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A PILOT STUDY OF THE EFFECT OF TRAINING IN INTERPERSONAL PROCESS RECALL ON THE AFFECTIVE SENSITIVITY AND EMPATHY OF HEARING PARENTS OF DEAF CHILDREN

By

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ABSTRACT

A PILOT STUDY OF THE EFFECT OF TRAINING IN INTERPERSONAL PROCESS RECALL ON THE AFFECTIVE SENSITIVITY AND EMPATHY OF HEARING PARENTS OF DEAF CHILDREN

By

Robert A. Anthony

The effect of a training program in communication and interpersonal relations on the affective sensitivity of hearing parents of deaf children was studied. The intent of the research was to evaluate a set of procedures by which parents could improve their sensitivity, empathy, and ability to communicate effectively with their deaf children.

Deaf children are recognized as having unique problems in developing interpersonal relationships. These problems are caused by the fact that deafness prohibits the development of language and speech through the usual auditory channel.

These difficulties in communication have a profound effect on the relationship between parents and their deaf children. Often the relationship is confused, strained, or tenuous. Because the parent-child relationship is the model for the child's future relationships, its importance is basic.

Efforts to resolve the communication problems between hearing parents and deaf children usually identify modality as the cause of the problem. Such research frequently

evaluates whether speech and lipreading or sign language is the best method for communicating with deaf children.

There are, however, two other important factors in communication that are not usually considered. These factors are the meaning and process of communication. This research analyzed a method of training parents how to be more sensitive to the covert and overt meaning in communication by instructing them in the process of communication.

The training program used was composed of ten training sessions. The training sessions involved didactic presentations, role playing, paired interactions, and video-taped recall of the paired interactions. The training program used was Interpersonal Process Recall (hereinafter referred to as IPR) developed by Norman Kagan.

The independent variable was affective sensitivity training. This variable had two levels which were dichotomous. The levels were 1) training in IPR and 2) no training in IPR. The dependent variable was the effect of training in IPR on the affective sensitivity of subjects who were trained. The effect of training was determined by analyzing the scores of subjects on the Filmed Measure of Affective Sensitivity Scale D (FMAS Scale D) (Kagan and Schneider, 1975) and the Carkhuff Index of Empathy Discrimination (CIED) (Carkhuff, 1969).

A pretest posttest control group design without randomization was used to study the independent variable. The experimental and control groups were composed of hearing parents of deaf children. Subjects in the experimental group participated in training in IPR. Subjects in the control

group did not participate in IPR training. Both the experimental and control group were tested immediately prior to the beginning of training and immediately after training was completed. The time lapse between the pretest and the posttest was the same for both the experimental and control group.

The data for each hypothesis was analyzed using a Mann-Whitney U test statistic. This program was used because of the small number of subjects (N=13) and the need to maximize statistical power. The Mann-Whitney U is recognized as a powerful alternative to the parametric t-test (Popham and Sirotnik, 1973).

It was found that subjects trained in IPR were significantly more sensitive to client (helpee) communication than the control group after training was completed. In the other three areas of sensitivity that were measured no significant difference between the experimental and the control group was found. This indicated that training in IPR did not significantly affect the experimental group's general level of affective sensitivity, sensitivity to nonverbal communication, nor level of empathy, but did affect sensitivity to client (helpee) communication.

A word of caution is necessary here, particularly directed to those professionals who continue to search for ways to serve parents of deaf children. The results of this study are dependent on a very limited N, of widely divergent personal skills, education, and experiential background. Because random selection and assignment was not possible,

generalizations to the population of interest (hearing parents of deaf children) is discouraged.

To my parents Joseph A. Anthony
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CHAPTER I

THE PROBLEM

This is a study of the effect of a training program in communication and interpersonal relations on the behavior of hearing parents toward their deaf children. Its intent is to develop a set of procedures by which parents can improve their sensitivity, empathy, and ability to communicate effectively with their deaf children.

A consideration of the significant attributes of deafness must include the following information: (1) the kind of impairment--conductive or sensory neural; (2) degree of impairment--volume and frequency levels at which sound is perceived; (3) age at onset--the age at which the impairment occurred; and (4) the cause--genetic, disease, accident. These factors describe important physical features of hearing deficits. These features reveal, however, nothing of how hearing impairment affects the person.

The physical characteristics of deafness are not its most salient feature. The developmental ramifications are by far the most complicating and significant features of deafness (Furth, 1973). The fact that deafness prohibits the development of language and speech through the usual auditory channel relegates the deaf individual to a world of deprivation in human interaction. The primary handicap of deafness,

then, is the severely reduced ability to form interpersonal relationships because of the communication barriers.

This study is an attempt to investigate one aspect of the communication barrier which handicaps deaf individuals. The aspect studied is the vitally important one of early and effective communication between parent and child.

The Problem

Communication has a profound effect on human development. It is used to satisfy physical, social and psychic needs.

Communication is a critical factor in all areas of human development: physical, psychic and social. Developmental use of communication proceeds from satisfaction of physical needs, e.g., a baby cries when it is hungry, to more complex psychological and social needs.

As the child develops and physical needs diminish in urgency, communication becomes a tool with which the growing child can gain knowledge, formulate ideas, and express thoughts and feelings more intelligibly. In other words, communication is a tool of learning and a source of feedback for a more perfect understanding of the physical, psychic, and social world.

There are at least two ways in which people learn or acquire knowledge. Part of learning may be accomplished through direct experience. Much of learning must be done, however, by observation of the activity of others, discussion of the past and present, and predictions for the future. It is this kind of learning, through communication, that

separates humans from the rest of the animal kingdom. It is communication with others that permits people to move beyond merely reacting to events. The ability develops to understand, anticipate, and plan for events that have not yet occurred. Clearly, communication is important to human development. Problems in communication result in problems in physical, social, and psychic development.

Communication is instrumental to and defined by interpersonal relations. In their book, Monologue to Dialogue, An Exploration of Interpersonal Communication, Brown and Keller (1973) stated "Communication between people involves in its essence, two things--relationships and information; the former determines the latter" (p. 1).

The earliest and most important relationship a child has is with his/her parents. Parents satisfy most of the needs of the child through the provision of food, clothing, and shelter. They are also the first experience a child has in communication and establishing relationships. The importance of these relationships is further magnified because they establish a pattern and hence a foundation for future relationships. It is crucial, then, that it be enjoyable, need-satisfying, informative, and structurally sound.

The structural soundness of communication may be determined by analyzing the components of communication, which are modality, meaning, and process (Schneider, 1973).

An analysis of modality indicates whether the sender and receiver understand the message through the channel used. Examples of this are: If you write a message the receiver

must be able to read, or if you speak about something the receiver must be able to hear and understand your language.

The meaning in a message is more complex than is usually assumed. There are really two levels of meaning in any message. The most obvious is the content level or lexical message. This is the part of the message that has the greatest incidence of corresponding meaning between the sender and the receiver. It is often termed the information in a message.

The other level of meaning is the affective level. This is the level that has the least mutual understanding. The affective meaning of a message is determined by judgment of intent, situational clues, and inferences drawn. Since individuals have different feelings associated with the words and content of a message, they often differ on their understanding of the affective meaning in a message. This is a subjective part of communication and requires conscious effort to achieve a mutual understanding.

The process of communication is the cognitive behavior of sending or receiving messages. One process is encoding a message, i.e., what will I say and how will I say it to make my meaning intelligible to you. The receiver decodes the message. He tries to understand the content of the message by using the words and the affective level by making judgments, drawing inferences, and using situational clues. These levels are then synthesized to form a message with lexical and affective meaning.

Communication may be instrumental to improved interpersonal relationships, or it may be a source of problems in relationships with others. Therefore, one approach to solving interpersonal problems is to analyze the communication between people. Problems may be due to misunderstandings caused by unintelligibility of the channel used (modality), not understanding the content in a message, misinterpretation of affect, or lack of cognitive effort to understand the intended meaning in a message.

The Need

The deaf child's inability or limited ability to communicate, especially with his/her parents, has a profound effect on his/her social and psychic development. Often the deaf child does not achieve his/her potential level of performance, because the learning process is limited by lack of receptive and expressive aspects of communication. Often the deaf child's relationship with others is confusing, strained, or nonexistent.

Past and current research on deafness has and is seeking remedies for this problem. Most of this research, however, explores and evaluates the modality of communication as the source of interpersonal problems. This particular facet of the problem of communication appears to be moving toward a solution.

What has not been considered is the importance of the affective and process features of communication, especially as these features apply to parents of deaf children.

The opportunity for misunderstanding between parents and their deaf children is an acute problem. Sven Wahlroos wrote about one source of misunderstanding in his book, Family Communication:

> The message may be intended or unintended, but if it is perceived, it has in fact been communicated. The perception of the message may be conscious or unconscious, distorted or undistorted but as soon as the message gets through on any level, we have communication (1974, p. 4).

In his analysis, Dr. Wahlroos has addressed the problem inherent in communication between parents and deaf children: There may be a difference between what the sender (parent) meant to convey and what the receiver (deaf child) perceived and understood. The problem is compounded because it may be happening at the unconscious level of awareness; i.e., the parent and child are not conscious of a recurring problem.

The difficulty of mutual understanding is exacerbated for most parents of deaf children because they are not deaf. The veracity of this statement is corroborated by Schein and Delk (1974) in The Deaf Population of the United States: "That 9 our of 10 deaf persons have parents lacking personal experience with deafness means the majority of parents are unprepared for the diagnosis of deafness in their children" (p. 36). Mindel and Vernon (1971) believed "successful family adaptations to childhood deafness are rare today..." (p. 36). Obviously, the effort to deal only with modality has not been successful in developing gratifying relationships between hearing parents and deaf children.

A review of Wahlroos' analysis of communication indicates that it is essential for the sender and receiver to have a shared understanding of the intended meaning of a message. This is difficult for a hearing parent and deaf child to achieve because their perceptions and understandings of events, thoughts, and feelings may be very different.

This can best be illustrated by describing the difference between hearing parents of deaf children and deaf parents of deaf children.

Deaf parents are more successful at communicating with their deaf children for several reasons. The most obvious is that they are more familiar with the modes and resources used in communication between and with hearing impaired individuals. Another reason is that the deaf parent can more readily enter the milieu of the deaf child. Finally, the deaf parent understands the context of more events in the deaf child's life as the child might be seeing them, solely because of his/her deafness. This enables the deaf parent to understand more completely the deaf child's message as it has meaning to the child, and not only the parent's attributed meaning.

