THE SELF-CONCEPT OF THE HEARING-IMPAIRED CHILD

THESIS

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE

By

Ronnie L. Chew, B. S.

Denton, Texas

May, 1975

This study was an investigation of the relationship between the self-concepts of hearing-impaired children and the self-concepts of normal hearing children. Sixty-four hearing-impaired children and nineteen normal hearing children were given the Primary Self-Concept Inventory, the Piers-Harris Children's Self-Concept Scale, and were rated by a teacher using the Bristol Social Adjustment Guide. The differences between means were analyzed and tested for significance.

It was concluded that there is no difference between the self-concept of the hearing-impaired child and the self-concept of the normal hearing child. It was further concluded that the instruments currently available for measuring self-concept are poor and inadequate. Further research on the self-concept of the hearing-impaired child was recommended.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>iv</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter</td>
<td></td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td></td>
</tr>
<tr>
<td>Definitions of the Terms</td>
<td></td>
</tr>
<tr>
<td>Hypotheses</td>
<td></td>
</tr>
<tr>
<td>II. REVIEW OF THE LITERATURE</td>
<td>7</td>
</tr>
<tr>
<td>III. METHODS AND PROCEDURES</td>
<td>17</td>
</tr>
<tr>
<td>Subjects</td>
<td></td>
</tr>
<tr>
<td>Instruments</td>
<td></td>
</tr>
<tr>
<td>Procedures</td>
<td></td>
</tr>
<tr>
<td>IV. RESULTS AND DISCUSSION</td>
<td>26</td>
</tr>
<tr>
<td>Results</td>
<td></td>
</tr>
<tr>
<td>Discussion</td>
<td></td>
</tr>
<tr>
<td>V. SUMMARY, CONCLUSIONS, AND IMPLICATIONS</td>
<td>35</td>
</tr>
<tr>
<td>Summary</td>
<td></td>
</tr>
<tr>
<td>Conclusions</td>
<td></td>
</tr>
<tr>
<td>Implications</td>
<td></td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>40</td>
</tr>
</tbody>
</table>
**LIST OF TABLES**

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Domain and Factor Descriptions for the <em>Primary Self-Concept Inventory</em></td>
<td>20</td>
</tr>
<tr>
<td>II. Means, Standard Deviations and ( t )-values of the PSCI Scores</td>
<td>27</td>
</tr>
<tr>
<td>III. Means, Standard Deviations and ( t )-values of the Piers-Harris Scores</td>
<td>28</td>
</tr>
<tr>
<td>IV. Means, Standard Deviations and ( t )-values of the Bristol Scores</td>
<td>29</td>
</tr>
<tr>
<td>V. Correlation Coefficients</td>
<td>30</td>
</tr>
</tbody>
</table>
The terms self-concept, self-image, self-awareness, and self-perception are frequently used as equivalents by authorities in child development (6). The central point of each of these constructs is the process of learning who you are. This is a constant and dynamic process which begins at birth and does not cease until death.

The self-concept is the culmination of all the social and personal experiences the individual has had. Although all impinging stimuli from the individual's environment are important to the development of the self-concept, most theorists agree that social interaction in the form of verbal communication is crucial (1). Man perceives and defines himself as he believes others perceive and define him. Charles Cooley refers to this phenomenon as the "reflected or looking-glass self" (2). The ability to communicate effectively is the most basic factor in social interactions. The feedback gained from communication provides experiences for the individual. This feedback helps him determine how he will respond
to new situations and affects the nature of the perception of himself as an adequate and worthy individual (7). In the deaf child, one of the primary components of communication is absent or seriously impaired. Can the child with such a sensory deprivation successfully attain a well developed self-concept?

Myklebust (4) considers audition as the most important contact sense that man possesses. Deafness is a psychodynamically significant impairment to social and intellectual development. Although man is a highly adaptable animal, deafness greatly limits his world of experience. Studies of self-perception in hearing-impaired children indicate that most feel aloof, disengaged, disassociated, and isolated with respect to other people. They feel they are watching a world rather than participating in it.

