

EFFICACY OF READING MATERIALS FOR THE PARENTS OF HEARING
IMPAIRED

Register No : M9604

An Independent Project submitted as part fulfillment
for the first year M.Sc (Speech and Hearing) to the
University of Mysore.

ALL INDIA INSTITUTE OF SPEECH AND HEARING

MYSORE - 570 006.

MAY 1997.

**DEDICATED TO
MY PARENTS**

AND


.... for those millions who are unable to hear the gurgling of a brook, the bird's song, raindrops in the windowsil, the laughter of a child or the voices of thier loved ones.

... And to their parents whose strength and forebearing makes lesser mortals of us.

CERTIFICATE

This is to certify that the independent project entitled, "**EFFICACY OF READING MATERIALS FOR THE PARENTS OF HEARING IMPAIRED**" is a bonafide work done in part fulfillment for first year degree of Master of Science (Speech and Hearing) of the student with register number M9604.


Mysore.
May 1997.


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CERTIFICATE

This is to certify that the independent project entitled, "**EFFICACY OF READING MATERIALS FOR THE PARENTS OF HEARING IMPAIRED**" has been prepared under my supervision and guidance.

Mysore.
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DECLARATION

I here by declare that this independent project entitled **"EFFICACY OF READING MATERIALS FOR THE PARENTS OF HEARING IMPAIRED"** is the result of my own study under the guidance of Dr. **(Mill) O. Nikam**, Professor and Head of the Department of Audiology, All India Institute of Speech and Hearing, Mysore and has not been submitted earlier at any University for any other Diploma or Degree.

Mysore.
May 1997

Reg:no:M9604

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INTRODUCTION

Loss of hearing is one of the most common physical impairments. (GERBER, 1980). Hearing impairment affects the communication of an individual. In children it produces a delay or deviation in the speech and language development. Man's needs for communication with his fellow men is possibly his greatest need and the fulfillment of his other needs and desires is largely dependent upon, or at least greatly facilitated by his ability to hear. The presence of hearing impairment, in fact affects the entire life of the individual, not just his or her abilities to perceive auditory cues. Other than the constraints of hearing impairment they have to face anxiety, frustration, hostility, penalty, etc, which make their life even more difficult. It is hard for a normal individual to comprehend how difficult it is to live in a culture like ours without possessing the ability to speak or hear. Only a person who has enjoyed the privilege of hearing for sometime and then become deaf can say how condition is.

Hearing loss and constraints imposed by hearing impairment not only affect the life of a hearing impaired child but also affects the lives of their parents drastically. After much expectations about the child when the parents realise that their child has a hearing impairment a series of emotional reactions occur. These emotional reactions can manifest as shock, anxiety, anger, depression, guilt, resentment, etc. They will be in a state of panic and

confusion. Parents are faced with multitude of problems. In addition to the concerns like providing appropriate hearing aids, initial auditory training, educational placement, speech therapy and corrective treatment required for the child, they are faced with strong feelings related to guilt, denial, anger, feelings of incompetence or self doubt and chronic sorrow. The dynamics of the entire family may be threatened and the relationship destroyed. A child who is deaf infact becomes a burden to their families and the stress experienced by the parents are beyond description. Only very few are able to understand them.

Primary prevention relates to early detection, early diagnosis, early aid, treatment and rehabilitation so that the impact of the disability will be integrated as much as possible.

In focussing on rehabilitation, we mean to imply that our aim is to restore, as far as possible, functions that have previously been normal. The concept applies to children or adult who, as a result of sickness or accident lost some of their ability to hear. The rehabilitation procedures include auditory training, speech reading, speech therapy, counselling or hearing aid.

It is a known fact that parents play a very important role in the rehabilitation of a hearing impaired child intellectually, emotionally and socially. They have to restructure their lives in different ways for successful

rehabilitation. The parents should give the child the same natural kind of opportunities for learning to understand speech and to use it like a normal hearing child.