In contrast, the hearing parent does not share the commonality of perception with the deaf child that the deaf parent does. It is, therefore, crucial to the clarity of the communication between hearing parents and deaf children that the parent consciously attempt to understand the deaf child's messages as they have meaning for the child, and not only as they have meaning for the hearing parent.

Parents are the necessary link between the deaf child and society. It is important for the parent to accurately understand the psychological needs and cognitive understandings of the deaf child, so that the child can be assisted to participate in and understand the larger society. The importance of this is verified by Edna Levine (1960) in her book, Psychology of Deafness:

> Whether he becomes a part of the community or not depends largely upon the interpreter [the person who conveys information to the deaf individual that he may or will ordinarily miss]. All else being equal, it is the wisdom of this person that keeps the child from slipping away into the apathy of indifference or the hostility of frustration... (p. 44).

This "interpreter" role is initially handled by the parents. It is apparent that the parent is an especially important person for the deaf child.

The desire to help their deaf child is present in most hearing parents. The unique skills and understanding required do, however, rarely develop. Past efforts to assist the deaf child and his/her parents have focused on the modality of communication. What needs to be done is to provide hearing parents with a training program that emphasizes the process of communication. Such a training program could assist them in understanding their deaf child's thoughts and feelings. Increased understanding, achieved through improvement in the process of communication, will enable them to communicate with greater sensitivity to their child's social and psychic needs.

The Purpose

The purpose of this research is to demonstrate that a specific communication training program can improve the communication between hearing parents and their deaf children.

As first noted, much current research about deafness centers on the mode of communication. Investigation concerning the communication effectiveness of hearing parents of deaf children in the parameters described does not exist. Fortunately, this kind of research has been done in the population at large. It is this research, and the training programs subsequently developed, that has provided the opportunity to investigate and determine its applicability to hearing parents of deaf children.

One such program referred to is Interpersonal Process Recall (IPR), developed by Norman Kagan. The program involves an orderly and hierachical presentation of experiences.

Through a systematic didactic presentation of communication concepts, simulation exercises, study of self, study of others, and mutual recall, participating individuals can study the complex dynamics which occur in communication relationships with others (Kagan, 1975). Kagan's work with both general and selected populations has yielded results which offer exciting promise of successful application to the population of interest here--hearing parents of deaf children.

CHAPTER II

REVIEW OF RELEVANT LITERATURE

The literature related to process and problems of communication between hearing parents and deaf children is reviewed in this chapter. The areas reviewed are communication, parent-child interaction, communication between hearing parents and deaf children, and communication training programs.

Communication

A concise orientation to what communication is and how it can be improved is presented by Robert Schneider (1973) in his paper, "Human Communication". Dr. Schneider discussed three principles of communication.

The first principle is "One cannot not communicate." Unfortunately, communication is often equated with the speech act. It is true that speaking is an act or form of communication. It is equally true that not speaking is an act or form of communication. An example of this occurs when the sender of a message is waiting for some behavior indicating agreement with the message sent. The receiver may communicate disagreement simply by saying nothing. Or the disagreement may be expressed by other nonverbal communication such as looking in another direction, frowning, etc. The receiver could respond affirmatively though nonverbally. Examples of

this are smiling and shaking of the head up and down to indicate "yes". There are innumerable ways to communicate. Communication may be verbal or nonverbal, intended or unintended, conscious or unconscious, but it will occur when two or more people are together because "one cannot not communicate".

The second principle of human communication is "Message sent is not necessarily message received." This principle is more subtle than it appears. An expansion of the principle denotes more variables than are presented. A message sent does not insure that it has been received nor that the receiver has correctly interpreted the intended meaning.

Schneider pointed out that the words in a message have two levels of meaning; one is cognitive and the other is affective. The cognitive level is the one which we share with others. How we internalize the cognitive level, the information quality of a message, is significantly affected by how one feels about it, the affective level. Someone may tell you about "Beautiful Tahquamenon Falls." You may share a knowledge of its geography, topography, and flora and fauna but at the affective level your relationship is not one of beauty. You affectively relate to it as a wet, rainy, dreary place. Therefore, while one understands the physical place (cognitive level) the feelings associated with it (affective level) connote a slightly different meaning.

The third and final principle that Schneider listed is "Communication is a complex phenomenon which involves transmission of messages at the content level and the process

level simultaneously" (p. 3). It is further stated that these messages at content and process level "are transmitted in many ways, including (1) the words of the communication. . . the verbal behaviors, (2) the nonverbal behaviors. . . (3) the situation itself or the context in which the communication occurs" (Schneider, p. 3).

This may seem somewhat of a novel idea, but all people use these factors when communicating. Consider the communication message, "Don't do that!" which parents frequently send to their children. At the content level it says "STOP!" Meaning, however, may be modified at the process level so that the message will be interpreted as "Be careful." The process cues may have been a lack of command in the voice or a smiling face; these indicate that the words are not to be lexically interpreted. There are innumerable ways to vary the meaning of a message by manipulation of both what is said and how it is said.

Productive and mutually satisfying communication must have no disparity of message between the content and process components. Sven Walhroos (1974) noted the occurrence of this problem in his book Family Communication. He wrote, "When a person's actions communicate the same message as his words there is no problem (unless the message is deliberately destructive). But when the messages are contradictory the result is almost always a multitude of problems" (Walhroos, p. 7). This was written under the heading "Actions Speak Louder Than Words." Wahlroos was writing of the conflict in messages at the content and process levels. If what you say

(content), e.g., "I like you," does not agree with how you say it (process), e.g., mocking tone of voice, the receiver must choose the meaning of your utterance. Because the process provides clues to the speaker's intended meaning, the listener will invariably choose that as the intended meaning--actions speak louder than words.

It can be seen from the preceding discussion that the receiver's (listener's) role is not as passive as it is often portrayed. Albert Ellis (1973) described three stages in a person's response to a message. His model is presented below.

A	B	C
Stimulus	What we say to ourselves about ourselves and the situation	Response

Frequently communication is fallaciously analyzed as if stimulus A is the cause and the response C is the result. Ellis' model shows that the response C is not solely a reaction to the stimulus A. Instead it represents the listener's interpretation of the stimulus as it relates to the listener and to the situation in which communication occurs. The listener's covert mental behaviors are quite important.

Brown and Keller (1973) believed that listening precedes speaking. To speak effectively one must be a skillful and attentive listener. They elaborate in their book Monologue to Dialogue,

> . . .Listening is not recording. Listening is the speech excited by the recording. [The authors are here using the term speech to denote the thoughts and self-dialogue one may use when thinking.] Therefore, while the fundamental requisites are hearing and memory, it does not

> follow that if a person can hear and remember he will listen (Brown and Keller, p. 15).

In condensed form, "Listening is the response to reception" (Brown and Keller, p. 16).

The authors saw a relationship between listening, self-understanding, and understanding of others. "In truth, 'self-understanding' depends upon developing the power to explore the meaning of our own speech. . .of course, there is no good self-listening which does not also involve good listening of others" (Brown and Keller, p. 18). It was noted that good listening is characterized by a mixture of "what does it mean to me." If only the self is attended to, i.e., what do his and my comments mean to me, then the dialogue with the self will become egocentric. This egocentrism may result in withdrawal from social interaction, narcissism, or hostility.

"Exploring the meaning of our own speech" implies thinking about the "what" (content) and "why" (roots/motivation) of our thoughts, occurring while we listen. But how does one approach understanding the other person's meaning? This is achieved through empathy.

"Empathy is the act of imagining the universe of thoughts and feeling out of which a statement emerges. In short, it is the ability to perceive from the standpoint of the speaker, and it is probably the most sophisticated and the most imaginative skill a person performs" (Brown and Keller, p. 23).

Brown and Keller (1973) suggested that the success of communication is not determined by the speaker. What they postulated was that listening is integral to the ability to

speak effectively. Listening is itself based on the skills of exploring the meaning of one's thoughts while listening and empathizing with the speaker. If the goal is mutually intelligible and rewarding communication, then greater emphasis must be placed upon listening skills.

Communication theory is an important component of developmental psychology. It is through communication experiences that the growing child gradually develops a sense of "self". The preceding information is, therefore, very germane to parent-child relationships or any adult-child relationship.

Clifford Swensen (1973), in his book, Introduction to Interpersonal Relations, reviewed the thinking of George Herbert Mead. Mead believed that the individual carries a "me" that is defined by others and a sense of "I" or self-evaluation. The individual then goes through life reacting to the inner dialogue between the "me" of others and the "I", the individual's perception of himself. The self, then, does not develop in isolation from others.

Conjoint consideration of Mead's theory and the previous presentation on communication leads to the conclusion that the parent-child relationship is integral to the child's development of a self-concept. The parent is the first person to establish the rudiments of communication with the child. It is from this early beginning that the child begins the process of the "me"-"I" dialogue. It is therefore important for the parent to be sensitive to the child. This sensitivity or empathy is what enables the parent to nuture the child's self-concept through the "me"-"I" dialogue.

Harry Stack Sullivan lucidly described the task confronting parents in their relationship with their children in his book, The Fusion of Psychiatry and Social Science (1964).

> When one has regard for the multiple me-you patterns that complicate relations, for the possible differences in individual comprehension of events, and for the peculiarities of language behavior which characterize each of us. . .the practical impossibility of one-to-one correspondence of mental states of the observer and the observed person should be evident. We never know all about another, we are fortunate when we achieve an approximate consensus and can carry on meaningful communication about relatively simple contexts of experience (H.S. Sullivan, 1964, p. 55).

Sullivan's writing was succinct in summarizing the awesome importance of parent-child communication.

Parent-Child Relations

There are many contributions to the literature of psychology and parent-child relations. There has, however, been little exploration of parent-child communication. The major and professionally respected contributors in parent-child communication are Haim G. Ginott and Thomas Gordon.

Ginott's work with parents and his suggested strategies for parents to relate effectively to their children are presented in his book, Between Parent and Child (1965). He discussed the relevance of his process to education and the involvement of parents in Teacher and Child, A Book for Parents and Teachers (1972). Ginott's strategies were directed towards how parents could respond appropriately to their

child's psychological needs and difficulties. He gave attention to thought processes that a parent goes through to arrive at an appropriate response. Since Ginott's primary professional experience was working with parents, his insights and suggested procedures deserve attention.