There appears to be a need for further study in the area of the development of the self-concept, particularly in hearing-impaired children. Are hearing-impaired children's self-concepts as well developed as are the self-concepts of normal hearing children? Are assessment techniques standardized on normal hearing children fair measures of the self-concept of the hearing-impaired child? Do teacher's ratings of behavior in the classroom reflect a child's self-concept? These are some of the questions investigated in this paper. It is hoped that the results and conclusions drawn from this study will
give professionals who provide services to hearing-impaired children the knowledge necessary to better understand the self-concept of these children. This should aid in better planning to meet the needs of such children.

Statement of the Problem

The problem of this study was to investigate the relationship between the self-concepts of hearing-impaired children and the self-concepts of normal hearing children. Will deaf children as a group exhibit the same range of self-concept development as do normal hearing children?

Definitions of the Terms

The following definitions were pertinent to the study:

1. **Self-concept**: Self-concept, as used in this study, is the degree to which the individual perceives and values himself in daily interactions within the home and school environment. The three general aspects of self-concept are as follows: (1) personal-self, or the individual's assessment of his relative physical size and his emotional state; (2) social-self, or the individual's assessment of his acceptance by the peer group and of his role in the helper-helpee relationship; and (3) intellectual-self, or the individual's assessment of his tendency to succeed or fail in task-oriented...
pursuits and his ability to conform to classroom behavior expectations (3).

2. Hearing-impaired: The following definition, as established by the Texas Education Agency, was used in this study.

Pupils who are deaf and severely hard of hearing (auditorially handicapped) are those whose hearing is nonfunctional for the purpose of understanding normal conversation and results in a delay in language and/or speech development or otherwise creates an educational handicap (5, p. 56).

Hypotheses

The hypotheses under investigation in this study were,

1. Self-concept, as measured by the Primary Self-Concept Inventory, would be as well developed in hearing-impaired children as in normal hearing children. There would be no significant difference between the self-concept of the two groups.

2. Self-concept, as measured by the Piers-Harris Self-Concept Scale, would be as well developed in hearing-impaired children as in normal hearing children. There would be no significant difference between the self-concept of the two groups.

3. The hearing-impaired child would show the same degree of maladjustment as would the normal hearing child when behavior is rated by the teacher on the Bristol Social Adjustment
Guides. There would be no significant difference between the two groups.
CHAPTER BIBLIOGRAPHY


CHAPTER II

REVIEW OF THE LITERATURE

Self-concept has been the subject of numerous investigations and studies. Despite the large number of studies cited in the literature, there appears to be no precise consensus as to either the definition of the phenomenon or to the exact role it plays in the development of the child. Wylie (21) provides an extensive review of the literature on self-concept. The relationship between self-concept and numerous factors has been studied. These include, for example, learning, anxiety, adjustment, intelligence, and academic achievement. Various studies have found significant relationships between self-concept and these variables, whereas others have reported non-significant and often conflicting findings in studies involving these same variables.

McCandless (11), after an extensive review of the literature on self-concept, concluded the following:

The considerable body of research on traits, attitudes, behaviors, and various qualities associated with the self-concept indicates rather clearly that good self-concepts are associated with such desirable characteristics as low anxiety and generally good adjustment, popularity, and effectiveness in group relations but
relative independence from the group. ... Those with good self-concepts seem more honest with themselves than individuals with poor self-concepts, and appear to be less defensive (pp. 203-204).

Fitts (5), in an examination of self-concept, concluded that the variables of age, sex, education, intelligence, and race apparently exerted no systematic effect upon the self-concept. In a later replication of Fitts' study, Thompson (20) found significant differences in self-concept according to age and race. He found a linear relationship between age and self-concept, with self-esteem increasing with age. Although the relationship between age and self-concept is much clearer than that of race and self-concept, Thompson found Negroes having lower levels of self-esteem than do whites. Fitts (6), in reviewing seven years of research in developing the Tennessee Self Concept Scale, acknowledges the often conflicting studies which have arisen from the project. He concluded that self-concept is a significant variable in human behavior and that further empirical study is needed to understand fully its effect.