Learning is not limited to class room. It has to go on throughout the day and is a part of everyday living. Many natural situations provide opportunities for language learning. By imposing the hearing impaired children to situations that arise naturally everyday, parents can find opening for conversation.

In the life of a child he spends a great deal of time at home. It is here that he is exposed to natural environment and happenings that arise in daily life. The home must provide opportunities and reinforcements of what he achieves. Otherwise what he learns at school or during therapy is lost. Communication skills can be most utilized at home. The large gap between the hearing impaired and the normal hearing children could be bridged only if parents take an active participation in therapy and rehabilitation programmes.

For these reasons a proper understanding and awareness of the problem, what can be done about it, what should be done by the parents to help the child and what is the role of parents in hearing rehabilitation programme is necessary. Parents usually get very little information and they are not aware of many aspects about their own child's problem or their own role in rehabilitation.

Many articles, pamphlets, books and dissertations have been published to assist parents in the development of their deaf child. They indirectly guide them towards finding solutions to many questions experienced throughout the development of their deaf child. Most of these papers are written by professionals who are aware of the problems and who are empathetic towards parents of hearing impaired, in an effort to help them. In addition to various aspects of hearing impairment like the conditions, causes, speech therapy, auditory training, It gives them more information regarding their role as the parents in hearing rehabilitation programme. It gives them support and guidance in an indirect manner. It helps them to prepare them for the role of parents in hearing rehabilitation programme. It is also aimed at updating the parent's knowledge. By reading various printed materials parents also become more aware of the impact of hearing impairment on family and help them to have logical ideas about their child's problem. Thus they provide information to take charge of their own life and help their children in the most effective way. Further, it can improve parent's confidence in dealing with child's behaviour. It also encourages and motivates parents to help their child develop emotionally, academically and socially while supporting and guiding them indirectly.

Often such articles which are written for the parents of hearing impaired do not reach them. This study is carried

out to check how effective and informative these articles would be if they are made accessible for parents of hearing impaired.

METHODOLOGY

This independent project aims at studying the efficacy of reading materials published to help the parents of hearing impaired. To find this out a questionnaire was developed based on selected reading material which is given in the appendix II. The efficacy of the reading materials were judged by comparing the pre-reading and post reading scores on the target groups. The two sets of scores were subjected to statistical analysis to find out the significant difference.

Pilot study:

A group of 25 articles on different aspects of hearing impairment were chosen from various journals/sources. These set of articles were distributed to five parents of hearing impaired. A rating scale was given to rate each article. The sample of the rating scale used for the pilot study is given in the appendix I. Depending on the rating scales of these five parents all the twenty five articles were rated.

Selection of Reading Material:

A pilot study was conducted as mentioned above and based on the responses obtained the articles were rated. First

five articles according to the rating scale of the parents were chosen for detailed testing of effectiveness.

Selection of subjects:

Two groups of subjects were taken as target groups for this study.

Group I:

Thirty subjects were selected based on following criteria.

- (a) All the subjects should be parents of hearing impaired.
- (b) They should have good comprehension of written English.

Subjects selected had a minimum qualification of graduation with their ages ranging from 25 yrs to 40 yrs.

Group II:

Ten volunteers who did not have any prior knowledge or exposure regarding hearing impaired or hearing impairment were selected as subjects. They had a minimum qualification of graduation with their ages ranging from 25 years to 40 years. Only those subjects who had good comprehensions of written English were selected for the study.

Development of questionnaire:

Before developing the questionnaire, the experiments** read the articles thoroughly. Following this, a questionnaire was developed for each of the five articles, keeping the target population in mind. The questionnaire consisted of two sections.

Section I - Multiples choice questions

Section II - True/False type questions

Collection of data:

The data was collected in three stages.

1) Pre-reading scores:

Each subject is given a brief orientation regarding the purpose of the study and what is expected out of them. Following the orientation, the questionnaire was distributed to them. They were given appropriate time to answer. The questionnaire was administered individually.

