occur on the TSCS in group members participating in groups where nonverbal exercises are implemented. The groups are assessed for changes in behavior toward fellow group members by measuring body lean and body openness of each member. The Hill Interaction Matrix (HIM) is used to ascertain the level of verbal interaction in each group.

**Hypotheses**

For the purpose of the research, the following hypotheses are formulated. The specific hypotheses which follow were suggested by the results of a previous pilot study.

**Hypothesis 1**

There will be a significant positive change in self-concept as measured by the TSCS in the group implementing nonverbal techniques when compared with the group implementing verbal techniques. The following specific changes on at least one of the TSCS scales were suggested by a previous pilot study: total positive scale, physical self scale, moral-ethical scale, family-self scale, social-self scale, or psychosis scale.

**Hypothesis 2**

There will be a significant positive change in amount of forward body lean, as defined in this paper, in groups where nonverbal exercises are used when compared to groups implementing verbal exercises.

**Hypothesis 3**

There will be a significant positive change in the amount of
body openness in group members of the group utilizing nonverbal exercises when compared to the group implementing verbal exercises.

**Hypothesis**

There will be a significantly higher level of interpersonal interaction on the Hill Interaction Matrix in the group implementing nonverbal exercises when compared to the group implementing verbal exercises.

**Theory**

There are many theorized causes for interpersonal and intrapersonal changes which occur in group settings. The most concise list of factors involved in changing emotionality and behavior is offered by Yalom (1975). The following 11 factors are outlined by Yalom:

1. **Instilling hope.** Yalom feels this is crucial to all counseling and therapeutic endeavors. This, he states, is required to keep the person in the therapeutic setting so that curative factors may take effect.

2. **Universality.** The disconfirmation of the group members' feelings of uniqueness may act as a powerful source of relief.

3. **Imparting of information.** Direct instruction is given about mental health, mental illness, and general psychodynamics by the therapists, as well as advice, suggestions, or direct guidance about life problems offered either by the therapists or other group members.

4. **Altruism.** In therapy groups and growth groups, persons receive through giving, not only as part of the reciprocal giving--
receiving sequence, but also from the intrinsic act of giving. Many persons entering groups, particularly psychiatric groups, are demoralized and possess a deep sense of having nothing of value to offer others. They have long considered themselves as burdens and it is a refreshing, self-esteem-boosting experience to find they can be of importance to others.

5. **The corrective recapitulation of the primary family group.** Every person enters a group with a history of experiences, many of them unsatisfactory in their first and most important group—their primary family. The group resembles a family in many aspects, and many groups are led by a male-female co-therapy team in a deliberate effort to simulate the parental configuration more closely. This allows members to work through problems they experienced in the original family.

6. **Development of socializing techniques.** Social learning for individuals lacking intimate relationships is a major aspect of group therapy.

7. **Imitative behavior.** It has long been accepted that persons undergoing psychotherapy and counseling will begin to take on certain behaviors exhibited by the therapist. In groups, this imitative process is more diffuse since group members model themselves upon aspects of the other group members as well as the therapist.

8. **Interpersonal learning.** This, Yalom defines as the broad and complex factor representing the group therapy analogue of such individual therapy factors as insight, working through transference, the corrective emotional experience, as well as processes unique to
the group setting. This is accomplished through interpersonal feedback from the various group members.

9. Group cohesiveness. This is seen by Yalom as the analogue of "relationship" in individual therapy. This is the "We-ness" of the group.

10. Catharsis. This is the venting of feelings.

11. Existential factors. Yalom lists five existential factors. These are recognizing: (a) that life is at times unfair and unjust; (b) that ultimately there is no escape from some of the pain of life and from death; (c) that no matter how close one gets to other people, one still faces life alone, (d) that one should face the basic issues of life and death, and thus live life more honestly and be less caught up in trivialities; and (e) that one must take ultimate responsibility for the way he lives his life no matter how much guidance and support he gets from others.

Yalom (1975) suggests that through the use of available nonverbal data, the factors in group treatment can be expedited and enhanced. He recommends the therapist teach the group members to use nonverbal behavior in expressing themselves, and that they be trained to use nonverbal behavior in interpreting what others are communicat- ing. Yalom feels that this can hasten the process of self-exploration.

Jourard (1968) asserts that extensive self-disclosure is an essential ingredient for successful counseling and therapy. Friedman, Ellenhorn, and Snortum (1976) offer research to indicate that the use of nonverbal exercises in group therapy and counseling increases the amount of self-disclosure of group members.
Rankin (1975) offers evidence that groups with nonverbal exercises as part of the treatment format allow group members to become more pleased with their body image than do groups which do not incorporate nonverbal exercises. Delaney and Heimann (1966) succinctly state the basic theory of this research when they state that "counseling is a communicative process in which both verbal and nonverbal behavior are involved [p. 436]." A person must take full advantage of both of these modes of communication to have optimum impact upon the group members.

**Limits of This Study**

A limitation inherent in the methodology of this study is the utilization of only adolescents as the subject population. Also, nonverbal communication theory postulates a difference in nonverbal behavior and interaction between normal populations and psychiatric populations. This study is restricted to the investigation of nonverbal exercises in groups of normals only. There is also the assumption that nonverbal interaction varies from culture to culture (E. T. Hall, 1966). This study is limited to the culture of the United States as it exists in Chesapeake, Virginia, in the year 1977.

There is a trend for authors in the area of nonverbal communication to generalize their findings broadly. Indeed, the implicit, at times explicit, assumptions that nonverbal behavior and communication are inherently important to the therapeutic interaction are prevalent in the literature. There has been no suggestion, until recently, that this is an assumption which needs to be examined through research efforts which clearly and responsibly state the
relationship between the effectiveness of a counseling or therapy group in achieving its goals and the use of nonverbal communication techniques in the group.

**Definition of Terms**

**Body Openness**

Body openness is rated for each member of both groups, and is defined as the amount of time each group member spends with arms and legs not crossed in front of the body while in a sitting position in the group.

**Extensional Group**

An extensional group is defined as a group which works toward extending the life space of its members by extending the capabilities of those members who may overtly be functioning at a satisfactory level. The assumption of the extensional group is that people can get "better," and that group is one arena where this can occur. Members of the extensional group do not necessarily have to be experiencing complete emotional dysfunction to gain from this type of group experience. This group experience should aid people in attaining more enjoyment from living, more spontaneity, more creativity, autonomy, acceptance of necessary restrictions, joy, productivity, and more awareness and acceptance of themselves and others. Through the group experience, each member extends facets of his personality and strength. The extensional group is built on a developmental rather than regressive model (Bates & Johnson, 1972). It is hoped each member can attain the stance, "I'm O.K., You're O.K." (Harris, 1970).
Forward Body Lean

Forward body lean is rated for each member of both groups, and is defined as the amount of time each group member spends in 20 degrees or more of forward body lean while in a sitting position in the group.

Nonverbal Group

A nonverbal group is defined as a group where the extensional model is paired with a specific program of nonverbal warm-up exercises. The nonverbal exercises implemented in this study were taken from those suggested by Pfeiffer and Jones (1973). They are as follows:

1. **Exaggeration.** A group member is asked to stand in front of another member and express his feelings toward the other member nonverbally and with exaggeration, as in mime.

2. **Seated roll.** A group member who needs to develop trust in other members is asked to stand in the center of the group. Other members sit in a circle pressing their feet tightly against the central member's feet. He closes his eyes and falls, and the others roll him around the circle, supporting him with their hands and feet.

3. **Trust walk.** To study interpersonal trust, participants pair off and each decides which of them is to be led on a blind walk. The leading may be done in one of several ways--by barely touching the person on the elbow, by holding hands only, by placing hands on the shoulder from behind, by whispering verbal directions, et cetera. Afterward, the pair reverses roles and repeats the walk.

4. **Nature walk.** The group takes a walk outside with no
talking. Members are instructed to explore as much of their environment as they can, and to communicate their feelings to each other without words.

5. Hand talk. Participants pair off and spread out, and members of the pair face each other and close their eyes. The facilitator announces that members of the pairs should take turns attempting to communicate silently with their hands the feelings that the facilitator names, such as frustration, tension, joy, friendliness, anger, hate, elation, ecstasy, et cetera. The facilitator mentions each feeling separately, allowing about 1 minute for the partners' expression.

6. Back lift. Group members form dyads, and partners sit back to back. They lock arms together and attempt to stand. A variation of this exercise is to have the pairs stand back to back, locking arms and one member tries lifting the other off the floor.

7. Unwrapping. A member who is experiencing internal conflicts is asked to make himself into a tight ball. Another member is chosen by the first member to "unwrap" him or open him up completely. The member may struggle against being unwrapped or may submit.

8. Eye contact circle. The group stands in a circle and one member walks clockwise around the circle, establishing eye contact and communicating nonverbally with each member until he returns to his original place. As soon as he has passed the member on his left, the one he first passed, that member takes his turn going around the circle. The third member follows the second, et cetera, until all members have had contact with each other.
9. **Pass the object.** An object, such as a pen, a book, or an ashtray is passed from member to member in the circle. Participants may do anything they wish with the object.

10. **Posturing.** The group forms itself into seated lines facing each other; participants on one side are to assume all the physical postures of their opposites while the other side has a brief meeting. The purpose of this exercise is to attempt to increase empathic understanding of another person.

**Self Concept**

Self concept is the individual's achieved scores on the following Tennessee Self Concept Scales—total personality, personality integration, physical self, moral-ethical, family self, social self, and psychosis.

**Verbal Group**

A verbal group is defined as a group where the extensional model is paired with a specific program of verbal warm-up exercises. Each member of the group remains seated and verbally discusses any problems, feelings, et cetera, brought to the group session by the various group members. The format of verbal warm-up exercises implemented in this study is taken from a manual by Bates and Johnson (1972). They are as follows:

1. **Mirror image.** A group member is asked to look at himself in a mirror and describe what he sees as honestly as he can. Group members give feedback, agreeing or disagreeing.

2. **Behind the back.** In this exercise, a group member who is "target" is asked to turn his chair around away from the group. Group
members then discuss him as if he were not present. After the discussion, he turns around and reacts to the previous comments.

3. **First impressions.** Members are asked to recall and repeat, uncensored, their first impressions of others in the group. This must be on a very personal level to be productive.

4. **Authority figure "hang-ups."** The group leader might also tap members' insights into their reactions to authority figures by asking the group to put down on a piece of paper as many or as few dots as each member wishes, then to try to connect the dots with a line which does not cross itself. As the group does this, the group leader expresses disapproval—shaking his head and looking disgusted. He then announces that he will give the group one more trial, at which time he transmits no approval or disapproval, but merely sits indifferently. The discussion can focus on the group members' reactions to an authority figures' disapproval concerning a task which obviously can be accomplished, and the feelings this inappropriate disapproval engendered in them. Where is their focus of evaluation? Another area of discussion might be the various life styles demonstrated by group members as they approach this task—were they serious, committed, or uninvolved? Did the members put down many dots or few? How long did each continue under disapproval? Did the disapproval create group unity? Did behavior during the second opportunity differ from the first? Did the group leader's attitude change behavior?

5. **Autobiographies.** The capsule autobiography can be used to effect confrontation. Each group member is asked to write about five sentences concerning his life history. These are read by the leader
and discussed anonymously. Is there a life theme (a script)? Group members will gain insight into the life space of other group members and may gain insight into their own life space. Focus may also dwell on future plans.

6. **Group sociogram.** Asking the group to draw a sociogram of the group after it has been in session at least once can hasten the confrontation as members examine interpersonal relations within the group and speculate on causes. Who are isolates? Who are stars? After a period of sessions, will, or did, the sociograms change?

7. **Rejection.** An example in deliberate rejection can be used to dwell on hostile feelings. Group members are asked to totally ignore one member who attempts to integrate with the group verbally. The feelings engendered in all group members are worth exploring at a confrontation level.

8. **Masks.** Interaction may be stimulated if the leader asks each member to imagine that he removes the mask he wears. The group participants then describe how they see themselves with their masks removed.

9. **24 hours to live.** The leader fantasizes that the group has discovered that each member has only 24 hours to live. In turn, the participants describe how they would spend the time.

10. **What would you like to be remembered for?** Suggesting that members explore the memories of themselves they would like to stand as their "signature of essence," may help identify for participants their value structures and the ways in which they are translating those values into action. For example, one member might
want to be remembered for the friends he made, or that he loved someone very deeply, or he might not want to be remembered at all——whatever statements are made can be explored very productively.

Plan of Presentation

The presentation of the investigation is organized into five sequential parts which are designated as chapters. The present chapter serves as an introduction to the area being investigated. It also serves to establish the theoretical framework for the study, to define terms, and to discuss the limitations of the study. The next four chapters are presented as follows: (a) a review of the literature; (b) methodology; (c) results; and (d) summary, conclusions, and recommendations.
Chapter 2

Review of the Literature

Most therapists have been aware that people respond to various nonverbal cues while in a therapeutic setting. When a group leader notes incongruence between a person's spoken word and his nonverbal communication, he may wish to introduce nonverbal exercises into the group to aid in restoring congruency to a person's communication modes.

