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BEHAVIORAL OUTCOMES OF SHORT-TERM NONDIRECTIVE PLAY
THERAPY WITH PRESCHOOL DEAF CHILDREN

DISSERTATION

Presented to the Graduate Council of the
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By

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This study was conducted to investigate change (as measured by positive growth changes in total personality adjustment, social maturity, and behavior patterns) in pre-school deaf children with behavioral problems who experienced short-term, nondirective play therapy. Change in behavior of these children was also investigated ten weeks after therapy.

Play is regarded as the natural medium for the child to communicate his thoughts about the world. This is even more applicable for the deaf child since his "language" is non-verbal communication. Communication specialists agree that expression of emotional states can occur on nonverbal levels.

The population for this study consisted of children with impaired hearing who were referred for therapy to classes for the deaf. Referrals considered were children whose hearing loss prevented auditory contact with the world around them since before the acquisition of language. They had a hearing loss of seventy decibels or more bilaterally, IQ's of eighty or above on a standardized individual intelligence test, were four years through six years of age, and described by their hearing therapist as having behavioral problems.

Twenty-four children met the criteria and were placed in pairs according to age and sex. The children were assigned at random to a treatment (experimental) or to a nontreatment (control) group. Pretests and posttests of the Vineland Social Maturity Scale, The Child Behavior Rating Scale, and the Behavior Problem Checklist were administered to both groups. All scales were again administered to the Experimental Group ten weeks following therapy. Parents and therapists completed questionnaires for both groups before and after the therapy period.

Data obtained from pretests and posttests on all scales were treated statistically for significance of difference between means, using analysis of covariance. Data obtained from the Experimental Group posttests and residual tests on all scales were treated statistically for significance of difference between means of small samples, using Fisher's t test for related samples. A significance level of .05 was required for rejection of the null hypothesis for all computations.

Statistical analysis of scores on the Vineland supported the hypothesis that children who had short-term, nondirective play therapy would score significantly higher in mature behavior patterns than children who had not had play therapy. Statistical analysis of scores on the other two scales did not support the hypotheses that personality adjustment and manifest behavior would improve after the children had experienced short-term, nondirective play therapy.

Analysis of posttest and residual test data on all three scales employed supported the hypotheses that children who had had short-term, nondirective play therapy would have no significant change in personality adjustment, social maturity, or manifest behavior after therapy was discontinued.

Data from the questionnaires revealed that all parents and teachers of seven children in the Experimental Group saw positive behavioral change in the children at the completion of therapy. Two parents and the teacher of one child in the Control Group saw positive behavioral change at the completion of the play periods.

Recommendations made were that counseling and guidance should be provided families as soon as the diagnosis of deafness is made; group therapy should be tried with deaf children; instruments to measure psychological adjustment should be devised for deaf children; the interview method should be combined with paper-and-pencil checklists of behavioral characteristics; further research should utilize larger samples; and further research should include the etiology of the child's deafness.

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CHAPTER I

INTRODUCTION

Basis of the Study

Although comparatively new, play therapy has been established as a valuable method in working with maladjusted children. The method of approach or specific techniques used will depend on the underlying theory. Nondirective play therapy rests on the hypothesis that the child has within himself the capacity for growth and self-direction and that growth impulses are released within the therapeutic relationship established between the therapist and the child. It is the relationship that is the important factor rather than any specific techniques. This relationship offers to the child the opportunity to experience growth under the most favorable conditions (2, 3).

Play is regarded as the natural medium for the child to communicate his thoughts and feelings about the world around him. This is perhaps even more applicable to the deaf child because the true "language" of the deaf, according to Furth (13), is nonverbal communication. The deaf infant grows into childhood watching a motion-picture-like world without sound unfolding before him. His curiosity prompts him to ask questions, but he cannot ask because he has no

words. Thus, he experiences strains and tensions the normal child does not know. He may become desperate and rebellious and beat against his walls of silence in rage, or he may withdraw in resignation and apathy.

The primary need for the healthy development of any child is acceptance of himself. This acceptance is rarely accorded the deaf child. Most parents are so immersed in our educational and child-centered atmosphere that they cannot really accept a handicapped child. Deafness, unlike some other disabilities, is usually diagnosed only after months of anxious doubts and many trips to doctors and clinics. This adds to the parents' tension and increases the child's already abundant doubts about his own worth. Numerous studies cited by Levine (17) have shown the deaf child to be more emotionally unstable, to have a significantly greater number of problem tendencies, and to have generally poorer adjustment than hearing children.

The utilization of nondirective play therapy with deaf children is based on the assumption that it is possible to establish a therapeutic relationship using only nonverbal communication. Communication specialists agree that much of the expression of emotional and motivational states occur on nonverbal levels (12, 18). A smile and a hug can quickly convey acceptance to the child. Eye-contact, distance, head orientation, shoulder orientation, leg orientation, arm openness, leg openness, and hand, foot, and trunk relaxation

have all been found by Mehrabian and Friar (20) to be important variables for the communication of attitudes. Zaidel and Mehrabian (30) found that greater variability in attitudes was expressed facially rather than vocally. The question of whether these nonverbal methods can be utilized to establish a therapeutic relationship remains unanswered.

Statement of the Problem

This study was concerned with change (as measured by positive growth changes in total personality adjustment, social maturity, and behavior patterns) in preschool deaf children with behavioral problems who experienced short-term play therapy.

Purpose of the Study

The purpose of this study was to investigate and evaluate selected behavioral effects of short-term, nondirective play therapy with preschool deaf children who had behavioral problems.

Hypotheses

The following hypotheses were tested:

I. Children who have had a minimum of ten weekly individual play therapy sessions will score significantly higher in mature behavior patterns, as measured by the Vineland Social Maturity Scale, at the end of the treatment period than will children who have not had play therapy.

II. Children who have had a minimum of ten weekly individual play therapy sessions will score significantly higher in personality adjustment, as measured by The Child Behavior Rating Scale, at the end of the treatment period than will children who have not had play therapy.

III. Children who have had a minimum of ten weekly individual play therapy sessions will score significantly lower in manifest behavioral problems, as measured by the Behavior Problem Checklist, at the end of the treatment period than will children who have not had play therapy.

IV. Children who have had a minimum of ten weekly individual play therapy sessions will have no significant change in mature behavior patterns, as measured by the Vineland Social Maturity Scale, at the end of the residual period.

V. Children who have had a minimum of ten weekly individual play therapy sessions will have no significant change in personality adjustment, as measured by The Child Behavior Rating Scale, at the end of the residual period.

VI. Children who have had a minimum of ten weekly individual play therapy sessions will have no significant change in manifest behavioral problems, as measured by the Behavior Problem Checklist, at the end of the residual period.

Background and Significance

Man is dependent on his senses to furnish information about the world around him. From this information he builds his own unique perception of events and objects which constitute his life space. Thus, a sensory deprivation limits his world of experience and changes his perception of many events. This change alters the balance and equilibrium of the psychological processes as well as the integration and function of the remaining senses (23).

The age at which the sensory deprivation occurs and the degree of impairment are important factors which influence the person as he attempts to gain equilibrium and integration. Each person solves these problems in his own unique way, but some shift, some reorganization of experience, is inevitable. His behavior pattern is necessarily modified to adjust to this sensory deprivation.

Myklebust (23) classifies the five senses into close and distant senses. Olfaction, gustation, and taction are the close senses requiring contact with the environment. Hearing and vision are the distant senses. Hearing is a background sense and scans the environment while the person is busy reading, eating, sleeping, or focusing on some act. If a change in the environment is noted through scanning, the person can stop what he is doing and listen intently.

The deaf person loses this constant contact with his environment and isolation results. The deaf child must

depend on his vision and his tactile sense primarily to inform him of changes in his environment. Thus, when playing with a toy he will look up and visually scan the environment to check for changes. He learns to depend on vibrations and changes in light and shadow. His sensory-psychological organization is shifted in an attempt to maintain contact with his environment through the best means at his disposal (23).

The deaf child is born into a silent world. He misses the reassuring sound of his mother's voice, the rattling of dishes which means food, the sound of footsteps, or even the sounds he can make himself, which give him a feeling of control over his environment. Contact with the world about him must be established through his remaining senses. He begins to read facial expressions and must depend on them and touch to convey moods and emotional values (8, 13, 17).

The small deaf child finds himself against an acoustic insulation which forms a barrier to the world. Since deafness weakens the communication link to the environment, it threatens the personality of the child more than it threatens his intellectual potential. Behavior problems arise when social communication is restricted. The deaf child is curious about the world about him and longs to ask questions and receive answers. Yet, he cannot for he has no words; nor does he even know that such things as words exist. He only feels the tension and strain of wanting to know. Since

he does not understand many aspects of his environment, frustration develops. Frustration leads to temper tantrums, aggressive, and negative behavior (13, 17).

It is very difficult for parents to accept the fact that their child is deaf. This disability is an invisible one and usually is diagnosed only after many months or years of anxious doubt and unrealistic hopes. The stress which his parents experience has its effect on the young child; he doubts his own worth as he witnesses his parents' distress and feels the isolation from other family members which his handicap creates. He does not speak in the same tongue as his parents, and it is difficult for them to communicate. As he grows and the importance of speech is stressed, he comes to understand that his parents, and the hearing world they represent, will accept him provided he learns speech. Thus, the deaf child is denied the fundamental right of each child: that of unconditional acceptance.

Before the parents discover that the child has a physical handicap, management is often inconsistent. They cannot understand why the child does not respond and why he cannot understand, so they try a variety of methods in an effort to mold him into the pattern they desire (26).

When deafness is diagnosed, parents frequently have ambivalent feelings about the child and management remains inconsistent. At one moment they may feel sorry for him and cater to him and no rules are applied, but the next time they may reject this offspring with a defect.

Not only is the deaf child isolated from his parents, he is also isolated from his peers. He watches and imitates, but he often misses the meaning of the act. For him there are no games of, "Let's pretend; you be the father; I'll be the mother." He cannot hear the rules of the game and therefore does not know how to play by them. This leads to fights, temper tantrums, and social isolation.

From this environment it is not surprising that the deaf develop a certain hostility toward the hearing world. Levine (17) found the following characteristics in deaf subjects: emotional underdevelopment, a substantial lag in understanding the dynamics of interpersonal relationships, an egocentric life perspective, markedly constricted life areas, and a rigid adherence to the book-of-etiquette code rather than inner sensibility as standards for behaving.

Altshuler (1), in his work with the deaf, found that they met demands with a greater degree of resistance and disorganized regression than did hearing children. Other qualities he observed were lack of understanding or regard for the feelings of others coupled with egocentricity, relatively little thoughtful introspection but considerable impulsive behavior, and an adaptive approach motivated by coercive dependence.

Springer (29), using the Brown Personality Inventory to study emotional stability, found psychoneurotic tendencies much higher in the deaf than hearing children. Springer (28)

also used the Haggerty-Wickman-Olson Behavior Rating Schedules to compare deaf and hearing children. Results showed that the deaf children had more problem tendencies than did the hearing children. Myklebust and Burchard (24) studied deaf children in a residential school and confirmed the findings of Springer, that deaf children present a higher incidence of behavior problems than do hearing children.

There is a critical need for guidance and counseling if the deaf child is to achieve his maximum success personally, socially, and vocationally. Sarlin and Altshuler (27) described a preventive group psychotherapy program with deaf adolescents. Over a period of a year, depth of awareness in the group increased from rules memorized by rote to a more mature grasp of concepts. Landau (15) used group psychotherapy with deaf retardates and succeeded in improving their social responsiveness. The number of interactions in the group increased, and the content changed in the direction of greater depth.

The studies cited above have dealt with adolescents and older children. There are no reports in the literature of play therapy with deaf children. Neuhaus (26) surmises that the reason for this is the lack of trained personnel in this area. Play therapy is also comparatively new. Yet, play has long been recognized as the natural medium for self-expression of the child.

Lebo (16) cites Rousseau as being the first person to advocate studying the play of children in order to understand them. Freud (16) urged his friends to collect observations on the expressions of children, and he encouraged teachers to join the games of children in order to properly understand and relate to the child.

Bernstein (5) describes play as one of the child's most important activities. From the earliest manipulation of toys, the child finds satisfaction as well as relief from tension in play. He can dramatize his fantasies, express his wishes symbolically, and work out his conflicts in play. Play is most important for the child because of his limited capacity for verbalization. Because he cannot express his feelings verbally, he expresses them through play. Play is his method of communication, and his way of testing reality.

Interest has been increasing in play as therapy in the treatment of children. Axline (3) states that play therapy is therapeutic because it provides a secure relationship between the child and an adult. In this relationship the child has the freedom to explore his feelings and express himself without threat of rejection or censure. As the child learns to understand and accept himself, he learns to understand and accept others. She cites excerpts from three case studies and concludes that behavior patterns and self-image of the children improved as a result of play therapy. The play therapy experience freed the child from the chains of

past experiences and gave him a safety zone within which to operate.

Dorfman (11) investigated outcomes of client-centered individual play therapy with seventeen children whose teachers found them to be maladjusted. She found that reliable personality test improvements occur concomitantly with a series of therapy sessions and that time alone does not produce reliable improvements on the same tests. Therapy gains remained a year later, but the gains did not grow.

Moustakas (22) studied the negative attitudes of normal and disturbed children as expressed in play therapy and compared the number, variety, and intensity of these attitudes in a group of well-adjusted children and a group of disturbed children. The disturbed group differed from the well-adjusted group in that they expressed negative attitudes in a more diffuse manner. As therapy progressed, negative attitudes of the disturbed children became similar to those of well-adjusted children. Negative feelings were expressed more clearly, more directly, less frequently, and with less intensity.

Cruickshank and Cower (7) investigated group therapy with physically handicapped children. They used a non-directive approach with these children. The children were referred by school authorities because they displayed emotional problems. More mature behavior patterns and positive signs of growth were noted. The authors concluded that

group therapy has the same value for the physically handicapped as for the normal child. However, the handicapped child may bring a wider range of problems to the therapeutic setting due to the impact the handicap exerts on his ability to adjust.

If nondirective play therapy is to be used with deaf children, it must be possible to establish a therapeutic relationship using only nonverbal techniques. Expression of emotional and motivational states can be conveyed through nonverbal means. A smile and a hug convey a different meaning from a frown and a slap. Persistent aversion to eye contact has long been acknowledged as one of the behavioral manifestations of childhood autism (12). Many analysts have thought that some nonverbal behavior, such as posture, position, and movement, revealed the client's feelings (12, 19). Frieda Fromm-Reichmann (19) imitated the client's posture herself in order to obtain some feeling for what he was experiencing.

There are many forms of nonverbal behavior which can communicate feelings: touching, facial expression, posture, and changes in body position. Zaidel and Mehrabian (30) found that facial expressions were more effective than verbal expressions for communicating attitudes. The initiation and termination of conversations were guided more by the attitude communicated by the facial than by the vocal

cues. They also found that negative attitudes were more easily communicated than positive attitudes.

Mehrabian and Williams (21) found that head nodding and smiling both reflected liking toward the person addressed. Higher rates of head nodding were associated with greater persuasive effort on the part of the communicator. Persuasiveness of communication was found to be correlated positively with more speech volume, higher rate of gesticulation, more eye-contact with the addressee, lengthier communications, and more facial activity. Smaller distances from the addressee and relaxation also enhanced perceived persuasiveness.

Mehrabian and Ferris (19) studied positive, neutral, and negative attitudes communicated by facial and vocal expressions. They found the facial component had a stronger effect than the vocal component with the facial component receiving approximately $3/2$ the weight received by the vocal component.

Dittman (10) found it was possible to differentiate moods by frequency of movement and area of body moved. During angry moods there were many head and leg movements but few hand movements, while during depressed moods there were many leg movements but few movements of head and hands.

Duncan (12) studied behaviors of client and therapist in psychotherapy interviews and found it was possible to distinguish between poor and peak interviews. The postures

of client and therapist were more congruent during the peak periods.

The crucial question still to be answered is whether a therapeutic relationship can be established through nonverbal communication. After reviewing the literature it would appear that this is possible; and since his true language is nonverbal, it should be easier to establish such a relationship with a deaf child.

Definition of Terms

1. Deaf children with behavioral problems--As used in this study, a deaf child is one whose hearing loss prevents, for all practical purposes, auditory contact with the world around him and has done so since before the acquisition of language. He has a hearing loss of seventy decibels or more bilaterally (8). He has an IQ of eighty or above on a standardized individual intelligence test. He is reported by his hearing therapist to have behavioral problems.

2. Behavioral change--As used in this study, behavioral change is defined as a change toward mature behavior, fewer manifest problems, a change toward positive play patterns, and a change toward adequate personality adjustment.

3. Play therapy--As used in this study, play therapy is therapeutic play in an equipped play therapy room with a therapist present. The situation is unstructured and the child is free to use the play materials as he wishes, subject

to a few broad limitations, for the expression of his feelings. The child is unconditionally accepted just as he is. The therapist establishes a relationship which includes empathy, warmth, genuineness, and understanding. In such an atmosphere there is no need for defensive action. The child is free to play out his problems, be creative, and be self-directing.

4. Treatment period--As used in this study, the treatment period is the period of ten weeks in which individual play therapy is given weekly.

5. Residual period--As used in this study, the residual period is the period of no play therapy ten weeks following the treatment period.

Limitations of the Study

This study was limited to children from Dallas and surrounding counties, who, because of impaired hearing, were referred for therapy to special classes for the deaf in a community agency. This limitation was necessary to secure the facilities essential for play therapy and the desired deaf population.

Basic Assumptions

It was assumed that the hearing therapists responded honestly and without bias to the instruments used to measure social and emotional adjustment and behavior problems of the children.

It was also assumed that the instruments used to measure social and emotional adjustment and behavior problems were valid and reliable.

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CHAPTER II

REVIEW OF THE LITERATURE

Implications of Deafness

Since man is dependent on his senses to furnish information about his world, a sensory deprivation limits his world and leaves gaps in his information. The integration and function of his other senses are altered as well as the balance and equilibrium of the psychological processes. The age at which the sensory deprivation occurs and the degree of impairment are important factors influencing the person as he attempts to integrate his experiences.