Piers and Harris (17), in their development of a measure of self-concept in children, reported positive but low correlations between IQ and self-concept and academic achievement and self-concept. They further noted the lower self-concept of institutionalized children when compared to public school children.
Yamamoto (22) concluded that it is difficult to study the development of the self-concept in children because of the poorly developed means of measurement. The two sources from which the functioning of the self must be inferred, that of the particular person who comes in contact with the individual and the individual himself, cannot provide totally satisfactory data.

The problems encountered in the study of the self-concepts of normal hearing children have been relatively small when compared to the difficulty met by the investigator in examining the self-concepts of hearing-impaired children whose ability to communicate is greatly impaired. The investigation of the development of the self-concept in the hearing-impaired child has been very limited. The lack of empirical psychological studies on the effects of deafness on the developing organism have resulted in a polarization of theory and thought. One psychological school postulates that the hearing-impaired child develops normally in all behavioral areas, except language acquisition (10). The other adheres to an "altered organism" theory of the hearing-impaired child in which the deaf child is not only physically different from the normal hearing child, but is also emotionally and psychologically different (15).

Mulholland (14) pointed out that studies of sensory deprivation generally support the "altered organism" approach when
comparing the hearing-impaired child to the normal hearing child on visual processing of information, cognitive development, personal-social development, and intersensory functioning. Further support is given to this approach by Neyhus and Mycklebust (16) when they suggested that "... deafness appears to alter brain processes... [and] may account for the differences in memory and other behavioral attributes frequently mentioned by these experienced in the psychology of deafness" (p. 91).

Furth (7) has become one of the leading proponents of the theory that the hearing-impaired child develops normally, except in the area of language development. When questioned as to the existence of a "deaf personality," he states,

Our answer is no. We do find stereotypic and psychologically unhealthy reactions toward deafness in our society, and the inevitable result is behavior that is restrictive and immature. Some of these results are practically a psychological necessity, a kind of self-defense on the part of the young deaf person (7, 83-84).

A study by Blanton and Nunnally (2) examined the self attitudes of deaf adolescents by the use of the semantic differential scaling of self and self-related concepts. Their results pictured the deaf adolescent as somewhat negativistic in attitudes toward themselves and others in general and rather confident in the accuracy of their judgments. The deaf do not appear to be under emotional
conflict about themselves or their status in a hearing world. However, the validity of using a measuring device designed for use with a hearing population was questioned by the authors.

Schlesinger and Meadow (19) examined the self-image of deaf children using a test designed to measure the child's interpretation of how other people view him in relation to his own self-appraisal. The results indicate that deaf children in a residential school who have deaf parents score significantly higher on the self-image test than do deaf children with hearing parents. Meadows (12), in an earlier study reached the following conclusion:

It has been suggested that definitions of age and sex roles, in relation to a hearing handicap, congruence of the child's hearing status with that of his family, his teachers, and peer group members, his ability to achieve academically and linguistically (compared to other's expectations) all contribute to the deaf child's positive or negative definition of his own self-worth (p. 14).

In a replication of her 1967 study, Meadows (13) examined one more variable, family climate. Her hypothesis that the most favorable self-image will be found among deaf children whose parents are deaf and whose families score high on a measure of family climate, was confirmed.

A study by Craig (4) used a sociometric instrument to compare the self-concept of three groups of deaf children: one group
from a residential school for the deaf, one group from a day school for the deaf, and one group integrated in a regular public school. She found that deaf children from the residential school rated themselves significantly more positively than children from the other groups. She suggests that her findings may be a function of the protective institutional environment.

There are few studies which compare the self-concept of deaf children with that of normal hearing children. One of the earliest is that of Brunschwig (3). She found that deaf children tend to rate themselves superior to others. They consider themselves to be prettier, to work harder in school, and to be smarter.

Barker (1) suggested that deaf children's self-judgments of superiority may be an attempt to rationalize basic feelings of inadequacy; however, it seems more likely that deaf children simply reflect a real feeling of well-being. The young deaf child needs an unusual amount of help and attention in the early years. This added attention in both home and school may satisfy his needs for attention and approval and, in a sense, inflate his feelings of superiority.