Though there is an overall paucity of reported research dealing with nonverbal exercises in therapeutic settings (Gladstein, 1973), in recent years there has been a general upsurge of interest in nonverbal communication. It appears that the large majority of literature dealing directly with nonverbal communications in therapeutic settings has taken place within the last 10 years. The person most responsible for this increased interest is E. T. Hall (1966) who emphasized the contribution of social and personal space in communication. He considers nonverbal communication to encompass all behavior, with the exception of work, that exists in transactions among and between people. This behavior, he assumes, is largely unconscious. Others, however, take a narrower view and feel that nonverbal communication must have conscious intent, and the person must be aware of the communication (Gladstein). E. T. Hall's view is more relevant to the therapeutic setting. Therapists have long considered that clients can, and do, communicate verbally unconscious
content (C. S. Hall, 1954; Rieff, 1966). It then seems logical to assume that clients subconsciously communicate with their gestures, facial expressions, body positions, et cetera, material which they are unwilling or unable to communicate verbally.

Many therapeutic approaches have a long history of implementing nonverbal communication techniques in their therapeutic system. This past history of body position, gestures, touch, et cetera, in psychotherapy and counseling is often overlooked or forgotten by researchers. Many psychoanalytically oriented therapists (e.g., Sechehaye and Rosen, cited in Bowers et al., 1973) have used nonverbal approaches with schizophrenic patients. Gestalt therapy (Fagan & Shephard, 1970; Perls, 1969) and transactional analysis (James & Jongword, 1971) use nonverbal postures and exercises in therapeutic groups. Reichian psychology also uses nonverbal exercises to aid in the penetration of "the armor" (Bowers et al.).

It appears from the previous paragraphs that the function of nonverbal behavior may vary greatly with the population observed, and this aspect is of interest to the therapist or researcher. A therapist who emphasizes the biological aspects of nonverbal communication may view communication of this type as conveying the more primitive needs of man. This view is a form of Darwinism, since it holds that nonverbal communication is passed through the evolutionary process. This is in opposition to the view of E. T. Hall (1966), who feels that nonverbal communication is cultural or learned. Those stressing the biological view rely on nonverbal communication and exercises in regression situations (e.g., thumb sucking indicates the
recollection of early memories), and these therapists consider it to accompany and interact with verbal communication (Gladstein, 1973).

Gladstein (1973) emphasizes the importance of interpreting nonverbal communication within the context in which it is displayed. It is difficult to take opposition to his position, therefore, nonverbal communication in therapeutic settings is reviewed and discussed in the following reductive categories:

1. nonverbal behavior exhibited by the therapist,
2. nonverbal exercises utilized in therapeutic endeavors, and
3. nonverbal communication of affect by clients.

**Nonverbal Behavior Exhibited by Therapists**

It is apparent from the literature previously cited that nonverbal behavior and cues are exhibited by therapists as well as clients. The therapist, if aware of the nonverbal forms of communication which he exhibits, may use them to enhance the therapeutic intervention (Tepper & Haase, 1978). The importance of nonverbal cues in therapy and counseling, Tepper and Haase (1978) feel, cannot be overstated. Teaching the use of nonverbal techniques and cues to therapist novitiates is easily accomplished, and most trainees are eager and willing to learn these approaches (Wile, 1973). Smith (1972), however, states that there may be differences in the abilities of A-type therapists (conservative) and B-type therapists (less conservative) to use nonverbal techniques and cues in counseling and therapy.
Smith (1972) is interested in discerning possible differences in extreme A and B therapists in the expression of nonverbal behavior in therapeutic settings. Studies prior to Smith's suggest that A-type therapists deal more effectively with neurotic clients than with schizophrenic or psychotic clients. The B-type therapist is effective with more schizophrenic or psychotic clients than with neurotics. Overall, the B-type therapist is less conservative in therapeutic settings than the A-type therapist. Smith administered the A-B therapist scale to 225 male college students. The subjects were then divided into conservative (A) and less conservative (B) groups by their scores on this scale. There were three types of data collected on each subject: postural and gestural behavior, subjective post-experimental reactions, and objective observer ratings. Smith's findings indicate the more conservative A-type therapists are more variable in certain nonverbal behaviors (especially hand gestures, negative modes, trunk side, and crossed arms). He feels that the explanation for these findings is the fact that B-type therapists are more adequately defined on the A-B therapist scale. Smith points out that on this scale a high score on the A end of the continuum is indicated by the absence of B-type therapist characteristics. Smith sees the major contribution of this study as methodological. He states that this approach to the study of nonverbal behavior adds objectivity. In a later study, Johnson and Smith (1974) attempted to observe any possible differences in sensitivity to nonverbal cues among A-type and B-type therapists. These authors feel, due to the more conservative personality of the A-type therapist, that an A-type
therapist should be more aware of nonverbal channels of communication than B-type therapists. Again, only students scoring at each extreme end of the A-B therapist scale were used in this study. The subjects were asked to rate videotaped segments in which actors' verbal and nonverbal messages were incongruent on a scale in which line drawings were used to depict emotional states. The authors found no significant differences between the two types of therapists in receptiveness to nonverbal communication.

An important form of nonverbal communication is facial expression (Tepper & Haase, 1978). It is, therefore, reasonable to assume that awareness of the facial expression of clients can aid the therapist in gaining a better understanding of the client. Draughton (1974), drawing from a therapeutic approach of Fromm-Reichman in which Reichman took the particular postural stance of her client to aid her in introspecting the feelings of the client, hypothesized that adopting the facial expression of a client may be of use to a therapist in understanding the feelings of the client.

In her research Draughton (1974) unexpectedly found that it is extremely difficult for subjects to duplicate the facial expressions of another person. With this discovery, she formed three hypotheses. The first is that a person can duplicate facial expressions with the aid of a mirror. The second is that a person can duplicate facial expressions without the aid of a mirror. The third hypothesis is that anxiety is related to duplication of facial expressions. Subjects were 10 undergraduate students, five of each sex. Draughton found that people in general cannot duplicate facial expressions without
the aid of a mirror.

Nonverbal Exercises Utilized in Therapeutic Endeavors

The past 10 years have seen an increase of interest in applying research findings from social psychology and anthropology to certain therapeutic intervention processes. Gounad, Miriel, and Prochasson (1976) state that a person's problems and personality can be expressed in various ways by the body. Thus, they feel body language and nonverbal exercises, as used in therapy groups, are definitely an area that deserves more in-depth investigation. There is evidence that nonverbal exercises can improve inter- and intrapersonal perception of neurotic members of groups. It seems that communication among group members is made easier by the introduction of nonverbal exercises (Mente & Spittler, 1975). Rankin (1975) offers results which suggest that nonverbal exercises in groups of college students improve group members' body images in the area of satisfaction, body anxiety, and body awareness. Friedman et al. (1976) suggest that nonverbal exercises promote increases in self-ratings of extraversion, which allows for more positive interpersonal interactions in college students. Cooper and Bowles (1973) lend support to the findings of Friedman et al. Cooper and Bowles find that physical and body contact exercises within an encounter group setting reduce barriers between people, and increase self-disclosure in undergraduate college student subjects.

In spite of the evidence suggesting the value of nonverbal techniques in neurotic and normal groups, many therapists question
their usefulness with more "hard core" psychotic or schizophrenic clients (Beauchesne, 1976; Spotnitz, 1972). O'Hearne (1972) feels that touch is a viable form of communication, but it can easily be misinterpreted. He states that for this reason it should be used sparingly, and only when accompanied by other forms of communication, explaining how it should be interpreted. Maliver (1972) agrees with O'Hearne and feels that nonverbal exercises must be used especially carefully when dealing with the expression of aggressive feelings in group settings. He also feels certain countertransference issues will come about from the use of nonverbal exercises and must be dealt with. These two countertransference issues Maliver defines as phobic responses to new behavior and overenthusiasm for the new techniques without consideration of the objective status of the group. He feels this is countertherapeutic, and interferes with the group members working for insight. Robertillo (1969) warns that while some people experience nonverbal encounter techniques as permission to be free and to express feelings, others experience them as specific demands to produce feelings. Thus, he suggests that only certain persons will respond to this form of treatment.

This scepticism has led to studies involving nonverbal communication and nonverbal encounter exercises with psychiatrically hospitalized client populations. These studies generally draw from clinical experience, and exhibit research flaws frequently encountered in studies of this nature. Clinical field studies, as a rule, do not have a very large population and randomization of subjects may be--as well as random assignment of treatments--difficult to control.
However, the results of these studies are of interest due to their implications for the current study, and for other future research.

Rutter and Stephenson (1972) report a two-part study on visual interaction in psychiatric patients, implementing videotape apparatus. Their first research reports that schizophrenic patients and depressive patients spend considerably less time engaged in visual interaction with the interviewers than do a group of matched normals. The follow-up study is a replication of their first research, but for clients of other diagnoses. Of the 10 subjects in the follow-up study, 6 are diagnosed by the symptom sign inventory as alcoholic, 1 as manic, 1 as anxiety condition, and 2 as unclear diagnosis. Both of these experiments use a control group of psychiatrically normal populations, matched for age and sex, from the chest ward of the same hospital. The follow-up study shows a difference in the control group and the experimental group in visual interaction. There is a significant difference in mean amount of time spent in visual interaction between schizophrenics and depressives when compared to the subjects in the follow-up study. This suggests that schizophrenics and depressives spend less time in visual interactions than do lesser psychiatric categories and normals. However, a broad generalization cannot be made concerning all psychiatric categories.

Boucher (1972) investigated the effects of seating-distance on attraction of client to therapist. His subjects are 42 schizophrenic inpatients and 42 alcoholic inpatients. Boucher, in this study, draws heavily from E. T. Hall's (1966) work in proxemics for
his theoretical base. He uses Hall's definitions of "intimate distance" (6- to 8-inches), "personal distance" (30- to 48-inches), and "social distance" (7- to 12-feet). The findings of Boucher's study suggests that with schizophrenics, personal and social seating distances produce greater attraction toward the interviewer than do intimate seating distances as measured by the Personal Reaction Questionnaire. This suggests to Boucher that schizophrenics have a greater buffer zone than do nonschizophrenics. He feels, because of this, schizophrenics react with negative attitudes toward anyone who intrudes inside this buffer zone. This can be of use to therapists in their interactions with schizophrenic clients, both in a group setting and individually. The alcoholics are no more positive in their evaluation of the therapist at personal distance than they are at intimate distance. These alcoholics do show a preference for personal distance over intimate distance, but not social distance over personal distance. This is the common reaction for nonpsychiatric patients in the culture of the United States. If this effect of differential reactivity to proxemics by schizophrenics as opposed to nonschizophrenics can be replicated, there would appear to be a possible use for this knowledge in diagnostic as well as therapeutic endeavors.

There are many nonverbal therapeutic techniques placed into practice which were extrapolated from nonverbal communications. Most of these techniques are accompanied by verbal communications. Gestalt therapy and its use of such techniques led to the popularity and practice of these approaches in recent years.
Satir (cited in Kewatt, 1973) implements nonverbal therapy techniques which take the form of positioning people physically at varying distances to indicate how they feel toward other family or group members. This may take the form of one person lying on the floor and another member of the group placing his foot on the recumbent person to indicate that the first person feels walked on by other members of the group. There are many other therapeutic techniques which utilize nonverbal behavior in treatment. As T-group techniques have made their way into the treatment format of psychiatric hospitals, increasing emphasis is being placed on nonverbal exercises.

Bowers, Banquer, and Bloomfield (1973) report on just such nonverbal therapeutic procedures being used in the treatment of chronic schizophrenic clients. Their paper is not experimental in design, but, instead, a report of procedures implemented with a particular group of schizophrenic clients. Since the implementation of these exercises, the authors subjectively feel their clients recover more rapidly and leave the group healthier than was previously the case. It is generally accepted that schizophrenic clients experience difficulty in communicating to others. A typical nonverbal exercise used in this group when two clients feel hostility toward one another is "pushing." The group recognizes the pushing contact as an expression of hostile feelings. "Breaking out of the circle" is another nonverbal exercise used in this group. This exercise is used to aid clients in overcoming a sense of helplessness and fragility. In this exercise, the group forms a circle with one client in the center of the circle. "Hitting the chair" is another nonverbal aid in expressing hostility.
The rationale for the use of the "hitting the chair" exercise is that it makes better therapeutic sense for a client to express hostility toward an inanimate object rather than use interpersonal nonverbal exercises, such as pushing or "breaking out." It is generally accepted and supported by Boucher's (1972) study that schizophrenics have difficulty expressing warmth and positive feelings, particularly physical feelings. This, according to Bowers et al., is probably more of a problem than the difficulty experienced by schizophrenic clients in expressing aggressive feelings. A method used by the authors to deal with this problem is a "group hug." The therapist initiates this at the completion of each group session. The "group hug" is carried out in complete silence, and then an invitation is extended to the group members to express any feelings the exercise may have aroused. Ward (1974) agrees with this study and feels that nonverbal techniques also act to aid in reducing the client's dependence on the therapist and increases client interdependence in the group. Daniele and Wolin (1973) find that nonverbal techniques work well with schizophrenic clients. The emphasis is in raising the client's level of general functioning. It is noted that most hospitalized schizophrenic clients are usually rather nonverbal, thus, nonverbal techniques appear to have more impact than any other form of therapeutic intervention. Olsson and Myers (1972) suggest that nonverbal exercises work to enhance expression of adolescent concerns and veiled feelings in psychiatric hospitalized adolescent groups. Luttrell, Hutcherson, and Breeskin (1971) feel that nonverbal exercises of the type mentioned not only allow for better communication, expression of
feelings, and self-disclosure, but may also lead people to wish to remain in therapeutic groups for a longer period of time. This allows the individual to accomplish more in the area of self-exploration.