2) Exposure to reading materials:

Then the selected reading materials were distributed to them. They were given adequate time to go through the reading materials given.

3) Post-reading scores:

Next set of same questionnaire were distributed to them to get the post-reading scores. The subjects were given adequate time to answer the questions. The same set of questions used for the pre-test was used here for post-test

and the questionnaire was administered individually.

Results and Discussion:

The collected data was analysed using statistical procedures.

RESULTS AND DISCUSSIONS

After collecting the data statistical analysis **was** done.

Scoring pattern:

The questionnaire items were scored in a binary system of correct or incorrect response. Each correct answer got one mark and each incorrect answer got a zero mark. The unanswered questions were also given as zero mark.

The same principle was applied to both pre-reading and post-reading scoring.

All the response figures were tabulated in a continuation form for further statistical analysis. Two sections of the questions, namely, multiple choice questions and true or false questions were considered separately. Two separate tabulations were made for pre and post-exposure scores.

STATISTICAL ANALYSIS:

To find out the significance of the variance among the two samples (pre-reading and post-reading) t-test of significance was applied to the data and inference **were** drawn.

Further, the pre-reading scores and post-reading scores were analyzed and presented in the form of descriptive statistics.

Group I (Parents of hearing impaired children):

The individual pre-test and post-test exposure scores were tabulated and t-test was administered to analyze the data. The two sections of questions - (Section (1) Multiple choice. Section (2) True/False) were considered separately for statistical analysis.

Section I (Multiple choice questions):

The statistical analysis of the data revealed a mean pre-reading scores of 7.47 with a standard deviation of 2.37 (Range: 3 to 12). A mean score 23 was obtained for the post reading scores with a standard deviation of 1.95 (Range: 18 to 25).

Analysis of significant difference of the mean revealed a 't' value of 6.80 which clearly showed a significant difference between the pre-test and post-test mean scores at 0.01 level of significance.

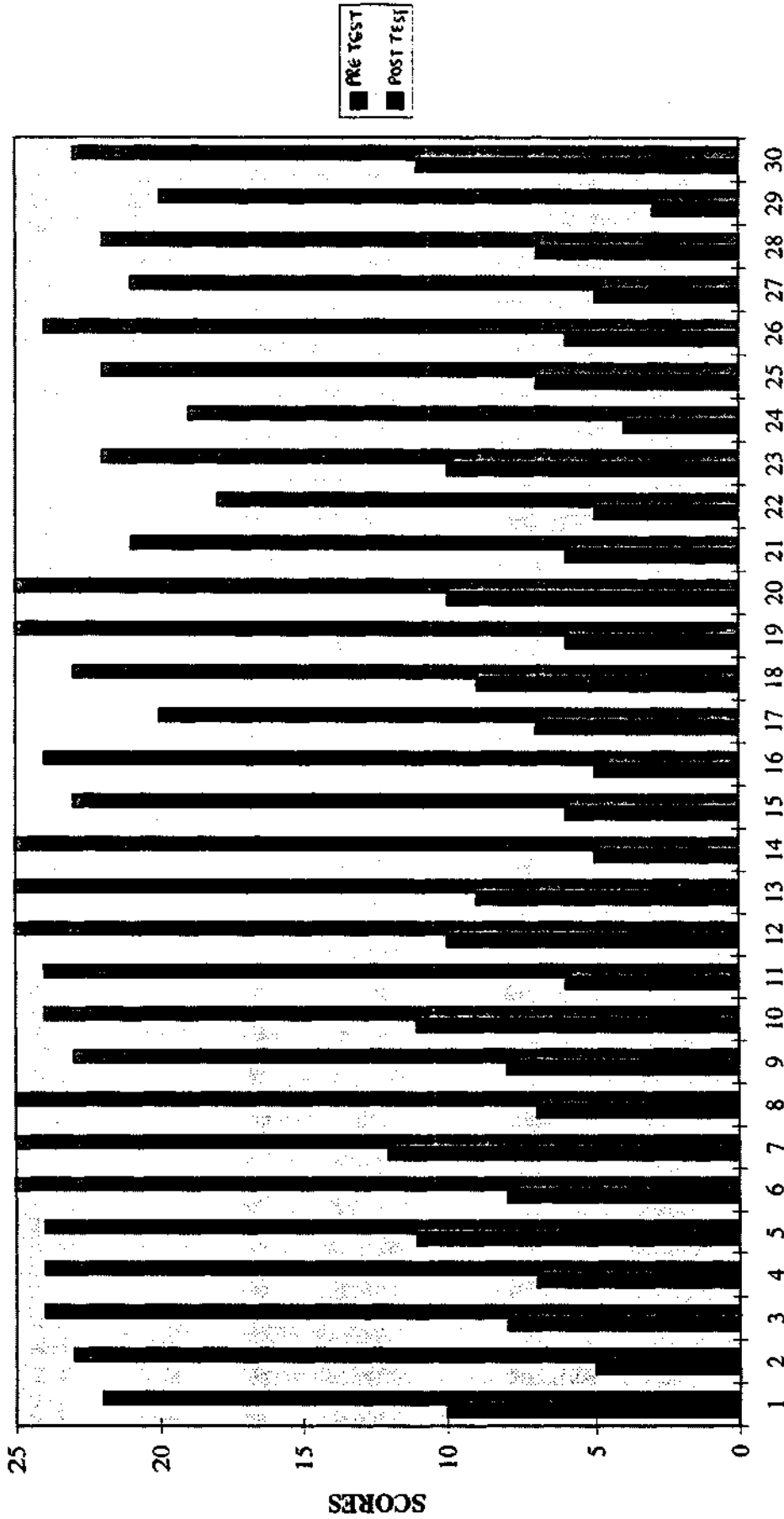
Section II (True/False questions):