In an adaptation of Erkison's theoretical model of the eight ages of man, Kennedy (9) took into consideration the differences in adjustment encountered by individuals with a hearing loss. She stressed the uniqueness of each child and the variation in potential
and demeanor as found in normal hearing children. She concluded that problems with self-acceptance and identification are greater for the deaf child than for the partially deaf and normal hearing child.

Rainer and Altshuler (18) have indicated that the crucial focus in providing mental health services to the hearing-impaired population is the study of personality development, including the nature of the self-image and the ideal self. They concluded that the relative role of communication deprivation in personality development still has not been fully clarified. Of primary importance at this time is further research and basic psychological observations of deaf children.

A review of the literature found a rather limited number of empirical studies examining the self-concept of the hearing-impaired child. No recent studies were found which investigated the self-concept of hearing-impaired children as compared to normal hearing children. In view of the dearth of theoretical knowledge on the subject, there seems to be a need for information which might contribute to the body of knowledge regarding the self-concept of the hearing-impaired child.
CHAPTER BIBLIOGRAPHY


17. Piers, Ellen V. and Dale B. Harris, "Age and Other Correlates of Self-Concept in Children," Journal of Educational Psychology, LV (April, 1964), 91-95.


CHAPTER III

METHODS AND PROCEDURES

The purpose of the study was to examine the relationship between the self-concept of the normal hearing child and the self-concept of the hearing-impaired child. Two measures of self-concept and a teacher's rating of behavior were specifically selected and administered to each of nineteen normal hearing children and sixty-four hearing-impaired children. The chapter describes the subjects used, the tests and procedures used, and the treatment of the resulting data.

Subjects

The subjects in this study were nineteen normal hearing children and sixty-four hearing-impaired children. The normal hearing children were third-grade students at Stonewall Jackson Elementary School in the Dallas Independent School District during the spring semester of the 1973-74 school year. The hearing-impaired children were students of the Dallas County Wide Day School for the Deaf, Stonewall Jackson campus, during the spring semester of the 1973-74 school year. The mean age for all subjects was
10.06 years. The total sample consisted of forty-five males and thirty-eight females. The hearing-impaired sample was composed of thirty-six males and twenty-eight females with a mean age of 10.17 years. The normal hearing sample consisted of nine males and ten females with a mean age of 9.68 years.

Instruments

There are a large number of scales available today which purport to measure the self-concept of children. Several of these were examined and found to be inappropriate due to the advanced reading level required of the examinee to understand them. The Annual Survey of Hearing-Impaired Children and Youth (5) reports that the reading level of the hearing-impaired child shows a wide divergence from that of his normal hearing age peers. At the age of ten years, the average hearing-impaired child is reading at the middle second-grade level. The diminished reading ability of the deaf child greatly decreased the utility of these scales.

The Primary Self-Concept Inventory developed by Muller and Leonetti was deemed appropriate for use in this study because the subjects were not required to read to complete the inventory. The inventory consists of a series of pictures in which the individual must select the child in each picture which he feels is most like him.
The form for boys contains only pictures of boys, and the form for girls contains only pictures of girls. A positive self-concept is indicated by identification with the child who is pictured in a positive role; or in the case of the dimension of physical size, identification with the physically larger child also indicates a more positive self-concept. The higher the score, which can range from zero to eighteen, the more positive the self-concept.

In addition to a full-scale score, the inventory is designed to measure six aspects or factors of self-concept. These six factors are clustered into three major domains. The domain and factor descriptions appear in Table I. The higher the domain score, which can range from zero to six, the more positive the self-concept. The higher the factor score, which can range from zero to three, the more positive the self-concept.