Ginott (1972) stated that there are two requirements in communication between parents and children: That messages perserve the self-respect of both parent and child, and that statements of understanding precede statements of advice or instruction. Expanding on the latter requirement, Ginott stated that when a child is experiencing feelings of anger or frustration, he does not want nor will he accept advice or criticism. What the children want is for parents to understand them, to understand how their feelings are affecting their lives, what these feelings mean to them, not what they should do or what the parents think they should do or think or feel.

Ginott emphasized that the parent should avoid interrogating the child. Communication should be addressed to the underlying relationships, to the feelings involved, to the generalized experience of thoughts and feelings. This approach to communication opens avenues to the child for understanding feelings and the circumstances that precipitated them. Parents who respond in this manner to their children's anxieties are facilitating and communicating unconditional positive regard and empathetic understanding.

Carl Rogers (1951) claimed these factors as necessary for any helping relationship. He presented these attributes

of a successful helper-helpee relationship under the heading, "Necessary and Sufficient Conditions for Therapeutic Interaction." The significant feature of Rogers' model was that it is necessary for the helper to communicate these features to the helpee. By contrast, the psychoanalytic approach characterized by Freud depicted the helper's success as solely dependent upon the helper's insightfulness and analysis of data. This model does not sufficiently include the analyst as a variable that affects the helping processes. Rogers recognized that one cannot not communicate, and because of this, the helper must communicate the positive attributes of unconditional positive regard and empathetic understanding.

Thomas Gordon's program for helping parents was described in P.E.T.: Parent Effectiveness Training (1970). His goal was similar to Ginott's but his structure was different. Gordon's program for training used a high leadership figure and information is sequentially presented. Gordon was an associate of Carl Rogers, and his program reflects Rogers' theory of helper-helpee interaction. P.E.T. also differs from Ginott in that it used group participation as the situation in which individuals were trained.

Gordon placed certain restrictions on the use of commui-cation as a tool in helping children. He labeled the mental, nonverbal, and verbal behaviors a parent uses to communicate unconditional positive regard and empathetic understanding as Active Listening. Gordon stated that for the "realness" of the listener to be communicated, and for the parent to convey unconditional positive regard and empathetic

understanding, they do not use Active Listening when they are: too angry, too threatened by what they hear, or too strong in own beliefs and values. If the parent has any of these feelings, then the prime concern will not be to understand the child, but to assuage the parent's own emotions. This is often done through accusations, attacks on the child's personality or character, and threats. Such responses are not an avenue to better understanding, and if they are attempted under the guise of active listening, the success of future listening will be adversely affected.

Ginott and Gordon agreed that communication is a skill as well as a cognitive/affective behavior. If parents desired to improve communication with their children, they must learn new verbal behaviors, unlearn old verbal behaviors, and practice using this new skill as a very conscious act. Initially, feelings of using a "technique" were experienced. But after learning alternative ways of responding and practice in using them have been accomplished, communication proceeded in a mutually gratifying atmosphere.

Haim Ginott and Thomas Gordon have made significant contributions to understanding the problems confronting parents in relating to their children. Their advice and techniques demonstrate that parent-child communication at both the content and process levels is integral to solving problems and establishing deeper, more meaningful relationships. Gordon's process is the most systematic and therefore the easiest to replicate. Review of their books provides insights into what should be done and the need for variation.

This project's goals were similar to Ginott's and Gordon's goals. The project was, however, different because it focused only on communication and has more advanced techniques for delayed and immediate feedback. Further explanation appears later under Design and Methodology.

Parents and Deaf Children

The importance of developing better relationships between deaf children and hearing parents has been attested to by David Denton in Psycholinguistics and Total Communication (O'Rourke, 1972). Dr. Denton stated that many deaf children never have a meaningful relationship with a hearing adult. Therefore, many deaf children do not have a meaningful relationship with their parents because 91.7 percent of all deaf children have hearing parents (Schein and Delk, 1974).

Schein and Delk in The Deaf Population of the United States (1974) also reported the situation as critical. They stated: "What the statistics on parental hearing status point out is the pervasive likelihood of maladjustment and the importance of vigorous educational programs which assist parents to adjust to their children's deafness". Because deafness does not permit the normal development of oral communication, one of the most vigorous educational programs to help parents adjust should be in communication.

This reasoning has been validated by the research reported in They Grow in Silence (Mindel and Vernon, 1971). The authors characterized communication between parents and deaf children as being exceptionally poor. They reported

that parents used very little explanation with their deaf child, and parents seldom listened to the child. This situation had a significant effect on affective development of the deaf child. The authors noted that in infancy a smile was sufficient for communicating feelings. As the child developed the interchange between the parent and the child dealt with an increasingly complex array of feelings. Parents of deaf children, because of their lack of listening time, do not usually understand or deal with the feelings of a deaf child.

The importance of parents listening to their deaf children was amplified by Schlesinger and Meadow in their book, Sound and Sign (1972). These authors noted that a deaf child needs "to feel worthy of enrichment for his own sake, and not for the sake of becoming like others who are hearing." In other words, it is important for parents to listen and be sensitive to their deaf children as they are not focus exclusively on directing the child to be like a hearing person. This point seems pertinent to the idea of Carl Rogers (1951) that the helper (the parent) must have unconditional positive regard for the helpee (the deaf child).

Schlesinger and Meadow (1972) also noted that hearing parents who were able to provide an environment which nurtured the deaf child's self-image were also more capable of overcoming the negative effects of social stigma. This is very important because the effect of social stigma damages the self-image of the deaf child.

The information reviewed in this section seems to indicate two things. First, hearing parents of deaf children can be effective in helping the deaf child develop a positive self-image. Second, hearing parents do need training in nuturing mutual understanding between themselves and their deaf children. Usually this training has been in the areas of speech, lipreading, and/or sign language. The fact that the literature continues to report deficiencies in hearing parents-deaf child relationships seemed to indicate that training parents only in the mode of communication--speech or sign language--has not enabled parents of deaf children to develop satisfactory relationships with their deaf children. It is for this reason that this pilot study has investigated the effectiveness of training parents in the content and process skill of communication.

Communication Training

It was recognized by Carl Rogers (1951) that affective sensitivity and communication skills were important to interpersonal relationships. As a result of this awareness programs were developed to train people to become more sensitive and affective in their communication.

One program was developed by Robert R. Carkhuff. The Carkhuff program was designed to train counselors to discriminate between different levels of empathy. It also trained them to be more effective in their communication. Training experiences included didactic sessions in which key concepts and strategies were presented. The didactic sessions were

followed by role playing sessions during which trainees experimented with the new concepts and strategies. An important component of all training sessions was the leader of training modeled appropriate behavior.

Carkhuff reported significant results in using this program to train counselors, psychotherapists, and lay helpers (Carkhuff, 1969; Carkhuff and Bierman, 1970). Carkhuff did not report the components of the program with sufficient specificity to permit others to replicate it. It, therefore, could not be considered for the purpose of this research study.

George M. Gazda in his book, Human Relations Development, a Manual for Educators (1973), stated that effective interpersonal relations were based upon accurately perceiving the behavior of others. He elaborated that if a person's understanding is based on a misperception then communication between people will be confused and ineffective. This confusion and ineffectiveness is due to no mutual understanding.

Gazda developed a training program to enable people to perceive the feelings of others more accurately i.e., to be more sensitive and responsive to the affective level of communication. Gazda's program used three training experiences to increase sensitivity to the feelings and messages of others.

The first step in training was for the trainer to provide a stimulus statement (printed, audio, or visual). Trainees were then instructed to write a response that labeled the feelings in the stimulus statement. These written

responses were then collected and read to the trainees as a group. The group then rated the accuracy and sensitivity of each written response. This series of experiences was followed by another in which a trainee provided a stimulus statement that was read by the trainee. The other trainees listened and in writing labeled the content and affect of the stimulus statement. The responses were collected and read to the group. Each response was judged by the trainees for its accuracy.

There is no research reported to substantiate the effectiveness of Gazda's program. One possible weakness it has is that people do not have as much time in verbal communication as compared to the written responses used in this training. Another weakness may be that communication does not usually occur with one statement followed by a pause for the listener to respond. So the training program does not realistically represent the usual communication experience.

Another program used with parents was Parent Effectiveness Training (P.E.T.). The originator of this program, Thomas Gordon, reported its content and results in his book, P.E.T. In Action (Gordon, 1976). Parent Effectiveness Training used two learning experiences. The first was didactic sessions in which parents learned the concepts of P.E.T. Didactic sessions were followed by group practice sessions using the concepts and techniques described in the didactic presentation.

Roger Rinn and Allan Markle reviewed Parent Effectiveness Training to determine if the training was successful

(Rinn and Markle, 1977). Their report noted a number of important deficiencies in the research done with P.E.T. Rinn and Markle stated that the research suffers from a lack of randomness, inadequate research design, weak statistical procedures, and a lack of objective measurement of trainee behavior. They felt the evidence does not support the claim that P.E.T. was effective.

Another weakness of P.E.T. could have been the lack of feedback to trainees during training. It would seem difficult for trainees to determine the accuracy of their perceptions and sensitivity without the use of feedback. For these reasons and those cited by Rinn and Markle Parent Effectiveness Training was not selected as a training program to help hearing parents become more sensitive to their deaf children.

Each of the programs reviewed so far would have been difficult to replicate because their procedures were not standardized. One sensitivity program that did have more standardized procedures was Interpersonal Process Recall developed by Norman Kagan.

The Interpersonal Process Recall training program used didactic sessions, simulation exercises, and videotaped recall of paired interactions. The didactic sessions and stimulus vignettes were presented on film. This eliminates the modeling of the trainer as a variable. The videotaped replay of paired interaction seems to permit trainees to evaluate realistic interpersonal experiences and to receive feedback from the trainee they were paired with.

The original purpose of developing the Interpersonal Process Recall (IPR) training program was to increase the reliability of training counselors and psychotherapists in interpersonal interviewing skills. After more than a decade of experimentation and research, Kagan (1973) reported that the original goal appears to have been achieved. Research with IPR has identified the most facilitative aspects of training and which areas need further development or adaptation.