Myklebust (76) classifies the five senses into the close senses of olfaction, gustation, and taction, and the distant senses of vision and hearing. Hearing is the only one of our senses that is not concrete and bound to tangible objects. Hearing is a background sense and scans the environment in all directions, even while the person is busy with some activity and, to a limited degree, even when he is sleeping. Myklebust states that

. . . as auditory sensation is reduced, alteration of the use of the other senses, and altered perceptual organization, is imperative in order for the person to maintain an adequate homeostatic relationship between his inner needs and external circumstances (76, p. 48).

While the hearing child scans his environment automatically, the deaf child must stop what he is doing and periodically look up to ascertain whether there are any changes in the environment. Since all environmental changes cannot be monitored visually, the deaf child learns early to maintain contact with his tactile sense also. Thus, when he feels vibrations, he learns to check the environment for changes.

Evolution assigned the child's readiness for developing language to the second year of life. At this point he is ready to expand his mobility and emotional awareness of himself and others. The time of this emergence may be crucial, and it is uncertain whether later efforts at replacement can compensate for the deaf child's early deficiency (7).

Jarvik and others (44) conducted a survey of deaf persons of outstanding achievement in New York State. They found that the factors associated with unusual achievement among the deaf tend to be similar to those described for the hearing. To overcome the markedly retarding effects of early total deafness, it appears that far greater effort, endowment, and opportunity are required than for equivalent accomplishments of hearing persons. Helen Keller's astounding accomplishments are underscored by the fact that nowhere in the general literature on eminence and creativity do the names of persons designated as having profound hearing loss from childhood appear.

To understand how the loss of hearing affects the person, it is necessary to understand the role of hearing itself. Hartwig and Jones (39) describe how hearing results from the action and interaction of both the ears and the brain. The two must function together. They constitute the mechanism for hearing. If either organ suffers damage, the result may be defective hearing, usually directly related to the amount and the location of the damage. The ear collects the sound vibrations, conducts them from one portion of the ear to another, and changes them into nerve impulses. Nerves carry these impulses to the brain where they are interpreted in terms of some related experience.

As the ear perceives sound and the brain interprets it, man is able to get outside himself and learn about the world around him. Even before man had verbal language he had hearing and learned to abstract meaning from the sounds in nature. As men banded together into groups, they had to learn to interpret the sounds in nature. The achievement of interpreting spoken sounds marked the beginning of verbal language (55).

The development of language in the infant is just as impressive, according to Levine (55). During the first few weeks of life, the infant is scarcely aware that he is a separate entity. His world is composed of diffuse and vague sensations. His incomplete nervous system spares him the overwhelming task of assimilating all the new stimuli

bombarding him. As he matures he gradually learns that certain sounds mean certain things: the clink of glass means food, or hurrying steps means someone is coming to him. Some sounds please and others frighten. Long before the infant can speak he is able to respond to words. As maturation proceeds, he is aware one day that he can produce sounds at will. This is a startling discovery and the beginning of awareness that he is a separate entity and may exert some control over his environment.

Myklebust (75) explores the importance of identification in the child's developmental process and states that identification seems fundamentally related to language acquisition itself. The deaf child misses the many sounds which enhance interpersonal relationships. This lack of interaction leads to isolation and lack of stimulation which limits the emotional growth of the child. Helen Keller states that the most vital stimulus of all is the sound of the human voice because "It brings language, sets thoughts astir, and keeps us in the intellectual company of man" (47, p. 68).

Myklebust (76) used the Human Figure Drawing Test to determine the effects of early life deafness on self-perception, person-perception, and identification. The test was administered to 830 deaf children; the Draw-a-Man part of the test was given to 274 hearing children. From the results he concluded that early profound deafness alters the perceptual processes and awareness of the child. It was

found that the deaf child's body image was different from the normal, and his perceptual behavior was altered. Emotional immaturity and poor identification, principally in the boys, were noted.

Through language the hearing child obtains information about the past, social customs, traditions, and the present with its specific demands. Through language the hearing child gains insight into the behavior of his peers and is able to understand motives and form value judgments. Even when he is not the center of the family or group, he belongs to it because he can hear the movements of life about him. Since the deaf child cannot hear, he is isolated by a wall of silence. He must learn to conform to social standards which he cannot hear but only see. The chances for misinterpreting what he sees are many; and because he lacks language, others do not know his perceptions. Hearing automatically provides information about the status and fluctuations of the environment. One of the criteria for maintaining emotional stability is being able to compare one's thinking and feelings with others. This helps the individual maintain hold on reality. With the deaf child an important avenue, hearing, is lost and isolation and detachment result (55, 76).

The hearing infant learns early to match sounds with objects. He listens, practices, and finds one day he can express his wants with words. His sensori-motor

investigations of his environment are made more meaningful by the use of words to clarify perceptions. According to Levine (55), as the child grows older language becomes his tool for communication and for thinking. He uses "what," "what for," and "why." The child thus succeeds in attaining mastery over one unknown after the other in his world. With this comes increased self-confidence. Words give him magic power. When he learns "no" he has found a verbal means for releasing aggression. This word can be as satisfying as a temper tantrum and create the same havoc. Words can take the place of acting out feelings.

Bowlby (15) feels speech and hearing play an essential role in the development of the child's attachment to his mother. Without the contact afforded by the voice, this bond is distorted or altered. As a consequence, an emotional separation exists from infancy. The nurturing effect of sound in growth and in the generation of emotional response can already be seen at a few weeks of age when a baby may be quieted by the sound of his mother's voice. As the child grows older and is separated from his mother, he can be reassured by the sound of an unseen mother in the next room. Thus, sound appears to be a necessary part of those cognitive stimuli through which the child defines his own boundaries and his relationship to the world.

Hearing and verbal language, as shown by Piaget (87), constitute one of the foundations of intelligence; so their

absence must alter development. The lack of an important sensory avenue through which to acquire and associate symbols reduces assimilation. The deaf child has missed the auditory practice of associating gross sounds with concepts, of associating words with sounds, and of combining words into automatic verbal thinking. No mental, social, or emotional stimulation has been conveyed to him by sound. Thus, even when he comes to school at a very early age he finds a large ready-made body of language waiting to be learned.

Hartwig and Jones (39) estimate that the vocabulary of a hearing child of normal mental ability when he starts to school is about two or three thousand words. He acquired them in an effortless way. These provide him with a means for social, emotional, and educational growth. He understands many more words than he uses, so he has a large number of words in reserve. The deaf child, in contrast, does not naturally acquire speech, has no reserve supply of words and meanings, and, until he is taught to speak, does not know that words exist. He cannot understand other people; and they have difficulty understanding his gestures, screams, and squeals.

Acquiring language is very difficult for the deaf child. He must have highly specialized instruction utilizing vision and touch to learn there are such things as words. He must watch lip-appearance of words (55, 76).

As the deaf child grows, problems of diminished communication show a cumulative increase. Schlesinger and Meadow (98) trace the impact of deafness using Erikson's (30) eight stages of man. Each stage is seen as a sequence of critical phases. The basic task of the first stage, infancy, is to establish a basic trust in the world. The adults who people the infant's world must build this trust by meeting his needs. It is difficult for the parents of a deaf child to meet the needs of this basic trust because they must first accept the diagnosis of deafness, and all the feelings, guilt, rejection, and frustration that accompany it must be resolved. Whether the absence of sound changes the infant's organization of perceptual inputs or how profoundly it affects his pattern of action is not known. It is clear, however, that the people in his external environment suffer from the infant's auditory deficit, and this has an impact on the infant himself.

The child's basic developmental task from eighteen months to three years is to develop a sense of autonomy, a sense of difference between self and environment and the feeling that he has some control over events. It is during this period that bitter power struggles develop between the parents and the child. These power struggles are more frequent and more intense with the deaf child because of diminished communication. Parents also find it more difficult to let their deaf child develop autonomy. They are

overprotective and find it hard to let him stand on his own.

In the next stage, three to six years, the basic task is to develop a sense of initiative and a more advanced identification with others. In the normal child this stage is characterized by verbal and motor exuberance. For the deaf child there is the problem of the exuberance without verbal means of expression. His feelings, therefore, may erupt in action. His self-image is influenced by the fact that he only sees deaf children and seldom meets a deaf adult. He misses the adult identification that hearing children have with others in the environment. The torrent of questions that come naturally to hearing children are bottled within him, and he finds no adequate release.

From ages six to eleven, the school years, the basic task is to develop a sense of worth and competency from successful application of industry. It is difficult for the deaf child to achieve these feelings. He is placed in a special school and learning is tedious and difficult. His teachers become discouraged and so does he.

Emancipation and independence are important issues to resolve during adolescence, the period of approximately eleven years to eighteen years. The deaf adolescent approaches this crisis with an incomplete resolution of the previous crises. He lacks the necessary background for solution of the problems. The parents may also be realizing

for the first time the limited vocational choices of their deaf child and may be unable to meet constructively his normal desires for independence. Thus, an explosive combination is formed.

The young adult has become an emancipated, self-governing individual. He knows who he is and commits himself to love and work. Many deaf young adults display identity diffusion. They had an identity in school but could not find an adequate identity in the world. Many have not achieved internalized controls for behavior or internalized motivations. Unequipped to face the world, they frequently take refuge in dependence. They are unable to relate to others, so isolation results. They exhibit weak motivations and change jobs frequently.

The task of parenthood provides additional problems for deaf parents. They may be immature and unable to meet their child's basic need of trust. Some have felt so incompetent in the task of child rearing that they have left the task to their parents.

Family Climate of the Deaf Child

Furth (33) states the primary need for healthy psychological development of any child, particularly one with a disability, is acceptance of himself as a person. This acceptance must begin with the parents. Because of multiple factors, this acceptance is rarely accorded the deaf child.

It is difficult for any parent to accept the fact that his child is deaf or has a permanent disability. Nondisabled persons behave differently to disabled persons, making them feel uncomfortable in normal situations. There is greater anxiety and tension and less naturalness when interacting with a disabled child.

Levine (56) feels that no parent ever completely accepts his child's disability. The child's disability so fills the foreground of their thoughts that parents cannot perceive the child himself.

Deafness is invisible, and the average age at which children are diagnosed as being deaf is two years. In about a quarter of the cases the first physician consulted denies the possibility of deafness and finds nothing wrong (76).

First parental reaction to the discovery of deafness is depression. The deaf child is a blow to the parents' aspirations, and they react to the disability in proportion to the intensity of their expectations. Depression is reacted to with wishes of denial and/or magical hopes of cure. The parents hope that through training their child will become normal, and all advice is filtered through these hopes. Thus, parents frequently go to the extremes of either refusing to do special work with the child or doing so much remediation with him that they have no time to be anything but a teacher and cannot love him as a parent. The child is a continual reminder of feelings of personal failure and

disappointed aspirations. How to love a child who represents such a reminder is a major parental problem. Anger is often aroused by the insolubility of the problem and the presence of the handicap. This often results in confused, ambivalent behavior toward the child (7, 56, 76).

Parents, therefore, have experienced many months of stress, anxiety, and unrealistic hopes before facing the child's basic problem, deafness. This cannot help but have its effect on the young child to whose already great handicap must be added the burden of doubts about his own worth as he witnesses his parents' distress and feels his isolation from other family members (7).

Altshuler states, ". . . the simple fact of the child's silence makes him a likely screen on which the core of a family neurosis may be projected or played out" (7, p. 372). The child is frequently the center of a power struggle between parents. He may be viewed as the cause of marital discord and indeed may precipitate many arguments between husband and wife. Lane says, "As soon as deafness is identified, the parents are in need of counseling" (51, p. 148).

Neuhaus (79) investigated parental attitudes and the emotional adjustment of deaf children. The parents of eighty-four deaf children were administered the University of Southern California Parent Attitude Survey, and the children were administered the Haggerty-Olson-Wickman Behavior

Rating Schedules. The results indicated that there is a significant relationship between maternal and paternal attitudes toward children and the child's emotional adjustment at all age levels. There was one exception: the father's attitudes toward the children between ages three through seven. The children whose parents expressed congruent, positive attitudes toward them and their disability were better adjusted emotionally than children whose parents did not express congruent, positive attitudes toward them and their disability. Another finding was that once the parent-child relationship had been established, it did not change significantly as the child grew older.

Suchman (103) describes five special problem areas involved in the interaction between the deaf child and his parents. The first problem area is that ours is a child-oriented culture in which parents do not plan on, and do not want, a deaf child. To overcome this basic feeling, parents try harder to love the child. These forced attempts to love may result in conscious or unconscious rejection of the child. The frustration that evolves damages the parent-child relationship. The second problem arises from the parent's need to handle the personal guilt associated with producing a child with a defect. The third problem is that society reacts adversely to physical disabilities. Thus, the parents not only have to cope with their own negative reactions but must watch this reaction over and over again from other

people. Children are viewed as another chance to extend oneself into the future. The deaf child imposes restrictions on his parents' hopes and dreams for the future. The fifth problem is the lack of support the parents receive from society. The child's problem (deafness) does not disappear; most people have neither the time nor the strength to give continuous support to the distressed parents. Thus, the deaf child not only must cope with a physical disability but has a greater chance of having a disturbed family climate.

Williams (112), as a psychiatrist dealing with handicapped children, states that each handicap tends to produce peculiarities of behavior arising out of the handicap. Thus, deaf children are forced into social isolation because of their communication problems. He feels most parents of maladjusted handicapped children are good, devoted parents, but the mother and child either stimulate or fail to stimulate each other and problems arise. He sees faulty parent-child interactions as the basis for the high incidence of behavior disorder in handicapped children. In a later study (113) of fifty-one maladjusted deaf children, Williams concludes that the stress to the environment caused by the inability to communicate, not deafness, is the cause of maladjustment.

Because there is so much to teach the deaf child, both parents and teachers find little time to promote creativity and joy in learning. The fear of impulsivity and aggression

tend to make parents develop and enforce rigid and unimaginative discipline (54).

Schlesinger and Meadow (98) compared the parent-child interaction of mothers with a deaf child to interaction of mothers with a hearing child. Forty profoundly deaf preschool children and their mothers, and a control group of twenty hearing children (matched with the deaf children for age and sex) and their mothers were studied. Videotaped sessions of semistructured mother-child interaction were collected for each participating pair. A set of rating scales was developed which included ten dimensions descriptive of the mothers' behavior, ten dimensions descriptive of the children's behavior, four dimensions descriptive of the children's attributes exclusively related to deafness, and four dimensions descriptive of the reciprocal mother-child interaction. Trained observers rated the pairs.

On the ten dimensions of the mothers' behavior, mothers of hearing children received more positive ratings than did mothers of deaf children for nine of these dimensions. The comparisons showing greatest statistical significance were permissiveness, nonintrusiveness, nondidactic behavior, creativity, flexibility, and approval of the child. There were no significant differences between groups for enjoyment of the child.

When the children's behavior was rated, hearing children rated higher than deaf children on compliance versus

resistance, creativity versus lack of imagination, enjoyment of interaction with mother versus absence of apparent enjoyment, buoyancy versus apparent sadness, and pride in mastery versus absence of pride in accomplishments. There were no significant differences in the other dimensions.

The deaf children were divided into two groups according to scores above or below the median on the Index of Communicative Competence. Deaf children with good communicative skills rated higher on all scales than children with poor communicative skills.

The mother-child dimensions revealed that the child's curiosity, creativity, and independence were not related to his mother's behavior, as defined in the rating scales. The child's enjoyment of the interaction with his mother was significantly related to his mother's behavior.

These findings indicate that the behavior of mothers of deaf children differs from that of mothers of hearing children. This puts an additional burden on the deaf child by setting the stage for more environmental stress at a very early age.

The data comparing behavior of mothers and children when deafness is present and not present would seem to provide powerful support for the notion that children's capabilities and behavior exert tremendous influence on the interactional style exhibited by the mother. This effect is both reciprocal and cumulative, with communicative deficit leaving its mark on every major area of child-rearing practices, and on the expressive and instrumental styles of both mothers and children (98, p. 110).

Emotional Aspects of Deafness

The problems associated with sensory deprivation and environmental stress make it difficult for the deaf child to achieve emotional stability. Levine (56) feels that the young child who must face the frustrations of profound deafness develops a psychodynamic system of protection within the personality organization. This psychic mechanism results in a narrowing in the range of reaction to internal as well as external stimuli, which in turn reduces emotional sensitivity to a very narrow area in which the child is at peace.

Levine found the personality pattern of deaf individuals to be characterized by emotional underdevelopment, a substantial lag in understanding the dynamics of interpersonal relationships as well as the world about them, a highly egocentric life perspective, a markedly constricted life area, and a rigid adherence to the "book-of-etiquette" code rather than inner sensitivity as standards for behaving. Altshuler (5), in his observations of over 500 deaf children, concurs with these findings.

Lesser and Easser (54) state that a child with a hearing impairment will be different from the child without the impairment because of the stresses to which the deaf child is subject. The ego organization of the deaf child is developed later than the ego organization of his hearing counterpart. The timing of these integrations influences conscience formation, motor control, imitation, and identification. Lack of adequate communicative modalities to

express his needs and feelings create impulsivity and hyperactivity in the deaf child.

Myklebust (76), in summarizing the research on social maturity and deafness, concludes that the deaf child consistently lags behind his hearing peer in the area of social maturity. The profoundly deaf child has increased dependency, and its consequences are noted on the Vineland.

Levine (55) feels that one of the reasons why the deaf child lags behind the hearing child in social maturation is the early parent-child relationship. Most deaf children are born to hearing parents. Because of the problems associated with the deaf child, many of the early, satisfying experiences the hearing child has with his parents are missing for the deaf child and his parents. Thus, the deaf child's attitudes will be influenced by these early insecurities and unsatisfied needs.

McConnell and McClamroch (59) studied the social participation of sixteen deaf children in a nursery school. They found that social participation level did not accompany increasing physical maturation, as is generally true of the normal, hearing child.