Reliability studies on the original standardization group (2) produced a test-retest coefficient of correlation of .91. In a later study by the authors (3), a test-retest correlation coefficient of .57 is reported. They explained the moderate reliability produced in the second study as an effect of the relatively small sample size. The authors report high validity of the test as assessed by repeated factor analyses (3).
<table>
<thead>
<tr>
<th>Domain</th>
<th>Factor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal-self</td>
<td>1. Physical size</td>
<td>The child's perception of his/her relative physical size.</td>
</tr>
<tr>
<td></td>
<td>2. Emotional state</td>
<td>The child's perception of his/her emotional state, i.e., happy or sad, angry or not angry.</td>
</tr>
<tr>
<td>Social-self</td>
<td>3. Peer acceptance</td>
<td>The child's perception of his/her acceptance by his/her peer group.</td>
</tr>
<tr>
<td>Intellectual-self</td>
<td>5. Success</td>
<td>The child's perception of his/her tendency to succeed or fail in task-oriented pursuits.</td>
</tr>
<tr>
<td></td>
<td>6. Student-self</td>
<td>The child's perception of his/her ability to conform to classroom behavior expectations.</td>
</tr>
</tbody>
</table>

The Piers-Harris Children's Self Concept Scale was also used as an additional measure of self-concept. This scale was chosen because of the simple vocabulary and the relative absence of
abstract terms. The Piers-Harris scale consists of eighty statements about the self to which the individual responds with yes or no. The higher the score, which can range from zero to eighty, the more positive the self-concept.

The scale was designed to measure categories suggested in an earlier study by Jersild (1). After collecting children's statements about what they liked and disliked about themselves, Jersild grouped the statements into the following categories: (1) physical characteristics, (2) clothing and grooming, (3) health and physical soundness, (4) home and family, (5) enjoyment of recreation, (6) ability in sports and play, (7) ability in school, (8) intellectual abilities, (9) special talents, (10) just me, myself, and (11) personality, character, inner resources, and emotional tendencies. Piers and Harris attempted to write statements to cover each grouping. By means of multiple-factor analysis, the authors identified six interpretable factors. The factors are as follows: (1) Behavior, (2) Intellectual and School Status, (3) Physical Appearance and Attributes, (4) Anxiety, (5) Popularity, and (6) Happiness and Satisfaction. The higher the score on each factor, the more positive is the self-concept.

Reliability data for the Piers-Harris Children's Self Concept Scale is derived from the original standardization sample (4). The
Spearman-Brown odd-even formula produced coefficients of .90 and .87. A retest four months later on one-half of the original sample gave coefficients of .72 and .71. The authors report that one investigation of the validity of the test produced a .68 correlation between the scale and the Lipsitt Children's Self-Concept Scale.

The Bristol Social Adjustment Guide was used to provide a measure of adjustment within the school environment. The teacher of each child was asked by the investigator to rate that child's behavior in school. The higher the total score, which can range from zero to 104, the more severe the behavior problem. In addition to a total score, two scale scores can be determined: Unract, or under-reacting modes of maladjustment; and Ovract, or over-reacting modes of maladjustment. The core syndromes included in Unract are Unforthcomingness, Withdrawal, and Depression. The core syndromes included in Ovract are Inconsequence, Hostility, and Peer-Maladaptiveness. The higher the Unract scores, which can range from zero to forty-one, the more severe the behavior problem. The higher the Ovract scores, which can range from zero to sixty-three, the more severe the behavior problem.

Stott (6) reports a reliability coefficient of .80 as calculated by Winer's formula. Internal reliability as determined by Nunnally's modified Alpha coefficient is reported at .83 and .91.
Procedures

The subjects were given the Piers-Harris Children's Self Concept Scale and the Primary Self-Concept Inventory during the same testing session, which lasted approximately one hour and thirty minutes. The nineteen normal hearing children were tested as a group. The sixty-four hearing-impaired subjects were tested in four groups of ten children and two groups of twelve children. All testing was completed by the end of the second day.

The Primary Self-Concept Inventory was administered to the normal hearing group as directed in the administration manual. In order to eliminate possible errors arising from reading difficulty, the Piers-Harris Children's Self Concept Scale was read to all subjects.

All instructions and items for the hearing-impaired groups were given using a total communication approach. Speech was fully supported by manual communication. A certified teacher of the deaf using speech and Signed English assisted the examiner in administering the tests. Each child's teacher was given a Bristol Social Adjustment Guide and was asked to complete and return it to the examiner within one week of the day the child was tested.