Bowers et al. (1973) expound the notion that nonverbal exercises in therapeutic settings with hospitalized clients may be more difficult for the therapist than for the clients. Some therapists' training may emphasize verbal approaches to therapy and leave them feeling they cannot put the two approaches together. Tracy, Bridell, and Wilson (1974) suggest, however, that nonverbal techniques can be easily paired with behavioral approaches. There is also evidence that with effort, psychoanalytic group approaches can successfully be paired with nonverbal techniques, and yield positive results (Maliver, 1972). Bowers et al. believe the true fears of therapists in implementing nonverbal techniques are thoughts such as: "Will the clients participate?" "Will the clients think I am silly?" "Will I think or feel I am silly?" These are the things Bowers et al. feel must be overcome by the therapist before nonverbal techniques can be successfully introduced into a group setting.

**Nonverbal Communication of Affect by Clients**

It can be seen from the literature thus far reviewed that much valuable information is imparted by all individuals through nonverbal channels. The therapist must be aware of what various nonverbal cues may communicate; not only what he is communicating to the client by these means, but also what the client is, in fact, communicating to him. The studies which follow, offer some indications of what various
body positions and movements may communicate by clients.

Delaney and Heimann (1966) attempted to sensitize persons to nonverbal cues. Their premise is that counseling and therapy are a communicative process in which both verbal and nonverbal behavior are involved. Their subjects were randomly assigned to the experimental or control group. The experimenters videotaped actors portraying counselors in a counseling situation. The actors were two males and two females. The subjects rated the actors on emotions portrayed, and ratings are carried out on the Semantic Differential Scale used by Jenkins.

The experimental group was placed in a T-group type setting with endless opportunities to observe nonverbal communication in use. In this setting, the nonverbal cues exhibited by the group members were pointed out and discussed. There was also a didactic group in which an experimenter, using various audiovisual equipment, presented material to two students. The authors report the following findings. The first finding is that both the didactic and the experimental group change their perceptions of the person who communicated the nonverbal cues. The second finding is that the experimental group appears to change their perceptions of emotions communicated by nonverbal means. Thus, the authors conclude that attempts to sensitize groups to change their perceptions of nonverbal cues appear to have a strong effect. The experimenters express the opinion that this is an aspect of training that should be added to more graduate programs which deal with the training of psychotherapists.

Nonverbal communication of affective states must deal with
the decoding of nonverbal behavior presented by the client. To consider this decoding, the first need is to know whether or not nonverbal communication can reliably be recognized and classified in the therapeutic exchange. Gladstein (1973) reports that nonverbal communication can, in fact, be recognized and classified in a therapeutic setting, and indicates what measures are currently available for recognizing and categorizing nonverbal behavior. Many of these measures have been used to identify affect in interview settings with clients.

McClintock and Hunt (1975) used eye contact and other nonverbal methods of communication to evaluate affective states and attempted deception by clients. They developed a rather ingenious method for instructing subjects to lie, and then measured eye contact, smiles, and other body movements when subjects were presented with questions predefined as to their affective state. The authors further elucidated the purpose of their study to be the identification of a small number of nonverbal cues which will aid interviewer-observers in recognizing the spontaneous deception and general affective state of the client. The authors conclude the most distinctive patterns of nonverbal behavior are exhibited when the subject experiences unpleasant tension or discomfort. This discomfort is expressed nonverbally by increased smiling, self-manipulation, and postural shifts (all were previously defined by the experimenters). These findings do concur with common sense; one often hears the expression in the South, "stop fidgeting and calm down." There is, however, one aspect of this study that does not support the layman's common conception of what is
expected nonverbally when one lies. These experimenters found that people do not generally divert their eyes when engaged in a lie. These findings suggest that when a person lies, it is possible to control facial expression and eye contact. It appears the lower body is where the tension, generated by lying, cannot be effectively disguised. The experimenters surmise that a person who is deceiving someone will appear calm in facial features, but will express active movement of arms, legs, hands, and feet. There are no clear active nonverbal cues for pleasant affect and passivity. There has long been an interest by therapists and experimenters in the communication of empathy and personal warmth (Carkhuff & Berenson, 1967). Haase and Tepper (1972) assert that nonverbal components (e.g., body lean, eye contact, and interpersonal seating distance) are extremely significant in the communication of empathy, possibly more important than the actual verbal message given. Their findings do suggest, however, that interaction effects are more potent in the communication of empathy. The interactions found most significant are between verbal message, eye contact, and forward trunk lean. The experimenters point out that these interactions are of importance because the main effects of eye contact and forward trunk lean, distance interactions, and verbal messages, rarely, if ever, occur in isolation. For this experiment, a modification of Truax and Carkhuff's (1967) scale of empathetic communication was implemented as a judgment of empathy. Haase and Tepper conclude, due to the apparent additive strength of nonverbal cues and verbal messages, that these are aspects which should be emphasized in the training of therapists. They state, "in
the past, emphasis in therapist training has been on verbal communication at the expense of the nonverbal modes of disseminating information, and that human communication is a multichannel process, one in which the various channels are interdependent [p. 35]." They also feel that the implications of this study may aid in a more operational definition of congruence or genuineness. These authors proceed to define congruence as the extent to which the verbal and nonverbal communications of an individual present noncontradictory information. If, in fact, this is the case, it may add a new dimension to what has been a very subjective area of study.

In a similar study, Bays (1976) attempts to determine empirically the kinds of nonverbal cues recognizable as indicating warmth. To determine warmth, she uses a 7-point scale which uses a continuum from cold to warm, based on the subjects' responses to a videotape. Bays is vague in her definition of warmth, defining it as "the initial expression of subject's with brief exposure to cues [p. 237]." It is concluded by the author of this study that interpersonal warmth appears to be a personality dimension which can be judged reliably, and it is possible to define and demonstrate a number of behavioral cues to warmth. She also reports individual differences in communication of warmth: some people exhibit preference for utilization of verbal content while others place more emphasis on nonverbal modes of communication (e.g., smiling, hand motion, and trunk position). Bays suggests that this strong effect may contribute to the variability in defining warmth and empathy. Her findings concerning smiling as the best single indicator of personal
warmth supports Haase and Tepper's (1972) findings that eye contact plays a large role in empathetic communication. Although these are not precisely the same, it can be inferred that the face and facial expressions, the direction the face is pointed, and other movements do play an important role in the communication of positive feelings of warmth among humans. This may support Bays' view that nonverbal behavior has a central role in the communication of emotions in general. She also suggests that facial expression, smiling in particular, may be the earliest learned and most generally understood of the nonverbal cues involved in complex interpersonal relationships. Truax and Carkhuff (1967) state, "the activity, or animation factor is important as an indication of personal warmth [p. 28]." Bays' findings offer some empirical support for this statement.

Bond and Shiraishi (1974) reverse the decoding of nonverbal cues from the interviewer to the interviewee. These experimenters also look at the effects of the interviewer through dress as an aspect of nonverbal communication on Japanese interviewees. Since very little actual research has been carried out investigating the effects of nonverbal communication in varying cultures, particularly that of Japan, the authors consider this to be pioneering research. E. T. Hall (1966) has made many cross-cultural observations of proxemic behavior, however, he does not deal with the therapeutic interview, and he makes no attempts to manipulate variables. Bond and Shiraishi manipulate status of the interviewer. The high status condition is established by dressing a confederate in a coat and tie and introducing him as a 25-year-old graduate student, and the second
status condition is achieved by dressing the confederate in slacks and a sweater (no tie) and introducing him as a 20-year-old undergraduate student. A second variable manipulated by the experimenters is the degree of body lean. Forward body lean is defined as 20 degrees of body lean from the vertical position with elbows on knees; backward body lean is defined as 20 degrees from the vertical position with the back against the chair. The subjects are 16 male and 16 female college juniors and seniors. The subjects are judged on two nonverbal factors (i.e., smiles and gestures) as well as on two verbal factors (i.e., time speaking and response latency). The experimenters note the difficulty with intersubject variability in working with nonverbal behaviors, and suggest that without using a larger number of subjects it is difficult to reduce all variance sufficiently to detect real differences which may exist. This is a difficulty which has been experienced by many researchers in the area of nonverbal behavior; however, most have not appeared as aware of the problem as Bond and Shiraishi.

Bond and Shiraishi (1974) conclude that males in Japan exhibit more nervousness than females, as determined by self-manipulation of legs in particular, during a period of interaction with an interviewer. Females exhibit more smiling behavior. This suggests that nervousness may be expressed more through smiling than through leg manipulation for Japanese females. It was hypothesized by the authors that the females would show more nervousness than the males, due to the sexually segregated society of Japan.

The findings suggest that as the interviewers' tempo of
behavior tends to increase, so does the anxious behavior. They also indicate that on a test devised to measure the subject's perception of the confederate, the forward lean is associated with positive feelings.

Gatton and Tyler (1973) explore the decoding of therapist behavior by the interviewee. They, however, deal with a specific personality type of interviewee—dependent versus independent. They hypothesize that dependent people are usually more sensitive to nonverbal cues due to their reliance on others for approval. Their prediction is that dependent subjects would be more sensitive to shifts from positive interviewer-emitted cues to negative interviewer-emitted cues than would autonomous subjects.

The verbal content of questions was nonthreatening to the subjects; the nonverbal cues were positive during the first half of the interview and negative during the last half of the interview. The dependent measures used were the number of smiles, latency of interview responses, and amount of eye contact. Their hypothesis is not supported by their study.

**Summary**

It appears, from the studies reviewed, that nonverbal behavior is a viable cue and technique in group and individual therapeutic settings for communication of affective states to both the therapist and the client. Although these studies do not use a consistent definition of affect or body movement, and suffer from numerous methodological errors, they all report positive findings and the results appear convergent. Thus, each study can draw strength from
the others.

Certain inferences can be made from this literature review of the use of nonverbal behavior in therapeutic settings. First, certain body postures can be used to measure the presence of empathy among individuals; and second, certain nonverbal exercises in a therapeutic setting can enhance the therapeutic interaction. The following study attempts to interject nonverbal warm-up exercises (Pfeiffer & Jones, 1973, p. 628) into a group setting and compare the results with a group where verbal warm-up exercises (Bates & Johnson, 1972, p. 115) are introduced into the group. This study attempts to measure the presence of empathy, positive affect, and interest in each group. The dependent variables are the amount of time spent in forward body lean for each member of both groups, amount of time spent in open body posture for each member of each group, scores on the Tennessee Self Concept Scale, and level of group interaction, as measured by the Hill Interaction Matrix.
Chapter 3

Methodology

Chapter 3 contains a detailed description of the research procedures and methods utilized in this investigation. Descriptions of the following are included: (a) population, (b) measurement instruments, (c) procedures, and (d) statistical methods.

Population

The subjects for this study consist of 20 students drawn from volunteers at Deep Creek High School of the Chesapeake County, Virginia, school system. The ages range from 16- to 18-years of age. The experimental and control groups consist of five males and five females each. The groups are held in regular classrooms on the Deep Creek High School campus.

Measurement Instruments

The instruments used as covariate measures were chosen to yield the optimum information concerning changes in each group and its members, while at the same time controlling variance influenced by the propensity of each subject to become involved in a group. The measuring instruments are discussed as follows:

1. the mean time spent in forward body lean,
2. the mean time spent in open body posture,
3. the Tennessee Self Concept Scale, and
4. the Hill Interaction Matrix.
The Mean Amount of Time Spent
in Forward Body Lean

Nonverbal interactions are measured by objective observers. The observers achieve an interjudge reliability of .98. The observers view videotapes of group sessions and rate the mean time spent in forward body lean for each member of both groups; the mean time each group spends in forward body lean is then computed. The observers judge forward body lean as approximately 20 degrees of forward lean being scored as positive (Bond & Shiraishi, 1974). The literature reviewed in Chapter 2 suggests strongly that forward body lean can be used as a measure of the communication of affect, empathy, and interest in another person (Bond & Shiraishi; Haase & Tepper, 1972). The formula for time spent in forward body lean is as follows:

\[
\frac{X_{BL}}{T_{BL}} = \bar{X}_{BL}
\]

where

\( X_{BL} \) = time spent in 20 degrees or more forward body lean

\( T_{BL} \) = total observation time

\( \bar{X}_{BL} \) = mean time spent in forward body lean for all group members combined.
The Mean Amount of Time Spent in Open Body Posture

The observers measure the mean amount of time each group spends in open body posture. Open body posture is defined as arms and legs not crossed in front of the body and the person’s body angle not turned with his side to the group, but straight-faced toward the speaker. The observers view videotapes of the two groups and rate each group member on this measure; the mean for each group is then figured. Open body posture as just defined has been associated with a positive attitude toward what another person is saying, and with openly expressing one’s own feelings (Bates & Johnson, 1972; Verny, 1974). Therefore, mean time of each group member spent in open body posture is considered a measure of empathy, interest in what others are saying, and communication of affect.

The formula used for time spent in open body posture is as follows:

$$\frac{X_{op}}{T_{op}} = \bar{X}_{op}$$

where

- $X_{op}$ = time of each group members in open body posture
- $T_{op}$ = total observation time
- $\bar{X}_{op}$ = mean time in open body posture for the complete group.
Both mean time spent in forward body lean and mean time spent in open body posture is computed and compared for each member of the group implementing nonverbal warm-up exercises, and for each member of the group implementing verbal warm-up exercises.

Observer Training

There are two observers receiving approximately 1 hour of instruction prior to viewing the videotapes of the two groups. The observers reach an interrater reliability of .98 on the trial observation. Reliability checks are conducted on every other tape observation, and remain at or above .98.