Danish and Brodsky (1970) used the stimulus films in IPR to train policemen in emotional control and awareness. The stimulus films dealt with feelings of rejection and intimacy. The purpose of the films was to "sensitize policemen to their aggressive feelings and self-control problems" (Danish and Brodsky, 1970, p. 368).

It was reported that future training of this population-policemen-would be enchanced if the stimulus vignettes were specific to police work. It was also felt that this training technique avoided a passive impersonal approach which usually developed when training relied on lectures, notetaking and reading (Danish and Brodsky, 1970).

The use of IPR to teach interpersonal relationship skills to undergraduate college students was investigated by Archer and Kagan (1973). They found that the IPR model "appears to be more effective than a less structured encounter- developmental group training model" (Archer and Kagan, 1973, p. 539) when used by undergraduates to teach undergraduates interpersonal communication skills.

The research reported herein indicates two things. First, IPR is facilitative if the stimulus vignettes deal with feelings and situations that are experienced by trainees. Second, structured learning experiences are more facilitative than encounter-developmental type experiences. This seems to indicate that parents would benefit most from training which included stimulus vignettes of feelings and situations they encounter. The research also suggest that the training should be structured i.e., a predetermined content and sequence of experiences, to increase interpersonal communication skills.

A research study by Singleton reported success in using IPR with a non college, non academic population. The trainees were incarcerated felons. The study reported significant increases in empathy discrimination by subjects who participated in training as compared to subjects from the same population who did not participate in training. This seems to indicate that IPR may be used with both professional and lay populations. There has not been any research done on the use of IPR training with deaf people or their parents. This research study is therefore, a pilot study.

Summary

The literature related to process and problems of communication between hearing parents and deaf children was reviewed in this chapter. The literature reviewed on communication indicated that the content and process of communication has a profound effect on the child's developing

self-concept. The literature reviewed on parent-child communication listed a number of important features. Two features which were mentioned as particularly important were the clarity of communication the listening skills of the parents.

The section reviewing literature on deaf child-hearing parent relationships discussed the difficulties which hearing parents share communicating with their deaf children. The literature indicated that it was more than just a problem of modality i.e., whether to use sign language of speech. The literature indicated that the fundamental problem was a lack of mutual understanding between hearing parents and deaf children.

The last section of this chapter reviewed sensitivity training programs that were being used. During the review of this literature it was explained why the program Interpersonal Process Recall was selected.

The next chapter presents the design, methodology, and content of the training program used in this research.

CHAPTER III

DESIGN AND METHODOLOGY

This chapter presents the design, instrumentation, sampling, and treatment procedures used in this study. The section on sampling is further subdivided into the process of sampling and demographic characteristics of the sites and subjects in the sample. The section on treatment explains the Interpersonal Process Recall (IPR) training procedures and sequence used with these subjects.

Design

The independent variable in this study was affective sensitivity training. This variable had two levels that were dichotomous. The levels were 1) training in IPR and 2) no training in IPR. The dependent variable was the effect of training in IPR on the affective sensitivity of subjects who were trained. This variable was analyzed by using the subject's scores on the Filmed Measure of Affective Sensitivity (Kagan and Schneider, 1975) and the Carkhuff Index of Empathy Discrimination (Carkhuff, 1969).

A pretest-posttest control group design without randomization was used to study the independent variable. The comparison groups were the experimental group and the control group. The experimental group was composed of those subjects

who received training in IPR. The control group was composed of those subjects who did not receive training in IPR. All subjects were hearing parents of deaf children. In accord with the design each group was measured with the same instruments, over the same elapsed time, and on the same dates for both the pretest and the posttest.

The design controlled for a number of potentially confounding variables. Effects due to history were controlled because historical effects would be as likely to be manifested in the experimental group as they would in the control group. Effects due to maturation were controlled for because the experimental and control groups were measured over the same elapsed time and on the same dates. Effects due to testing were controlled for because each group had the same number and type of opportunities to learn from test taking.

Instrumentation

The Filmed Measure of Affective Sensitivity (Kagan and Schneider, 1975) (hereinafter FMAS) and the Carkhuff Index of Empathy Discrimination (Carkhuff, 1969) (hereinafter CIED) were the instruments used to measure the dependent variable- the effect of training in IPR on the affective sensitivity of hearing parents of deaf children. The FMAS and the CIED were chosen for the following reasons: to provide multiple assessment of the dependent variable, ease of administration, and availability.

The FMAS is presented on videotape of 16mm film. The instrument consists of vignettes of two or more people

interacting. After each vignette the respondent is instructed to read the questions for the vignettes and select what they feel are the most appropriate answers. These questions require the respondent to make inferences about the cause as well as the content of the affect involved. The instrument measures sensitivity to the helper and helpee roles.

There are several forms of the FMAS. The one used was Form D. Form D has internal consistency in the low r=.70's and item intercorrelation around r=.13. In a paper presented to a meeting of the American Psychological Association, 1977, Kagan, Werner, and Schneider reported that they analyzed validity by comparing supervisor ratings of a subject's empathy with the subject's FMAS Form D scores. The comparison indicated that the content validity of this instrument was very good.

The CIED consisted of sixteen excerpts of different people expressing a problem or dilemma that they were facing. Each excerpt was followed by four helper responses. The respondent's task, after reading each excerpt, was to rate the facilitative quality of each response. This was done by using a Likert type scale of 1.0-5.0. The rating of 5.0 represented the most facilitative response possible and the rating of 1.0 was the least facilitative.

The CIED can be presented either in printed form or on audio tape. The printed form was used in this study. The CIED has been used by others (Singleton, 1975; Bedell, 1976) to assess the effect of training in IPR. These studies reported that the instrument correlated sufficiently with

other measures to regard it as valid. In other words, the test measured what it purports to measure.

Carkhuff in his book, Helping and Human Relations, (1969) stated that the results of studies that have used this instrument demonstrated construct validity. Carkhuff reported that scores on the CIED correlated well with field ratings of the testee's empathy. This means testees were observed interacting with helpees and judged by experts in terms of the testee's empathy in an actual helping relationship.

The Sample

The sample for this study was determined by several factors. These factors included: 1) the willingness of school systems to provide facilities for the training of subjects; 2) the school system transmitting information to parents on the availability of training; 3) training sites located within a one hundred mile radius of Lansing, Michigan; and 4) the willingness of hearing parents of deaf children to participate.

Once the target population (hearing parents of deaf children) was determined, the most significant factor effecting the sampling procedures was the voluntary participation of parents in those school systems.

There were six steps in the sampling process. The steps and their order of occurrence were: 1) an introductory letter to the director of the program for hearing impaired students in the districts contacted; 2) those districts that did not respond were sent another letter and telephoned to encourage

a response; 3) a meeting with the director of the hearing impaired program in each responding district to explain the program; 4) an introductory presentation to parents of deaf children in each responding district; 5) interested parents registered their names, addresses, and telephone numbers with the project investigator; 6) program directors contacted by phone those parents who were unable to attend the presentation and those parents who registered their names to determine whether there was new or continued interest by parents in that district. This sampling procedure resulted in IPR training being offered to hearing parents of deaf children in three school districts.

The voluntary status of participants and the small population of eligible candidates in any one school system necessitated sampling from as many programs for hearing impaired children as possible. To achieve as large a sample as possible the programs for hearing impaired students in the following school districts were contacted: The Michigan School for the Deaf, Flint, Michigan; The Saginaw County Intermediate School District (SISD); The Wayne County ISD Alternate Hearing Impaired Program (WISD-a); The Washtenaw County ISD (WISD); Lansing Public Schools; Shawnee Park Oral Deaf Program, Grand Rapids, Michigan; and Muskegon Public Schools.

Step 1. An introductory letter explaining the program being offered, the population of interest, and its importance to parent-deaf child relationships was sent to the director of the program for hearing impaired students in each of the

named districts. The letter described the facilities which the school system needed to supply and indicated that this training entailed no financial investment by either the school system or the hearing parents of deaf children who chose to participate. A copy of this letter is in Appendix A.

Step 2. If no response was received by the requested date, another letter was sent. This was followed by a telephone call to encourage a response from the school district personnel. This method was successful with all but two programs. The Michigan School for the Deaf and the Shawnee Park Oral Deaf Program did not progress beyond this stage of contact and were eliminated from sampling procedures.

Step 3. All other programs indicated interest in the training program. A meeting was then scheduled and held with the director of the hearing impaired program in each responding district. The content of the program, schedules, goals, purpose, and implementation procedures for the IPR training program were discussed. The design and measurement instruments of the research project were also presented. During this meeting the director could determine whether he wished to inform parents of deaf children about this training program opportunity.

Step 4. An introductory presentation explaining the content, process, and purpose of training in IPR was given to parents of deaf children in Washtenaw County ISD, Wayne County ISD, Lansing Public Schools, and Muskegon Public Schools. Saginaw ISD had scheduled a presentation but prior to its delivery the director determined that there were only

two parents interested. This was an insufficient number to make it productive to offer the program at that site for the purpose of the study, and Saginaw ISD was eliminated.

Step 5. Immediately after the introductory presentation in each school district, those parents interested in participating in IPR training were asked to register their names, addresses, and phone numbers with the project investigator. This served as an initial survey of parent interest.

Step 6. School district directors then contacted by phone those parents who were unable to attend the presentation. Those parents who had registered after the presentation were contacted again to determine their continued interest. This process produced a list of parents who were interested in participating. This information was communicated to the project director.

Of those districts participating in this sampling process only Muskegon Public Schools, The Alternate Hearing Impaired Program in Wayne County ISD, and Lansing Public Schools had a sufficient number of hearing parents of deaf children (a minimum of five per site) committed to participating.

Site Characteristics

The Alternate Hearing Impaired Program in Wayne County ISD is located in Garden City, Michigan, a suburb of metropolitan Detroit. This program served all of those parents of deaf children who desired alternate services to the traditional oral program for hearing impaired in Wayne County. Wayne County has a total population of 2,666,751. The

alternative program had been operating for two years. The number of hearing impaired students enrolled (sixteen) was small, considering the school base population.

The Lansing Public School Program for Hearing Impaired students serves Ingham, Clinton, and Eaton Counties. The combined population of these counties was 379,823. Ingham County had a population of 261,039 and was the largest of the three. It was also the one from which the largest number of hearing impaired students were enrolled. The City of Lansing (population 131,546) accounted for approximately one half of the population of Ingham County. The population served by the hearing impaired program had an equal mixture of rural and urban people. A total of sixty-seven hearing impaired students were enrolled in Lansing Public School's Program for Hearing Impaired Students.