In order to test for a significant difference between the normal hearing group and the hearing-impaired group, the difference
between the means of the two groups were tested for significance using Fisher's $t$ test. A Pearson product-moment coefficient of correlation was also computed between the scores of the Piers-Harris Children's Self Concept Scale and the Primary Self-Concept Inventory. This was done to determine if the two scales were measuring the same construct.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

RESULTS AND DISCUSSION

Results

After the data were collected, the mean and standard deviation were calculated for each group on each variable. The difference between the means of the two groups for each variable was then tested for significance. The analysis of the data was performed by the IBM 360 computer, North Texas State University Computer Center, Denton, Texas.

The first hypothesis in this study stated that there would not be a significant difference between the self-concept of the two groups as measured by the Primary Self Concept Inventory. The differences between the two means were tested for significance on each factor of the scale. The level of significance was set at .05. The data are presented in Table II.

An examination of Table II reveals only one significant difference between the means of the two groups. Although the total score did not produce a significant difference, the factor labeled
Physical Size produced a highly significant difference at the .01 level.

**TABLE II**

MEANS, STANDARD DEVIATIONS, AND t-VALUES OF THE PSCI SCORES

<table>
<thead>
<tr>
<th>Factor</th>
<th>Normal Hearing</th>
<th>Hearing-Impaired</th>
<th>t-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \bar{X} )</td>
<td>SD</td>
<td>( \bar{X} )</td>
</tr>
<tr>
<td>Physical Size</td>
<td>1.10</td>
<td>1.20</td>
<td>2.33</td>
</tr>
<tr>
<td>Emotional State</td>
<td>2.79</td>
<td>0.42</td>
<td>2.70</td>
</tr>
<tr>
<td>Peer Acceptance</td>
<td>1.74</td>
<td>1.15</td>
<td>1.95</td>
</tr>
<tr>
<td>Helpfulness</td>
<td>2.31</td>
<td>0.82</td>
<td>1.95</td>
</tr>
<tr>
<td>Success</td>
<td>2.74</td>
<td>0.45</td>
<td>2.50</td>
</tr>
<tr>
<td>Student-self</td>
<td>2.47</td>
<td>0.77</td>
<td>2.36</td>
</tr>
<tr>
<td>Total</td>
<td>13.16</td>
<td>1.86</td>
<td>13.80</td>
</tr>
</tbody>
</table>

*\( p < .05 \)

The second hypothesis stated that there would not be a significant difference between the self-concept of the two groups as measured by the Piers-Harris Children's Self Concept Scale. The results of the data analysis are shown in Table III.
### TABLE III
MEANS, STANDARD DEVIATIONS, AND t-VALUES OF THE PIERS-HARRIS SCORES

<table>
<thead>
<tr>
<th>Factor</th>
<th>Normal Hearing</th>
<th>Hearing-Impaired</th>
<th>t-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>SD</td>
<td>X</td>
</tr>
<tr>
<td>Behavior</td>
<td>12.31</td>
<td>3.37</td>
<td>12.67</td>
</tr>
<tr>
<td>Intellectual and School Status</td>
<td>10.16</td>
<td>3.47</td>
<td>12.75</td>
</tr>
<tr>
<td>Physical Appearance and Attributes</td>
<td>6.05</td>
<td>2.99</td>
<td>8.30</td>
</tr>
<tr>
<td>Anxiety</td>
<td>6.89</td>
<td>2.66</td>
<td>7.44</td>
</tr>
<tr>
<td>Popularity</td>
<td>6.58</td>
<td>2.17</td>
<td>6.72</td>
</tr>
<tr>
<td>Happiness and Satisfaction</td>
<td>6.10</td>
<td>2.10</td>
<td>5.08</td>
</tr>
<tr>
<td>Total</td>
<td>48.63</td>
<td>10.68</td>
<td>53.25</td>
</tr>
</tbody>
</table>

*p < .05

From Table III it can be seen that significant differences are indicated on several of the Piers-Harris factors. Highly significant differences at the .01 level are indicated on the factors labeled Intellectual and School Status, Physical Appearance and Attributes, and Happiness and Satisfaction.
The third hypothesis of this study stated that the hearing-impaired child would show no more indications of maladjustment when rated by the teacher on the Bristol Social Adjustment Guide than would the normal hearing child. The data are presented in Table IV.