The statistical analysis of the pre-test scores showed a mean of 7.43 and standard deviation 2.39 (Range: 3 to 12). When the post-test scores were analysed the mean score got was 22.93 with a standard deviation 2.12 (Range: 18 to 12).

When 't'-test was applied to analyze, a highly significant difference of the means, a t-value of 7.06 was obtained.

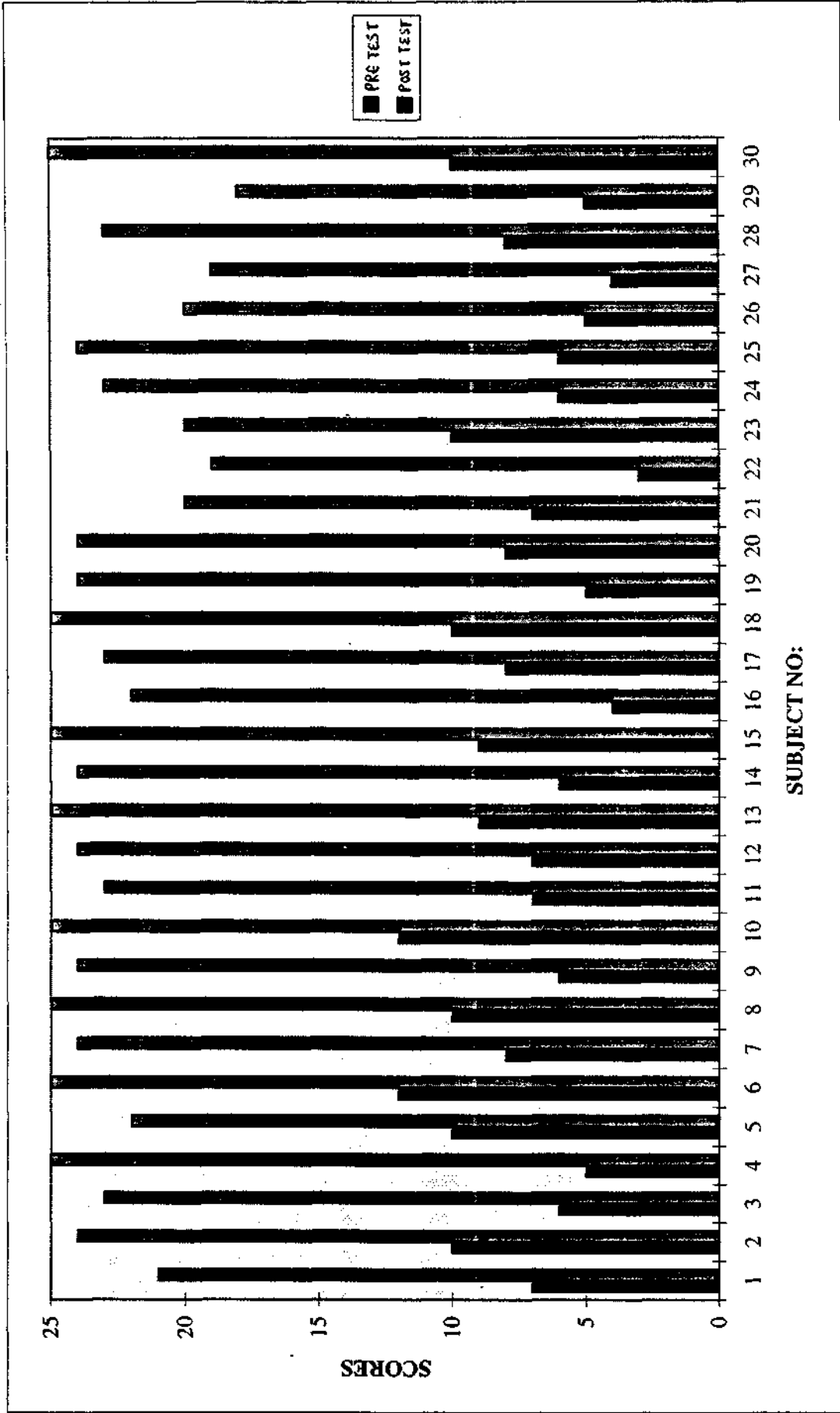
Table 1: Showing the mean, standard deviation and range of pre-test and post-test scores of Group I in both Section I and Section II.

		Pre-test	Post-test	t-value
SECTION I MULTIPLE CHOICE	Mean	7.47	23	6.80
	Std. Deviation	2.37	1.95	
	Range	3 to 12	18 to 25	
SECTION II TRUE OR FALSE	Mean	7.43	22.93	7.06
	Std. Deviation	2.35	2.12	
	Range	3 to 12	18 to 25	