Schlesinger and Meadow (97) compared the social, intellectual, and communicative functioning of fifty-eight matched pairs of children enrolled in a state residential school for the deaf. The first group had deaf parents, and the second group had hearing parents. A replication research was

conducted with seventy-four deaf children enrolled in day programs for the deaf in a metropolitan area. The researchers concluded that immaturity in deaf children was the result of a complex interplay of school and family environmental factors.

Elser (29) investigated the social position of hearing handicapped children in the regular classroom. He used the Moreno Sociometric Questionnaire and the Tryon "Guess Who" Test to determine to what extent hearing handicapped children were accepted, isolated, or rejected by their normally hearing classmates. Forty-five children, in grades three through seven, with a known history of hearing loss in excess of thirty-five decibels were the subjects. The mean class size was twenty-eight. The results revealed that the hearing handicapped as a group were not as well accepted and did not score as high as the average for their classmates. However, there was a very wide range of acceptance of hearing handicapped children as individuals.

It is very difficult to integrate the deaf child into the hearing classroom. After studying fifty pupils who had transferred from the Lexington School between 1954 and 1957 to public or private classes for the normally hearing, O'Connor (85) concludes that the percentage of pupils in a school for the deaf who can hope to integrate in classes for the hearing is small. Most will need the benefit of the specialized programs of the school for the deaf throughout

their entire educational careers. Those who do successfully integrate must have developed communication ability that will make it possible for them to meet the severe competitive conditions they will experience. They should have an IQ of 110 or over and be prepared for repeated failure and unintended neglect at times.

O'Connor and Connor (86) conducted a follow-up study of twenty-one deaf students who transferred from the Lexington School for the Deaf to regular classes in public or private schools. The group had spent an average of four to six years in Lexington before being transferred, and they had an average hearing loss of seventy-three decibels. Age, communication ability, intelligence, scholastic achievement, and teachers' reports were considered in the evaluation. The results indicated that about half of the students were unsuccessful in their transfer to integrated classes.

Myklebust (77) states that because one of the input channels, hearing, is gone, the deaf person must modify the ways in which he attains knowledge of reality.

Because total experience is reduced, because reality is perceived less effectively, there is an imposition on the balance and equilibrium of all psychological processes; when one type of sensory information is lacking it alters the integration and function of all of the others (77, p. 257).

Psychic stress ensues from a hearing loss. Deafness limits the ability to sense the feelings, ideas, criticisms, and attitudes of others.

Myklebust (76) studied the relationship between impaired hearing and emotional adjustment, using two groups. The first group was comprised of 94 hard-of-hearing subjects. The second group was made up of 194 profoundly deaf subjects with onset of deafness in infancy. Both groups attended a college for the deaf. The primary instrument used was the Minnesota Multiphasic Personality Inventory. Statistical correction was made for items specifically referring to hearing, speech, and balance. Analysis showed deaf males to be more emotionally and immature than the average male. Deaf females showed less deviation than the males but showed maladjustment on all scales except Hypochondriasis, Depression, and Hysteria. Analysis also showed that both hard-of-hearing males and females had more emotional problems than the normal population, but they had fewer emotional problems than the deaf group.

Altshuler (4), from information on more than 700 deaf persons obtained as part of a Mental Health Project for the Deaf, compiled a list of personality traits. He found the deaf had a general lack of understanding of and regard for the feelings of others and inadequate insight into the impact of their own behavior and its consequences in relation to others. The deaf persons held a generally egocentric view of the world and made excessive demands on others. The preferred defensive reactions of the deaf to tension and anxiety were typified by actions rather than words. Behaviorally

this mode of handling tension resulted in considerable impulsivity and prolonged temper tantrums. Internalization of rage was deficient, so control of feelings and guilt was less likely to appear. The causes for these personality characteristics in the deaf may be related to the distortions in object relationship imposed by the communication barrier of deafness and by the limitations in abstract conceptual ability which accompany this handicap. Contributing factors were failure to recognize the consequences of behavior, lack of conviction that punishment is inevitable, deficient control of impulses, and lack of empathic concern and regard for the love object.

Hess (42), studying eight, nine, and ten-year-old deaf children, used a nonverbal modification of Shneidman's Make-A-Picture Story. He found that deaf children differed from both adjusted and emotionally disturbed hearing children in the following ways: faster, more impulsive reactions to new situations but with little actual involvement; more expansive fantasy life; superficial personal attachments; and depressive emotional tone. The deaf children responded similarly to the emotionally disturbed hearing children in the following ways: unstable social experiences, deficient reality testing, less positive attitudes towards others, and confused emotional states.

Altshuler (6) reports observations, extending over sixteen years, of persons with early total deafness. The

project was completed in New York State and allowed for controlled as well as clinical observations in a patient population that totaled more than 1,000. Although the difficulties of parent-child relationships were greater, schizophrenia was discovered to be no more frequent in the deaf than in the hearing. Obsessional character problems and psychotic depression were rare in the deaf population. The predominant symptoms on hospital admission were impulsive and aggressive behavior. Outpatient deaf persons were described as generally egocentric, dependent, acting-out individuals.

Meadow and Schlesinger (61) conducted a survey of behavioral problems at a state residential school for the deaf. Questionnaires were distributed to all teachers and counselors at the school. They were asked to identify those students whom they believed were emotionally disturbed or who manifested behavioral problems which interfered with their school functioning. Among the school population, 11.6 percent of the students were considered to be emotionally disturbed. This compared to 2.4 percent of the students enrolled in Los Angeles County, where the same questionnaire and the same definitions of emotional disturbance were used. An additional 19.6 percent of the deaf students were considered to be mildly disturbed, which compared to 7.3 percent of students in general classrooms. An informal survey of day programs for the deaf indicated that the proportions of

students exhibiting behavioral problems were approximately the same as those found in the residential school.

Kennedy (48) discussed the effects of deafness on personality, using the theoretical model of Erik Erikson's (30) eight stages of man. Because he is dependent on visual and tactile information, it will take the deaf child longer to learn anticipatory signs which the hearing infant begins to react to at four weeks. The deaf child is frequently the center of anxiety in relation to his handicap, and his family reacts by over-protection or rejection. Because of the difficulties of communication, the deaf child is more dependent on the parents, and dependent longer, than the hearing child. This continued control is not conducive to the development of self-esteem. Normal children are allowed to play freely during the preschool years, while the deaf child must conform, attend to instructions, and function in a structured situation during these years. Whether he is in a residential or day school situation, the deaf child quickly learns that he is different. He misses the two-way understanding that communication brings. This results in anxiety, problems in expressing impulsive needs, lack of opportunity to develop a feeling for others, and problems of identification and self-esteem.

Reivich and Rothrock (89) investigated the behavior of children and adolescents in a state school for the deaf. Teachers using the Behavior Problem Checklist rated 327

students in grades one through twelve. The first three factors, which accounted for the preponderance of disturbed behavior, were similar to the conduct, personality, and immaturity dimensions identified in previously studied normal and disturbed populations. Thus, the problem behavior in the deaf population was similar to the problem behavior of other children.

Using Freud's theory that hearing is especially important for the formation of superego because parents' prohibitions are internalized, Zivkovic (114) compared deaf and hearing subjects. He administered the IES test to fifty-four deaf subjects (mean age eighteen years) and fifty-two hearing subjects (mean age seventeen years). Impulsivity was found to be more prominent in the deaf subjects than in the hearing subjects. There was a significant difference in the way the deaf subjects and hearing subjects perceived the outside world. The deaf subjects thought of it as a place where impulses could be freely expressed and where superego values could seldom be found. They also perceived the outside world subjectively and unrealistically.

Denmark (26) made a survey of profoundly deaf patients in two mental hospitals in the north of England. He concluded that there are many more patients with congenital deafness in mental hospitals than would be expected from the incidence of deafness in the general population.

Calvert (19) reported on a survey conducted in California in 1968. A total of 984 children under the age of fifteen who were deaf comprised the population for the survey. The most common second handicap (deafness being the first) was retardation, with 505 children affected. Emotional disturbance was next, with 422 children involved.

Brill (17) studied the adjustment of three groups of deaf children. One group, forty-five children had deaf parents; the second group had hearing parents but deaf siblings; while the third group had no deaf relatives in the family. The children were matched on the basis of sex, chronological age, and intelligence quotients. A five-point rating scale was used, and the groups were rated by teachers and counselors. There was no significant difference between groups. Thus, social and psychological adjustment are too complex to be affected by one aspect, deaf or hearing relative, in the environment.

The dreams of deaf students were studied by Mendelson, Siger, and Solomon (67). The students were all totally deaf, enrolled as full-time students at Gallaudet College, and had similar IQ levels. They were divided into three groups: those congenitally deaf, those with acquired deafness before age five, and those with acquired deafness after age five. The dreams of the deaf students were distinctly different from the dreams of the hearing students. The dreams of the congenitally deaf students differed the most, and the dreams

of the group with deafness acquired after age five the least. They found that the congenitally deaf students dreamed more frequently, dreamed in bright color; and their dreams were, for the most part, three-dimensional rather than flat. The authors hypothesized that sensory deprivation weakens ties to outer reality, and the phenomenon of repression is lessened. Another explanation of the vividness and frequency of dreams in the deaf was that the superego structure in the deaf was not as developed as was the superego structure in the hearing population.

Neyhus (82) investigated the social and emotional adjustment of deaf adults to determine whether the emotional maladjustment reported by investigators in deaf children continued into adulthood. The eighty subjects were drawn from the deaf population in two large midwestern cities and from the staffs of three residential schools for the deaf. The socioeconomic status and educational achievement of the sample was superior not only to the deaf population but to the general population as well. Educational achievement of the sample was superior and intelligence above average. No subject had a history of emotional disorder or overt deviant behavior patterns. The battery of personality tests used included the Rorschach, Make-A-Picture Test, Rotter Incomplete Sentences Blank, and the Human Figure Drawing Test. Responses on the Rorschach showed rigid and confused thought processes and inability to integrate experiences meaningfully. The

Make-A-Picture Test revealed difficulty in forming interpersonal relationships. There was less ability to relate to more than one person at a time than is expected for normal individuals. On the Rotter Incomplete Sentences Blank the group mean fell within the normal range. Results of analysis of the Human Figure Drawing Test indicated the same distorted perception seen in the deaf child's drawing.

Counseling for the Deaf

Both educators and researchers agree that the deaf child has more behavioral deviations than the hearing child. There is, therefore, a critical need for counseling if the deaf child is to achieve his maximum success personally, socially, and vocationally. Yet, little has been done in this area. Northcott (84) suggests the team approach with counselors directing parents and each parent guiding his deaf child. Conkey and Beuhan (20) feel counseling with a deaf child involves a more direct approach than that utilized in counseling with the normally hearing child. They feel it is important to be aware of the child's hearing loss and strive to find what relationships exist between the actual loss and the child's perception of his loss. The counselor must concern himself primarily with the behavior exhibited by the child rather than the disability.

Thompson (106) also says the deaf child must learn to view his problems in the proper perspective. The counselor

must help the deaf child to develop emotionally and socially, so that he may achieve satisfactory adjustment in spite of his hearing loss. It is important that he learn to think for himself and that he learn coping abilities.

Myklebust (78) states that counseling for the deaf is most effective when objective test information is available. Since deafness imposes special limitations, it is important to have data on mental ability, emotional stability, social maturity, and special aptitudes to achieve success in counseling.

Sarlin and Altshuler (95) report a preventive group psychotherapy program with deaf adolescents. Over a period of a year, depth of awareness in the group increased from rules memorized by rote to a more mature grasp of concepts. Hurwitz and DiFrancesca (43) used behavior modification with 165 emotionally retarded deaf clients in a rehabilitation program. About 60 percent of the persons improved sufficiently to qualify for successful competitive employment within three to six months.

Landau (50) used group psychotherapy with deaf retardates and succeeded in improving their social responsiveness. The number of interactions in the group increased, and the content changed in the direction of greater depth.

The studies cited have dealt with adolescents and adults. According to Adler and Williams (1), there are few state or national mental health programs for deaf people.

There are no reports in the literature of play therapy with deaf children. Certainly the lack of trained personnel is a factor. Play therapy is also comparatively new. Yet, play has long been recognized as the natural medium for self-expression of the child.

History and Development of Play Therapy

Play has long been recognized as a valuable activity in the life of a child. Rousseau (92) was the first person to advocate studying the play of children. He saw the value of games and recommended that a child's teacher join the games to better understand the child. Rousseau's interest in play and games was aimed at educational rather than therapeutic use.

Lebo (53) discusses the relationship of play to play therapy. He cites the Surplus Energy Theory as one of the first important theories of play. After the demands of living have been met, the animal uses his surplus energy in play. Another theory of play is the Recreation Theory in which play is regarded as a means of recuperating physical and mental health. The Instinct-Practice Theory of play emphasizes that play is the method of training for later life. The Recapitulation Theory of Play maintains that children relive the developmental history of mankind in play. The Catharsis Theory suggests that play is a safety valve which serves as a release mechanism for pent-up

emotions. The Self-Expression Theory of Play stresses the satisfaction the child finds in expressing himself in play.

In more recent studies, Bruner (18) reported that primatologists found that play seemed to serve a crucial function during immaturity. The case of young chimpanzees learning how to catch termites by trying the activity out in play was cited. To determine how play affects children, Bruner (18) studied the problem-solving abilities of children between the ages of three and five. Two groups were given the task of fishing a prize from a box that was out of reach. The only tools available were two short sticks and a clamp. The play group did as well on the problem as those who had seen the complete task demonstrated and were more tenacious in sticking to the task. They were able to resist frustration because they were playing.

Although Freud worked little with children, the first actual case of recorded play therapy was Little Hans, treated by Sigmund Freud (52). The parents collected data over a period of years and Freud made his diagnosis from the reports and offered therapeutic advice. His application of psychoanalytic theory to a child eventually led to child analysis with play as a therapeutic technique.

In applying psychoanalytic theory to children, however, Anna Freud (32) felt it was necessary to change the analyst's approach. She joined in play with the children and tried to find the unconscious motivation behind their imaginative

play, drawings, and paintings. Because the child's superego was undeveloped, the rapport between the therapist and child was very important. Play was used as a preliminary to the actual work of therapy, interpreting latent content to the child. Anna Freud combined interpretation with reports of dreams, free-association, and direct discussion.

Klein's (49) approach to therapy with children was derived from Freud's fundamental theories. However, Klein differed with Anna Freud, who regarded the child's superego as undeveloped. Klein believed that the child's superego was already developed and that transference neurosis could take place in children. Her aim was to uncover the past and strengthen the ego so that it would be more capable of balancing the demands of the id and superego. She made immediate interpretation to the child to reduce his anxiety. She stated her interpretations in simple words, so that the child could get in touch with emotions operating at that moment. Conscious understanding followed.

Not all therapists (21, 57, 63, 102) accepted children's play activities as being the equivalent of adult free-association, and they developed other techniques. Newell (81) divided these non-analytic varieties of play therapy into two types, spontaneous and controlled. Both are based on the belief that play is the universal language of childhood, and the child can express himself through play better than any other medium. In spontaneous play therapy the child is given free rein in choosing the materials and the form that

the play will take. The role of the therapist is to encourage activity and convince the child of his interest by giving him undivided attention. In the controlled method the therapist chooses the materials that will be used and describes a situation to the child and encourages his reactions. The common goal of both types of play therapy is to help the therapist and child gain insight into the motives, mechanisms, and etiology of the child's problems. Play therapy offers insight which eliminates the necessity for building up transference. Newell states,

The maladjusted child derives three types of benefit from play therapy; the relationship he develops with the therapist, the opportunity to act out his conflicts, and the education and insight he can derive from the experience (81, p. 249).

Levy (57) used the controlled type play therapy and stressed the emotional relationship between the child and the therapist. He introduced the method of "release therapy." The therapist used play materials to recreate stress-producing situations in the life of the child. Release therapy took one of two forms: specific or general. Specific release therapy depended on various ways of recreating a definitely known traumatic episode which caused the anxiety. This was used with young children when the symptoms were of short duration. The child first was permitted to engage in free play to become familiar with the room and establish rapport with the therapist. The therapist

then re-created the situation by using the play materials and asking questions.

General release therapy was used when it was determined that the child's problems were not the result of one specific episode but rather the result of excessive demands made upon him. No specific episodes were reproduced. General episodes were used to release aggression, modify social attitudes, and release infantile pleasure.

Conn (21), in contrast to the attitudes of the time that "children should be seen and not heard," developed a play interview to supplement biographical materials, psychometric examinations, and social histories used in psychiatric examinations and treatment. He felt it was possible to utilize the natural tendencies of the child to express himself in a play situation. During the play contact the child was treated with respect and listened to at all times. No attempt to interpret the play material to the child was made, but the questions of personal responsibility and the role the child played in the situation were frequently explored. The child was able to express his feelings more freely through the dolls with less threat to himself. The therapist often set the scene with the dolls before the session began in an attempt to deal with known problems within the child's life.

Solomon's (101, 102) "Active Play Therapy" is another type of controlled play therapy, and it appears to be an

outgrowth of the work of Levy (57) and Conn (21). Solomon states that the therapist can gain insight into the current situations causing the child pain through play therapy. The parents may be completely unaware of these situations. More important than the actual environmental forces with which the child must cope are his feelings and the thought processes that result from the situation. In therapy the child is free to indulge all his fantasies through play. The child then progresses from fantasy to reality, from ghosts and kidnappers to fathers and mothers.

Play technique furnishes the medium whereby a go-between is offered which permits pleasures to be enjoyed as well as releasing the rage which results from the frustrations of pleasure. Expressing himself symbolically in the effigy of a doll or animal, the child is relieved of the onus of his own sadistic tendencies by exteriorizing his impulses onto another object (102, p. 594).

Through play therapy the child is able to change from perceptual thinking to conceptual thinking. This is accomplished through the use of the play materials, and perceptual threats become translated into ideas which have words attached. It is a relief for the child to discover that there are words for some of the thoughts for which he never knew there were any words. The unknown is neutralized when its magical quality is removed.