The Tennessee Self Concept Scale

The Tennessee Self Concept scale is implemented pre-post as a measure of change in the members of the two groups. The TSCS (Fitts, 1965) consists of 100 self-descriptive items to which the subject responds by rating a 5-point scale from completely true to completely false. It is a multivariable instrument which yields both phenomenological and empirically derived scores of attitudes toward self (Writesman & Richard, 1966). The TSCS, answer sheet, and scoring directions appear in Appendix A. It has been shown to be an effective measure of change as a result of participation in group therapy (Ashcraft & Fitts, 1964). Of the 100 items, 90 assess self-concept, and 10 assess self-criticism (the self-criticism items are all Minnesota Multiphasic Personality Inventory [MMPI] Lie Scale items). Correlations with various MMPI scales are frequently in the .50s and the .60s. Thus, it seems safe to conclude the scale overlaps
sufficiently with well-known measures to consider it a possible alternative for these measures in various applied situations (Buros, 1972). The TSCS has been shown to be a measure of change in guidance trainees who have completed a T-group type of training procedure (Writeam & Richard). Kutz and Grummon (1972) have shown that the TSCS is an accurate outcome measure of therapy when compared to the client's perception of change. Resnick, Fauble, and Osipaw (1970) have shown that the TSCS scores correlate positively with the period of occupational crystallization as viewed by Super (cited in Resnick, Fauble, & Osipaw, 1970), and that self concept is related to occupational concept. Thus, the TSCS can be used in vocational group guidance to aid clients in occupational decision-making. The TSCS might also be used to ascertain outcome in assertive training groups. Swifart, Deleon, and Swenson (1969) have shown that TSCS scores are related to dominant and submissive behavior. The TSCS has been used to make predictions about alcoholics' ability to recover in group treatment (Gross & Adler, 1970), and to measure the effects of school integration on black students in the South (Williams & Byars, 1970).

It can be seen from this brief review of the literature that the TSCS is a sensitive instrument to both positive and negative change that may take place due to therapeutic intervention of various types and specifically to changes induced by group therapy and counseling. For this reason, this instrument was chosen as a measure of improvement in and between the two groups in the present research.

The Hill Interaction Matrix

The Hill Interaction Matrix is used to assess the level of
interaction in each group for six group meetings. The level of interaction is judged by an objective observer who is well-versed in group theory and familiar with HIM and its various uses. The observer will view videotapes of the various group meetings, and rate the level of interaction following suggestions offered by Bates and Johnson (1972, pp. 86-94). The observer, though familiar with HIM, also received subsequent training and review in the use of the HIM to clarify any areas of difficulty.

The HIM represents a system for classifying group process and group progress which has been empirically derived and systematically researched. Leadership style, group composition, and group development can all be simultaneously quantified through the use of this Matrix (Hill, 1971). A diagram of the HIM and statements appropriate to each level appear in Appendix B.

The HIM is divided into four content categories and five work categories. Figure 1 is a diagram of the HIM. The HIM is a good measure of the level of interaction of various groups and allows the leader to assess the effectiveness of the group (Bates & Johnson, 1972).

Bach (1967) studies the dynamics of marathon groups. He identifies dimensions of group process which can block growth. He finds that five of the most helpful ways to interact in groups fall at the confrontive level: (a) empathic identification, (b) acceptance and warmth, (c) conflict acceptance (these three all fall into cell IV-E confrontive-relationship), (d) self-understanding, and (e) problem solving (these two fall into the personal-confrontive
cell III-E).

Bach (1967) also offers some least helpful modes of interaction: (a) strangeness, (b) noncaring, (c) narcissism, (d) irrelevant communication, and (e) conflict evasion. These all fall in the assertive (rejecting) level of the HIM. Bates and Johnson (1972) state that Bach's studies definitely support Hill's (1971) assertion that the confrontive-personal and the confrontive-relationship cells of the HIM are the most productive areas of growth.

Procedures

A master level counselor runs the groups (the counselor is blind as to which group is the experimental and which is the control); three doctoral level counseling psychology students act as observers. The following procedures are used to collect and process the data involved in this investigation.

Design

The design for this study is an experimental blocked groups design with subjects randomly assigned to the experimental or control group. The independent variable is the program of nonverbal warm-up exercises presented earlier in this paper. The dependent variables are:

1. scores on the various TSCS subscales,
2. mean amount of time spent in forward body lean by each member of the two groups,
3. mean amount of time spent in open body posture by the members of the two groups, and
4. level of interaction of the groups as assessed on the HIM.
An A-B-A experimental design is used to assess change with implementation of the nonverbal program.

Data Collection

An announcement made to all classes in the school solicits volunteers for the study. The subjects report for a group meeting during which the purpose of the study is explained in more detail than that offered in the announcement. The subjects also complete the TSCS at this time. The TSCS is administered in a group format. Confidentiality assurances are given by the researcher. Volunteers are told the information is to be collected for research purposes, and coded numbers are substituted for names. The researcher also explains that he will meet again with them at the conclusion of the study to explain the results and, at that time, anyone interested can receive a feedback on their TSCS scores individually.

The second phase of the data collection process is the familiarization of the group therapist with the extensional model and the various verbal and nonverbal exercises used in the two groups. The researcher provides the therapist with a copy of the warm-up exercises, and a copy of the book *Group Leadership: A Manual for Group Counseling Leaders* by Bates and Johnson (1972). After the therapist has read the book and familiarized herself with the two sets of exercises, the researcher discusses both carefully with the therapist to discern the therapist's understanding of the model and to clear up any areas of confusion.

After the group therapist is trained in the extensional approach and the two sets of warm-up exercises, the subjects are
randomly assigned to one of the two groups, 10 per group. Next, the
groups are randomly assigned to receive either the verbal warm-up
exercises or the nonverbal warm-up exercises.

Prior to the actual group sessions' investigation, taping
permission is given, and confidentiality assurances are received by
all subjects. The groups run for a period of 16 meetings for 1 hour
5 days a week. The first 2 days and the last 2 days serve as a
baseline period with no warm-up exercises being used in either group.
The videotape equipment is placed in full view of the subjects.
All sessions are recorded on Sony 3400 Rover Unit videotape equip­
ment. Because this equipment handles only half-hour tapes, the
researcher is present in the room to change the videotape at the
completion of each half-hour tape.

Processing the Data

The first procedure in processing the data in this study is
scoring the TSCS protocols. These tests are hand-scored by the
researcher. The clinical-research form of the TSCS is used.

The second procedure in processing the data is the rating of
the videotapes of the groups by two trained judges. There are two
criteria measures of empathy, warmth, caring, interest, and affect
utilized:

1. time spent in forward body lean, and

2. mean time spent in open body posture.

The two judges of forward body lean and open body posture
are trained by the researcher prior to their rating of the actual
experimental tapes. The researcher explains the observers' tasks in
detail, and the observers participate in practice sessions using non-
experimental tapes. Using a Pearson product-moment correlation, an
interjudge reliability of .98 is obtained. This assures that the
judges are rating similar aspects of forward body lean and open body
posture.

The final procedure used in processing the data on the effects
of nonverbal exercises on the effectiveness of the extensional group
model will be the Hill Interaction Matrix. A doctoral level counsel-
ing psychology graduate student views the videotapes of certain group
meetings of both groups implementing verbal warm-up exercises and
nonverbal warm-up exercises and rates their work level on the HIM
(qualifications of this observer are found in Appendix E).

A doctoral level graduate student in counseling psychology has
the Hill Interaction Matrix explained to him in great detail by the
researcher. Specific emphasis is given to the manner in which the HIM
is used in this study. Bates and Johnson (1972) is used as a handbook
for this training. The graduate student then rates various phrases in
group, placing a mark for each phrase at the level he feels it should
fall at on the HIM. The overall level of group functioning is dis-
cerned by tabulating the marks and establishing the category on the HIM
where most of the marks fall. Bates and Johnson (pp. 92-93) are used
to offer sample statements on where they should be placed on the Matrix
(see Appendix E).

The final procedure in processing the data is preparation for
statistical analysis. The data is punched in computer cards and
processed using the Statistical Package for the Social Sciences
(SPSS) (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975) system of data analysis by the College of William and Mary computer center, Williamsburg, Virginia, on the International Business Machines Corporation (IBM) 360/50 digital computer.

**Statistical Methods**

Statistical methods are utilized in the analysis of data to:

1. Determine significant differences in self-concept, as measured on the following scales of the TSCS—determine significant differences in changes on the total positive subscale of the TSCS between the two groups; determine significant differences in changes on the personality integration scale between the two groups; determine significant differences in changes on the physical self subscale of the TSCS between the two groups; determine significant changes in the moral-ethical self subscale of the TSCS between the two groups; determine significant changes on the family self subscale of the TSCS between the two groups; determine significant changes on the social self subscale of the TSCS between the two groups; and determine significant changes on the psychosis subscale of the TSCS between the two groups.

2. Determine significant differences in the mean amount of time spent in forward body lean between the two groups.

3. Determine the significant differences in the mean amount of time spent in open body posture between the two groups.

4. Determine significant differences in the level of interpersonal interaction on the HIM between the two groups.
There are two statistical methods used to analyze the data. An analysis of covariance (ANOVA) is run to determine the relative strength of various covariates and factors by using the ANOVA program of SPSS. The scores, mean time in forward body lean, mean time in open body posture, and the frequencies on the HIM, are subjected to a t-test for difference between two independent means. Interjudge reliability is assessed through the Pearson Corr program of the SPSS. Statistical significance is determined for all results using a .05 level of significance.
Chapter 4

Results

The results of this investigation are presented separately by hypothesis in this chapter. Statistical findings are reviewed and interpreted by each hypothesis.

Hypothesis 1

There will be a significant positive change in self-concept in the group implementing nonverbal warm-up exercises when compared to the group where verbal warm-up exercises are utilized. This change is measured by change on the following specific scales of the TSCS: total personality scale, personality integration scale, physical self scale, moral-ethical self scale, or the psychosis scale. An analysis of covariance on the scores achieved on the pretest and the posttest for each group yields a significant main effect on the personality integration scale. No other scales listed achieved significance at the .05 level of significance. The \( F \) value for the personality integration scale is

\[
F = 5.671.
\]

This is significant at the .029 level of significance; consequently, the hypothesis was accepted at the .05 level of significance. The \( F \) values for the main effects of the TSCS scales hypothesized to change are listed in Table 1.

Hypothesis 2

There will be a significant positive change in the amount of
Table 1
Analysis of Covariance, \( F \) Values and Significance
Levels for Main Effects of the TSCS Scales
Where Change Is Hypothesized between the
Group Implementing Nonverbal
Warm-up Exercises and the
Group Implementing
Verbal Warm-up
Exercises

<table>
<thead>
<tr>
<th>Scale</th>
<th>( F ) Value</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total positive scale</td>
<td>1.487</td>
<td>0.239</td>
</tr>
<tr>
<td>Physical self scale</td>
<td>1.024</td>
<td>0.326</td>
</tr>
<tr>
<td>Moral-ethical self scale</td>
<td>0.107</td>
<td>0.747</td>
</tr>
<tr>
<td>Family self scale</td>
<td>0.004</td>
<td>0.967</td>
</tr>
<tr>
<td>Social self scale</td>
<td>0.032</td>
<td>0.860</td>
</tr>
<tr>
<td>Psychosis scale</td>
<td>0.000</td>
<td>0.987</td>
</tr>
<tr>
<td>Personality integration scale</td>
<td>5.671</td>
<td>0.029</td>
</tr>
</tbody>
</table>
forward body lean, as defined in this paper, in the group where nonverbal warm-up exercises are used when compared to the group where verbal warm-up exercises are used. The mean time spent in forward body lean is greater for the group where nonverbal warm-up exercises are used (the percentage of mean time in forward body lean for the group is .05) when compared to the group implementing verbal warm-up exercises (the percentage of mean time in forward body lean is .003). The comparison of the daily mean amount of time spent in forward body lean for each group can be seen in Figure 1. A t test for a difference between two independent means yields a

\[ t = .16, \ p > .05 \]

showing no significant effect. Hypothesis 2 is rejected at the .05 level.

**Hypothesis 3**

There will be a significant positive change in mean amount of time spent in open body posture in the group implementing nonverbal warm-up exercises when compared to the group utilizing verbal warm-up exercises. The mean amount of time spent in open body posture is greater for the group using nonverbal warm-up exercises (the mean amount of time spent in open body posture is 36.8%) when compared with the group where verbal warm-up exercises are implemented (the mean amount of time spent in open body posture for this group is 14.2%). The comparison of the daily mean amount of time spent in open body posture for each group can be seen in Figure 2. A t test for a difference between two independent means yields a

\[ t = 4.78, \ p < .01, \]
Figure 1. Mean amount of time spent in forward body lean for the nonverbal group and the verbal group over a 16 day period of 2 days base line, 12 days experiment, and 2 days base line.
Figure 2. Mean time spent in open body posture for the nonverbal group and the verbal group over a 16 day period of 2 days baseline, 12 days experiment, and 2 days baseline.
thus, indicating a statistically significant difference between the two groups on this measure at the .05 level. Hypothesis 3 is accepted at the .05 level.

**Hypothesis 4**

There will be a significantly higher level of interpersonal interaction on the Hill Interaction Matrix in groups implementing nonverbal warm-up exercises when compared to the group where verbal warm-up exercises are utilized. A t test for a difference between two independent means is carried out utilizing the weights given to each cell by Coppolino (cited in Hill, 1965) and Hill. The t value for difference between the two group means is

\[ t = 3.19, p < .05. \]

This is significant at the .05 level; thus, the hypothesis is accepted at the .05 level. (Table 2, Table 3, and Table 4 compare the level of functioning for the two groups at different points in the life of the groups.)