The Muskegon Public School Program for Hearing Impaired Students serves Muskegon, Oceana, and Newaygo Counties. The combined population of these counties was 203,222. Muskegon County with a population of 157,246 was by far the largest of the three counties served. The City of Muskegon had a population of 44,621 and was the largest city in the three county region. It is the industrial center of the area. Most of the population served by the Muskegon Public School Program for Hearing Impaired Students is rural. There were fifty hearing impaired students enrolled in Muskegon's Program for Hearing Impaired Students.

The sites in this sample were representative of a broad cross section of the population of Michigan. One site was

urban/suburban, another was urban/rural, and the third was primarily rural.

A cross section of program development was represented in this sample. The Garden City program was new and growing. Muskegon's program was more developed and its enrollment seemed to be stablizing. Lansing's program was one that had been in existence longer and concentrated its efforts on program refinement.

The small number of deaf students served at each sample site belied the true number of deaf children and their parents who need special services such as this training program. Review of prevalence rates obtained from the census of the deaf population (Schein and Delk, 1974) indicated a great discrepancy between the number of deaf children being served in programs for the hearing impaired and those identified by the census as being deaf.

One of the major reasons for this disparity, and it has historically been a problem, was locating and defining deaf children.

Subjects

Identification. There is no legal universally accepted definition of deafness. Review of the Michigan Law for Special Education, Public Act 198 amended 1/4/77, provided no definition of deafness or hearing impairment. It is written:

> R 340.1707. Hearing impaired, defined.
> Rule 7. 'Hearing impaired' means a person identified by an educational planning and

> placement committee, based upon an evaluation by an audiologist and otolaryngologist, and other pertinent information as having a hearing impairment which interferes with learning.

The law permits each district to determine who is deaf or hearing impaired. It does not, however, designate any measurable criteria and permits various individuals to set scales of measurement. Since districts might differ in the criteria used and the scales of measurement, local district identification of deaf students was not used.

This necessitated the development of a functional definition of deafness and procedures for determining which children were deaf. This step was necessary to determine which hearing parents had deaf children.

Several characteristics of deaf children were assessed to determine whether the child being evaluated was deaf or just in the large group termed "hearing impaired". The factors considered were: 1) the child's hearing level; 2) the child's aural understanding of speech; and 3) the quality of the child's speech.

The first factor reviewed was the child's hearing level as measured by a qualified audiologist. If the child's hearing level was audiologically defined as a profound hearing impairment the child was identified as being deaf. If a child's hearing was measured as severely hearing impaired further analysis was necessary. Children in this range were evaluated on their ability to communicate receptively and expressively using only an aural/oral mode. If the child could not speak intelligible complete sentences in response

to questions, then the child was identified as functionally deaf.

This procedure determined those who were hearing parents of deaf children. All parents who elected to participate were hearing parents of deaf children.

Scheduling. All subjects in this study volunteered to participate in IPR training. Assignment of subjects to the treatment or control group was determined by scheduling. Those subjects who volunteered but could not attend training at the time it was offered were assigned to the no treatment control group. Those subjects who volunteered and who could attend training sessions at the time it was offered were designated at the treatment group. The fact that random assignment was not done means that the findings of this research may be confounded and cannot be generalized to the population of interest (hearing parents of deaf children).

The control group was measured with the same instruments and at the same time as the treatment group.

Characteristics. The demographic information on the experimental treatment group and the no treatment control group is presented in the tables that follow:

TABLE 3.1

SEX AND AGE OF SUBJECTS
(HEARING PARENTS OF DEAF CHILDREN)

Subjects	Sex		Age in Years		
	Male	Female	20-29	30-39	40-49
Experimental	1	6		5	2
Control	1	6	2	5	

TABLE 3.2

EDUCATIONAL LEVEL OF SUBJECTS
(HEARING PARENTS OF DEAF CHILDREN)

Subjects	Highest Level of Educational Training Completed		
	Elementary	High School	College
Experimental	1	5	1
Control		6	1

TABLE 3.3

AGE OF DEAF CHILDREN OF SUBJECTS
(HEARING PARENTS OF DEAF CHILDREN)

Subjects	Age of Deaf Children of Subjects		
	1-5 Years	6-11 Years	12-18 Years
Experimental		4	3
Control	2	5	

The treatment group was composed of seven subjects. Six subjects were females and one was a male. One subject finished only elementary school; five subjects finished high school; and one subject completed college. Two subjects were forty years to fifty years of age and five were thirty to forty years of age. The deaf children of subjects in this group were various ages. There were four subjects in this group with deaf children six to eleven years of age and three subjects with deaf children twelve to eighteen years of age. The older subjects had older deaf children. None of the deaf children were first born, therefore, all parents in this group had two or more children.

The control group used as a comparison group to the treatment group also had seven members. Six subjects were females and one was a male. Six subjects finished high school and one subject finished college. Five subjects were thirty to forty years of age and two were twenty to thirty years of age. The deaf children of these parents were younger than those of the treatment group. Two children were five years of age or under. All other deaf children of these parents were six to eleven years of age. The youngest deaf child was an only child. All other parents in this group had more than one child and their deaf child was not the first born child.

Parents who participated in treatment tended to be older and had older deaf children than did parents in the no treatment control group. This may reflect an age-attitude trend among hearing parents of deaf children. As parents become more familiar with their deaf children and continue to experience frustration in helping the child cope with deafness, they are more apt to seek help and/or training.

The deaf childen of all subjects are prelingually deaf; that is, age at onset of deafness was before the child was four years of age. This feature reflects a national increase in the percentage of deaf people who are prelingually deaf. Since these children are all of school age they are the group that has caused an increase in percentage figures for prelingual deafness. Therefore, an even greater percentage of school age deaf children are prelingually deaf. The sample is representative of the deaf school age children of hearing parents.

Treatment Procedures

The Interpersonal Process Recall (IPR) training program uses didactic sessions, paired interaction, and videotape feedback of paired interactions to increase the affective sensitivity of trainees. The standard sequence of training for Interpersonal Process Recall (IPR) was followed. This was done to permit replication in future studies and to determine which areas needed modification for the population of interest, hearing parents of deaf children. Most of the major components of the model were included even though some components seemed less relevant to the population of interest than others. Stimulus vignettes dealing with homosexuality and rape did not seem pertinent to parent-child relationships. By contrast, vignettes showing a mother and her children in a divorce recovery session were very pertinent because they depicted adult-child interaction.

Some modifications were made due to time constraints, the small number of participants, and the need for added explanation of theoretical constructs and descriptive terminology. The elapsed time from beginning of training to date of completion was three months. This necessitated additional review time in training sessions.

A description of the sequence and content of training experiences will be presented in the following pages. The Interpersonal Process Recall training program will not be completely described here. The reader who wishes to have more information is referred to the training manual developed

by Kagan (1975) and used in this study, Interpersonal Process Recall, A Method of Influencing Human Interaction.

BASIC TRAINING OUTLINE

SESSION	CLASSROOM GROUP	LAB
1	The sequence and content of IPR was presented Discussed the level and kind of expectations subjects had of the training Elements of Effective Communication: Introduction to facilitating response modes: Exploratory Response and Listening Response. Explain laboratory sessions	none
2	Review of previous session. Outline of affective cognitive dimensions of effective communication presented with handouts and overhead transparencies. Discussion of terminology	Learn to operate VTR. Interviewer recalls outside inquirer
3	Elements of Effective Communication: Affective/Cognitive Dimension, Honest Labeling.	Interviewer recalls outside inquirer
4 & 5	Discussion of lab Affect Simulation, The Process Film #1 Affect Simulation, Vignettes Affect Simulation, The Process Film #2 Affect Simulation, Vignettes	Interviewer recalls outside inquirer
6	Inquirer Training: Inquirer Role and Function film.	Inquirer training all members participate
7	Discuss laboratory session. Complete Inquirer Training film.	Inquirer training all members participate

SESSION	CLASSROOM GROUP	LAB
8	Discuss lab and home experiences. Individual Recall (Client) B series film	Subjects inquirer for helpee recall
9	Discuss lab Videotape of two deaf women in individual counseling	Subjects inquirer for helpee recall
10	Discuss lab and previous week videotape Videotape of hearing parents (husband and wife) of two deaf children during a counseling session Discussion of this session and summarizing of IPR and parents' future behaviors.	no lab

Session 1

The sequence and selected content of IPR training was presented. It was explained that sessions would involve didactic presentations, affect simulation films, discussion of new concepts and skills, and laboratory sessions using videotape recall techniques.

The subjects and instructor discussed the level and kind of expectation each had of the training. The instructor emphasized that the participants should ask questions, challenge statements, and provide feedback for each other and the instructor. It was explained that this was conducive to mutually intelligible communication.

The film "Elements of Effective Communication" was used to present the first two elements of effective communication,

the exploratory response and the listening response. The importance of communicating to the speaker that you were listening was stressed.

The film explained exploratory and listening responses. Short vignettes illustrated the difference between an exploratory and a non-exploratory and a listening and a non-listening response. The instructor supplemented these vignettes with descriptions of analogous situations occurring between hearing parents and deaf children.

This part of the session terminated with the instructor telling parents that they should begin to experiment with these new communication techniques between themselves and with their children at home. Parents were also requested to come to the next session with some experience, thought, or feeling they would be willing to share with other parents in the group during the laboratory session.

Session 2

This session began with a review of the exploratory and listening responses presented during the preceding session. Parents were encouraged to express any difficulties or insights they had gained from using these techniques.

The affective/cognitive dimensions of effective communication were outlined and shown on an overhead projector. Parents received handouts of this information at the end of the session. The parents experienced difficulty understanding this concept because of their lack of familiarity with the terminology. This problem was resolved by using analogous

situations with their children as illustrative of the difference between the affective and cognitive levels of a message.

The instructional period was followed by the laboratory session. The laboratory session consisted of parents being paired so that one parent was the client/helpee and the other parent was the interviewer/helper. The helpee was the person who shared with the helper a thought, feeling, or experience. The helper was the person who listened and tried to respond in order to achieve a better understanding of what the helpee was saying. This interaction was videotaped with all the participants in pairs.