**TABLE IV**

**MEANS, STANDARD DEVIATIONS, AND t-VALUES OF THE BRISTOL SCORES**

<table>
<thead>
<tr>
<th>Normal Hearing</th>
<th>Hearing-Impaired</th>
<th>t-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\bar{X}$</td>
<td>SD</td>
<td>$\bar{X}$</td>
</tr>
<tr>
<td>6.74</td>
<td>7.05</td>
<td>10.72</td>
</tr>
</tbody>
</table>

The difference between the means of the two groups was not significant at the level established for this study.

In order to examine the relationship between the three instruments used in this study, a Pearson product-moment coefficient of correlation was computed using the total sample of eighty-three subjects. These data are presented in Table V.

Table V indicates a negative relationship which is not statistically significant between each of the two self-concept measures and the teacher ratings. A significant, but small, relationship is indicated between the Primary Self Concept Inventory and the Piers-Harris
### TABLE V

**CORRELATION COEFFICIENTS**

<table>
<thead>
<tr>
<th>Variables</th>
<th>PSCI</th>
<th>Piers-Harris</th>
<th>Bristol</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI</td>
<td>...</td>
<td>0.2653*</td>
<td>...</td>
</tr>
<tr>
<td>Piers-Harris</td>
<td>0.2653*</td>
<td>...</td>
<td></td>
</tr>
<tr>
<td>Bristol</td>
<td>-0.1519</td>
<td>-0.0189</td>
<td>...</td>
</tr>
</tbody>
</table>

* *p < .02*

**Children's Self Concept Scale.** The small correlation implies that although the two scales may be measuring self-concept, they are measuring different aspects of the same construct.

**Discussion**

The results of the investigation suggest that the hearing-impaired child does not differ significantly from the hearing child on the two measures of self-concept used in this study. A highly significant difference between normal hearing children and hearing-impaired children is noted on both instruments on factors relating to physical size and attributes with the deaf child expressing a more positive concept of his physical self. The three hypotheses are accepted.
Support for a theory of normal development of the deaf
child, as expressed by Levine (3) and Furth (1), is indicated. On
all factors in which a significant difference was found, the hearing-
impaired child expressed a more positive self-concept than did the
normal hearing child.

The hearing-impaired child sees himself as bigger and
stronger than does the normal hearing child. There are two plausi-
ble explanations that could underlie these noted differences. First,
through the use of a defense-type reaction, the deaf child may
attempt to compensate for his handicap by magnifying what he sees
as his positive qualities. As physical size and attributes are readily
observable traits, comparisons of a highly positive nature are more
easily made. The second possibility is that the hearing-impaired
child's perception of himself as being bigger and stronger is an
accurate perception of a real difference in regard to physical size.

The school in which this particular program is located is a regular
elementary school campus. As a result of their hearing impairment,
most deaf or hard-of-hearing children demonstrate significantly
depressed levels of academic achievement. In order to better match
existing educational facilities, hearing-impaired children are placed
with chronologically younger hearing classmates. This placement
results in physically more mature and larger hearing-impaired
children interacting daily with chronologically younger hearing classmates. The deaf child's perception of himself as physically bigger could thereby be an accurate perception of a real difference.

The total interaction of less concrete factors, such as peer acceptance and emotional state, or, at least, factors not so easily inferred from direct observation, may be more important in shaping the self-concept than is the hearing disability. Differences between the self-concepts of hearing-impaired and normal hearing children is not as evident, although differences according to specified factors which comprise the total self-concept are noted.

The adequacy of the measuring instruments is also questionable. The data indicate that the two scales are measuring different things or, at the most, different aspects of the same thing. Both Wylie (4) and Yamamoto (5) have indicated that it is difficult to study self-concept due to the poorly developed means of measuring the construct.