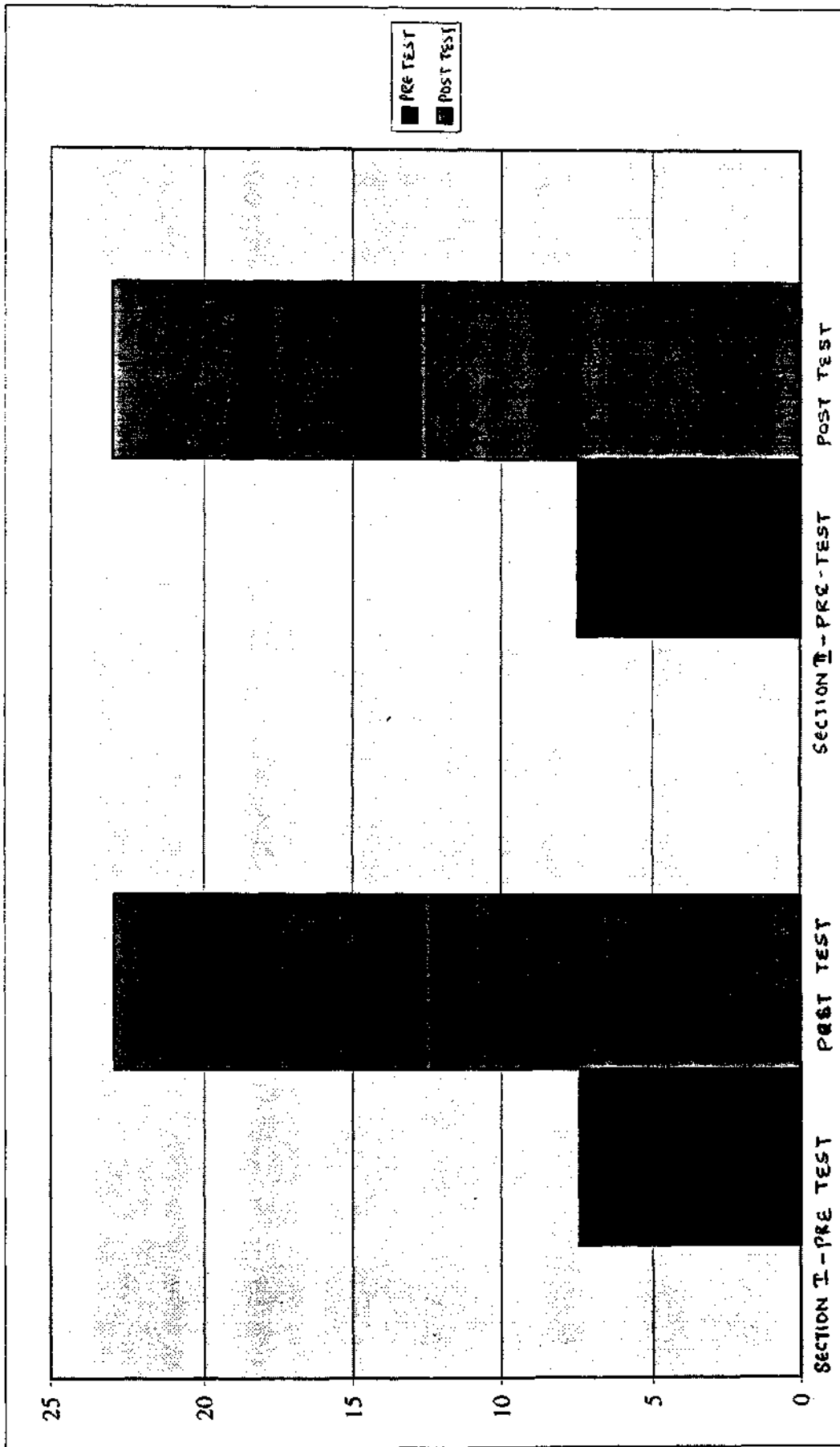


SUBJECT NO:

GRAPH : I. SHOWING INDIVIDUAL PRE-TEST & POST TEST SCORES OF SUBJECTS IN GROUP I FOR SECTION I (MULTIPLE CHOICE) QUESTIONS.



GRAPH: 2 SHOWING INDIVIDUAL PRETEST AND POST TEST SCORES OF SUBJECTS IN GROUP I FOR SECTION II (TRUE OR FALSE) QUESTIONS.



GRAPH: 3 SHOWING THE MEAN PRE-READING AND POST READING SCORES OF GROUP-I FOR SECTION I (MULTIPLE CHOICE) QUESTIONS & SECTION II (TRUE OR FALSE) QUESTIONS .

From this we can infer that the reading material was highly informative and useful for the parents of hearing impaired.

Group II (subjects who have no prior exposure to hearing impairment):

The pre-test scores and post-test scores of the second group were also tabulated for statistical analysis as in group I and t-test was applied.

Section I: (Multiple Choice)

Statistical analysis revealed a mean of 8 for pre test scores with a standard deviation of 2.45 (Range: 4 to 12). While for the post-test scores had a mean 22..% and standard deviation 3.11 (Range: 18 to 25).