**Additional Findings**

An analysis of the three pairs of videotapes observed by the doctoral level counseling student with training in the use of the HIM for this study suggests that the nonverbal group reaches higher levels of interaction on the HIM more rapidly than does the group where verbal exercises are used. The verbal group does improve with the passage of time but still does not reach a level as high as that achieved by the group utilizing nonverbal exercises. Statistical methods are not appropriate for this comparison, but the results of the three pairs of videotapes observed in Figure 3 indicate that the


Table 2

The Level of Interaction on the Hill Interaction Matrix for the Group Implementing Nonverbal Warm-up Exercises and for the Group Implementing Verbal Warm-up Exercises at the First Group Meeting of the Treatment

<table>
<thead>
<tr>
<th>CONTENT CATEGORIES</th>
<th>NONMEMBER-CENTERED</th>
<th>MEMBER-CENTERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENERAL TOPIC</td>
<td>GROUP PERSONAL RELATIONSHIP</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>II</td>
<td>III</td>
</tr>
<tr>
<td>A Responsive</td>
<td>IA</td>
<td>II A</td>
</tr>
<tr>
<td>B Conventional (1)</td>
<td>II B</td>
<td>III B</td>
</tr>
<tr>
<td>C Assertive (rejecting)</td>
<td>VG</td>
<td>II C</td>
</tr>
<tr>
<td>D Speculative (8)</td>
<td>III D</td>
<td>IV D</td>
</tr>
<tr>
<td>E Confrontive (7)</td>
<td>III E</td>
<td>IV E</td>
</tr>
</tbody>
</table>

Work Categories:
- Responsive
- Confrontive
- Speculative
- Assertive (rejecting)
- Conventional
Table 3

The Level of Interaction on the Hill Interaction Matrix for the Group Implementing Nonverbal Exercises and for the Group Implementing Verbal Warm-up Exercises for the Sixth Day of the Treatment Program

<table>
<thead>
<tr>
<th>CONTENT CATEGORIES</th>
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<th>MEMBER-CENTERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENERAL TOPIC</td>
<td>GROUP PERSONAL RELATIONSHIP</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>II</td>
<td>III</td>
</tr>
<tr>
<td>A RESPONSE</td>
<td>I A</td>
<td>II A</td>
</tr>
<tr>
<td>B CONVENTIONAL</td>
<td>VC</td>
<td>NS</td>
</tr>
<tr>
<td>(REJECTING)</td>
<td>(2)</td>
<td>(9)</td>
</tr>
<tr>
<td>C ASSERTIVE</td>
<td>I C</td>
<td>II C</td>
</tr>
<tr>
<td>(REJECTING)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>D SPECULATIVE</td>
<td>I D</td>
<td>II D</td>
</tr>
<tr>
<td>(2)</td>
<td>(6)</td>
<td>(13)</td>
</tr>
<tr>
<td>E CONFRONTIVE</td>
<td>I E</td>
<td>II E</td>
</tr>
<tr>
<td>(7)</td>
<td>(8)</td>
<td>(18)</td>
</tr>
</tbody>
</table>

Legend: VC = Vertical Communication; NS = Non-Specific
Table 4
The Level of Interaction on the Hill Interaction Matrix for the Group Implementing Nonverbal Exercises and the Group Utilizing Verbal Warm-Up Exercises for the Last Day of the Treatment Program

<table>
<thead>
<tr>
<th>CONTENT CATEGORIES</th>
<th>NONMEMBER-CENTERED</th>
<th>MEMBER-CENTERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENERAL TOPIC</td>
<td>GROUP</td>
<td>PERSONAL RELATIONSHIP</td>
</tr>
<tr>
<td>I</td>
<td>II</td>
<td>III</td>
</tr>
<tr>
<td>A RESPONSIVE</td>
<td>I A</td>
<td>II A</td>
</tr>
<tr>
<td>B CONVENTIONAL (1)</td>
<td>II B (2)</td>
<td>III B</td>
</tr>
<tr>
<td>C ASSERTIVE (REJECTING)</td>
<td>II C (3)</td>
<td>III C (11)</td>
</tr>
<tr>
<td>D SPECULATIVE (9)</td>
<td>II D (5)</td>
<td>III D (19)</td>
</tr>
<tr>
<td>E CONFRONTIVE (17)</td>
<td>II E (8)</td>
<td>III E (18)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 3. The level of interaction on the Hill Interaction Matrix on 3 pairs of tapes observed and rated by a doctoral level graduate student for the first group meeting, the sixth group meeting, and the last group meeting of both the verbal and the nonverbal group.
nonverbal group reaches a high (IV D) level of interaction in the first group and maintains this (IV D) level until the last group meeting. The group implementing verbal warm-up exercises has a low level of interpersonal interaction in the first group meeting (I B) and continues this same low level in the videotape review of the group meeting midway through the life of the group, but jumps to a much higher level on the last group meeting (III D).
Chapter 5

Summary, Conclusions, and Recommendations

A brief summary of the preceding four chapters is presented in this chapter. Conclusions derived from the results of this study are given in a separate section. Recommendations for further research are offered in the final section.

Summary

The present study explores the effects of nonverbal group warm-up exercises when compared to a group utilizing verbal warm-up exercises. This study attempts to assess the effect of these two group settings on the behavior of group members within the context of the group. The second variable assessed is the effect of these two types of groups on the group members' feelings, particularly toward themselves. The following four hypotheses are tested in this study.

Hypothesis 1. There will be a significant positive change in self-concept in the group where nonverbal exercises are implemented when compared to the group utilizing verbal warm-up exercises. This change in self-concept is measured by scores on the following scales of the TSCS: total personality, personality integration, physical self, moral-ethical self, family self, social self, and psychosis.

Hypothesis 2. There will be a significant positive change in amount of forward body lean in the group where nonverbal warm-up exercises are used when compared to the group where verbal warm-up
exercises are used.

Hypothesis 3. There will be a significant change in the amount of body openness in groups utilizing nonverbal exercises when compared to the group implementing verbal warm-up exercises.

Hypothesis 4. The group utilizing nonverbal warm-up exercises will function at a higher level of interpersonal interaction on the Hill Interaction Matrix than the group implementing verbal warm-up exercises.

There are 20 high school students selected from volunteers. These students are then randomly assigned to either the group where nonverbal warm-up exercises are used or to the group where verbal warm-up exercises are used. The students are assigned in such a way that there are 10 students in each group. The subjects are given the TSCS before the first group meeting and after the last group meeting. The same master level counselor conducts all group meetings. The counselor is not aware which technique (i.e., nonverbal or verbal) is the treatment technique and which is the control technique. The group sessions are videotaped, then independently rated by two trained judges for amount of time spent in forward body lean and amount of time spent in open body posture. Interjudge reliability is .98. The Hill Interaction Matrix is used to assess the level of interaction in each group for six group meetings. The level of interaction is judged by a doctoral level graduate student in counseling psychology who is well-versed in group theory and the use of the HIM.

Both groups are run implementing the extensional paradigm
outlined by Bates and Johnson (1972). The treatment group receives a package of 10 nonverbal warm-up exercises taken from those suggested by Pfeiffer and Jones (1973). The control group receives a package of verbal warm-up exercises. The format of verbal warm-up exercises implemented in this study is taken from a manual by Bates and Johnson. The data is analyzed by using programs from the Statistical Package for the Social Sciences (Nie et al., 1975). The first hypothesis is tested by means of an analysis of covariance by using the ANOVA program of the SPSS. Hypothesis 2, Hypothesis 3, and Hypothesis 4 are all subjected to a *test for a difference between two independent means by using subprogram "T-Test: Comparison of Sample Means of the SPSS."

Conclusions

Conclusions concerning the research questions of this study are presented in this section by hypotheses. The writer makes references to other studies for comparisons of the findings.

Hypothesis 1

The first hypothesis is tested through an analysis of covariance controlling for the effect of the pretest on the scores achieved on the posttest. There is a significant difference between the mean scores of the two groups at the .05 level on the personality integration scale of the TSCS. The adolescent subjects in this study, when exposed to nonverbal warm-up exercises, appear to be more accepting of themselves and show better organization and unification of motives, and a minimizing of inner conflict.

The results indicate support of the effects of nonverbal
warm-up exercises on awareness and acceptance of self and a minimizing of conflict concerning feelings about oneself. This finding is consistent with the results of Rankin (1975) using college subjects, and other studies using adult and psychiatric populations (Cooper & Bowles, 1973; Friedman, Ellenhorn, & Snortum, 1976; Gounad, Miriel, & Prochasson, 1976).

Hypothesis 2

A t test for difference between two independent means is employed to test Hypothesis 2. The t value is not significant,

\[ t = .16, p > .05. \]

There is no significant difference in the mean amount of forward body lean as measured in the nonverbal and verbal group. This finding is contrary to the findings of a number of studies (Bond & Shiraishi, 1974; Haase & Tepper, 1972; Morris & Cinnamon, 1975). It should be noted that in the present study the subjects were not seated in chairs, but, instead, on cushions placed on the floor. This procedure was established in order to view as many people as possible on the videotape camera. It is easily seen that forward body lean is very difficult from such a position. In viewing Figure 1, it can be seen that there is a trend in the nonverbal group toward more time in forward body lean than is the case of the verbal group. Thus, it is felt that if the subjects had been seated in chairs the amount of time in forward body lean would have reached statistical significance.

Hypothesis 3

The t value obtained by a t test for a difference between two independent means is highly significant,
Hypothesis 3 is accepted at the .05 level. There is significantly more time spent in open body posture in the group utilizing nonverbal warm-up exercises than in the group where verbal warm-up exercises are used. A number of studies have reported findings which suggest that body openness is a method of expressing a positive attitude toward what another person is saying, empathy, and open expression of one's own feelings (Bays, 1976; Haase & Tepper, 1972; McClintock & Hunt, 1975). Other studies have suggested, and these findings agree, that nonverbal exercises can aid in improving empathy and open expression of one's feelings (Bowers et al., 1973; Cooper & Bowles, 1973; Daniele & Wolin, 1973; Gounad et al., 1976; Kewatt, 1973).

Hypothesis 4

The $t$ value for difference between the two group means is significant,

$$t = 4.78, \ p < .01.$$ 

The group where nonverbal exercises were implemented function at a higher level of interpersonal interaction on the Hill Interaction Matrix than did the group where verbal warm-up exercises were utilized. A review of Table 2, Table 3, Table 4, and Figure 3 shows that the nonverbal group not only functions at higher levels on the HIM, but achieves the higher level of functioning more rapidly and maintains that higher level consistently.

The hypothesis that nonverbal exercises improve communication in groups and, subsequently, the quality of group member interaction is consistent with the results of many previous studies (Bowers et al.,
1973; Cooper & Bowles, 1973; Delaney & Helmann, 1966; Friedman et al., 1976; Rankin, 1975; Tepper & Haase, 1978).

**Recommendations**

The effects of the use of nonverbal warm-up exercises with adolescents in a growth group setting is clearly demonstrated in this study. It is recommended that serious consideration be given to the use of nonverbal warm-up exercises in growth groups with adolescents. There most definitely is a need for further research in the area of nonverbal exercises in group settings. Any future research should attempt to deal with varying types of group settings ranging from the use of nonverbal exercises in vocational counseling to the use of nonverbal exercises with hospitalized psychiatric populations. Future studies should also make an effort to control for the sex, race, socioeconomic level, and culture of the subjects utilized. It is felt each of these variables may have an effect on the manner in which an individual responds to nonverbal exercises.

Due to the paucity of research in the area of nonverbal therapeutic exercises and their effect on the group members, any future research implementing these suggestions or other, yet to be conceptualized, methods would be of importance in furthering knowledge in the area of nonverbal warm-up exercises in counseling, therapeutic, or growth group settings.
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Rankin, P. R. Looking at change in the area of body image and self-concept in adolescent females after exposure to types of small group counseling experiences (Doctoral dissertation, University of Southern California, 1974). Dissertation Abstracts International, 1975, 35, 5828-5829. (University Microfilms No. 75-6439,86.)


Appendix A

Manual for Tennessee (Department of Mental Health) Self Concept Scale

Nature and Purpose of the Scale

Over recent years a wide variety of instruments has been employed to measure the self concept. Nevertheless, a need has continued for a scale which is simple for the subject, widely applicable, well standardized, and multi-dimensional in its description of the self concept. The Tennessee (Department of Mental Health) Self Concept Scale, hereafter called the Tennessee Self Concept Scale or simply the Scale, was developed to meet this need. Since the self concept has become such a popular and important means of studying and understanding human behavior, it was also hoped that an adequate self concept scale would provide a common thread for tying together many research and clinical findings. This hope has been realized for a vast amount of clinical and research data has been accumulated by a variety of workers, even prior to the formal publication of this scale.

The individual's concept of himself has been demonstrated to be highly influential in much of his behavior and also to be directly related to his general personality and state of mental health. Those people who see themselves as undesirable, worthless, or "bad" tend to act accordingly. Those who have a highly unrealistic concept of self tend to approach life and other people in unrealistic
ways. Those who have very deviant self concepts tend to behave in
deviant ways. Thus, a knowledge of how an individual perceives himself
is useful in attempting to help that individual, or in making
evaluations of him. The Scale therefore can be useful for a variety
of purposes—counseling, clinical assessment and diagnosis, research
in behavioral science, personnel selection, etc.