In Active Play Therapy the therapist sets up various situations with a series of dolls representing life experiences of the child. No attempts are made to identify the

dolls at the beginning, so all threat is removed. One of the most important aspects of therapy is the relationship between patient and therapist. One of the unusual aspects of Solomon's (101, 102) technique is the introduction into the play situation of a doll which represents the therapist. He feels this permits the child further anonymity.

Swanson (104) feels therapy will provide the milieu to stimulate the child and bring out the healing abilities within himself. Play therapy will help him remove the distorted and defeating features of his personality and replace them with healthy ones. The therapist presents interpretations when the child is ready to use them. The therapist must have respect for the child and treat him with dignity. Thus, the child will learn self-respect and consideration for others. Boundaries are necessary. The child accepts limits as reality and can relax and explore his own feelings with safety. He learns about himself in the warmth of acceptance and genuine regard by a perceptive adult.

The forms of play therapy discussed thus far are based on uncovering unconscious drives, complexes, and conflicts within the child or reenacting traumatic episodes in the child's life. Developing concurrently with this form of play therapy was the relationship approach (3, 69, 81, 105). This followed the concepts of Otto Rank (88). The relationship approach has, in common with the analytic approach of Anna Freud and Melanie Klein and the Active Play Therapy of

Conn and Solomon, the basic tenet that the relationship established between the therapist and the child must be permissive and accepting. The relationship approach, however, places emphasis on the curative power of the relationship between the therapist and the child. No effort is made to explore past experiences; present relationships are emphasized.

Allen (3) used the relationship approach. He felt the child has the capacity to work out his own problems and to achieve a healthier self-image through the type of relationship established in therapy. The relationship is based on the therapist's ability to accept the child as he is. This acceptance of the child leaves the child free to concentrate on those problems that concern him most. The child is provided with familiar tools, toys, with which to express himself. The use the child makes of them in his relationship with the therapist is important.

Moustakas (69, 72) felt the relationship between the therapist and child held the key to problem solving. He wrote,

He (the therapist) remains with the child and enables him to come to terms with his own rejection, immorality, or hatred, not by utilizing a dialectical maneuver or a professional technique, but by bringing to the child the full resources of a real self, interested and committed to the child's well being. In this moment of crucial meaning, the relationship unfolds into more and more meaningful and deeper regions of communal life (72, p. 5).

The play therapy process does not occur automatically but becomes possible only because of the therapeutic relationship which exists between the therapist and the child. The effectiveness of any therapeutic relationship requires communication of faith, acceptance, and respect from the therapist to the child.

Relationship therapy has almost completely merged into the nondirective approach which Carl Rogers (9) began. Axline (10) used Rogers' theory as a basis for her non-directive play therapy.

Axline's (9, 10) basic assumption is that the child has within himself the ability to solve his problems and the necessary growth impulses to acquire more mature behavior. The drive for self-realization governs the child's behavior at all times. She defined play therapy as

a play experience that is therapeutic because it provides a secure relationship between the child and the adult, so that the child has the freedom and room to state himself in his own terms, exactly as he is at that moment in his own way and in his own time (9, p. 68).

The growth impulses within the child give him a drive toward self-realization, and the therapist provides the setting and materials with which he works. No interpretation or direction is needed from the therapist. As the therapist accepts the child, the child learns to accept himself and be accepted by others.

Ginott (34) is also an advocate of the nondirective approach in play therapy. He feels it is important for the therapist to convey understanding and acceptance to the child as well as faith in his capacity to move forward. He also feels limits are necessary, and the therapist should be ready with effective methods for implementing them. The aim of therapy is to bring about a new balance in the structure of personality.

Graham (37) describes the nondirective approach to play therapy in detail. He feels the most important aspect of the therapeutic process is the developing relationship between the child and an adult, the therapist. He states, "This is the key for the child to begin bridging the gap between himself and the threatening world of adults" (37, p. 22).

Research on Play Therapy

Moustakas and Schalock (74) examined the nature of the interaction of therapist and child in the play therapy situation. A system of categories was used that permitted a comprehensive, quantitative measurement of adult-child interaction and provided an objective basis for studying the play therapy situation. The subjects were selected from a group of four-year-olds on the basis of home and school longitudinal records and ratings by the nursery school teacher, a student teacher, and a psychologist. There were five children in each group; one group contained children

with emotional problems; the other group contained children without emotional problems. The children were observed in eighteen play therapy sessions. The group with emotional problems scored significantly higher on the following categories: Attentive Observation, Interpretation by Clarification of Verbal Feelings, and Nonattention. The authors found that the children with serious emotional problems were more like than different from the children without emotional problems in terms of interaction. The differences in behavior between the groups appeared to be related to the problems of the disturbed children. These children spent much of their time in noninteractive play, and hostility ratings were much higher for this group. The data also seemed to indicate that reward, praise, and affection have been overemphasized in the therapeutic interaction. The primary role of the therapist was on being there and interacting with the child by observing, listening, and making statements of recognition.

Hendricks (41) studied the process of client-centered play therapy. She investigated the patterns of play activities, nonverbal expressions, and verbal comments of children in therapy to determine whether phases of emotional and social development exist during the process of client-centered play therapy. The subjects were ten boys, aged eight to ten, of average intelligence, who had been diagnosed as having emotional and/or social maladjustment problems.

Each boy, except one, received twelve sessions of play therapy which were observed and audi-recorded. Play activities did fall into general patterns. During the initial sessions, the children explored the room, and some regressed to earlier levels of development. The next pattern indicated ambivalent feelings of the children towards themselves and perhaps the situation. Feelings of anger, frustration, and anxiety were focused on specific concerns as the process continued. During the final sessions, the children began to show more interest in an interpersonal relationship with the counselor.

Truax and others (1977) investigated the effects of accurate empathy, non-possessive warmth, and genuineness in play therapy. Sixteen practicing child psychotherapists and sixteen children, average age nine years and three months, participated in the study. The children had been diagnosed as emotionally disturbed but were not psychotic or mentally retarded. Each therapist was paired with one child for the study. Truax's scales, developed earlier, were used to assess the levels of accurate empathy, non-possessive warmth, and genuineness from videotape recordings of the therapy sessions. Pretest and posttest evaluations of the children were made by their therapists who completed the Current Adjustment Rating Scale, their parents who filled out the Item Rating Scale, and a psychometrist who administered the Psychiatric Status Schedule. Findings indicated that children

seen by therapists who scored high on accurate empathy, non-possessive warmth, and genuineness improved significantly more than those whose therapists scored low on the scales.

Loomis and others (58), in recognition of differences in play patterns, conducted a pilot study to determine differential diagnoses between young psychotic children and young defectives. Eighty-five observations of seventy children were made. The children were of three major types: psychotic, defective, or apparently normal. The protocols of the play observations were analyzed in terms of ten scales devised by the authors. Scorers were able to apply judgmental ratings with reliability and patterns were consistent for any one child on re-examination. The authors suggest that this method may be used for feedback into and out of the therapeutic situation.

Moustakas (71), in investigating the play therapy process, found an apparent parallel between normal emotional development in the early years of life in a family relationship and emotional growth in a play therapy relationship. He stated that an analysis of sessions of disturbed children in play therapy shows the following levels:

(a) diffuse negative feelings, expressed everywhere in the child's play; (b) ambivalent feelings, generally anxious or hostile; (c) direct negative feelings expressed towards parents, siblings, and others; (d) ambivalent feelings, positive and negative, toward parents, siblings and others; and (e) clear, distinct, separate, usually realistic positive and negative attitudes with positive attitudes predominating in the children's play (71, p. 84).

Nickerson (83) summarized recent trends and innovations in play therapy. He states that there has been a general trend away from the nearly exclusive emphasis on the clinic or hospital as the treatment site. Therapy is being moved into the home, school, and community center. Along with this move there has been a broadening of those designated as play therapy agents to include peers, parents, and teachers. Another trend is in the direction of prevention rather than treatment after a serious maladjustment has occurred.

Play Therapy in the Treatment of Social and Emotional Problems

Since play is the child's way of exploring and experimenting while he establishes his relations with the world, it is logical to apply play therapy techniques to social and emotional problems. The nature of interpersonal relationships and individual adjustment before and after play therapy was investigated by Cox (22). Two groups of nine children, each from an Australian orphanage, were matched individually for age, sex, residential placement, adjustment, TAT, and sociometric measures. Both groups were chosen so that they would be a representative sample from the orphanage population. The experimental group was given ten weeks of play therapy following Axline's principles. The control group received no therapy. Both groups were given pretests, and they were tested at the end of therapy and again fifteen

weeks later. The peer ratings and sociometric status of about half the children in the experimental group showed improvement. The control group showed no gains.

Dorfman (27) investigated the personality outcome of individual client-centered child therapy. Psychological tests, therapists' judgments, and follow-up letters were used to measure personality changes. The hypothesis was that personality changes occur during a therapy period but do not occur in the same child when he is not receiving therapy and do not occur in a control group. The therapy group consisted of twelve boys and five girls, ages nine to twelve and of average intelligence, who were considered maladjusted by their teachers. They were observed during a pre-therapy or control period, therapy period, and follow-up period. They were tested four times: thirteen weeks before therapy, immediately prior to therapy, immediately after therapy, and a year to a year and a half after therapy. Seventeen control cases were tested twice over a time period close to the average length of therapy for the experimental group. From the results, Dorfman found that reliable test improvements did occur concomitantly with the series of therapy sessions. She also found that time alone did not produce reliable improvements on tests. Although therapy gains remained a year later, they did not grow. She concluded that therapy improvements can occur without parent

counseling despite the emotional dependence of children upon their parents.

Harth (38) used role playing as a means of changing the attitudes of emotionally disturbed children. The subjects were ten third-grade children from three regular classes in two public schools. Their ages ranged from nine years to eleven years. All were of normal intelligence, had failed at least one grade at school, were considered to be failing at the time, and were identified by their teachers as exhibiting behavioral problems. A semantic differential, Rosenzweig Picture-Frustration Study, and Peabody Inventory Rating Scale on Emotional Disturbance were used to measure changes. The experimental period lasted five weeks, with two role playing sessions per week. Attitudes toward school and reaction to frustration did not change significantly for either group on the tests administered, but classroom behavior of the experimental group did change significantly in a positive direction. The control group showed no significant change.

Bloomberg (13) described an experiment using play therapy with "normal" children who were unable to adjust happily to their school groups. Two groups of five children were chosen on the basis of Rorschach tests, information received from the teacher, and observations made by the therapist of their class. Both groups met once a week for play therapy during the school year. At the end of the

period the children were less negative and more cooperative members of their group.

Moustakas (73) studied the frequency and intensity of expression of negative attitudes of nine well adjusted and nine disturbed four-year-old children. The two groups were matched on both IQ and socioeconomic background. Each family involved had at least one other child. The same therapist saw each child in at least four play therapy sessions. The interviews were taped and stenographic notes were taken describing the actions of the children.

From the protocols of the first and third sessions, a total of 241 negative attitudes were selected and rated in terms of intensity of feelings expressed. The number of negative attitudes expressed by each child in the disturbed group ranged from eleven to twenty-two, over the two forty-minute play sessions, while the well adjusted group expressed from four to sixteen negative attitudes during the two sessions. Both groups of children expressed about the same types of negative attitudes. The disturbed group showed a greater average severity of feeling than the well adjusted group. Moustakas concluded that all children express negative attitudes, but disturbed children express them more frequently and more strongly. This study indicates that as therapy progresses, the negative attitudes of the disturbed child become similar to those of well adjusted children, are

expressed more clearly and directly, less frequently, and with mild intensity of feeling.

Play Therapy in the Treatment of
Educationally Handicapped
Children

Wall (109) investigated the use of play therapy as a means of developing positive self-concepts and motivation of educationally handicapped children. Forty-seven educationally handicapped children from age six through thirteen were used. The Self-Concept Motivational Inventory was administered, and the teacher and aide of each class rated each child on the Burks' Behavior Rating Scales. The children were assigned at random to a treatment or to a control group. There were four treatment and four control groups. The experimental groups met twice weekly for thirty minutes over a twelve-week period. Significant positive changes in self-concept, motivational attitudes and positive behavioral changes were found in the experimental groups. No significant positive changes were noted in the control groups.

Bills (11) tested the hypothesis that the reading ability of a retarded reader would improve significantly when he received nondirective play therapy. Eight children who were poor readers were selected from a third-grade class. Four children with high intelligence and four children with average intelligence were chosen. Each child was used as his own control by dividing a period of ninety school days

into three blocks of thirty school days, with four testing sessions. Two reading tests were administered six weeks before beginning therapy, immediately before therapy, immediately following therapy, and six weeks after therapy. There was a significant improvement in reading ability immediately following therapy. The gains in reading which followed therapy were present six weeks after therapy had ended.

Play Therapy in the Treatment of Physical Disabilities

There is little available information on play therapy with physical disabilities. Most of that which has been done has been with handicapped adults in relation to rehabilitation. The approach has been psychoanalytical or directive in nature. Cruickshank and Cowen (23) conducted a study to determine whether nondirective group therapy techniques were applicable to physically-handicapped children in a therapy situation. Five children between the ages of seven and nine in a public day school for physically handicapped children were the subjects. They met twice weekly for a period of seven weeks. At the beginning and at the end of the program teachers and parents wrote essay-type reports stating the chief problems and noting any changes. Three of the five children showed considerable improvement both at home and at school. Cruickshank and Cowen concluded that

. . . the nondirective play therapy group offers an ideal setting for the self-solution for a particular type of emotional problem, namely

those stemming from the specific disability of the physically handicapped child (23, p. 215).

Axline (10) cites the case of Ernest, a six-year-old rejected child with a constricted throat. His teacher used therapeutic techniques in the classroom, and Ernest was able to cope with the rejection of his mother and develop mature reactions to his physical problem.

Moustakas (70) describes his play therapy sessions with a seven-year-old child who had leukemia. The disease with its pain, and the treatment with probing needles, blood transfusions, and frequent episodes of hospitalization, created tensions and pressures within the child. He could not act-out against the people who cared for him but used the playroom as a release. He began each session with hostile outbursts and aggressive attacks with the dart gun on the puppets, dolls, and punching clown. Then he was able to spend the remaining time in creative pursuits. In the playroom he was able to express the two basic dimensions of his nature, the gentle, creative one and the violent one engendered by anger against the disease itself.

Miller and Baruch (68) used play therapy to treat children with allergic symptoms. Six children, below the age of eleven, who failed to respond to routine medical treatment were selected. As therapy progressed it was noted that when a child blocked expression of troubled feelings, his allergic symptoms increased. When feelings were expressed, either in

play or verbally, symptoms decreased. Five of the children showed improvement after therapy.

Newcomer and Morrison (80) investigated the use of play therapy with mentally retarded children. Twelve mildly retarded children institutionalized at a State Training Center were used as subjects. The children were assigned to treatment groups on a random basis. Four children received individual play therapy; four children received group play therapy; and four children formed the no-therapy control group. The Denver Developmental Screening Test was used as a pretest and also after each of three ten-session blocks of therapy. The first and third blocks were directive therapy, while the second block was nondirective. On all four Denver scales the mean scores of the groups of children who received individual and group play therapy increased continuously. Scores of children in the control group remained essentially unchanged. There were no differences between scores of children in group and individual therapy or between directive and nondirective therapy periods.

Alexander (2) recorded his treatment of a hard-of-hearing, mentally retarded ten-year-old. He used the nondirective approach and expressed the feelings the child demonstrated with his play. The child improved both at home and in the classroom. He interacted more with his peers and was slowly learning to read.

French (31) used doll play techniques with deaf children to determine their feelings toward peers. Doll play situations were devised so each child had to make choices among his classmates which would indicate clearly whom he liked and whom he disliked. To test the validity of his choices, the rank orders of choice revealed in doll play were compared with ratings made previously by two raters. The deaf children did project themselves into the doll play. When the test and retest doll play situations were measured against each other and against the raters' scales, the doll play choices were found to be both reliable and valid.

Nonverbal Communication

In pantomime the actor communicates with the audience clearly and as empathically as if he were speaking. Even when speaking, bodily action plays an important part in the total impression, and the audience may be more affected by what they see than what they hear. Bodily action is part of the communication system in all of us. Anger may be expressed not only by our face but by our walk and by our gestures. Highly abstract messages may be decoded by body language. Empathy must involve muscular reaction. Posture is an integral part of body action, and defeat, defiance, and fear are only a few of the internal feelings that may be conveyed by posture. Walking expresses moods; the femme

fatale has a walk that clearly communicates her role, while the villain has his own particular walk. In gesturing, the fist is clenched to denote anger, the table is pounded to make a point, the hands are thrown up to signify helplessness, or the finger is pointed to place blame (91, 93).

In a review of the literature on nonverbal communication, Duncan (28) found that it was not until the 1950's that studies began to appear reporting systematic efforts to analyze gestures and other nonverbal behaviors and understand their significance in human communication. Some of the nonverbal modalities used were body motion, or kinesic behavior; gestures; facial expression; eye-movement; posture; use of personal space, or proxemics, and man's perception of it; paralanguage; olfaction; skin sensitivity to touch; temperature; use of dress; cosmetics; and physical appearance. Two broad approaches were used in the investigations. One method was to study communication as a tightly organized and self-contained social system like language. This system had a definite set of rules. The other approach was to relate the rate of occurrence of specified nonverbal behaviors to a variety of external variables, such as the situation and personality characteristics of the subjects. Observations have shown that nonverbal behaviors exhibit culture-specific forms and these forms are communicative.

Wiener and others (111) discuss encoding and decoding. Nonverbal expressions must be decoded carefully to interpret

the meaning intended by the encoder. They also differentiate between sign and communication. All behaviors are signs, but some may not have special meaning for communication purposes. These writers feel that nonverbal communication does not have universal significance; there are cross-cultural differences and perhaps even subgroup differences.

Birdwhistell (12) declares that body motion communicational behavior is just as much learned behavior as is language. We do not teach it because we have not known enough about it to teach it. Communication through gestures is complex. Body behaviors function like significant sounds; they combine into simple or relatively complex units like words and are then combined into much longer stretches of structured behavior like sentences. Silence is just as golden as are those periods in which language is used. The eyes, the mouth, the face, the hands, the posture, and the shoulders have all been listed by informants as being the primary carriers of meaning. Birdwhistell (12) says membership is attained in a social system only after patterned experience in this system. Learned and visually perceptible shifts in the body contribute to the peculiar communication systems of particular societies. The human body is capable of producing literally thousands of distinguishable positional shifts per second. Even at rest the body is not inactive.