After all the parents had done both the helpee and helper roles, the recall experience was begun. Each person went through recall when the videotaped segment of them being the helper was shown. The instructor served as the skilled inquirer during each recall.

The videotaped recall was designed to give the participant the opportunity to review the experience with a person termed the inquirer. The inquirer enters the recall situation with no previous knowledge of what occurred between the two participants (the helper and the helpee). The inquirer's task was to watch a videotape replay of the interaction with one of the participants and by using nonjudgmental questions such as, "what thought were you having about the other person at that time"? enabled the person in recall to explore and gain insight into the cognitive and affective experience of

each participant and the dynamics of communication in a relationship.

Session 3

The preceding week's laboratory experience was discussed. Particular attention was devoted to problems encountered by the parents in the laboratory situation. The parents also used this time to discuss unique situations they had experienced with their deaf children.

The second section of the film "Elements of Effective Communication" was shown. This presented the affective/cognitive elements of communication and added the technique termed "Honest Labeling". The film contained stimulus vignettes that provided hypothetical situations for the parents to experiment with in developing facilitative responses.

The instructor discussed vignettes that were particularly relevent to communicating with deaf children. This was followed by a discussion of how to explore affective relationships within the limited concrete vocabulary of most deaf children; that is, how to make something as abstract as feelings become more concrete.

A laboratory session followed the period of instruction. The same format and organization was used as in the preceding lab.

Session 4

The fourth session began with a discussion of the previous lab and any unique or enlightening experiences the parents had during the week.

The instructional time consisted of showing film number one in the unit Affect Simulation, The Process. The purpose of this unit was to help participants become more able to label feelings in general, and to deal with behaviors that may interfere with effective communication. The process was facilitated by giving the parents a list of questions to ask themselves, so that they could become attuned to their inner feelings and reactions. The questions were: what did I feel; what did I think; what were my bodily reactions; when else in my life did I feel this way; what did I think the person felt about me; and what would I do?

Participants shared their reactions to the vignettes. Initially they would not risk revealing much of themselves and focused more on the technique of this process. As the film progressed participants became more spontaneous and revealed more of their inner reactions. Parents were encouraged to try to imagine how a deaf child reacts to or experiences the elements of interpersonal dynamics that they are sharing.

The lab session followed instruction. Parents were asked to try and be attentive to the dynamics that were presented in the film. The instructor served as the inquirer and tried to assist the interviewer/helper in recall to label more feelings generated by the interaction and explore any

analogous experiences that might have been models for the present interaction.

Session 5

Film number two in the unit Affect Simulation, The Process was shown. Participants were encouraged to criticize, and develop alternative responses to the ones presented in the film. Both the communication of the helpee and the helper were commented upon.

The lab session was the same as the previous week. The interviewer recalled and the instructor served as the inquirer.

Session 6

The previous lab session was discussed and the participants were asked if they experienced any break-throughs or new affective/cognitive awareness.

The film "Inquirer Role and Function" was shown. The purpose of this unit was to instruct participants in the inquirer role. Since recall is a significant part of IPR, the participants' ability to listen nonjudgmentally is instrumental to further learning and a useful cognitive/affective skill. This was the first step in phasing the instructor out of the lab sessions.

The most frequent difficulty parents had when this was initially presented was fear about feelings of phoniness and lack of caring behavior. They cognitively understood the task but their emotional reaction made it difficult to perform.

The lab experience was conducted as a group. The participants watched videotape replays of short interactions and alternately served as inquirers. After each person inquired there was a discussion of what might have been said, and whether or not there seemed to be hidden scripts.

Session 7

The lab session was discussed and parents still exhibited some resistance to the role of inquirer. Members of the group helped each other by comparing or contrasting their feelings with those of other parents. The instructor pointed out that this apprehension about a disassociation between cognition and affect was similar to their initial reaction to the helper role and that they may for awhile have feelings about using this technique.

The second part of the film "Inquirer Role and Function" was shown. The various open ended questions used by inquirers were discussed.

The lab session was organized like the previous lab session. Group participation in discussing each inquirer-interviewer recall was used to facilitate continued learning and growth in maximum use of the inquirer role.

Session 8

Lab and home experiences of the past week were discussed. More examples of how to make feelings more concrete for deaf children were discussed.

The film "Individual Recall (Client)" B series was shown. This film presents greater exploration of what the helpee's cognitive and affective behaviors might be, such as: hidden scripts, defense mechanisms, and anxiety about too much self-revelation. Film content was discussed and parents were encouraged to express any awareness they had of these occurrences when they were interacting with another person.

The lab session followed with parents serving as inquirers for helpee recall.

Session 9

The previous lab was discussed and parents expressed general satisfaction with the inquirer role. They said they felt freer to concentrate on the deep structure of the interaction and communication.

A videotape of the instructor counseling two deaf women was shown. One woman was congentially deaf, and the other had become severely hard of hearing as an adult.

The congentially deaf woman discussed her feelings toward her hearing parents and her concern for her deaf daughter. The severely hard-of-hearing woman spoke of the gradual breakup of her marriage, and her decline in esteem in the eyes of others because of her hearing loss.

The parents' reaction was one of enthusiasm and fear. They discussed their own fears about what their deaf children thought of them, and how aware they were of the devaluation society put on deaf children. All parents commented on how relevant this videotape was.

The lab session was organized like the previous week. Parents were in all three roles: helpee; helper; and inquirer.

Session 10

Discussion of the previous lab and home experiences was the beginning of the final session. Parents expressed a heightened awareness and a greater commitment to attaining more awareness of their deaf child's communication and feelings.

A videotape of the instructor counseling a husband and wife who had two deaf children was shown. The parents being counseled discussed the impact of deafness on their marriage, the guilt feelings they had, the frustration with professionals, and the need to be involved with other parents of deaf children as a source of information and a support in times of stress.

The participants' reaction to this tape was very similar to the previous tape. They seemed to relish the importance it had for them. Most of the discussion was about similarities in experience and how things might have been different if they had talked more about their feelings and situations with someone who could have helped them.

This session closed with discussion of the various experiences participants had had in IPR training. Future behaviors and continued use of the communication skills acquired was also discussed. The instructor encouraged the parents to continue to experiment, to develop deeper

understanding of their deaf children, and to assist the children in better understanding of them and the needs of others.

The posttest was administered to both the treatment and the control groups one week after treatment was completed.

Chapter IV will present the analysis of results. The chapter will also contain the hypotheses tested, the measurement data, test statistic, and decision on each hypothesis tested.

CHAPTER IV

ANALYSIS OF RESULTS

The hypotheses, measurement data, test statistic and the analysis of results are presented in this chapter. The analysis of the independent variable, affective sensitivity training, was done by comparing the scores of subjects who participated in Interpersonal Process Recall (hereinafter referred to as the experimental group) with subjects who did not receive training in IPR (hereinafter referred to as the control group). Both the experimental and control groups were measured immediately prior to the beginning of training and immediately after training was completed. The time lapse between pretest and posttest was the same for both groups.

Research Hypotheses

There were four hypotheses tested to determine the effect of training in IPR on the affective sensitivity of hearing parents who had deaf children. The hypotheses are reported below:

Hypothesis 1: There is no significant difference in the affective sensitivity of the experimental group and the control group after training is completed.

Hypothesis 2: There is no significant difference in the sensitivity to the client (helpee) between the experimental group and the control group after training is completed.

Hypothesis 3: There is no significant difference in the sensitivity to nonverbal communication by the experimental group and control group after training is completed.

Hypothesis 4: There is no significant difference in the empathy of the experimental and control group after training is completed.

Test Statistic

The data for each hypothesis was analyzed using a Mann-Whitney U test statistic. This analysis was used because of the small number of subjects (N=13) and the need to maximize statistical power. Popham and Sirotnik state in Educational Statistics: Use and Interpretation (1973) that the Mann-Whitney U test is a powerful alternative to the parametric t-test. They said this was particularly so when the difference between two independent groups needs to be assessed.

In analyzing the data the pretest was used to control for differences in the level of entrance behavior of subjects in the experimental and control group. Analysis of the post-test scores of subjects was not, therefore, confounded by ignoring the differences between subjects or groups prior to the onset of training.

The design of this research satisfies all assumptions of the Mann-Whitney U except that the subjects be a random sample of the population of interest (see section (2) of

Chapter III). The lack of random sampling prohibits generalizing the findings in this study to the population of interest (hearing parents of deaf children).

One problem with small group studies is that there is a tendency for ties. According to Jean Dickinson Gibbons in her book Nonparametric Methods for Quantitative Analysis (1976) the tendency for ties may be ignored because the effect is typically small. The program for this study did correct for ties. The interaction between subjects has, therefore, been controlled as a factor in analysis.

Results of Analysis and Tables of Data

The data used to test Hypothesis 1 is presented in Table 4.1. The scores reported represent the general level of affective sensitivity as measured by the total test score on the Filmed Measure of Affective Sensitivity (FMAS) Scale D. Both the raw scores and derived scores are reported. The derived scores are McCall's T scores. The conversion to T scores was necessary because the raw scores are not weighted the same on each measure. The McCall's T scores make unequally weighted scores comparable. According to Marascuilo and McSweeney in their book Nonparametric and Distribution-Free Methods for the Social Sciences (1978) individuals who wish to make comparisons between subtest scores that are weighted differently should use the McCall's T scores and not raw scores. Table 4.1 follows.

TABLE 4.1

RAW AND T SCORES OF SUBJECTS ON THE TOTAL SCORE ON THE FILMED MEASURE OF AFFECTIVE SENSITIVITY SCALE D

Subjects	Pretest		Posttest	
Experimental	Raw Score	T Score	Raw Score	T Score
1	59	43.5	67	49.6
2	70	51.9	73	54.2
3	52	38.2	60	44.3
4	86	64.1	94	70.2
5	86	64.1	82	61.1
6	71	52.7	93	69.5
7	90	67.2	95	71.0
Mean	73.4	54.5	80.6	60.0
Variance	212.6	123.7	201.7	117.5
Control				
8	61	45.0	62	45.8
9	87	64.9	98	73.3
10	70	51.9	64	47.3
11	70	51.9	75	55.7
12	73	54.2	83	61.8
13	73	54.2	71	52.7
Mean	72.3	53.7	75.5	56.1
Variance	71.1	41.6	179.5	104.7

The pretest scores for the experimental group ranged from a low score of 56 to a high score of 90. The posttest scores ranged from a low score of 60 to a high score of 94. The range (R) remained relatively stable from pretest (R=38) to posttest (R=36). This lack of change in variability is also reflected by comparing the pretest and posttest variance. The pretest variance (S^2) was S^2=212.6. The posttest variance was S^2=201.7. While there was a slight decrease in variability this does not mean that there was no change.