The Scale consists of 100 self descriptive statements which
the subject uses to portray his own picture of himself. The Scale
is self administering for either individuals or groups and can be
used with subjects age 12 or higher and having at least a sixth grade
reading level. It is also applicable to the whole range of psycho-
logical adjustment from healthy, well adjusted people to psychotic
patients.

The Scale is available in two forms, a Counseling Form and
a Clinical and Research Form. Both forms use exactly the same test
booklet and test items. The differences between the forms center in
the scoring and profiling system. The Counseling Form is quicker and
easier to score since it deals with fewer variables and scores, is
appropriate for self interpretation and feedback to counselees, and
requires less sophistication in psychometrics and psychopathology by
the examiner. The C and R, or Clinical and Research Form, is more
complex in terms of scoring, analysis, and interpretation, and is not
appropriate for self interpretation by, or direct feedback to, the
subject. Scoring for both forms can be accomplished either by hand,
or by machine through the test publisher. Most subjects complete the
Scale in 10- to 20-minutes (mean time about 13 minutes). Hand
scoring requires about 6- or 7-minutes for the Counseling form and about 20 minutes for the Clinical and Research form.

Development of the Scale

The author began the developmental work on this Scale with the Tennessee Department of Mental Health in 1955. The original purpose was to develop a research instrument that might contribute to the difficult criterion problem in mental health research. It has since proved useful for many other purposes, and so much data have accumulated that they can only be briefly summarized in this manual. An additional technical report is planned which will report all of the data available.

In the original development of the Scale the first step was to compile a large pool of self descriptive items. The original pool of items was derived from a number of other self concept measures including those developed by Balester (1956), Engel (1956), and Taylor (1953). Items were derived also from written self descriptions of patients and nonpatients. After considerable study, a phenomenological system was developed for classifying items on the basis of what they themselves were saying. This evolved into the two-dimensional, 3 x 5 scheme employed on the Score Sheet of both forms. A study of pages 7 and 9 will indicate this classification system. This part of the scale contains 90 items, equally divided as to positive and negative items. The remaining 10 items comprise the Self Criticism Scale.

After the items were edited, seven clinical psychologists were employed as judges to classify the items according to the 3 x 5
scheme already indicated. They also judged each item as to whether it was positive or negative in content. The final 90 items utilized in the Scale are those where there was perfect agreement by the judges.

The reader who would like to try the Scale on himself should do so at this point before reading the rest of the manual.

Nature and Meaning of Scores

Individuals who expect to use only the Counseling Form may wish to read only the first part of the following section. However, those who want to use the Clinical and Research Form should read the entire section because all scores in the Counseling Form appear also in the Clinical and Research Form.

1. Counseling Form

A. The Self Criticism Score (SC). This scale is composed of 10 items. These are all mildly derogatory statements that most people admit as being true for them. Individuals who deny most of these statements most often are being defensive and making a deliberate effort to present a favorable picture of themselves. High scores generally indicate a normal, healthy openness and capacity for self-criticism. Extremely high scores (above the 99th percentile) indicate that the individual may be lacking in defenses and may in fact be pathologically undefended. Low scores indicate defensiveness,

1. These items have been taken from the L-Scale of the Minnesota Multiphasic Personality Inventory (1951), Copyright 1943, the University of Minnesota. Published by the Psychological Corporation. Reproduced by special arrangements.
and suggest that the Positive Scores are probably artificially elevated by this defensiveness.

B. The Positive Scores (P). These scores derive directly from the phenomenological classification scheme already mentioned. In the original analysis of the item pool the statements seemed to be conveying three primary messages: (1) This is what I am, (2) This is how I feel about myself, and (3) This is what I do. On the basis of these three types of statements the three horizontal categories were formed. They appear on the Score Sheet as Row 1, Row 2, and Row 3 and are hereafter referred to by those labels. The Row Scores thus comprise three sub-scores which, when added, constitute the Total Positive or Total P Score. These scores represent an internal frame of reference within which the individual is describing himself.

Further study of the original items indicated that they also varied considerably in terms of a more external frame of reference. Even within the same row category the statements might vary widely in content. For example, with Row 1 (the What I am category) the statements refer to what I am physically, morally, socially, etc. Therefore, the pool of items was sorted again according to these new vertical categories, which are the five Column Scores of the Score Sheet. Thus the whole set of items is divided two ways, vertically into columns (external frame of reference) and horizontally into rows (internal frame of reference) with each item and each cell contributing to two different scores.

1. Total P Score. This is the most important single score on the Counseling Form. It reflects the overall level of self esteem.
Persons with high scores tend to like themselves, feel that they are persons of value and worth, have confidence in themselves, and act accordingly. People with low scores are doubtful about their own worth; see themselves as undesirable; often feel anxious, depressed, and unhappy; and have little faith or confidence in themselves.

If the Self Criticism (SC) Score is low, high P Scores become suspect and are probably the result of defensive distortion. Extremely high scores (generally above the 99th percentile) are deviant and are usually found only in such disturbed people as paranoid schizophrenics who as a group show many extreme scores, both high and low.

On the Counseling Form the Positive Scores are simply designated as P Scores, while on the Score Sheet of the C and R Form they are referred to as P + N Scores in order to clarify the computations involved.

2. **Row 1 P Score—Identity.** These are the "what I am" items. Here the individual is describing his basic identity—what he is as he sees himself.

3. **Row 2 P Score—Self Satisfaction.** This score comes from those items where the individual describes how he feels about the self he perceives. In general this score reflects the level of self satisfaction or self acceptance. An individual may have very high scores on Row 1 and Row 3 yet still score low on Row 2 because of very high standards and expectations for himself. Or vice versa, he may have a low opinion of himself as indicated by the Row 1 and Row 3 Scores yet still have a high Self Satisfaction Score on Row 2. The
sub-scores are therefore best interpreted in comparison with each other and with the Total P Score.

4. **Row 3 P Score—Behavior.** This score comes from those items that say "this is what I do, or this is the way I act." Thus this score measures the individual's perception of his own behavior or the way he functions.

5. **Column A—Physical Self.** Here the individual is presenting his view of his body, his state of health, his physical appearance, skills, and sexuality.

6. **Column B—Moral-Ethical Self.** This score describes the self from a moral-ethical frame of reference—moral worth, relationship to God, feelings of being a "good" or "bad" person, and satisfaction with one's religion or lack of it.

7. **Column C—Personal Self.** This score reflects the individual's sense of personal worth, his feeling of adequacy as a person and his evaluation of his personality apart from his body or his relationships to others.

8. **Column D—Family Self.** This score reflects one's feelings of adequacy, worth, and value as a family member. It refers to the individual's perception of self in reference to his closest and most immediate circle of associates.

9. **Column E—Social Self.** This is another "self as perceived in relation to others" category but pertains to "others" in a more general way. It reflects the person's sense of adequacy and worth in his social interaction with other people in general.

C. **The Variability Scores (V).** The V scores provide a simple
measure of the amount of variability, or inconsistency, from one area of self perception to another. High scores mean that the subject is quite variable in this respect while low scores indicate low variability which may even approach rigidity if extremely low (below the first percentile).

1. **Total V.** This represents the total amount of variability for the entire record. High scores mean that the person's self concept is so variable from one area to another as to reflect little unity or integration. High scoring persons tend to compartmentalize certain areas of self and view these areas quite apart from the remainder of self. Well integrated people generally score below the mean on these scores but above the first percentile.

2. **Column Total V.** This score measures and summarizes the variations within the columns.

3. **Row Total V.** This score is the sum of the variations across the rows.

D. **The Distribution Score (D).** This score is a summary score of the way one distributes his answers across the five available choices in responding to the items of the Scale. It is also interpreted as a measure of still another aspect of self perception: certainty about the way one sees himself. High scores indicate that the subject is very definite and certain in what he says about himself while low scores mean just the opposite. Low scores are found also at times with people who are being defensive and guarded. They hedge and avoid really committing themselves by employing "3" responses on the Answer Sheet.
Extreme scores on this variable are undesirable in either direction and are most often obtained from disturbed people. For example, schizophrenic patients often use "5" and "1" answers almost exclusively, thus creating very high D Scores. Other disturbed patients are extremely uncertain and noncommittal in their self descriptions with a predominance of "2," "3," and "4" responses and very low D Scores.

E. The Time Score. This score is simply a measure of the time, to the nearest minute, that the subject requires to complete the Scale. The author has only recently made any study of this variable, and at this point little is known as to its meaning or significance. It correlates significantly with only one of the many other scores of the Scale (Net Conflict sub-score for Column C where r = .32, significant at the .05 level). Therefore, any validity it may prove to have with other criteria should add to the total validity of the Scale.

The data do indicate that, provided the individual has sufficient education, intelligence, and reading ability to handle this task, the majority of subjects complete the Scale in less than 20 minutes. These qualifications are quite important; if they are not met, the Time Score obviously has little meaning. It has been found that psychiatric patients in general take longer than non-patients. This is particularly true of those who are overly compulsive, paranoid or depressed.

II. The Clinical and Research Form. The following additional scores of the C and R Form are presented in the order in which they appear
on the Profile Sheet. Readers interested only in the Counseling Form may omit this section.

A. The True-False Ratio (T/F). This is a measure of response set or response bias, an indication of whether the subject's approach to the task involves any strong tendency to agree or disagree regardless of item content (Fitts, 1961).

The actual meaning of T/F can be approached in three ways. (1) It can be considered solely as a measure of response set and interpreted in terms of the findings about the meaning of deviant response sets. (2) It can be treated purely as a task approach or behavioral measure which has meaning only in terms of empirical validity. In this sense the T/F Ratio differentiates patients from non-patients and correlates significantly with other tests. (3) It can also be considered from the framework of self theory. From this approach, high T/F Scores indicate the individual is achieving self definition or self description by focusing on what he is and is relatively unable to accomplish the same thing by eliminating or rejecting what he is not. Low T/F Scores would mean the exact opposite, and scores in the middle ranges would indicate that the subject achieves self definition by a more balanced employment of both tendencies--affirming what is self and eliminating what is not self.

B. Net Conflict Scores. These scores are highly correlated with the T/F Score. More directly, however, they measure the extent to which an individual's responses to positive items differ from, or conflict with, his responses to negative items in the same area of self perception. Thus this is a limited and purely operational
definition and application of the term "conflict." On the C and R Score Sheet separate scores are computed within each cell for the positive and negative items. The difference between these scores, the P - N Score, is an operational measure of conflict. Since the responses on the negative items are reversed on the Score Sheet, the P Scores and the N Scores have equivalent meanings. Thus any difference between P and N reflects contradiction or conflict.

There are two different kinds of conflict, as follows:

1. **Acquiescence Conflict.** This phenomenon occurs when the P Scores are greater than the N Scores (P - N yields a positive score or number). This means that the subject is overaffirming his positive attributes.

2. **Denial Conflict.** This is the opposite of acquiescence conflict. Here the N Scores for the cells are higher than the P Scores (P - N yields minus scores). This means that the subject is overdenying his negative attributes in relation to the way he affirms his positive characteristics. He concentrates on "eliminating the negative."

C. **Total Conflict Scores.** The foregoing Net Conflict Scores were concerned only with directional trends in our P - N measure of conflict. However, some individuals have high P - N differences which cancel each other out because they are so variable in direction. It is of equal interest to determine the total amount of P - N conflict in a subject's self concept as well as the net or directional amount of conflict. The Total Conflict score does this by summing P - N discrepancies regardless of sign. High scores indicate
confusion, contradiction, and general conflict in self perception. Low scores have the opposite interpretation, but extremely low scores (below the red line on the Profile Sheet) have a different meaning. The person with such low scores is presenting such an extremely tight and rigid self description that it becomes suspect as an artificial, defensive stereotype rather than his true self image. Disturbed people generally score high on this variable, but some also have deviantly low scores depending on the nature and degree of their disorder.

The conflict scores are reflections of conflicting responses to positive and negative items within the same area of self perception. These scores are not to be confused with the variability scores, which reflect fluctuations from one area of self perception to another.

D. The Empirical Scales. These six scales were all derived by item analysis, with a resulting selection of those items which differentiated one group of subjects from all other groups. The scores on these scales are purely empirical, and cut across the basic classification scheme of the Scale.

These scales were derived from an analysis of item responses with the following groups:

<table>
<thead>
<tr>
<th>Group</th>
<th>Size of Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norm Group</td>
<td>626</td>
</tr>
<tr>
<td>Psychotic Group (Psy)</td>
<td>100</td>
</tr>
<tr>
<td>Neurotic Group (N)</td>
<td>100</td>
</tr>
<tr>
<td>Personality Disorder Group (PD)</td>
<td>100</td>
</tr>
</tbody>
</table>
Defensive Positive Group (DP) 100
Personality Integration Group (PI) 75

The comparative item responses for these groups were studied and analyzed by Chi Square tests. Those items which differentiated one group from all other groups were then used to compose a specific scale for that group. There is some overlapping of items, since a number of items are used on more than one scale.

The six empirical scales derived by this method, in order of their appearance on the profile Sheet, are as follows:

1. The Defensive Positive Scale (DP). This is a more subtle measure of defensiveness than the SC Score. One might think of SC as an obvious defensiveness score and DP as a subtle defensiveness score. The DP Score stems from a basic hypothesis of self theory: that individuals with established psychiatric difficulties do have negative self concepts at some level of awareness, regardless of how positively they describe themselves on an instrument of this type.