Mehrabian (62) states that a person's facial expression has more effect on whether a listener feels liked or disliked

than the verbal part of the spoken message. A frequent problem psychoanalysts have is that a person says one thing but does another. An analysis of body posture, position, and movement has been used as an objective way to discover the client's feelings. Some psychoanalysts go so far as to imitate a client's posture in order to obtain some feeling for what the client is feeling.

While language can be used to communicate almost anything, nonverbal behavior has a limited range. It is used to communicate feelings and reinforces feelings communicated verbally. Some forms of nonverbal behavior which can communicate feelings are touching, facial expression, spatial distance from the person addressed, and relaxation of posture. Movements of the limbs not only indicate one's attitude toward a specific set of circumstances, but movements can also indicate how anxious the person tends to be in social situations. Posture can be used to indicate either positive or negative attitudes. For example, if a person leans toward his companion, a positive feeling is demonstrated.

After searching the literature, Mehrabian (64) concluded that patterns of posture and position could be identified and are consistent with certain attitudes. The distance between a person and his companion is a decreasing linear function of the degree of liking of the companion. Eye-contact is less for disliked than for liked persons. The

position of the arms and legs is also of importance. The arms-akimbo position is used when a person wishes to indicate a more negative feeling to his companion. Findings also indicate that the distance between two persons is positively correlated with their status discrepancy. Seated and standing positions differ and communicate different meanings.

Heimann and Heimann (40) believe the understanding of nonverbal communication is essential for the counselor. The counselor-trainee must be aware of his own nonverbal behavior as well as the nonverbal messages he receives from his client. To help a client make some changes in his behavior, the counselor must attend to the whole person and the total communication interaction.

Nonverbal procedures are an essential part of child therapy according to von Strachwitz (108). The therapist and child influence each other through exchange of glances, gestures, and unspoken emotional communication. She cites the example of an eight-year-old boy who worked through his anxieties with the puppets, the playroom toys, and at the blackboard without saying anything. She feels the nonverbal process taps deeper problems than the child can express verbally. She also feels the nonverbal process can substitute for language. It is an essential part of therapy in order to have an exchange of emotional attitudes. The nonverbal process has two major components: the symbolic inner

action and the environmental interaction. The use of the materials in the playroom is significant, and the therapist steps back as the child struggles to work out his problems with the play media. The mutual emotional rapport or relationship, Naheerleben, is established through feelings and unspoken communication.

General Research on Nonverbal Communication

Gladstein (35) reviewed the research on nonverbal communication to determine what should be included in analyzing nonverbal communication, to discover what could have practical applications in counseling situations, and to identify needed research so practical applications could be made in the future. Most writers include kinesics, paralanguage, and proxemics in studying nonverbal communication. Some investigators feel nonverbal communication has a biological basis, while others point to the cultural factor and state that it is learned behavior. Those who emphasize biological origins see nonverbal communication as preceding verbal communication. Those who emphasize the cultural factor tend to see it as an interaction between the individual and his environment. It was difficult for the reviewer to arrive at conclusions because various classifying and measuring systems were used, diverse helpers and helpees were involved, and sample size differed greatly. However, some findings were identified and supported by the literature. Nonverbal

communication can be classified and measured in the counseling situation; the most information concerns paralanguage in the counseling process; and paralanguage and kinesics are related to counseling changes and emotional states. The authors conclude that it is important for the therapist to be aware of, and utilize, nonverbal communication with his clients. For further research it is imperative that researchers carry out both encoder and decoder studies.

Mehrabian (65) summarized some of the measures of nonverbal communication that have been found to be significant indicators of a communicator's attitude toward the person addressed. Proxemics, touching, distance, forward lean, eye-contact, and body orientation reflect the attitude of the communicator and the addressee. Movement, facial expression, and rates of gesticulation also communicate liking or disliking. He has included two tables with detailed criteria for scoring nonverbal behaviors which are used as research scales.

Waxer (110) conducted a study to determine whether therapists could recognize nonverbal cues for depression effectively. He also attempted to isolate and identify nonverbal cues for depression. He used four rating groups with varying degrees of training. A silent videotape of five depressed and five nondepressed psychiatric patients was shown to the groups. All four were able to identify the depressed patients on the basis of nonverbal cues alone.

Two nonverbal cues that were identified as indicative of depression were heads angled down and less eye-contact.

Nonverbal behavior of helpers in initial helping interactions was investigated by D'Augelli (24). He used eighty-three male and eighty-five female undergraduates. They met in groups of eight and participated in the Group Assessment of Interpersonal Traits. Several nonverbal behaviors of helpers were tallied and related to independent judgments of the helper made by observers and the person being helped. There was a significant relationship between the nonverbal behavior of a helper and the others' views of his helping. Smiling and nodding were most consistently related to indexes of helper performance.

Mehrabian (63) studied the functional relationships of a communicator's posture, orientation, and distance from his addressee to his attitude toward the addressee. Fifty college students served as subjects. A subject was left alone with instructions to assume ten different postures which he considered to be typical of his postures with each of intensely disliked, moderately disliked, neutral, moderately liked, and intensely liked male and female addressees whose presence he was to imagine. Three raters observed the subject through a one-way mirror and rated his behavior on twelve measures. Eye-contact, distance, orientation of body, and relaxation of body were found to be significant indexes of a subject's liking for the addressee.

In another role playing study, Mehrabian and Friar (66) attempted to determine the salient posture and position variables in the communication of affect to addressees of different status and sex. The subjects were asked to imagine themselves in situations involving different kinds of addressees and to sit in the ways in which they would if they were actually interacting with them. An analysis of variance showed some significant results. The most important variables for the communication of positive attitude were small backward lean of torso, close distance, and more eye-contact. There was also more eye-contact in communications with high-status as compared to low-status addressees. The results of this study are congruent with those found in the literature.

Eye-contact, distance, and affiliation were investigated by Argyle and Dean (8). Eye-contact is important during social interaction; without it people do not feel that they are fully in communication. In reviewing past research they found that there is more eye-contact when the subject is listening than when he is speaking; there is more eye-contact when less personal topics are discussed; there are cross-cultural differences; and there is more gaze direction if one person likes the other and if they are cooperating not competing. The researchers conducted experiments to determine eye-contact and equilibrium for distance. Twelve subjects were asked to stand as close as it was

comfortable to see well two objects, both about the same size as a human head. They were then asked to look at a life-sized photograph of the face of the first author, then at the author with his eyes shut, and then at the author with his eyes open. Subjects stood eleven inches closer to the photograph than to the person and six inches closer to the person whose eyes were shut than to the person whose eyes were open. The researchers also tested the theory that if spatial proximity is increased, eye-contact will be reduced. Eighty subjects were used. Two people took part in a conversation. One, a confederate, gazed continually at the other, a genuine subject. Two observers recorded the amount of eye-contact during three-minute conversations. The other observer counted the number of glances made by the subject during the three minutes. Results showed subjects at two feet were in a state of discomfort and tension and tried to increase the distance. Subjects at ten feet tried to reduce the distance. Eye-contact was reduced at closer distances, while eye-contact was increased at greater distances.

Schmidt and Hore (99) studied patterns of communication between mothers and their five-year-old children. Fifteen parent-child pairs of high socioeconomic status and fifteen parent-child pairs of low socioeconomic status were subjects. They were given two tasks: one was of a practical-manipulative nature, while the other consisted of making up stories from

pictures. All sessions were videotaped and then analyzed. Nonverbal variables were physical contact, body inclination, and glances. Physical contact was found to be more prevalent in the low socioeconomic group, but body inclination did not differ between groups. Glancing behavior was significantly higher in the high socioeconomic group and the children had fewer of their glances unreciprocated by their mothers.

Correlations among nonverbal expressions of anxiety were investigated by Jurich and Jurich (45). The subjects were forty female college students. Each was videotaped in and interview during which she was questioned about sexual attitudes by a male examiner. Independent pairs of judges rated the subject's global anxiety, using the videotapes. These ratings were correlated with a finger sweat index, the subject's evaluation of anxiety, postural relaxation, eye-contact, pauses, and speech errors. The nonverbal measures of anxiety correlated well with the global rating of anxiety and the finger sweat index.

Nonverbal Communication in Emotional Disorders

Visual interaction is one of the most important non-verbal behaviors. Looking indicates and communicates attitudes and feelings. It operates as a two-way channel allowing the subject to gain information as well as impart it (8, 24, 99, 110, 111). Therefore, unusual patterns of visual behavior should have important implications for other

aspects of social interaction. If a subject looks little, he should be perceived differently, and he should be expected to fail to gain adequate feedback from the encounter. To test this hypothesis, Rutter and Stephenson (94) investigated visual interaction in schizophrenic and depressive patients. Twenty schizophrenic and twenty depressive patients were given a standardized filmed interview within forty-eight hours of their admission to a psychiatric hospital. The patients consisted of ten men and ten women (selected randomly from inpatient admissions) who were given provisional diagnosis of schizophrenia by the admitting doctor, and ten men and ten women (selected randomly from inpatient admissions) who were given provisional diagnosis of depression. The forty psychiatric patients were matched for sex, age, and socioeconomic status with patients who were recent admissions to a general hospital. All subjects were given the same standardized interview, and their visual interaction with the interviewer was recorded on videotape. Looking and speech of both subjects and interviewer were scored from the videotape playbacks by means of a paper-tape event-recorder. Both schizophrenic and depressive patients were found to spend significantly less time than their controls in looking at the interviewer. Schizophrenics also looked in shorter glances than their controls.

To determine whether looking characterized psychiatric patients in general, Rutter and Stephenson (94) conducted an

experiment similar to the one described previously, with the exception that the psychiatric group consisted of alcoholics and patients suffering from anxiety conditions. In this study no differences were found between the patients and controls in any of the measures taken. The researchers concluded that only schizophrenic or depressive patients were characterized by a marked decrement in looking.

Since it is difficult to measure the therapeutic progress of a child with an emotional problem because of limited verbal communication, Daly (25) measured tactile contact to determine if this nonverbal behavior could be used to indicate progress in therapy. An emotionally disturbed five-year-old girl was chosen for observation. An observer recorded the interaction of the therapist and child on the tactile and specific verbal level. As the child improved, the nature and frequency of tactile interaction changed significantly. While the child repelled almost all tactile contacts during the first sessions, she repelled no contacts during the final sessions. The child also changed in tactile contacts from body to hand contacts as her problems diminished and her behavior improved.

Bowers and others (14) used nonverbal exercises in group therapy with chronic schizophrenic outpatients. The nonverbal exercises had been used by the group for two-and-a-half years. The goals for using nonverbal exercises were to facilitate trust, own up to feelings, and to give and

receive feedback based on here-and-now data. Some of the exercises used were putting a new member into the center of the group; having two hostile members face each other, put their hands together and push; forming a circle and having an immobilized member break out; hitting a chair or pillow; and walking up to each member of the group and giving him a hug. Although there were no objective measures of change, the therapist, who had been with the group for five years, felt many changes were directly related to the use of the nonverbal exercises.

Nonverbal Communication in the Classroom

In an effort to discover whether there is a relationship between nonverbal behavior and students' comprehension, Breed and Colaiuta (16) conducted an experiment involving fifty-two college students. The students were permitted to sit where they wished; a roll was kept indicating where each student sat during each lecture. Two judges sat by the lecturer and rated the students' nonverbal behavior. A sample of the students' nonverbal behavior was obtained by observing each student for at least one twenty-second interval each class. Results showed higher test scores associated with increased looking at the instructor and increased writing time. Lower test scores were associated with looking around and blinking. Only a tentative relationship existed between seating choice and examination scores.

Those who sat in the center of the room looked more at the instructor, but also looked around more and blinked more.

Kazdin and Klock (46) investigated the effect of non-verbal teacher approval on student attentive behavior. The subjects were a class of thirteen moderately retarded elementary-school students. The teacher and children were observed daily for nine days and a baseline was obtained for verbal and nonverbal teacher approval and student attentive behavior. The teacher was then instructed to increase her use of smiles and physical contact following attentive child behavior but not to change her verbal statements. This phase lasted nine days and then baseline conditions were reinstated. Attentive behavior increased for eleven of the students during the phase in which nonverbal teacher approval increased. Correlational data suggested that non-verbal teacher approval accounted for behavior change of the students to a greater extent than did teacher's use of verbal approval.

Emotional reactions of students to nonverbal teacher behavior was studied by Goldberg and Mayerberg (36). The subjects were 120 elementary-school students. A random sample of 60 children, stratified by both race and sex, was chosen from the second grade and from the sixth grade. Three videotapes of the same white, female teacher delivering a lecture were made. The teacher's verbal behavior was held constant, while her nonverbal behavior varied from

positive to neutral to negative. The tapes were ranked by three judges and the positive tape was rated as positive, the neutral tape rated as less positive, and the negative tape rated as negative. The subjective reactions of the students to the tapes were measured by a semantic differential. The mean rating for the positive teacher tape was significantly higher than the mean rating for the negative teacher tape. The results thus suggest that students do evaluate different types of nonverbal teacher behavior and respond accordingly.

Summary

Communication specialists agree that much of the expression of emotional and motivational states occur on nonverbal levels. The utilization of nondirective play therapy with deaf children is based on the assumption that it is possible to establish a therapeutic relationship using only nonverbal communication.

The deaf child experiences tensions and strains that the normal child does not know because communication is so difficult for the deaf child. The primary need for the healthy development of any child is acceptance of himself, but this acceptance is less common in the deaf child than in the normal child.

Play is regarded as the natural medium for the child to communicate his thoughts and feelings about the world around

him. Nondirective play therapy rests on the hypothesis that the child has within himself the capacity for growth and self-direction and that these growth impulses are released within the therapeutic relationship established between the therapist and the child. Research has established play therapy as a valuable method in working with maladjusted children. This is perhaps even more applicable to the deaf child because the true "language" of the deaf is nonverbal communication.

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CHAPTER III

METHODS AND PROCEDURES

Research Setting and Program

The total population for this study consisted of children with impaired hearing who were referred for therapy to special classes for the deaf in two community agencies in Dallas. Fifty-five children enrolled in the programs were available for the research project. Children considered for the study were boys and girls whose hearing loss prevented, for all practical purposes, auditory contact with the world around them and had done so since before the acquisition of language. They had a hearing loss of seventy decibels or more bilaterally (4), IQ's of eighty or above on a standardized individual intelligence test, were four years through six years of age, and described by their hearing therapist as having behavioral problems. Thirty-nine children met the criteria. Letters were sent to the parents of these thirty-nine children asking permission for their child to be included in the research study. Twenty-seven parents gave permission for their child to participate in the study. From this group twenty-four children were placed in pairs according to age and sex. Three children could not be paired because there was no child of either their age or their sex

available. Random assignments placed one child from each pair in the Experimental Group and the other child in the Control Group. One child became ill and dropped out during the treatment period, leaving eleven pairs of children. One child in the Experimental Group moved out of town after therapy had been completed and could not be included in the ten-week follow-up period. Ten pairs of children completed all phases of the study.

Children assigned to the Experimental Group were given fifty minutes of individual play therapy a week for ten weeks with a trained therapist. Individual therapy was employed because it was felt that rapport could be established more readily in individual therapy than in group therapy. Because the child had little speech, it was necessary to keep constant watch for nonverbal communication.

The play therapy approach used was nondirective and is described as a process which enables the child participant to become more responsible for directing his own behavior in the playroom and also in his home, school, and everyday life.

Since play is his natural medium for self-expression, the child is given the opportunity to play out his accumulated feelings of tension, frustration, insecurity, aggression, fear, bewilderment, confusion.

By playing out these feelings he brings them to the surface, gets them out in the open, faces them, learns to control them, or abandons them. When he has achieved emotional relaxation, he begins to realize the power within himself to be an individual in his own right, to think for himself, to make his own decisions, to become psychologically more mature, and, by so doing, to realize selfhood (1, p. 16).

Virginia Axline's (1) eight basic principles for non-directive therapeutic contacts characterized the approach to play therapy:

1. The therapist must develop a warm, friendly relationship with the child, in which good rapport is established as soon as possible.

2. The therapist accepts the child exactly as he is.

3. The therapist establishes a feeling of permissiveness in the relationship so that the child feels free and able to express his feelings completely.

4. The therapist is alert to recognize the feelings the child is expressing and reflects those feelings back to him in such a manner that he gains insight into his behavior.

5. The therapist maintains a deep respect for the child's ability to solve his own problems if given an opportunity to do so. The responsibility to make choices and to institute change is the child's.

6. The therapist does not attempt to direct the child's actions or conversation in any manner. The child leads the way; the therapist follows.

7. The therapist does not attempt to hurry the therapy along. It is a gradual process and is recognized as such by the therapist.

8. The therapist establishes only those limitations that are necessary to anchor the therapy to the world of reality and to make the child aware of his responsibility in the relationship (1, pp. 73-74).