The mean score ($\bar{X}$) for the experimental group on the pretest was $\bar{X}$=73.4. The mean increased to $\bar{X}$=80.6 on the posttest. This indicates that the shape of the distribution of scores remained relatively stable. It did, however, shift

to the right as evidenced by the increase in the mean from the pretest to the posttest.

Calculations for skewness reveal that the skewness decreased from a pretest calculation for skewness of -.2 to a posttest calculation for skewness of -.15. This means that after training scores were more evenly distributed from the lowest score to the highest score.

The pretest scores for the control group ranged from a low score of 61 to a high score of 87. The posttest scores ranged from a low score of 62 to a high score of 98. Thus, the range of scores for the control group increased from a pretest range of R=26 to a posttest range of R=36. The variance increased from a pretest variance of S^2=71.1 to a posttest variance of S^2=179.5.

The mean of the control group increased from a pretest mean of $\bar{X}$=72.3 to a posttest mean of $\bar{X}$=75.5. Like the experimental group the distribution of scores for the control group moved to the right i.e., there was an increase in the general level of affective sensitivity.

The variance of the experimental and control group were similar on the posttest. This was due to a large increase in the variance of the control group. Calculations for skewness of the control group indicate that it increased from a pretest calculation for skewness of +.48 to a posttest calculation for skewness of +.54. This is interpreted as indicating that the increase in the mean and the variance is due to an increase in the largest, tailed score of the control group. Review of the range seems to substantiate this

observation. The low score for the range increased only one point from a pretest low score of 61 to a posttest low score of 62. In contrast, the pretest high score of 87 increased to a posttest high score of 98. Because of the high degree of skewness the control group's mean score of 75.5 on the posttest is not as representative of group scores as the posttest mean score of the experimental group of $\bar{X}$=80.6.

According to the findings in Table 4.1 the following is concluded:

Hypothesis 1: As measured by the general affective sensitivity score on the FMAS Scale D there was no significant difference between the affective sensitivity of the experimental and control group after training. Analysis of scores using the Mann-Whitney U test statistic at the .05 alpha level indicated that the null hypothesis, as stated, cannot be rejected. This means that training in IPR did not significantly affect the general level of the affective sensitivity of those subjects who participated in training (the experimental group).

The measurement data used to test Hypothesis 2 is presented in Table 4.2. The scores reported represent the sensitivity of the respondent to the client (helpee) as measured by the client subtest on the FMAS Scale D. As in Table 4.1 both the raw scores and derived scores are reported. Table 4.2 follows.

TABLE 4.2

RAW AND T SCORES OF SUBJECTS ON THE CLIENT SUBTEST FILMED MEASURE OF AFFECTIVE SENSITIVITY SCALE D

Subjects	Pretest		Posttest	
Experimental	Raw Score	T Score	Raw Score	T Score
1	30	50.8	33	55.4
2	25	43.0	37	61.6
3	26	44.6	28	47.7
4	40	66.2	46	75.5
5	37	61.6	33	55.4
6	31	52.3	43	70.9
7	38	63.1	40	66.2
Mean	32.4	54.5	37.1	61.8
Variance	35.6	85.0	39.8	95.1
Control				
8	24	41.5	26	44.6
9	41	67.8	43	70.9
10	33	55.4	29	49.2
11	35	58.4	38	63.1
12	35	63.1	32	53.9
13	38	63.1	32	53.9
Mean	34.3	57.5	33.8	56.7
Variance	33.5	80.0	38.2	91.3

The pretest scores for the experimental group ranged from a low score of 25 to a high score of 40. The scores increased on the posttest so that the low score was 28 and the high score was 46. There was a small increase in the range of scores from a pretest range of R=15 to a posttest range of R=18. This change in variability is also present in the variance. There was a moderate change in the variance from a pretest variance of S^2=35.6 to a posttest variance of S^2=39.8.

The mean for the experimental group on the pretest was $\bar{X}$=32.4. This increased to a posttest mean of $\bar{X}$=37.1. The moderate change in the range and the variance indicate a relatively stable shape for the distribution of scores on

the client subtest from pretest to posttest. The increase in the mean does indicate that the distribution did shift to the right i.e., there was a general increase in sensitivity to the client (helpee).

Calculations for skewness substantiate the evidence cited. The skewness of the pretest for the experimental group scores was claculated as being +.02. The posttest calculation for skewness was also +.02. The smallness of this figure, which indicates a more even distribution of scores, and its stability from pretest to posttest seems to indicate that the training in IPR had a relatively homogeneous effect on subjects.

The pretest scores for the control group ranged from a low score of 24 to a high score of 41. The posttest low score was 26 and the high score was 43. The range of scores for both the pretest and the posttest was R=17. The variance of scores for the control group on the pretest was S^2=33.5. The variance increased to a posttest variance of S^2=38.2.

The mean for the control group decreased from a pretest mean of $\overline{X}$=34.3 to a posttest mean of $\overline{X}$=33.8. The increased variation within the distribution while the mean remained relatively stable suggests that the distribution of scores changed.

Calculations for skewness provide evidence of this change. The pretest calculation for skewness was -.63. This changed to a posttest calculation of +.18. The smaller number indicates a more even distribution of scores i.e., less skewness. This change differs from that reported for

the data in Table 4.1. The reason for the difference is not clear.

Analysis of the data in Table 4.2 resulted in the following conclusions:

Hypothesis 2: A significant difference did appear between the sensitivity of the experimental and control group to the client (helpee) as measured by the client subtest score on the FMAS Scale D. The analysis using the Mann-Whitney U test statistic at the .05 alpha level indicated that the null hypothesis, that there is no significant difference between the experimental and control group, be rejected. This means that after training in IPR the experimental group was significantly more sensitive to client communication.

The data used to test Hypothesis 3 is presented in Table 4.3. The scores represent the sensitivity of the respondent to nonverbal communication. This was measured by the observational subtest of the FMAS Scale D. The data is reported in the same format as used in Tables 4.1 and 4.2. The reader is reminded that any comparisons of tabled scores must be done with the derived scores (T Scores) and not raw scores. Table 4.3 follows.

TABLE 4.3

RAW AND T SCORES OF SUBJECTS ON THE OBSERVATIONAL SUBTEST FILMED MEASURE OF AFFECTIVE SENSITIVITY SCALE D

Subjects	Pretest		Posttest	
Experimental	Raw Score	T Score	Raw Score	T Score
1	33	49.4	31	46.8
2	36	53.3	37	54.6
3	28	42.9	23	36.4
4	51	72.8	49	70.2
5	45	65.0	36	53.3
6	35	52.0	52	74.1
7	43	62.4	50	71.5
Mean	38.7	56.8	39.7	58.1
Variance	62.9	106.3	119.9	202.6
Control				
8	27	41.6	22	35.1
9	46	66.3	49	70.2
10	34	50.7	32	48.1
11	33	49.4	36	53.3
12	41	59.8	44	63.7
13	42	61.1	35	52.0
Mean	37.2	54.8	36.3	53.7
Variance	49.4	83.4	89.1	150.5

The range of raw scores for the experimental group increased from the pretest to the posttest. The low score on the pretest was 28 and the high score was 51. The low score on the posttest was 23 and the high score was 52. This increased variability is also present in the variance. The variance changed from a pretest variance of S^2=62.9 to a posttest variance of S^2=119.9.

The mean was relatively stable for the experimental group. The pretest mean was $\bar{X}$=38.7. This increased slightly to a posttest mean of $\bar{X}$=39.7. While the mean increased there was also an increase in variability around the mean.

Calculations for skewness indicate that the scores on the posttest were more evenly distributed than on the pretest,

though in a different direction. The pretest calculation for skewness was +.21. The posttest calculation for skewness was -.17. This means that skewness decreased from the pretest to the posttest and it changed in direction. Scores on the pretest tended to be larger than the mean (negatively skewed). This changed so that scores on the posttest tend to be smaller than the mean.

The range of scores for the control group on the observational subtest of the FMAS Scale D also increased from the pretest to the posttest. The low score on the pretest was 27 and the high score was 46. The posttest had a low score of 22 and a high score of 49. The pretest variance was S^2=49.4. The variance increased to a posttest variance of S^2=89.1.

The mean score for the control group actually decreased from the pretest to the posttest. The pretest mean was $\bar{X}$=37.2. The posttest mean was $\bar{X}$=36.3. This seems to indicate a slight shift in the value of the mean to the left in the distribution of scores. The skewness calculation for the pretest was -.16. The skewness for the posttest was -.1. This means that the scores tended to be slightly above the mean on both the pretest and the posttest. The fact that both the mean and measure for skewness decreased in magnitude seems to indicate a general decline in the control group's level of nonverbal sensitivity.

This data, Table 4.3 was analyzed to determine whether Hypothesis 3 can or cannot be rejected. The decision is reported in the following:

Hypothesis 3: As measured by the observational subtest score on the FMAS Scale D there was no significant difference between the nonverbal sensitivity of the experimental and control group. Analysis of the scores using the Mann-Whitney U test statistic at the .05 alpha level indicated that the null hypothesis, as stated, cannot be rejected. This means that training in IPR did not significantly affect the sensitivity to nonverbal communication of those subjects who participated in training (the experimental group).

The measurement data used to test Hypothesis 4 is presented in Table 4.4. The scores reported represent the level of empathy of the respondent to the helpee as measured by the Carkhuff Index of Empathy Discrimination (CIED). The smaller the mean difference ($\bar{X}$ Diff) the greater the level of empathy. A mean difference of 1.0 indicates more empathy than a mean difference of 1.1. Table 4.4 follows.