With this basic assumption, the author collected data on 100 psychiatric patients whose Total P Scores were above the mean for the Norm Group. The item analysis then identified 29 items which differentiated this DP Group from the other groups.

The DP Score has significance at both extremes. A high DP Score indicates a positive self description stemming from defensive distortion. A significantly low DP Score means that the person is lacking in the usual defenses for maintaining even minimal self esteem.

2. The General Maladjustment Scale (GM). This scale is
composed of 24 items which differentiate psychiatric patients from non-patients but do not differentiate one patient group from another. Thus it serves as a general index of adjustment-maladjustment but provides no clues as to the nature of the pathology. Note that this is an inverse Scale on the Profile Sheet. Low raw scores result in high T-Scores, and vice versa.

3. **The Psychosis Scale (Psy).** The Psy Scale is based on 23 items which best differentiate psychotic patients from other groups.

4. **The Personality Disorder Scale (PD).** The 27 items of this scale are those that differentiate this broad diagnostic category from the other groups. This category pertains to people with basic personality defects and weaknesses in contrast to psychotic states or the various neurotic reactions. The PD Scale is again an inverse one.

5. **The Neurosis Scale (N).** This is an inverse scale composed of 27 items. As with the other inverse scales, high T-Scores on the Profile Sheet still mean high similarity to the group from which the scale was derived—in this case neurotic patients.

6. **The Personality Integration Scale (PI).** The scale consists of the 25 items that differentiate the PI Group from other groups. The scoring is slightly different for this scale and is explained on the special template for scoring this scale. This group was composed of 75 people who, by a variety of criteria, were judged as average or better in terms of level of adjustment or degree of personality integration.
E. The Number of Deviant Signs Score (NDS). The NDS Score is a purely empirical measure, and is simply a count of the number of deviant features on all other scores. This score is based upon the theoretical position of Berg (1957) as stated in his "deviation hypothesis." This hypothesis states that individuals who deviate sharply from the norm in minor behaviors are likely to be deviant in more major aspects of behavior. The findings with the NDS Score substantiate this hypothesis. Disturbed persons often obtain extreme scores on either end of the continuum. Consequently, a system which sets appropriate cut-off points for each score on the Scale will identify disturbed persons with considerable accuracy.

The NDS Score is the Scale's best index of psychological disturbance. This score alone identifies deviant individuals with about 80% accuracy.

Administration

The Scale is self-administering and requires no instructions beyond those on the inside cover of the test booklet. It is well, however, to note one point which may need special attention by the examiner. The answer sheet is arranged so that the subject responds to every other item on the answer sheet. Some subjects may be momentarily confused on this point, and it will help the examiner to be aware of this possibility.

Scoring Instructions

General

Manual scoring of the Scale is facilitated by the arrangement of the Combination Packet which registers answers directly on a score
sheet by carbon paper. Computer scoring for 50 or more Scales is available directly from the publisher. For quantity scoring this method will prove more economical than hand scoring.

The instructions on the test booklet request that no item be omitted. It would help further if the examiner reiterated this point. With all these precautions, however, a respondent may still omit items. The scoring procedure to follow for omitted items is for the scorer to fill in the middle scale point of 3 for each omitted item before computing the score.

As far as possible the scoring procedures have been explained on the Score Sheets and on the templates for the Empirical Scales of the C and R Form. The instructions are, however, spelled out specifically below. These can best be followed and understood if studied along with a copy of the appropriate Score Sheet. (See pages 7 and 9). On the actual Score Sheets the basic 90 items are half in black (positive items) and half in red (negative items). The response scale numbers for negative items have all been reversed on the Score Sheet in order to permit a simple, unified scoring system. By this system a person who says completely false to a negative item obtains a high score just as he does when he says completely true to a positive item. Thus high scores uniformly mean positive self description.

I. Counseling Form

A. The Self Criticism Score (SC). Add the circled scores for items 91 through 100. Enter the sum in a box labeled SC=. This is the SC Score.
B. The Positive Scores—The Row Scores, the Column Scores, the Total P Score. Note that the Score Sheet has three horizontal rows and five vertical columns. This combination yields 15 cells of six items each.

1. Add the six circled scores in the first cell. Enter the sum next to the letter P at the bottom of the cell. Do the same with each of the 15 cells. (Note: on Form C and R, scores for positive and negative items are computed separately and combined into a P + N Score which is the same as the P Score of the Counseling Form.)

2. Row Scores. Add horizontally the five cell sums for the first row (Identity row). Enter the resulting figure in the Row Totals column. Do the same for the other rows.

3. Column Scores. Add vertically the three cell sums for Column A (Physical Self). Enter the resulting figure in the Column Total section. Do the same for the other four columns.

4. Total P Score. Since this score is the total Positive score, it may be computed by adding either the Row Totals for P or the Column Totals for P. The resulting sum should be the same. It is best, indeed, to do the sum both ways so that you have an accuracy check for the computations. Enter the resulting figure in the box labeled Total Positive or P.

C. The Variability Score (V)

1. Row V Scores. For Row 1 (Identity) find the lowest of the five cell total P scores. Subtract this score from the highest of the five cell total scores. Enter the resulting figure on the extreme right-hand column of the Score Sheet.
Do the same with the next two rows. Add the three row figures and enter the sum in the box labeled Row Tot. V.

2. **Column V Scores.** For Column A find the lowest of the three cell P scores. Subtract this score from the highest of the three cell scores. Enter the resulting figure in the **Column Totals V** for Column A.

Do the same with the next four columns. Add the five column figures and enter the sum in the box labeled **Col. Tot. V.**

3. **Total V.** Add the subtotals for Row Total V and Column Total V. Enter the resulting sum in Total V. These two subtotals are rarely the same and do not serve as an accuracy check.

**D. The Distribution Score (D).** To compute this score the **Answer Sheet** must be used.

1. Count the number of 5s used by the subject on his answer sheet. Enter this number in the lower left hand side of the Score Sheet on the row labeled **Totals.** Continue by counting the numbers of 4s, 3s, 2s and 1s separately and enter each sum in the appropriate **Totals** line.

2. Do the computations indicated for the **Totals** row; i.e., multiply the 5s sum by 2 and put the resulting figure on the D line, copy the 4s sum, omit the 3s sum, copy the 2s sum, and multiply the 1s sum by 2. Add the four figures to get the D score.

**II. The Clinical and Research Form.** The following instructions will be clearer if the reader refers to the sample C and R score sheet on Page 9 as the explanations are given.

A. **The T/F Ratio.** In the lower left corner of the Score Sheet
under "Distribution of Responses," start with the section marked "Totals." From these figures, which have already been recorded in computing the D Score, subtract out the numbers 5, 4, 3, 2, and 1 responses in the Self Criticism column of the Score Sheet. Record the remainder in the boxes just above; these should add to 90. T/F is then the sum of the 5s and 4s divided by the sum of the 2s and 1s. Divide and round to the nearest hundredth. This is the T/F Score or the ratio of true to false responses for the basic 90 items of the Scale.

B. The Net Conflict Scores

1. Scoring. For each six-item cell, subtract N from P and record the answer in the P - N blank. If N is larger than P, the P - N subtraction will of course yield a negative number which is recorded with a minus sign. Add the P - N cell scores algebraically for each row and column to obtain the subscores and record these in the blanks provided. The Total Net Conflict Score is obtained by summing either the row or column scores (algebraic addition). An accuracy check is provided by summing the scores both ways.

2. Sub-score Profiling (optional procedure). There is a way of portraying the Net Conflict sub-scores on the Profile Sheet though no specific spaces are provided for these scores. It is not at all essential to do this, and many users will not care to take the time required. However, such graphic portrayal provides a different means of conceptualizing these scores. Also, in studying an individual's profile this system provides quick visual identification as to the major areas of conflict.
C. The Total Conflict Scores. These scores are again based on the P - N Scores for each cell. The scores are added across rows and columns, but this time the addition is non-algebraic, and without regard to sign. The interest here is only in the total amount of conflict without regard to the nature or direction of the conflict. Record the row and column sub-totals and sum either by rows or columns (or both for a check) for the Total Conflict Score.

D. The Distribution Sub-Scores. These scores are simply a count of the number of 5, 4, 3, 2, and 1 responses. Remember, though, that this count is performed from the Answer Sheet and NOT the Score Sheet.

E. The Empirical Scales. Scoring for each of these six scales requires the use of special scoring templates. Scoring instructions are provided on each template.

F. The Number of Deviant Signs (NDS). The general principle in scoring NDS is: count one deviant sign for each score that deviates beyond its specified normal limits; add an additional deviant sign for each standard deviation by which any score exceeds its limits. More specifically NDS is computed by these steps:

1. From the Profile Sheet count the number of profile points falling outside the red lines. Additional deviations are counted for each 10 T-Score units of deviation for any score.

2. To this sum, add the number of deviant profile segments. By segment we mean here the line on the profile that connects one score with the next score. A profile segment is deviant if it varies up or down as much or more than the normal limits specified along the
bottom margin of the Profile Sheet. This variation is counted in
T-Score points. Extra deviant signs are added for each additional
10 T-Score points of deviation with any score.

3. From the Score Sheet, count the number of deviant scores
among the Row and Column Conflict Scores (Net and Total). A score is
deviant if it falls outside the normal limits printed in small
numerals in each column and row total where the conflict scores are
entered. For each standard deviation beyond the normal limits, an
additional deviant sign is counted. The standard deviations are the
numbers printed in parentheses at the center of the column and row
spaces on the Score Sheet where the conflict scores are entered.

4. If the Time Score has been accurately recorded and if it
is appropriate to use Time as a score (subject was not interrupted,
has sufficient intelligence, education, and reading ability to handle
this task, etc.) then the Time Score is treated like any other score.
In other words, add a deviant sign for any score exceeding 24
minutes and an additional deviant sign for each 5.54 minutes (1 S.D.)
of deviation.

5. Sum all of the deviant signs already counted, find where
this tentative NDS Score would fall in the NDS Column of the Profile
Sheet, then determine whether this creates any further deviant signs
from the last segment of the profile which has not yet been plotted
(PI to NDS). If the tentative total is not more than 19 T-Score
units higher than the PI Score, go ahead and plot this score and
connect it with PI. If, however, NDS is more than 19 points higher
than PI, NDS should be corrected accordingly before plotting. (That
is, add one NDS for the basic deviation and an additional NDS for each 10 T-Score units beyond the limit.)

NDS is the only score on the Scale, except for the Time Score, which cannot be obtained from our computer scoring methods. This is so because it is computed in large part from the Profile Sheet which must be plotted by hand.

A sample Score Sheet and Profile Sheet for a manic-depressive patient are presented on pages 9 and 10. Note that profile segments which are deviant have been checked to facilitate the computation of NDS. On the Score Sheet the scores which are deviant have also been checked. These checks may conveniently be made at the time the scorer first records the Conflict scores on the Score Sheet.

Notice too that on the sample Profile Sheet the Net Conflict sub-scores have been portrayed, as previously described, by plotting two additional profiles across the Positive Scores. The positive profile (small dashed line) shows the picture the patient presents based solely on the positive items and the negative profile (larger dashed line) is the picture based only on the negative items. The solid line of course is the total, or composite, picture obtained from all items.

The profile affords a visual image of the discrepant or conflict areas. Visual inspection, however, is not sufficient to point up significant discrepancies. Since the approach to these scores is empirical, we must refer to the specified limits for these scores on the Score Sheet to determine whether any specific discrepancy is deviant or not.
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I have a healthy body</td>
</tr>
<tr>
<td>3</td>
<td>I am an attractive person</td>
</tr>
<tr>
<td>5</td>
<td>I consider myself a sloppy person</td>
</tr>
<tr>
<td>19</td>
<td>I am a decent sort of person</td>
</tr>
<tr>
<td>21</td>
<td>I am an honest person</td>
</tr>
<tr>
<td>23</td>
<td>I am a bad person</td>
</tr>
<tr>
<td>37</td>
<td>I am a cheerful person</td>
</tr>
<tr>
<td>39</td>
<td>I am a calm and easy going person</td>
</tr>
<tr>
<td>41</td>
<td>I am a nobody</td>
</tr>
<tr>
<td>55</td>
<td>I have a family that would always help me in any kind of trouble</td>
</tr>
<tr>
<td>57</td>
<td>I am a member of a happy family</td>
</tr>
<tr>
<td>59</td>
<td>My friends have no confidence in me</td>
</tr>
<tr>
<td>73</td>
<td>I am a friendly person</td>
</tr>
<tr>
<td>75</td>
<td>I am popular with men</td>
</tr>
<tr>
<td>77</td>
<td>I am not interested in what other people do</td>
</tr>
<tr>
<td>91</td>
<td>I do not always tell the truth</td>
</tr>
<tr>
<td>93</td>
<td>I get angry sometimes</td>
</tr>
</tbody>
</table>

Completely False Mostly Partly False Mostly True Completely True

Responses-- false false and true true partly true

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>I like to look nice and neat all the time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I am full of aches and pains</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item No.</td>
<td>Question</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>----------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>I am a sick person</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>I am a religious person</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>I am a moral failure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>I am a morally weak person</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>I have a lot of self-control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>I am a hateful person</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>I am losing my mind</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>I am an important person to my friends and family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>I am not loved by my family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>I feel that my family doesn't trust me</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>74</td>
<td>I am popular with women</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td>I am mad at the whole world</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>78</td>
<td>I am hard to be friendly with</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>92</td>
<td>Once in a while I think of things too bad to talk about</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>94</td>
<td>Sometimes, when I am not feeling well, I am cross</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Responses—false false and true partly true

| 1  | 2  | 3  | 4  | 5 |

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>I am neither too fat nor too thin</td>
</tr>
<tr>
<td>9</td>
<td>I like my looks just the way they are</td>
</tr>
</tbody>
</table>
11. I would like to change some parts of my body ........ 11
25. I am satisfied with my moral behavior ............... 25
27. I am satisfied with my relationship to God ........ 27
29. I ought to go to church more ......................... 29
43. I am satisfied to be just what I am ................ 43
45. I am just as nice as I should be .................... 45
47. I despise myself .................................... 47
61. I am satisfied with my family relationships ....... 61
63. I understand my family as well as I should ....... 63
65. I should trust my family more ...................... 65
79. I am as sociable as I want to be ................... 79
81. I try to please others, but I don't overdo it ... 81
83. I am no good at all from a social standpoint .... 83
95. I do not like everyone I know ...................... 95
97. Once in a while, I laugh at a dirty joke .......... 97

Completely Mostly Partly false Mostly Completely
Responses-- false false and true true partly true

1   2   3   4   5

Item No.