One agency had a well equipped play therapy room which was utilized for therapy. In the second agency, a hearing therapy room was assigned to the therapist. All play material was placed in the room prior to the contacts and removed at the end of the meetings. The toys used included a punching clown, dart gun, small and large cars, Play Doh, tinker toys, rubber knife, Barbie doll, pounding board, plastic train and track, hand puppets, berry baskets for

smashing, watercolor pens and paper, crayons, a baby bottle, doll furniture and a small doll family, a ball, and a wetting doll. These are the toys and materials suggested by Axline (1), Ginott (7), and Slavson (10). Although audio-tape facilities were available, they were not used because the children understood and spoke few words. Notes concerning the child's actions were made by the therapist during and immediately following each session. Nonverbal aspects of play therapy have been listed by Hendricks (8) as follows:

1. Physical proximity or touching.
(Moves chair near counselor; sits or stands close to counselor; intentionally touches counselor either with puppets, etc., or self)
2. Expression of happiness.
(Laughs, smiles, chuckles, giggles, etc.)
3. Expression of bewilderment, disbelief, or disgust.
(Scratches head; throws up hands in exasperation; shrugs shoulders; shakes head in despair.)
4. Expression of anger.
(Scowls; clenches fist; grits teeth; stamps foot; etc.)
5. Expression of anxiety.
(Nervous giggle; rocks up on toes; sways body back and forth; chews on tongue, lip, nails; picks at cuticles; deep sighs and groans, etc.)
6. Expression of curiosity about surrounding area.
(Peers into adjacent room, i.e., reading and observation rooms.)
7. Exploring self and behavior as reflected in mirror.
(Glances at self in mirror; watches self as he plays, such as hitting Bobo; makes faces in mirror, etc.)
8. Nonverbal verification of counselor's response.
(Nods head yes or no.)
9. Expressions of spontaneity and freedom.
(Varies voice pitch with characters, e.g., puppets.)

10. Recognition reflex.
(Reacts to counselor's response by glancing at counselor with "Yeh, that's right" facial expression.)
11. Checking with counselor.
(Looks at counselor seeking approval or response to his actions; looks at counselor as if seeking confirmation, suggestions, or directions; looks at counselor while conversing.)
12. Shows counselor results.
(Takes painting, etc. to counselor.)
13. Curiosity about the playroom and materials.
(Eyes scan room and/or shelves.)
14. Expresses displeasure with results or discovery. (Curls bottom lip out; sneers; wrinkles nose; frowns, etc.) (8, pp. 86-87)

Children assigned to the Control Group were given thirty minutes of individual play a week. In one agency they used the play therapy room; in the other agency they used another room and were given the same toys as those used with the experimental group. In the play group children played with the toys, but no efforts to initiate a therapeutic relationship of any kind were made by the volunteers supervising them.

Description of Subjects

Referrals considered for the study were boys and girls whose hearing loss prevented, for all practical purposes, auditory contact with the world around them and had done so since before the acquisition of language. They had a hearing loss of seventy decibels or more bilaterally (4), IQ's of eighty or above on a standardized individual intelligence test, were four years through six years of age, and described by their hearing therapist as having behavioral problems.

The children were placed in pairs according to age and sex. Random assignments placed one child from the pair in the Experimental Group and the other child in the Control Group. Twelve children were assigned to individual play therapy sessions, and twelve children were assigned to play sessions. One child dropped out during the study: a boy from the Experimental Group became ill and did not return to school for the rest of the semester. Because the room could not be used for research after the designated period, it was impossible to use another matched pair; and eleven pairs completed this phase of the study. Three pairs of girls and eight pairs of boys participated in the study. A girl in the Experimental Group moved out of town at the end of the therapy period. Ten children were present for residual tests on all measures.

The children were preschoolers and were attending school to learn communication skills. Each spent the entire morning or afternoon at school. Part of each day was spent in individual and/or group sessions with a hearing therapist. The children wore hearing aids and were being taught basic sounds and words. They also spent time with teacher aides who helped them utilize perceptual materials for both learning and play. Concrete activities included making popcorn, candy, or cookies.

Therapy sessions were arranged so that they did not interfere with the hearing training. Each child was removed

from the group by the therapist or volunteer and taken to the room for his session. The children came to the therapy room and the playroom each week in a previously established order. This was done to maintain an orderly routine for the child and to avoid interference with his academic activities. However, if he was involved in making a treat--for example, popcorn--the schedule was rearranged and the child was seen at another time. At first some children were reluctant to accompany the therapist. They did not understand where they were going or why and were reluctant to venture into the unknown. After the initial session all except one boy willingly followed the therapist. By the third session he, too, appeared to have decided the play therapy room was a desirable place.

Following is a brief description of the play therapy sessions with one of the children, a five and a half year old boy whom we shall call Pete. He was described by his teacher as a bright little boy whose behavior often interfered with his learning. His peer relationships were poor, his behavior was aggressive, and his attitude frequently negative. He shrieked to gain attention and resorted to temper tantrums when corrected. His mother reported that he was a stubborn child who wanted his own way, and he had difficulty waiting for anything. She said he was a loner because he could not communicate with the other children in the neighborhood.

During the initial therapy period, Pete was taken about the room and shown all the toys. Through gestures an attempt was made to let him know that he could play with any of them. He quickly grasped this concept and walked about the room briefly exploring each toy. There was little eye-contact with the examiner, and he made no attempt to communicate with her. He frowned a lot. There was little real play with the toys; he was just exploring the situation. There was little joy in anything he did. When the session was near the end, the therapist pointed to her watch and held up five fingers. (After three sessions Pete appeared to understand what this meant.) When the session was over, the therapist again pointed to her watch, then opened the door and returned Pete to his class.

At the start of the second session Pete just stood in the middle of the room for about ten minutes, neither touching anything nor attempting to interact with the therapist. He then sat at the table and began to scribble with the water color pens and paper, not drawing, but attempting to write. The therapist moved near him, but he did not acknowledge her presence. It was difficult to understand what he was feeling. He evidently could not accept the room as a place of freedom; but because it was in his school, he attempted to do school work, writing. He did stop and play with the Play Doh, which was also on the table. There were no frowns, but he did not appear comfortable.

At the beginning of the third session he stood at the door for several minutes before entering the room. Once the door was closed, however, he began to play with toy cars on the floor. He moved them about, lined them up in precise order, and made some sounds as he played. He frequently glanced at the therapist. His face remained expressionless; and his play, rather than being spontaneous, was repetitive. He again returned to the paper and pens but spent little time there. The therapist remained close to the child as he moved about the room. There was more eye-contact than in previous sessions. When the session ended, Pete started to put the toys back into place, and it was difficult for him to understand that this was not necessary.

At the start of the fourth session Pete entered the room and immediately went to the table. This time, instead of writing, he opened the Play Doh. There was no attempt to make anything; but he pounded the Play Doh, rolled it about, and pounded it some more. He was animated and smiled for the first time. He again played with the cars and trucks in the same precise manner. This time, however, he moved the toys closer to the therapist. Near the end of the session he played with the puppets. After brief play with each he chose the doctor and nurse and had the alligator "bite" them. Since his life had been filled with people in white coats who gave him tests and bewildering examinations, this was an understandable activity.

In the fifth session, Pete repeated his previous activity with the Play Doh. He then gingerly punched the punching clown. As he continued to punch he became more aggressive, hitting faster and harder. Through facial expressions and gestures the therapist attempted to reflect Pete's feelings of anger. This activity lasted until the session was almost over. He then retreated to the safe, automatic play with the cars. It was as though after having expressed himself, he felt the need to return to a safe activity which he was sure was acceptable. When it was time to go he started to put the cars back, then stopped, looked up at the therapist, grinned and walked out the door. Not having to replace the toys was a great treat because his life was so filled with routine and order.

At the beginning of the sixth session Pete immediately went to the punching clown and punched him hard and fast. He then took the dart gun, ignored the target, and shot all the doll family and puppets. Again he returned to automatic play with the cars, moving them about and lining them up until time to go. He frequently looked at the therapist as though to assure himself she was near.

In the seventh session Pete again exhausted himself with the punching clown. He kicked him and threw him about the room in addition to hitting him. When the therapist indicated that he could not throw the clown against the observation glass, he became angry, picked up a rubber play knife,

looked at the therapist to be sure she was watching, and stabbed the clown. This release of feelings was accepted by the therapist. Instead of returning to the play with the cars he spent the remaining time playing with the doll family.

In the eighth session Pete spent only a short time punching the punching clown. He used the dart gun to shoot the puppets, then picked up the father puppet and threw him into a corner. He took the doctor puppet and smashed his face in with Play Doh and threw him into the corner. Having expressed his hostility, he was able to sit and build with the tinker toys for the remainder of the session. When he left the room he gave his creation to the therapist.

Prior to the ninth session, Pete saw the therapist before his therapy time, grabbed her hand and started to lead her to the therapy room. When he understood that it was not yet time for his therapy, he angrily returned to the free play room. When he did come for therapy little time was spent with the punching clown. He used the dart gun on the puppets and repeatedly shot the female puppet. It is postulated that this puppet was the therapist, and he was showing her how he felt when she had not taken him immediately. It is difficult for deaf children to understand why they must wait. Pete mixed all the Play Doh together, and then started breaking off bits and placing them on plates for food. He gave the therapist a plate of

"food" and was pleased when she accepted it. An attempt was made to let him know he would have only one more therapy session.

In the tenth session Pete ignored the punching clown; but he knocked all the doll family about, shot the puppets, and threw them all into a corner before sitting down to creative play. He built with the tinker toys and put the train track together. He frequently looked up to be sure the therapist was there watching. It was difficult to explain to Pete that this was his last session. In an attempt to do so, the therapist put the toys into a box and closed the lid. He seemed to understand this and shook his head in protest.

Procedures for Collecting Data

During the fall therapy session all children who made up the population sample were evaluated by their hearing therapist on The Child Behavior Rating Scale and the Behavior Problem Checklist. The hearing therapists were asked to follow identical instructions in checking behavior patterns and behavior problems of the children on both scales.

Mothers or guardians of children who made up the population sample were administered the Vineland Social Maturity Scale by professionally trained personnel, who were instructed to follow the standardized conditions for administration as outlined in the manual of instructions.

Mothers and hearing therapists were asked to do the following:

1. Write a brief description of the child.
2. List the things the child does most that you dislike.

At the end of the ten-week treatment period the Experimental Group and the Control Group were again rated on The Child Behavior Rating Scale and the Behavior Problem Checklist. Mothers or guardians of the children who made up the population sample were again administered the Vineland Social Maturity Scale. All posttests were administered under the same conditions set for the pretests.

After the administration of these scales, hearing therapists and parents of children in the Experimental Group and the Control Group were asked the list of questions found on page 155 in the Appendix. These answers were not treated statistically, but are reported.

The sample population attended their regular hearing therapy classes with no additional treatment for the ten weeks of the residual period. At the end of the ten-week residual period, the Experimental Group was again rated on The Child Behavior Rating Scale and the Behavior Problem Checklist. Mothers or guardians of the children in the Experimental Group were again administered the Vineland Social Maturity Scale.

Instruments

The Vineland Social Maturity Scale offers information on the results of the child's maturational interaction with his social environment. It is based on the method of report rather than observation or examination. There are 117 items in the scale and each has been given a categorical designation, such as self-help general, self-help eating, self-direction, occupation, locomotion, communication, and socialization. The scale affords a standard schedule of normal social maturity from birth to twenty-five years of age. Standardization data were obtained from a total of 620 subjects. Cruickshank and Teagarden, in Buros' Mental Measurement Yearbook 1938, report research using the scale which affirms its value and usefulness as an index for the measurement of growth or change. Validity coefficients range from .50 to .90, using intelligence as a criterion. Reliability coefficients are reported to be .90 or above (2).

The Child Behavior Rating Scale is designed to assess the personality adjustment of preschool and primary grade pupils. The scale is composed of seventy-eight different items which are assumed to be indicative of the child's personality adjustment in the following areas: self, home, social, school, and physical. The profile for interpretation includes scores in these areas as well as a total score. Each of the items is to be checked by a rater on a six-point scale ranging from a value of one, indicating

almost no occurrence of the behavior, to a value of six, indicating almost continuous occurrence of the behavior. The standardization data are based on scores for 2,000 children. Reliability coefficients are reported to be .65 or above (5). Additional studies found a reliability coefficient of .87 for typical children, .59 for maladjusted children, .91 for parents' ratings, and .75 for teachers' ratings (4). Validity coefficients are reported to be above .60, using grade-point average, achievement test scores, and the Vineland Social Maturity Scale as criteria (5).

The Behavior Problem Checklist (unpublished early form) was developed by Peterson (9). It is designed to improve structural definition of children's behavior problems and can be used to assess the behavior problems of preschool and primary-grade children. The scale is composed of fifty-eight items. Each of the items is to be checked by a rater on a three-point scale ranging from a value of zero, indicating the item does not constitute a problem, to a value of two, indicating the item constitutes a severe problem. The problems fall into two dimensions, a conduct problem dimension, Factor 1, and a personality problem dimension, Factor 2. Reliability coefficients for the preschool group were found to be .77 and .75 for Factors 1 and 2 respectively. No data are given on validity other than an appeal to the face validity of the items (9). It is possible to omit the few items, four, that do not apply to deaf children without changing the effectiveness of the measure.

None of the instruments used included deaf children in their standardization. They were used in this study because there are no instruments which have been standardized on deaf preschool children, and there is no reason to suppose that deaf children differ from hearing children in ways that would invalidate the use of the instruments selected. Because the children are deaf and have little speech, some of the items were omitted. The number of items deleted was so small that there is no reason to expect the reliability of the instrument to be altered significantly.

Treatment of Data

The research hypotheses were converted to the null hypotheses for statistical treatment. Data obtained from pretests and posttests on all measures were treated statistically for significance of difference between means, using analysis of covariance. The F-ratio was determined for all measures between the Experimental Group and the Control Group. Data obtained from the Experimental Group posttests and residual tests on all measures were treated statistically for significance of difference between means of small samples, using Fisher's t test for related samples. A significance level of .05 was required for rejection of the null hypothesis for all computations.

There was no statistical treatment of the subjective information obtained from the questionnaires completed by

the teachers and parents. Trends or significant changes are noted and discussed.

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CHAPTER IV

RESULTS

Statistical Analysis

In order to provide a measure of the child's maturational interaction with his social environment, a score on the Vineland Social Maturity Scale was computed for each child. The means and standard deviations of the Experimental Group and the Control Group are shown in Table I.

TABLE I
MEANS AND STANDARD DEVIATIONS ON THE VINELAND SOCIAL MATURITY SCALE

Group	Means			Standard Deviation	
	Pretest	Posttest	Adjusted	Pretest	Posttest
Experimental	88.64	93.00	93.94	7.75	8.99
Control	90.55	90.36	89.43	25.84	25.35

A comparison of the means of pretest and posttest scores indicates a gain of 4.36 for the Experimental Group and a loss of .19 for the Control Group. The adjusted posttest means differed by 4.51 points. The posttest standard deviation was approximately one point higher than the pretest standard deviation for the Experimental Group, while the two standard deviations for the Control Group were very similar.

The results of the analysis of covariance for the Vineland Social Maturity Scale data are shown in Table II. The analysis of covariance, computed to compare the posttest adjusted means of the two groups, yielded an F-ratio of 8.70, which was found to be significant at the .01 level.

TABLE II

SUMMARY OF ANALYSIS OF COVARIANCE ON THE VINELAND SOCIAL MATURITY SCALE

Source of Variance	SS	df	MS	F
Between	111.4421	1	111.4421	8.70*
Within	243.3150	19	12.8061	
Total	354.7571	20		

*Significant at the .01 level.

As a further measure of a child's personality adjustment, the score on The Child Behavior Rating Scale was computed for each child. The means and standard deviations of the Experimental Group and the Control Group are shown in Table III. A comparison of the means of pretest and posttest scores indicates a gain of 5.46 for the Experimental Group and a gain of 1.54 for the Control Group. The adjusted posttest means differed by 1.24 points. The posttest standard deviation was 6.65 points lower than the pretest standard deviation for the Experimental Group, while the posttest standard deviation for the Control Group was 4.53 points lower than the pretest standard deviation.

TABLE III
 MEANS AND STANDARD DEVIATIONS ON THE CHILD BEHAVIOR
RATING SCALE

Group	Means			Standard Deviation	
	Pretest	Posttest	Adjusted	Pretest	Posttest
Experimental	326.09	331.55	339.53	51.47	44.82
Control	344.73	346.27	338.29	52.48	47.95

The results of the analysis of covariance for The Child Behavior Rating Scale data are shown in Table IV. The analysis of covariance, computed to compare the posttest adjusted means of the two groups, yielded an F-ratio of 0.0461, which was not found to be significant at the .05 level.

TABLE IV
 SUMMARY OF ANALYSIS OF COVARIANCE ON THE CHILD BEHAVIOR
RATING SCALE

Source of Variance	SS	df	MS	F
Between	8.2529	1	8.2529	0.0461*
Within	3398.8386	19	178.8862	
Total	3407.0916	20		

*Not significant at the .05 level.

As a measure of a child's manifest behavior problems, the score on the Behavior Problem Checklist was computed for

each child. The means and standard deviations of the Experimental Group and the Control Group are shown in Table V.

TABLE V
MEANS AND STANDARD DEVIATIONS ON THE BEHAVIOR PROBLEM CHECKLIST

Group	Means			Standard Deviation	
	Pretest	Posttest	Adjusted	Pretest	Posttest
Experimental	26.64	20.82	18.75	13.37	8.77
Control	19.91	17.09	19.16	9.93	11.88

A comparison of the means of pretest and posttest scores indicates a loss of 5.82 for the Experimental Group and a loss of 2.82 for the Control Group. The adjusted posttest means differed by 0.41 points. The posttest standard deviation was 4.60 points lower than the pretest standard deviation for the Experimental Group, while the posttest standard deviation for the Control Group was 1.95 points higher than the pretest standard deviation.

The results of the analysis of covariance for the Behavior Problem Checklist data are shown in Table VI. The analysis of covariance, computed to compare the posttest adjusted means of the Experimental and the Control Group on the Behavior Problem Checklist, yielded an F-ratio of 0.0149, which was not found to be significant at the .05 level.

TABLE VI
SUMMARY OF ANALYSIS OF COVARIANCE ON THE BEHAVIOR PROBLEM
CHECKLIST

Source of Variance	SS	df	MS	F
Between	0.8857	1	0.8857	0.0149*
Within	1127.0132	19	59.3165	
Total	1127.8989	20		

*Not significant at the .05 level.

A comparison of posttest scores and residual period scores on the Vineland Social Maturity Scale is shown in Table VII. Scores were treated statistically for significance of difference between means of small samples, using Fisher's t test for related samples. Results yielded a t of 2.02, which was not found to be significant at the .05 level. However, the difference between the two periods is in the direction predicted and is significant at the .10 level. The standard deviation for the residual test was .94 points lower than the posttest standard deviation.