The question as to the appropriateness of using tests developed with normal hearing populations with hearing-impaired groups also arises. In a 1974 survey, Levine (2) reports that most psychologists and counselors who work with the deaf doubt the real validity of using tests standardized with normal hearing populations.
The contrary nature of the findings from the teacher rating scale may be an example of rater bias. The hearing-impaired subjects were rated by teachers who have specialized in teaching deaf and hard-of-hearing children. Most have never taught normal hearing children. Those who have taught them only briefly at some past time. These teachers, in acting as raters of behavior, could rate behavior only in terms relative to other hearing-impaired children. Due to their experience with hearing handicapped children, these teachers are possibly more lenient and more understanding of any behavior problems that might exist. When these teachers rate a hearing-impaired child, there is a greater probability of a more positive rating than if a neutral observer made the same rating.
CHAPTER BIBLIOGRAPHY


CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Summary

The purpose of this study was to investigate the self-concept of hearing-impaired children. The hypotheses for the study were (1) there would be no significant difference between the self-concept of the normal hearing child and the hearing-impaired child, as measured by the Primary Self Concept Inventory; (2) there would be no significant difference between the self-concept of the normal hearing child and the hearing-impaired child as measured by the Piers-Harris Children's Self Concept Scale; and (3) the hearing-impaired child would show the same number of indications of maladjustment as did the normal hearing child when behavior is rated by the teacher.

Nineteen normal hearing children from the Dallas Independent School District and sixty-four hearing-impaired children from the Dallas County Wide Day School for the Deaf were selected as subjects. The sample consisted of forty-five males and thirty-eight females with a mean age of 10.06 years. Two measures of self-
concept were administered, and the teacher of each child was asked
to complete a behavior rating on each child assigned to her.

The differences between means were tested for significance. The
differences between means of the two groups on both the pictorial scale
and the Piers-Harris scale were not significant at the .05 level. Significant differences were found, however, on factors which
the test authors felt comprised the self-concept. The factors relating
to physical size and attributes on both scales showed significant differences, with hearing-impaired children demonstrating a more
positive concept. The difference between the means of the teacher
ratings was not significant. This finding is contrary to findings by
Stott (2) that there is a pronounced tendency for handicapped
children to exhibit more behavioral disturbances than do normal children. He shows an increase in mean Bristol scores as the num-
er of impairments from which a child suffers increases.

The correlation between the two self-concept scales was
positive, but extremely low. It was suggested that the two scales
are measuring different constructs or, at the most, different aspects
of the same construct. The correlations between the two self-
concept scales and the teacher ratings were negative and low. The
low, negative relationship between self-concept and teacher ratings
is in contrast to findings by Ringness (1).
Conclusions

Two major conclusions were reached based on the results of this study. It was concluded that there is no difference between the self-concept of the hearing-impaired child and the self-concept of the normal hearing child. Although there were significant differences between the two groups on several factors which comprise the self-concept, there were no differences between the total self-concept of the two groups. This conclusion suggests some support for theories that maintain hearing-impaired children develop much as do normal hearing children. Although the results cannot be considered conclusive, some indication for the support of such theories, particularly in the area of the self-concept, is given.

Secondly, it was concluded that the instruments currently available for measuring self-concept are poor and inadequate. It was indicated that the two instruments employed in this study are not measuring the same construct. Yamamoto (3) has indicated that this has long existed as a problem in studies of the self-concept.

Implications

The major implication from this study is the need for the development of better measuring devices for self-concept. Consensus as to definition and what aspects compose the self-concept
are important first steps in the development of an adequate measure.

An additional implication is the need for further research on the self-concept of the hearing-impaired child. Additional questions were raised by the investigation, particularly concerning the interaction of the child's perception of physical size and attributes as compared to his real or actual physical size. Further research on the development of the hearing-impaired child in general is indicated. A better understanding of how the hearing-impaired child views himself in relation to his deaf and hearing peers should provide insight that will aid educators and workers with the deaf in planning programs and activities that enhance the overall development of the hearing-impaired child.
CHAPTER BIBLIOGRAPHY


BIBLIOGRAPHY

Books


Articles


Monographs


Reports


Publications of Learned Organizations


Unpublished Materials