8. I am neither too tall nor too short .................... 8
10. I don't feel as well as I should .................... 10
12. I should have more sex appeal ..................... 12
26. I am as religious as I want to be .................. 26
28. I wish I could be more trustworthy .................. 28
30. I shouldn't tell so many lies .............................................. 30
44. I am as smart as I want to be ............................................. 44
46. I am not the person I would like to be ................................. 46
48. I wish I didn't give up as easily as I do ............................... 48
62. I treat my parents as well as I should (Use past tense if parents are not living) .................................................. 62
64. I am too sensitive to things my family say .......................... 64
66. I should love my family more ........................................... 66
80. I am satisfied with the way I treat other people ................. 80
82. I should be more polite to others ...................................... 82
84. I ought to get along better with other people ................. 84
96. I gossip a little at times .................................................... 96
98. At times I feel like swearing ............................................ 98

Completely  Mostly  Partly false  Mostly  Completely
Responses-- false false and true true partly true

1   2   3   4   5

Item
No.

13. I take good care of myself physically .............................. 13
15. I try to be careful about my appearance .......................... 15
17. I often act like I am "all thumbs" ...................................... 17
31. I am true to my religion in my everyday life ............... 31
33. I try to change when I know I'm doing things that
are wrong ............................................................................ 33
35. I sometimes do very bad things ..................................... 35
49. I can always take care of myself in any situation ... 49
51. I take the blame for things without getting mad ... 51
53. I do things without thinking about them first ... 53
67. I try to play fair with my friends and family ... 67
69. I take a real interest in my family ............... 69
71. I give in to my parents. (Use past tense if parents
are not living) ........................................ 71
85. I try to understand the other fellow's point of
view ....................................................... 85
87. I get along well with other people .................. 87
89. I do not forgive others easily ....................... 89
99. I would rather win than lose in a game ............ 99

I try to understand the other fellow's point of
view

Completely Mostly Partly false Mostly Completely
Responses-- false false and true true partly true

1 2 3 4 5

14. I feel good most of the time ....................... 14
16. I do poorly in sports and games ................... 16
18. I am a poor sleeper ................................ 18
32. I do what is right most of the time ............... 32
34. I sometimes use unfair means to get ahead ........ 34
36. I have trouble doing the things that are right .... 36
50. I solve my problems quite easily ................. 50
52. I change my mind a lot ........................... 52
<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>Likelihood</th>
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<tbody>
<tr>
<td>54</td>
<td>I try to run away from my problems</td>
<td>54</td>
</tr>
<tr>
<td>68</td>
<td>I do my share of work at home</td>
<td>68</td>
</tr>
<tr>
<td>70</td>
<td>I quarrel with my family</td>
<td>70</td>
</tr>
<tr>
<td>72</td>
<td>I do not act like my family thinks I should</td>
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<tr>
<td>86</td>
<td>I see good points in all the people I meet</td>
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<tr>
<td>88</td>
<td>I do not feel at ease with other people</td>
<td>88</td>
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<tr>
<td>90</td>
<td>I find it hard to talk with strangers</td>
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<tr>
<td>100</td>
<td>Once in a while I put off until tomorrow what I ought to do today</td>
<td>100</td>
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</tbody>
</table>

Responses—false   false   and   true   true   partly true

1  2  3  4  5


APPENDIX B

The Hill Interaction Matrix

<table>
<thead>
<tr>
<th>CONTENT CATEGORIES</th>
<th>NONMEMBER-CENTERED</th>
<th>MEMBER-CENTERED</th>
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<tbody>
<tr>
<td></td>
<td>GENERAL TOPIC</td>
<td>GROUP PERSONAL RELATIONSHIP</td>
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<tr>
<td>I</td>
<td>II</td>
<td>III</td>
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<table>
<thead>
<tr>
<th>A RESPONSIVE</th>
<th>I A</th>
<th>II A</th>
<th>III A</th>
<th>IV A</th>
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<tbody>
<tr>
<td>B CONVENTIONAL</td>
<td>I B</td>
<td>II B</td>
<td>III B</td>
<td>IV B (16)</td>
</tr>
<tr>
<td>C ASSERTIVE (REJECTING)</td>
<td>I C (3)</td>
<td>II C (4)</td>
<td>III C (11)</td>
<td>IV C (12)</td>
</tr>
<tr>
<td>D SPECULATIVE</td>
<td>I D (6)</td>
<td>II D (4)</td>
<td>III D (13)</td>
<td>IV D (14)</td>
</tr>
<tr>
<td>E CONFRONTIVE</td>
<td>I E (7)</td>
<td>II E (6)</td>
<td>III E (10)</td>
<td>IV E (16)</td>
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</table>

Figure 4. The Hill Interaction Matrix
Appendix C  

Judge's Rating Forms  

Appendix C contains the forms used by judges in rating amount of body openness and amount of forward body lean of the group members. The rating sheets are designed to the specific requirements of the present study.  

Body Openness  

Body openness is rated for each member of both groups, and is defined as the amount of time each group member spends with arms and legs not crossed in front of the body while in a sitting position in the group.

<table>
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<th>Time spent in body openness</th>
<th>S_1</th>
<th>S_2</th>
<th>S_3</th>
<th>S_4</th>
<th>S_5</th>
<th>S_6</th>
<th>S_7</th>
<th>S_8</th>
<th>S_9</th>
<th>S_10</th>
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</table>
Body Lean

Forward body lean is rated for each member of both groups, and is defined as the amount of time each group member spends in 20 degrees or more of forward body lean while in a sitting position in the group.

mean amount of time in forward body lean = ____________

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<tr>
<th>Subjects</th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>S4</th>
<th>S5</th>
<th>S6</th>
<th>S7</th>
<th>S8</th>
<th>S9</th>
<th>S10</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>
Appendix D

Research Announcement

A doctoral student in counseling at the College of William and Mary, Williamsburg, Virginia, is conducting a research study on how people interact in a group setting. Each volunteer will receive a coded number for identification purposes. No names will be used in the study. Volunteers will be asked to complete two questionnaires, one before involvement in group counseling for the period of a month and one at the conclusion of the group. All information collected is for research purposes only. If you are interested in participating or need information, please contact the psychology teacher, Ms. Rosemary Thompson.
Appendix E

Qualifications of Rater for the Hill Interaction Matrix

Ms. Helen Simons, Graduate Assistant Counseling Psychology, The College of William and Mary in Virginia.

**Educational Background**

B.A., Oberlin College, Oberlin, Ohio.

M.S., Guidance and Counseling, Hampton Institute, Hampton, Virginia.


Doctoral candidate in Counseling Psychology, The College of William and Mary in Virginia.

**Relevant Experience**

School teacher and counselor—15 years.

Drug rehabilitation counselor—2 years.

Presently employed by the Peninsula Pastoral Counseling Center.
Appendix F

Typical Student Comments

<table>
<thead>
<tr>
<th>General Topic</th>
<th>Group</th>
<th>Personal</th>
<th>Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional</td>
<td>I paid $6 to have my hair styled &amp; look at it; it looks much better.</td>
<td>Can't we go for another period. We are just getting started.</td>
<td>I asked dad if he wanted me to smoke behind his back or in front of him and he said he didn't want me to smoke at all.</td>
</tr>
<tr>
<td>Assertive</td>
<td>The only reason kids drink is to think they're big.</td>
<td>I just like to listen to others talk. It makes me nervous to talk in a group.</td>
<td>Well I'm proud of it. The dumb cop believed me so I must have made it good and I didn't have to pay, did I.</td>
</tr>
</tbody>
</table>
Speculative
I don't see why adults have the right to jump to conclusions about kids, & I don't see why they think they have the right to chop us in front of class.

Confrontative.
Deep down you may think you despise your parents . . . , but deep down you actually know you really love them!

I wish all of us would say what we think. I wonder why we don't.

I guess I don't have a conscience. I didn't even think how she would feel when I ran away. I don't understand.

If I borrow a dime I think you are a leech. You borrow it back, but a dollar is different. it back and make a big joke out of everything.
## Appendix G

**Typical Adult Comments***

<table>
<thead>
<tr>
<th>Nonmember-Centered</th>
<th>Member-Centered</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topic</strong></td>
<td><strong>Group</strong></td>
</tr>
<tr>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>Conventional</td>
<td>It's sure cold out today.</td>
</tr>
<tr>
<td>Assertive</td>
<td>Aren't those hippies awful? They are so dirty!</td>
</tr>
<tr>
<td>Speculative</td>
<td>I wonder if every-one isn't neurotic in some way?</td>
</tr>
<tr>
<td>Confrontive</td>
<td>Maybe we all have a mother and father in us which has to be somehow done away</td>
</tr>
</tbody>
</table>
with. because it isn't me.

*Reference: HIM Scoring Manual, Wm. F. Hill, Youth Studies Center,

U.S.C., Los Angeles.
THE EFFECTS OF NONVERBAL WARM-UP EXERCISES UPON GROUP COUNSELING EFFECTIVENESS WITH ADOLESCENT GROUPS

Charles G. Guyer II, Ed.D.

Curtis H. O'Shell, Ed.D., Committee Chairman
The College of William and Mary in Virginia

After responding to a request for volunteers, 20 high school students were randomly assigned to one of two counseling groups. Both groups were facilitated by the same master level group counselor. The master level counselor was not aware which group was the experimental group and which group was the control group. The treatment group received a package of nonverbal warm-up exercises, and the control group received a package of verbal warm-up exercises. Each group session was videotaped and rated independently for amount of time spent in forward body lean and for open body posture by two trained judges. Interjudge reliability was .98. The videotapes were also viewed by a doctoral level graduate student and rated for the level of interpersonal interaction on the Hill Interaction Matrix. The subjects in each group were administered the Tennessee Self Concept Scale before the first group meeting and following the last group meeting.

The four hypotheses generated are as follows:

1. There will be a significant change in self concept in the group utilizing nonverbal warm-up exercises when compared to the group implementing verbal warm-up exercises.

2. There will be significantly more time spent in forward body lean in the group where nonverbal exercises are implemented when compared to the group utilizing verbal warm-up exercises.

3. There will be significantly more time spent in open body posture in the group where nonverbal warm-up exercises are used when compared to the group where verbal warm-up exercises are used.

4. The group utilizing nonverbal exercises will operate at a higher level of interpersonal interaction on the Hill Interaction Matrix than will the group utilizing verbal warm-up exercises.

The results indicated that adolescents in the group implementing nonverbal warm-up exercises engaged in significantly more open body posture than did the adolescents in the group where verbal warm-up exercises were used (p < .05). There was also a significant change in
self-concept in the group where nonverbal exercises were used when compared to the group where verbal exercises were used ($p < .05$). The group with nonverbal exercises interacted at significantly higher levels on the Hill Interaction Matrix when compared to the group utilizing verbal warm-up exercises ($p < .05$).

The analysis of data did reveal that mean amount of time spent in forward body lean was not significant ($p > .05$). It is felt that the fact that the subjects were seated on the floor did effect the validity of this finding.
VITAE

1. Personal Information.

Name: Charles Grayson Guyer II
Date of birth: May 22, 1949
Place of birth: High Point, North Carolina.

2. Education.

College of William and Mary
Williamsburg, Virginia
Department of Educational Psychology

College of William and Mary
Williamsburg, Virginia
Department of Educational Psychology

Appalachian State University
A member institution of the University of North Carolina
Boone, North Carolina
Master of Arts degree in Clinical Psychology
Minor in Sociology (May 1974).

Appalachian State University
Boone, North Carolina
Bachelor of Arts degree in Psychology
Minor in Sociology (May 1972).

One year post masters study in Clinical Psychology
Howard University

3. Professional Experience.

1976-present: Private practice of counseling and clinical psychology in the practice of Dr. M. S. Emanuelson.

1976-present: Adjunct Faculty of Eastern Virginia Medical School.

1976: Adjunct Professor, Norfolk State College, Virginia.


1975: Research Assistant, Institute for Urban Affairs, Howard University.


1974-1975: Adjunct Professor, Old Dominion University, Norfolk, Virginia.


4. Professional Certification.

Virginia State Certification in School Psychology.

Certified Personnel and Guidance Counselor, Commonwealth of Virginia.

Registered with the Virginia Board of Psychologists Examiners.

5. Publications.

"The Effects of Work Enrichment on the Cooperativeness of Oppositional Retarded Adolescents," Western Carolina Papers, 1975,