TABLE VII
t VALUES DERIVED ON POSTTEST AND RESIDUAL TEST MEAN
DIFFERENCE SCORES FOR THE EXPERIMENTAL GROUP ON
THE VINELAND SOCIAL MATURITY SCALE

Test	Total	Mean	S.D.	<u>t</u>
Posttest	934	93.40	8.91	2.02*
Residual Test	955	95.50	7.97	

*Not significant at the .05 level.

A comparison of posttest scores and residual period scores on The Child Behavior Rating Scale is shown in Table VIII. Scores were treated statistically for significance of difference between means of small samples, using Fisher's t test for related samples. Results yielded a t of 1.79, which was not found to be significant at the .05 level. The standard deviation for the residual test was 14.55 points lower than the posttest standard deviation.

TABLE VIII

t VALUES DERIVED ON POSTTEST AND RESIDUAL TEST MEAN DIFFERENCE SCORES FOR THE EXPERIMENTAL GROUP ON THE CHILD BEHAVIOR RATING SCALE

Test	Total	Mean	S.D.	t
Posttest	3,280	328.0	43.25	1.79*
Residual Test	3,401	340.1	29.70	

*Not significant at the .05 level.

A comparison of posttest scores and residual period scores on the Behavior Problem Checklist was made. Scores were treated statistically for significance of difference between means of small samples, using Fisher's t test for related samples. Results, shown in Table IX, yielded a t of 1.78, which was not found to be significant at the .05 level. The standard deviation for the residual test was 1.75 points higher than the posttest standard deviation.

TABLE IX

t VALUES DERIVED ON POSTTEST AND RESIDUAL TEST MEAN
DIFFERENCE SCORES FOR THE EXPERIMENTAL GROUP ON
THE BEHAVIOR PROBLEM CHECKLIST

Test	Total	Mean	S.D.	<u>t</u>
Posttest	213	21.3	8.63	1.78*
Residual Test	192	19.2	10.38	

*Not significant at the .05 level.

Additional Analysis

The additional analysis of the data is pertinent in addition to the several statistical analyses. Obviously, the range of scores within each group on each instrument influenced the results. This spread of results is presented in Table X. The Vineland scores of the Control Group present a wider range than those of the Experimental Group. There is little difference between the pretest and posttest scores, however. The posttest range is only four points wider than the pretest range.

The test range of the Experimental Group is narrower than that of the Control Group. The posttest range, however, shows increased scores and a wider range. The Experimental Group's scores do not go as low nor as high as the Control Group post-scores, as shown in Table X.

TABLE X

SUMMARY OF RAW SCORES AND RANGES OF THE TOTAL SCORES
OF THE VINELAND SOCIAL MATURITY SCALE

Experimental Group			Control Group		
Child	Pretest	Posttest	Child	Pretest	Posttest
# 1	75	78	# 1	66	65
# 2	85	87	# 2	103	104
# 3	83	89	# 3	77	79
# 4	94	101	# 4	107	100
# 5	97	98	# 5	88	89
# 6	88	91	# 6	77	83
# 7	98	111	# 7	113	109
# 8	94	96	# 8	108	108
# 9	96	98	# 9	117	120
#10	79	85	#10	80	80
#11	86	89	#11	100	97
Pretest Range 75-98			65-117		
Posttest Range 78-111			65-120		

The scores, shown in Table XI, for both the Control Group and the Experimental Group vary widely on The Child Behavior Rating Scale. The lowest test score for the Control Group was twenty-seven points higher than the lowest score of the Experimental Group. Neither group dropped as low on the posttest scores, but the lowest score for the Control Group increased fifteen points, while the lowest score for the Experimental Group increased only ten points.

TABLE XI

SUMMARY OF RAW SCORES AND RANGES OF THE TOTAL SCORES OF
THE CHILD BEHAVIOR RATING SCALE

Experimental Group			Control Group		
Child	Pretest	Posttest	Child	Pretest	Posttest
# 1	344	348	# 1	332	325
# 2	365	367	# 2	396	400
# 3	355	365	# 3	337	336
# 4	273	281	# 4	290	286
# 5	297	319	# 5	417	416
# 6	246	256	# 6	293	306
# 7	338	336	# 7	399	405
# 8	261	274	# 8	273	287
# 9	320	336	# 9	293	323
#10	387	398	#10	395	389
#11	401	367	#11	367	336
Pretest Range	246-401		273-417		
Posttest Range	256-398		287-416		

A decrease of scores on the Behavior Problem Checklist is desirable. The spread of scores shown in Table XII was wider for the Experimental Group than for the Control Group and had decreased in the direction predicted on the posttest. The scores for the Control Group varied little from pretest to posttest.

The Experimental Group was administered the tests again ten weeks following therapy. The range of scores on the

TABLE XII

SUMMARY OF RAW SCORES AND RANGES OF THE TOTAL SCORES OF THE
BEHAVIOR PROBLEM CHECKLIST

Experimental Group			Control Group		
Child	Pretest	Posttest	Child	Pretest	Posttest
# 1	24	18	# 1	21	20
# 2	18	16	# 2	11	9
# 3	15	13	# 3	20	9
# 4	53	27	# 4	37	32
# 5	36	30	# 5	10	2
# 6	36	27	# 6	11	33
# 7	18	9	# 7	10	6
# 8	35	36	# 8	29	26
# 9	34	26	# 9	34	31
#10	18	11	#10	13	4
#11	6	16	#11	23	16
Pretest Range 6-53			10-37		
Posttest Range 9-36			2-33		

Vineland Social Maturity Scale is given in Table XIII.

The range of scores decreased with time. Some children maintained their scores, some increased slightly, while others dropped slightly.

On The Child Behavior Rating Scale the range of scores also decreased with time. Improvement on this test is

TABLE XIII
 SUMMARY OF RAW SCORES AND RANGES OF THE POSTTEST AND
 RESIDUAL TEST SCORES OF THE VINELAND SOCIAL
MATURITY SCALE

Experimental Group		
Child	Posttest	Residual Test
# 1	78	85
# 2	87	100
# 3	89	89
# 4	101	98
# 5	98	96
# 6	91	93
# 7	111	109
# 8	96	96
# 9	98	106
#10	85	83
Test Range	78-111	83-109

indicated by an increased score. As shown in Table XIV, the scores of some children increased slightly, while the scores of other children remained the same or dropped. The scores of only three children varied thirty points or more. During the residual period, scores stabilized so they neither went as low nor as high as the posttest scores.

The range of posttest and residual test scores changed only five points, from twenty-seven points to thirty-two

TABLE XIV
 SUMMARY OF RAW SCORES AND RANGES OF THE POSTTEST AND
 RESIDUAL TEST SCORES OF THE CHILD BEHAVIOR
RATING SCALE

Experimental Group		
Child	Posttest	Residual Test
# 1	348	348
# 2	367	370
# 3	365	369
# 4	281	319
# 5	319	321
# 6	256	304
# 7	336	346
# 8	274	284
# 9	336	368
#10	398	372
Test Range	256-398	284-372

points, as shown in Table XV. Although the scores of some of the children changed drastically, the change is not reflected in the sum of the scores on the Behavior Problem Checklist. Improvement on this test is indicated by a decreased score. The greatest improvement was in Child #1, whose score decreased twelve points. However, this child did not demonstrate significant improvement on the other two tests.

TABLE XV
 SUMMARY OF RAW SCORES AND RANGES OF THE POSTTEST AND
 RESIDUAL TEST SCORES OF THE BEHAVIOR PROBLEM
CHECKLIST

Experimental Group		
Child	Posttest	Residual Test
# 1	18	6
# 2	16	12
# 3	13	13
# 4	27	36
# 5	30	29
# 6	27	23
# 7	9	4
# 8	36	32
# 9	26	22
#10	11	15
Test Range	9-36	4-36

Evaluation of the Hypotheses

Hypothesis I stated that children who had had a minimum of ten weekly individual play therapy sessions would score significantly higher in mature behavior patterns at the end of the treatment period, as measured by the Vineland Social Maturity Scale, than would children who had not had play therapy. The results of the analysis of covariance supported this hypothesis. Significant difference was found between the adjusted mean scores on the Vineland for the Experimental Group and the Control Group.

Hypothesis II stated that children who had had a minimum of ten weekly individual play therapy sessions would score significantly higher in personality adjustment at the end of

the treatment period, as measured by The Child Behavior Rating Scale, than would children who had not had play therapy. The results of the analysis of covariance failed to support this hypothesis. No significant difference was found between the adjusted mean scores on The Child Behavior Rating Scale for the Experimental Group and the Control Group.

Hypothesis III stated that children who had had a minimum of ten weekly individual play therapy sessions would score significantly lower in manifest behavior problems at the end of the treatment period, as measured by the Behavior Problem Checklist, than would children who had not had play therapy. The results of the analysis of covariance failed to support this hypothesis. No significant difference was found between the adjusted mean scores on the Behavior Problem Checklist for the Experimental Group and the Control Group.

Hypothesis IV stated that children who had had a minimum of ten weekly individual play therapy sessions would have no significant change in mature behavior patterns at the end of the residual period, as measured by the Vineland Social Maturity Scale. The t value computed for the post-test and residual test scores was not significant. There was no significant change in mature behavior patterns at the end of the residual period, as measured by the Vineland.

Hypothesis V stated that children who had had a minimum of ten weekly individual play therapy sessions would have no significant change in personality adjustment at the end of the residual period, as measured by The Child Behavior Rating Scale. The t value computed for the posttest and residual test scores was not significant. There was no significant change in personality adjustment at the end of the residual period, as measured by The Child Behavior Rating Scale.

Hypothesis VI stated that children who had had a minimum of ten weekly individual play therapy sessions would have no significant change in manifest behavioral problems at the end of the residual period, as measured by the Behavior Problem Checklist. The t value computed for the posttest and residual test scores was not significant. There was no significant change in manifest behavioral problems at the end of the residual period, as measured by the Behavior Problem Checklist.

This study failed to find any demonstrable statistical relationship between nondirective play therapy and children's adjustment or behavior problems at school. Only the hypothesis stating that children who had had ten weekly individual play therapy sessions would demonstrate a change toward mature behavior patterns, proved statistically significant.

CHAPTER V

DISCUSSION

Behavior is often difficult to describe with checklists and similar types of published devices. Some aspects of behavior do not lend themselves to checks or numerical weights but often provide insightful information about the child. In an effort to obtain these nuances of behavior, the descriptive-data questionnaires were used. Parents and hearing therapists completed the questionnaires for the Experimental Group before and after therapy and for the Control Group before and after the play periods.

In talking with the parents and teachers of children involved in the study, and in reading the informal descriptions on the questionnaires, clues to understanding the total child were obtained. Many times it was difficult for parents or teachers to put changes into words. They simply said, "He is more mature," or "He has grown up more during the past weeks."

In the Control Group two parents reported improved behavior in their children. One mother stated that her son was playing better with other children, while the other stated that her child was not so shy. Only one child in the Control Group was seen by his teacher as improved. He was

said to be more cooperative at school; the mother reported no change at home. One child was reported by both his mother and his teacher as having more problems at the end of the play period. The teacher reported he was more withdrawn during class; the mother reported more hostility, more fights, more screaming, and more difficulty getting him to go to school.

In the Experimental Group, teachers reported no behavioral changes in four children, while mothers reported positive changes in behavior at home for all the children. Seven children were described as having improved behavior at school. Comments that the teachers at school made were "more cooperative," "whines less," "responds in class more," "is more interested in class," and "behavior is more mature." The mothers were more enthusiastic and their comments were "more affectionate," "relates better to others," "fights less with siblings," "doesn't wet pants so often," "plays longer with one toy," "more independent," "happier," "mood swings not as wide," "easier to handle," "more willing to wait," and "more friendly to others." One mother commented, "He is not such a terror in the past few weeks." "I think we've finally found the solution; he's so much better," another reported.

Perhaps the difference in comments from mothers and teachers explains the positive findings on the Vineland while no significant changes were found on the other tests.

The Vineland involved an interview type situation with the parent to discover what the child usually does. Because the parents of children in the Experimental Group saw their children as improved, it was logical to find Vineland scores significantly higher. Although the residual-period scores were not significantly different at the .05 level, they were significantly different at the .10 level, possibly indicating that the children continued to improve at home. Non-directive play therapy did increase mature behavior patterns in preschool deaf children.

Analysis of scores on The Child Behavior Rating Scale did not reveal any significant statistical difference between the Control and the Experimental Group. An analysis of individual scores showed changes. Only two children in the Experimental Group scored lower on the posttest; one scored two points lower, while the other scored thirty-four points lower. All other children in the Experimental Group showed gains ranging from four to twenty-two points. Six children in the Control Group scored lower on the posttest, while five showed gains ranging from four to thirty points. Although more children in the Experimental Group made gains, the gains were not high enough to be significant. The very low score of one child in the Experimental Group significantly affected the total group score.

The analysis of posttest and residual test scores of the Experimental Group on The Child Behavior Rating Scale

reveals that all except two children (one child's score did not change, while the other child's score dropped twenty-six points) showed positive changes. The gains were not large enough to be statistically significant.

There was no significant statistical difference between scores of the Experimental Group and Control Group on the Behavior Problem Checklist. An analysis of individual scores, however, reveals that one child in the Experimental Group scored one point higher, while all the others scored lower in manifest behavior problems. One child's score decreased twenty-seven points, indicating significant improvement for that child. In the Control Group only one child scored higher, indicating more problems; his score increased twenty-two points. No individual child in the Control Group showed marked improvement.

Analysis of posttest and residual test scores of the Experimental Group on the Behavior Problem Checklist reveals little variation in scores. All the children, except two, showed a decrease in manifest behavior problems. One child showed improvement above one standard deviation.

This study has failed to find any demonstrable statistical relationship between nondirective play therapy and children's behavior problems at school. The instruments used required teachers to check behavior on a scale. A child's behavior changes from day to day, and it is difficult to assess the mean. It is possible that a child's

undesirable behavior immediately previous to completion of the scales influenced the teacher's response.

The progress a child makes in school adjustment is also related to the rapport between him and his teacher. Once a teacher has established a mental set about a child, the future actions of the child are colored by her previous judgment (1). A child who is making a tentative effort to change needs to have those around him pick up the subtle clues and help him follow through.

One teacher left during the study and was replaced by another. This was an unforeseen occurrence. It is possible that the interaction between the new teacher and the children differed from the interaction between the previous teacher and the children.

Another problem was the difficulty in measuring such intangible things as personality adjustment and behavior problems. The instruments used were the best to be found, but the task was monumental. Some assets of the children could not be measured on a scale nor could some of their problems. Deaf children are known to behave erratically, and this made identification of change difficult.

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CHAPTER VI

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Summary

Play therapy has been established as a valuable method in working with maladjusted children (1). Play is regarded as the natural medium for the child to communicate his thoughts and feelings about the world around him. This is perhaps even more applicable to the deaf child because the true "language" of the deaf is nonverbal communication. Communication specialists agree that much of the expression of emotional and motivational states occurs on nonverbal levels (2, 3). The utilization of nondirective play therapy with preschool deaf children is based on the assumption that it is possible to establish a therapeutic relationship using only nonverbal communication.

This study was conducted to investigate changes in behavior in preschool deaf children which may occur as a result of short-term, nondirective play therapy. The study was designed to compare behavioral changes in preschool deaf children who had experienced short-term, nondirective play therapy with behavioral changes in preschool deaf children

who had experienced only play. Changes in behavior were also investigated ten weeks after play therapy.

It was hypothesized that children who had had a minimum of ten weekly individual play therapy sessions would score significantly higher in mature behavior patterns (as measured by the Vineland Social Maturity Scale) and in personality adjustment (as measured by The Child Behavior Rating Scale), but significantly lower in manifest behavioral problems (as measured by the Behavior Problem Checklist) at the end of the treatment period than would children who had not had play therapy.

It was also hypothesized that children who had had a minimum of ten weekly individual play therapy sessions would show no significant change in mature behavior patterns (as measured by the Vineland Social Maturity Scale), would show no significant change in personality adjustment (as measured by The Child Behavior Rating Scale), and would show no significant change in manifest behavioral problems (as measured by the Behavior Problem Checklist) at the end of a ten-week period following therapy.

The population for this study consisted of children with impaired hearing who were referred for therapy to special classes for the deaf in two community agencies in Dallas. Referrals considered for the study were boys and girls whose hearing loss prevented, for all practical purposes, auditory contact with the world around them since

before the acquisition of language. They had a hearing loss of seventy decibels or more bilaterally, IQ's of eighty or above on a standardized individual intelligence test, were four years through six years of age, and described by their hearing therapist as having behavioral problems.

The children were placed in pairs according to age and sex. Random assignments placed one child from the pair in the Experimental Group and the other child in the Control Group. Twelve pairs of children began the study. One child dropped out during the treatment period, leaving eleven pairs of children. One child in the Experimental Group moved out of town after therapy had been completed and could not be included in the ten-week follow-up period.

Pretests and posttests of the Vineland Social Maturity Scale, The Child Behavior Rating Scale, and the Behavior Problem Checklist were administered to both groups. The Vineland Social Maturity Scale, The Child Behavior Rating Scale, and the Behavior Problem Checklist were administered to the Experimental Group ten weeks following therapy.

Data obtained from pretests and posttests on all measures were treated statistically for significance of difference between means, using analysis of covariance. Data obtained from the Experimental Group posttests and residual tests, tests administered ten weeks following therapy, on all measures were treated statistically for significance of difference between means of small samples,

using Fisher's t test for related samples. A significance level of .05 was required for rejection of the null hypothesis for all computations.

Statistical analysis of scores on the Vineland supported the hypothesis that children who had had play therapy would score significantly higher in mature behavior patterns than children who had not had play therapy. Statistical analysis of scores on The Child Behavior Rating Scale did not support the hypothesis that children who had had play therapy would score significantly higher in adjustment than children who had not had play therapy. Statistical analysis of scores on the Behavior Problem Checklist did not support the hypothesis that children who had had play therapy would score significantly lower on manifest behavior problems than children who had not had play therapy.