TABLE 4.4

CARKHUFF INDEX OF EMPATHY DISCRIMINATION
MEAN ($\bar{X}$) DIFFERENCE SCORES

	Pretest		Posttest	
Subjects	Total Difference	$\bar{X}$ Diff	Total Difference	$\bar{X}$ Diff
Experimental				
1	100	1.5	70	1.0
2	66	1.0	60	0.9
3	70	1.0	54	0.8
4	110	1.7	62	0.9
5	44	0.6	58	0.9
6	36	0.5	46	0.7
7	44	0.6	34	0.5
Mean	67.1	1.0	54.6	0.8
Variance	827.8		138.5	

TABLE 4.4 cont'd

	Pretest		Posttest	
Subjects	Total Difference	$\bar{X}$ Diff	Total Difference	$\bar{X}$ Diff
Control				
8	86	1.3	88	1.3
9	76	1.1	60	0.9
10	54	0.8	40	0.6
11	74	1.1	70	1.0
12	86	1.3	76	1.1
13	68	1.0	64	1.0
Mean	74	1.1	66.3	1.0
Variance	56.5		263.1	

The range of total difference scores for the experimental group decreased from the pretest to the posttest. The pretest had a low score of 36 and a high score of 100. The posttest had a low score of 34 and a high score of 70.

The mean of the total difference for the experimental group also decreased from a pretest mean of $\bar{X}$=67.1 to a posttest mean of $\bar{X}$=54.8. The fact that variability decreased too, from pretest variance of S^2=827.8 to a posttest variance of S^2=138.5 indicates that there was a general increase in empathy and that scores tended to be closer to the mean on the posttest.

The range of total difference scores for the control group increased from the pretest to the posttest. The low score on the pretest was 54 and the high score was 86. The posttest had a low score of 40 and a high score of 88.

The mean of the total difference increased from a pretest mean of $\bar{X}$=74 to a posttest mean of $\bar{X}$=65.1. The smaller mean on the posttest is, however, not as representative of group scores as the mean on the pretest. This is due to a

large increase in the variance from a pretest variance of S^2=56.5 to a posttest variance of S^2=263.1.

The decision on Hypothesis 4 using the data in Table 4.4 is reported below.

Hypothesis 4: As measured by the CIED there was no significant difference between the level of empathy of the experimental and control group. Analysis of the scores using the Mann-Whitney U test statistic at the .05 alpha level indicated that the null hypothesis, as stated, cannot be rejected. This means that training in IPR did not significantly affect the level of empathy of those subjects who participated in training (the experimental group).

Summary

The data used in analyzing Hypotheses one through four were reported. The data was analyzed using a Mann-Whitney U test statistic at the .05 alpha level.

It was found that subjects trained in IPR (the experimental group) were significantly more sensitive to client (helpee) communication than the control group after training was completed. In the three other areas of sensitivity that were measured no significant difference between the experimental and control group was found. This indicates that training in IPR did not significantly affect the experimental group's general level of affective sensitivity, sensitivity to nonverbal communication, nor level of empathy.

CHAPTER V

DISCUSSION OF RESULTS

The analysis of scores used to test the hypotheses indicated that hearing parents of deaf children were significantly more sensitive to communication from the client (helpee) after participating in IPR training. In all other areas measured they did not differ significantly from the no treatment control group.

The sensitivity of hearing parents of deaf children to client (helpee) communication indicates an important development in the attitude of parents towards communication. It implies that parents were able to learn that listening was an important communication skill.

A review of the scores of subjects on the FMAS Scale D revealed that subjects scored lowest on the subtest measuring sensitivity to nonverbal communication. This is a particularly important deficiency, because deaf children rely more on nonverbal communication, due to their hearing impairment and lack of oral communication skills. Therefore, parent sensitivity to verbal communication does not reduce the need for sensitivity to the deaf child's nonverbal communication.

The comments from parents and the measurement data suggested that parents would benefit from didactic sessions that would provide them with more information about how to

apply their sensitivity to deaf children. This could be supplemented with vignettes of deaf children interacting with parents and deaf peers.

Non-Hypothesized Observations

There were a number of non-hypothesized findings that affected this research. While they were not tested and controlled for, the reporting of their occurrence is deemed important.

During the course of IPR training it became apparent that subjects who were better educated (some post high school education) understood the concepts more readily than less educated subjects. This may have been due to the level of language and abstractness of this type of training. It would be important that future researchers try to adapt the didactic presentations for those trainees who do not have some post high school education.

Another important factor seemed to be the support of the spouse. Those subjects whose spouse was supportive reported more effort at home in utilizing the skill and knowledge that was being learned. This would suggest that it might be valuable in future research to have both parents participate in training. This would be beneficial for both the parents and the deaf child because the parents would be more likely and able to function in a consistent and mutually reinforcing manner.

Limitations

There were several problems confronted in this research that needed to be resolved in future studies.

This research cannot be generalized to the population of interest (hearing parents of deaf children). There are two reasons for the inability to generalize. One is that the sample was not randomly selected from the population of hearing parents of deaf children. The second factor was that random assignment to the experimental or control group was not done. The findings of this study while encouraging should be used with caution.

The most direct effect on this study was subject attendance at all training sessions. Training was provided to all subjects free of charge. This was done on the supposition that it would encourage or permit more parents to participate. It seemed, however, to have caused parents to feel they had no investment in the training session. This in turn caused erratic attendance. Future researchers perhaps should pay parents to participate in such a training program. This may increase attendance and the number of parents who would be interested in participating.

The problem of attendance was further complicated by severe weather conditions requiring postponement of scheduled weekly sessions. This appeared to reduce the continuity of learning. If conducted in such areas of the country where winter may cause problems, it would seem wise in future research to offer the IPR training program during the fall or spring when weather conditions are more moderate.

Another difficulty encountered was the size of the training group. The largest group in this study evidenced the greatest growth in affective sensitivity. The effect of group size was not studied, but the inferential implication is that larger groups (four or more members) are more growth producing. Kagan commented on this as a factor (Kagan, 1975). He stated that groups smaller than twelve are not stimulating enough for the members. One difficulty is working with hearing parents of deaf children is that there are not many of them; it can be assumed that involving as many as twelve parents at one site would be extremely difficult if not impossible. But again, Kagan's advice does indicate that larger groups are more desirable. This recommendation is consistent with the findings of this research.

The smallest degree of difference appeared between the empathy of the experimental and control group as measured by the Carkhuff Index of Empathy Discrimination (CIED). This test was presented in a printed form. Respondents had to read excerpts of helpee communication and then judge the facilitative quality of a number of helper responses. It appears that testees' responses were affected by their reading ability. There were several other factors that seemed to effect the responses of testees. These factors were 1) the lack of concrete clues such as voice inflection, facial expression, and eye contact and 2) the apparent misunderstanding by testees that the scale used in weighting a particular response was from 0-5. No subjects ranked any answer at five, not did they rank any at zero. This had the

effect of reducing the ability of the instrument to discriminate the degree of empathy of the respondents. It is suggested that future researchers seek another instrument to measure affective sensitivity in groups where a wide range of reading skills are expected.

Implications

Each subsection of this chapter has contained some suggestions about the content of training, measurement techniques, or subject participation. The next section makes a few broader suggestions.

One important effort of future research should be to include more parents of very young deaf children (children younger than seven years of age). This might be important for two reasons. First, the process of helping the child might be much easier for parents while the child is young. Second, it might enable parents to develop a meaningful relationship with their deaf child before the child experiences too much frustration, confusion, or anger.

It would be significant for future research to evaluate which parts of IPR training are the most important to increase parent sensitivity. One problem this research confronted was that parents were unwilling to invest forty hours of their time in the training program. So, it would seem desirable to investigate the possibility of a shorter training program. Judging from the comments of parents this could be done if there was more systematic use of the time parents

were at home and less time spent on vignettes that were not relevant to the needs of parents.

Conclusion

This research indicated that training hearing parents to be more sensitive to their deaf children is an attainable goal. The program used was successful in enabling parents to become significantly more sensitive to specific measures of verbal communication. Suggestions for future research were made. The areas identified for further development were sensitivity to nonverbal communication; larger group size; better attendance by subjects participating in training; more subjects with younger children; and participation by both parents. Results are sufficiently encouraging to merit further research with this population.

Interpersonal Process Recall offers a promising procedure for bridging the chasm of silence which separates hearing parents and deaf children. Because IPR emphasizes reciprocal communication the relationship between deaf children and their parents may become one of meaningful and facilitative interpersonal communication.

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APPENDIX A

APPENDIX A

LETTER TO DIRECTORS OF PROGRAMS FOR HEARING IMPAIRED STUDENTS

In the last ten years this country has seen an increased interest in deaf people and the problems deafness presents to the deaf individual and those living in close proximity of deaf children and youth (parents, teachers, audiologists). This interest has clustered around the issue of what modality to use in communication with deaf people i.e., oral-aural communication versus oral-manual communication. What has not been considered, however, is that understanding and being understood, which is the purpose of communication, involves much more than the channel through which information passes. Communication involves: understanding one's self, awareness of one's impact on other people, awareness of other people's impact on one's self. If one is not attuned to these features then communication proceeds in a haphazard fashion. This is a problem that has long pervaded the interaction between parents and their deaf children.

The program that I am offering deals directly with this problem. The training is directed to the parameters mentioned earlier, i.e., understanding the dynamic on-going relationships indigenous to interpersonal communication. This is accomplished by using an approach that is found in theory and well developed in its practical application.

The theoretical background is behavioral. This may call to mind rats and maizes but that is not the behavioral orientation of this program. I use the word behavior in the sense of doing. This training is directed to what is done while the communication is being attempted. There are several behaviors occurring simultaneously. One behavior is trying to understand another person's message in terms of what its meaning is to the sender. Then one tries to apply that meaning to one's own understanding of the thoughts and feelings being communicated. This is an internal cognitive behavior. There is also an external behavior that relates to the internal behavior. The receiver needs to send listening responses to add clarity to his/her understanding of what the sender is trying to communicate. A listening response may be one of several categories, e.g., "I am not sure I understand what you mean. Please, explain it to me some more," (clarification) or "How does that make you feel" (Exploratory affective).

That is a very general description of the process. If you need more information please let me know. What I ask of you is the opportunity to present such a program to parents of deaf children in your area. If you would inform your parent group that such an opportunity exists they could let me know when I might present an introduction to it. This would allow for the parents to have more information and then decide if they want to participate.

The goal of this project is two fold: to provide an experience for parents that will foster interpresonal relationships with their children, to determine the efficacy of this program for parents of deaf children and youth.

If you are interested in further exploration of the opportunity and/or desire more information please contact me:

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Thank you very much for your time and consideration. I will anxiously await your reply.

Respectfully,

Robert Anthony
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