Analysis of posttest and residual test data on all three measures employed, using the .05 level of confidence, supported the hypotheses that children who had had play therapy would have no significant change in mature behavior patterns, personality adjustment, or manifest behavioral problems. However, there was a significant positive change in mature behavior patterns, as measured by the Vineland, at the .10 level of significance.

Conclusions

It is difficult to measure human behavior by means of a scale. Because deaf children are known to behave erratically,

this made the task of measurement even more difficult and may have prevented the hypotheses from being supported. However, results obtained appear to support the formulation of the following conclusions:

1. Play therapy, as used in this study, is effective in facilitating more mature behavior patterns (as measured by the Vineland Social Maturity Scale) in preschool deaf children.

2. Play therapy, as used in this study, is not effective in facilitating greater personality adjustment (as measured by The Child Behavior Rating Scale) in preschool deaf children.

3. Play therapy, as used in this study, is not effective in decreasing manifest behavioral problems (as measured by the Behavior Problem Checklist) in preschool deaf children.

4. Improvement in mature behavior patterns (as measured by the Vineland Social Maturity Scale) of preschool deaf children will not continue after termination of play therapy, as it was used in this study.

Implications

With one exception, scores on the Vineland, the statistical significance of short-term, nondirective play therapy was negligible. However, observations reported by the parents of all the children involved in therapy and the

teachers of seven of the children involved in therapy indicated that positive behavioral changes occurred in the Experimental Group which did not occur in the Control Group.

In talking with the parents as scores for the Vineland were taken, it was apparent that they realized they needed help in coping with their deaf children. The parents expressed difficulty in letting the children achieve autonomy. Because of his lack of understanding, it was easier to pick up the deaf child and carry him, dress him, and not let him out of sight. This prolonged external control is not conducive to the development of self-esteem.

For most of the children who participated in play therapy, it was the first time they had been involved in a positive relationship with a non-judgmental adult. Many had started to school at eighteen months or two years of age. School is, therefore, the deaf child's major environment. His environment and culture play an all powerful role in patterning his behavior, in determining what he believes in, what he strives for, and his personality structure.

Although their hearing therapists are accepting people, their basic task is to teach; and to achieve this goal demands have to be made. As a result, the teachers have little time to help the deaf child achieve an appropriate self-concept that will help him make the life adjustments required of him by society. The deaf child needs to be made aware that he must adjust to living with hearing people; he

must also eventually realize that hearing people will have certain negative attitudes toward him. He needs to be prepared for this by developing a positive self-concept.

The deaf child needs, more than other children, the warm, interpersonal relationships of intimate, friendly human contact. Since he is limited in his ability to communicate his feelings verbally, it is important that he be given a chance to work through his feelings nonverbally. Play therapy provides the ideal setting for this.

In the therapy room used in this study the children were free to act or not act, free to sit without doing anything, free to choose, and free to release hostility without retaliation. Some of the children responded immediately to this non-judgmental environment, and their behavior improved accordingly. Others did not respond so quickly, but all enjoyed the sessions in the play therapy room. Rapport was established with even the most withdrawn and hostile children; both the children and the therapist regretted the termination of therapy.

Further implications suggest that mental health services for the deaf need a preventive orientation. Help for the deaf child should begin early, before he develops the undesirable characteristics described in the literature. The emotional impact of deafness should be included in the total picture of the child. Educators of the deaf, mental health

personnel, and the family should work together to provide a milieu in which the child can achieve maximum growth.

Recommendations

As a consequence of having done the study, the following recommendations are made:

1. As soon as the diagnosis of deafness is made, counseling and guidance should be provided the families. The aim should be to help the parents understand and accept the child. Members of the family should also be helped with any personal problems, so they will have the emotional resources needed to help the deaf child.

2. Group therapy should be used with deaf children because social adjustment is difficult for them to attain. Group therapy would give them an opportunity to interact with others and observe how they overcome their frustrations.

3. Instruments to measure psychological adjustment should be devised for deaf children.

4. The interview method should be combined with present paper-and-pencil checklists of behavioral characteristics to determine whether this method will facilitate identification of the characteristics.

5. Further research concerning play therapy with pre-school deaf children should utilize larger samples, if possible.

6. Further research concerning play therapy with pre-school deaf children should include the etiology of the child's deafness.

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Vineland Social Maturity Scale

BY EDGAR A. DOLL, Ph.D.

NAME..... Last..... First..... Sex..... Grade..... Date..... Year..... Month..... Day.....

Residence..... School..... Born..... Year..... Month..... Day.....

M.A..... I.Q..... Test Used..... When..... Age..... Years..... Months..... Days.....

Occupation..... Class..... Years Exp..... Schooling.....

Father's Occupation..... Class..... Years Exp..... Schooling.....

Mother's Occupation..... Class..... Years Exp..... Schooling.....

Informant..... Relationship..... Recorder.....

Informant's est..... Basal Score*.....

Handicaps..... Additional pts.....

REMARKS:..... Total score.....

Age equivalent.....

Social quotient.....

Age Periods

Category†	Score*	Items	LA Mean
O - I			
C	1.	"Crows"; laughs	.25
SHG	2.	Balances head	.25
SHG	3.	Grasps objects within reach	.30
S	4.	Reaches for familiar persons	.30
SHG	5.	Rolls over	.30
SHG	6.	Reaches for nearby objects	.35
O	7.	Occupies self unattended	.43
SHG	8.	Sits unsupported	.45
SHG	9.	Pulls self upright	.55
C	10.	"Talks"; imitates sounds	.55
SHE	11.	Drinks from cup or glass assisted	.55
L	12.	Moves about on floor	.63
SHG	13.	Grasps with thumb and finger	.65
S	14.	Demands personal attention	.70
SHG	15.	Stands alone	.85
SHE	16.	Does not drool	.90
C	17.	Follows simple instructions	.93

† Key to categorical arrangement of items:

SHG — Self-help general C — Communication L — Locomotion
 SHD — Self-help dressing SD — Self-direction O — Occupation
 SHE — Self-help eating S — Socialization

* For method of scoring see "The Measurement of Social Competence."

I - II

L	18. Walks about room unattended	1.03
O	19. Marks with pencil or crayon	1.10
SHE	20. Masticates food	1.10
SHD	21. Pulls off socks	1.13
O	22. Transfers objects	1.20
SHG	23. Overcomes simple obstacles	1.30
O	24. Fetches or carries familiar objects	1.38
SHE	25. Drinks from cup or glass unassisted	1.40
SHG	26. Gives up baby carriage	1.43
S	27. Plays with other children	1.50
SHE	28. Eats with spoon	1.53
L	29. Goes about house or yard	1.63
SHE	30. Discriminates edible substances	1.65
C	31. Uses names of familiar objects	1.70
L	32. Walks upstairs unassisted	1.75
SHE	33. Unwraps candy	1.85
C	34. Talks in short sentences	1.95

II - III

SHG	35. Asks to go to toilet	1.98
O	36. Initiates own play activities	2.03
SHD	37. Removes coat or dress	2.05
SHE	38. Eats with fork	2.35
SHE	39. Gets drink unassisted	2.43
SHD	40. Dries own hands	2.60
SHG	41. Avoids simple hazards	2.85
SHD	42. Puts on coat or dress unassisted	2.85
O	43. Cuts with scissors	2.88
C	44. Relates experiences	3.15

III - IV

L	45. Walks downstairs one step per tread	3.23
S	46. Plays cooperatively at kindergarten level	3.28
SHD	47. Buttons coat or dress	3.35
O	48. Helps at little household tasks	3.55
S	49. "Performs" for others	3.75
SHD	50. Washes hands unaided	3.83

IV - V

SHG	51. Cares for self at toilet	3.83
SHD	52. Washes face unassisted	4.65
L	53. Goes about neighborhood unattended	4.70
SHD	54. Dresses self except tying	4.80
O	55. Uses pencil or crayon for drawing	5.13
S	56. Plays competitive exercise games	5.13

O	57. Uses skates, sled, wagon	5.13
C	58. Prints simple words	5.23
S	59. Plays simple table games	5.63
SD	60. Is trusted with money	5.83
L	61. Goes to school unattended	5.83

VI - VII

SHE	62. Uses table knife for spreading	6.03
C	63. Uses pencil for writing	6.15
SHD	64. Bathes self assisted	6.23
SHD	65. Goes to bed unassisted	6.75

VII - VIII

SHG	66. Tells time to quarter hour	7.28
SHE	67. Uses table knife for cutting	8.05
S	68. Disavows literal Santa Claus	8.28
S	69. Participates in pre-adolescent play	8.28
SHD	70. Combs or brushes hair	8.45

VIII - IX

O	71. Uses tools or utensils	8.50
O	72. Does routine household tasks	8.53
C	73. Reads on own initiative	8.55
SHD	74. Bathes self unaided	8.85

IX - X

SHE	75. Cares for self at table	9.03
SD	76. Makes minor purchases	9.38
L	77. Goes about home town freely	9.43

X - XI

C	78. Writes occasional short letters	9.63
C	79. Makes telephone calls	10.30
O	80. Does small remunerative work	10.90
C	81. Answers ads; purchases by mail	11.20

XI - XII

O	82. Does simple creative work	11.25
SD	83. Is left to care for self or others	11.45
C	84. Enjoys books, newspapers, magazines	11.58

XII - XV

S	85. Plays difficult games	12.30
SHD	86. Exercises complete care of dress	12.38
SD	87. Buys own clothing accessories	13.00
S	88. Engages in adolescent group activities	14.10
O	89. Performs responsible routine chores	14.65

XV - XVIII

C	90. Communicates by letter	14.95
C	91. Follows current events	15.35
L	92. Goes to nearby places alone	15.85
SD	93. Goes out unsupervised daytime	16.13
SD	94. Has own spending money	16.53
SD	95. Buys all own clothing	17.37

XVIII - XX

L	96. Goes to distant points alone	18.05
SD	97. Looks after own health	18.48
O	98. Has a job or continues schooling	18.53
SD	99. Goes out nights unrestricted	18.70
SD	100. Controls own major expenditures	19.68
SD	101. Assumes personal responsibility	20.53

XX - XXV

SD	102. Uses money providently	21.5 +
S	103. Assumes responsibility beyond own needs	21.5 +
S	104. Contributes to social welfare	25 +
SD	105. Provides for future	25 +

XXV+

O	106. Performs skilled work	25 +
O	107. Engages in beneficial recreation	25 +
O	108. Systematizes own work	25 +
S	109. Inspires confidence	25 +
S	110. Promotes civic progress	25 +
O	111. Supervises occupational pursuits	25 +
SD	112. Purchases for others	25 +
O	113. Directs or manages affairs of others	25 +
O	114. Performs expert or professional work	25 +
S	115. Shares community responsibility	25 +
O	116. Creates own opportunities	25 +
S	117. Advances general welfare	25 +

American Guidance Service, inc. Publishers' Building, Circle Pines, Minnesota 55014

APPENDIX B The Child Behavior Rating Scale

By

Russell N. Cassel, Ed.D.

Published By

WPS	WESTERN PSYCHOLOGICAL SERVICES PUBLISHERS AND DISTRIBUTORS 12031 WILSHIRE BOULEVARD LOS ANGELES, CALIFORNIA 90025
A DIVISION OF MANSON WESTERN CORPORATION	

Name				School
Address				Grade
Birthdate	Age	Boy	Girl	Rated By:
Date				Position of Rater:

GENERAL INSTRUCTIONS

This rating scale is designed to assess the personality adjustment of primary grade school children who do not have sufficient reading skill to complete the group type of psychological tests. The ratings are to be accomplished by the teacher and/or parents. The person rating the child should read each item on the scale carefully, and then place a check mark (✓) in the appropriate place where he believes the particular child belongs for the specific item involved. If the item is "yes" for the child, put a check mark on the "yes". If the item is "no", put a check mark on the "no". If the answer is somewhere in between the yes and no, put a check mark on the four point scale indicating where the item is most true. Study the example.

Example: Mary is prettier than Lois.

yes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	no
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C.B.R.S. Profile (2000 Typical Pupils)

T-Score	Self-Adjustment	Home-Adjustment	Social-Adjustment	School-Adjustment	Physical-Adjustment	Personality Tot. Adjust.
80	120	120	120	72	36	552
75	119	119	119	71	36	547
70	118	118	118	70	35	542
65	117	117	117	68	34	536
60	112	112	112	65	33	513
55	105	105	105	62	32	483
50	99	98	99	59	30	452
45	92	91	92	56	29	421
40	85	84	85	53	27	390
35	78	77	78	50	26	360
30	72	70	72	46	24	329
25	65	62	65	43	22	298
20	58	55	58	40	21	267
Weighted Scores						
Weight Values	2	2	0	1	0	P.T.A.S.
Personality Total Adjustment Score		+	X	+	X	=

		Scale Values						
		1	2	3	4	5	6	
56.	Often has difficulty finding things to do with self.	yes					no	
57.	Often tends to be very selfish and self-centered.	yes					no	
58.	Often is not a very good listener in conversation.	yes					no	
59.	Often is dishonest and not very trustworthy.	yes					no	
60.	Often does not attend Sunday school or church.	yes					no	
								TOTAL WEIGHTED SCORE
NUMBER CHECKS								
WEIGHTED VALUES								

School Adjustment

61.	Often expresses a strong dislike for school.	yes					no	
62.	Often is very sleepy or restless in school.	yes					no	
63.	Often has difficulty expressing self in words.	yes					no	
64.	Often seems afraid to speak-out in class.	yes					no	
65.	Often has difficulty keeping "mind" on school work.	yes					no	
66.	Often distracts other students in school program.	yes					no	
67.	Often has difficulty doing school work.	yes					no	
68.	Takes little or no part in co-curricular activities.	yes					no	
69.	Gets along poorly with one or more teachers.	yes					no	
70.	Parents often "nag" child about school work.	yes					no	
71.	Seldom works hard or long on school assignments.	yes					no	
72.	Quality of school work varies from day-to-day.	yes					no	
								TOTAL WEIGHTED SCORE
NUMBER CHECKS								
WEIGHTED VALUES								

Physical Adjustment

73.	Generally is in rather poor health.	yes					no	
74.	Has poor muscular control and coordination.	yes					no	
75.	Teeth are often unclean; and is unkempt.	yes					no	
76.	Often doesn't have much energy or "pep".	yes					no	
77.	There is evidence of perceptual malfunctioning.	yes					no	
78.	Has uncorrected poor vision or poor hearing.	yes					no	
								TOTAL WEIGHTED SCORE
NUMBER CHECKS								
WEIGHTED VALUES								

APPENDIX C

BEHAVIOR PROBLEM CHECKLIST

Name of Child _____ Case No. _____
 Name of Rater _____ Relationship to Child _____

Please indicate which of the following constitute problems, as far as this child is concerned. If an item does not constitute a problem, encircle the zero; if an item constitutes a mild problem, encircle the one; if an item constitutes a severe problem, encircle the two.

- 0 1 2 1. Thumb-sucking
- 0 1 2 2. Restlessness, inability to sit still
- 0 1 2 3. Attention-seeking, "show-off" behavior
- 0 1 2 4. Skin allergy
- 0 1 2 5. Doesn't know how to have fun; behaves like a little adult
- 0 1 2 6. Self-consciousness; easily embarrassed
- 0 1 2 7. Headaches
- 0 1 2 8. Disruptiveness; tendency to annoy and bother others
- 0 1 2 9. Feelings of inferiority
- 0 1 2 10. Dizziness, vertigo
- 0 1 2 11. Boisterousness, rowdiness
- 0 1 2 12. Crying over minor annoyances and hurts
- 0 1 2 13. Preoccupation; "in a world of his own"
- 0 1 2 14. Shyness, bashfulness
- 0 1 2 15. Social withdrawal, preference for solitary activities
- 0 1 2 16. Dislike for school
- 0 1 2 17. Jealousy over attention paid other children
- 0 1 2 18. Difficulty in bowel control, soiling
- 0 1 2 19. Prefers to play with younger children
- 0 1 2 20. Short attention span
- 0 1 2 21. Lack of self-confidence
- ~~0 1 2 22. Inattentiveness to what others say~~
- 0 1 2 23. Easily flustered and confused
- 0 1 2 24. Lack of interest in environment, generally "bored" attitude
- 0 1 2 25. Fighting
- 0 1 2 26. Nausea, vomiting
- 0 1 2 27. Temper tantrums

- 0 1 2 28. Reticence, secretiveness
~~0-1-2---29.---Truancy-from-school~~
0 1 2 30. Hypersensitivity; feelings easily hurt
0 1 2 31. Laziness in school and in performance of other tasks
0 1 2 32. Anxiety, chronic general fearfulness
0 1 2 33. Irresponsibility, undependability
0 1 2 34. Excessive daydreaming
0 1 2 35. Masturbation
0 1 2 36. Hay fever and/or asthma
0 1 2 37. Tension, inability to relax
0 1 2 38. Disobedience, difficulty in disciplinary control
0 1 2 39. Depression, chronic sadness
0 1 2 40. Uncooperativeness in group situations
0 1 2 41. Aloofness, social reserve
0 1 2 42. Passivity, suggestibility; easily led by others
0 1 2 43. Clumsiness, awkwardness, poor muscular coordination
~~0-1-2---44.---Stuttering~~
0 1 2 45. Hyperactivity; "always on the go"
0 1 2 46. Distractibility
0 1 2 47. Destructiveness in regard to his own and/or others' property
0 1 2 48. Negativism, tendency to do the opposite of what is required
0 1 2 49. Impertinence, sauciness
0 1 2 50. Sluggishness, lethargy
0 1 2 51. Drowsiness
~~0-1-2---52.---Profane-language,-swearing,-cursing~~
0 1 2 53. Prefers to play with older children
0 1 2 54. Nervousness, jitteriness, jumpiness; easily startled
0 1 2 55. Irritability; hot-tempered, easily aroused to anger
0 1 2 56. Enuresis, bed-wetting
0 1 2 57. Stomach aches, abdominal pain
0 1 2 58. Specific fears, e.g., of dogs, of the dark

Please note here any problems not mentioned above.

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