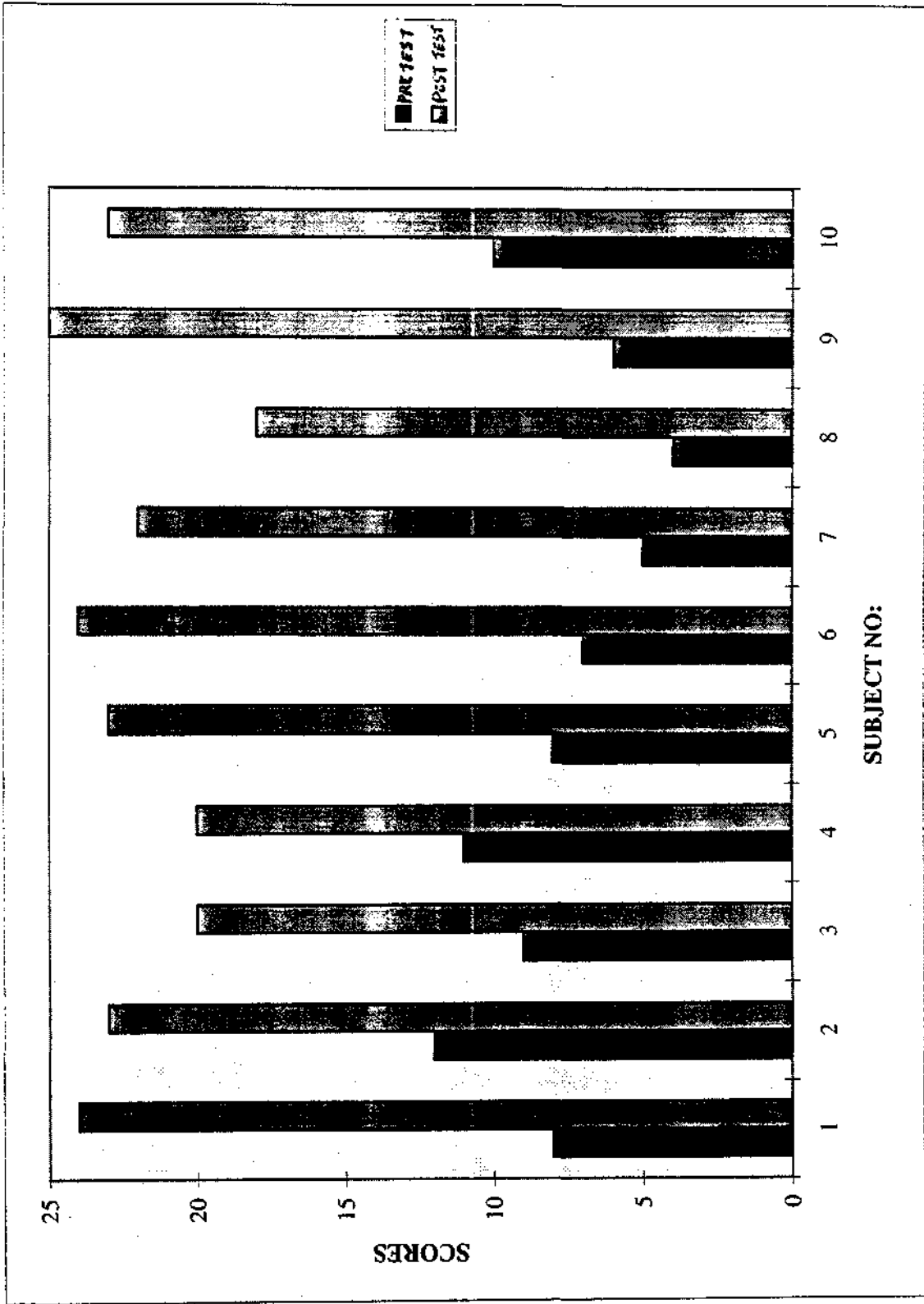
T-test was applied to analyse the significant difference of the mean and the value of 't' was 14.06. This indicates that there is significant difference between the means of pre-test scores and post-test scores at 0.01 level.

Section II: (True/False Questions)

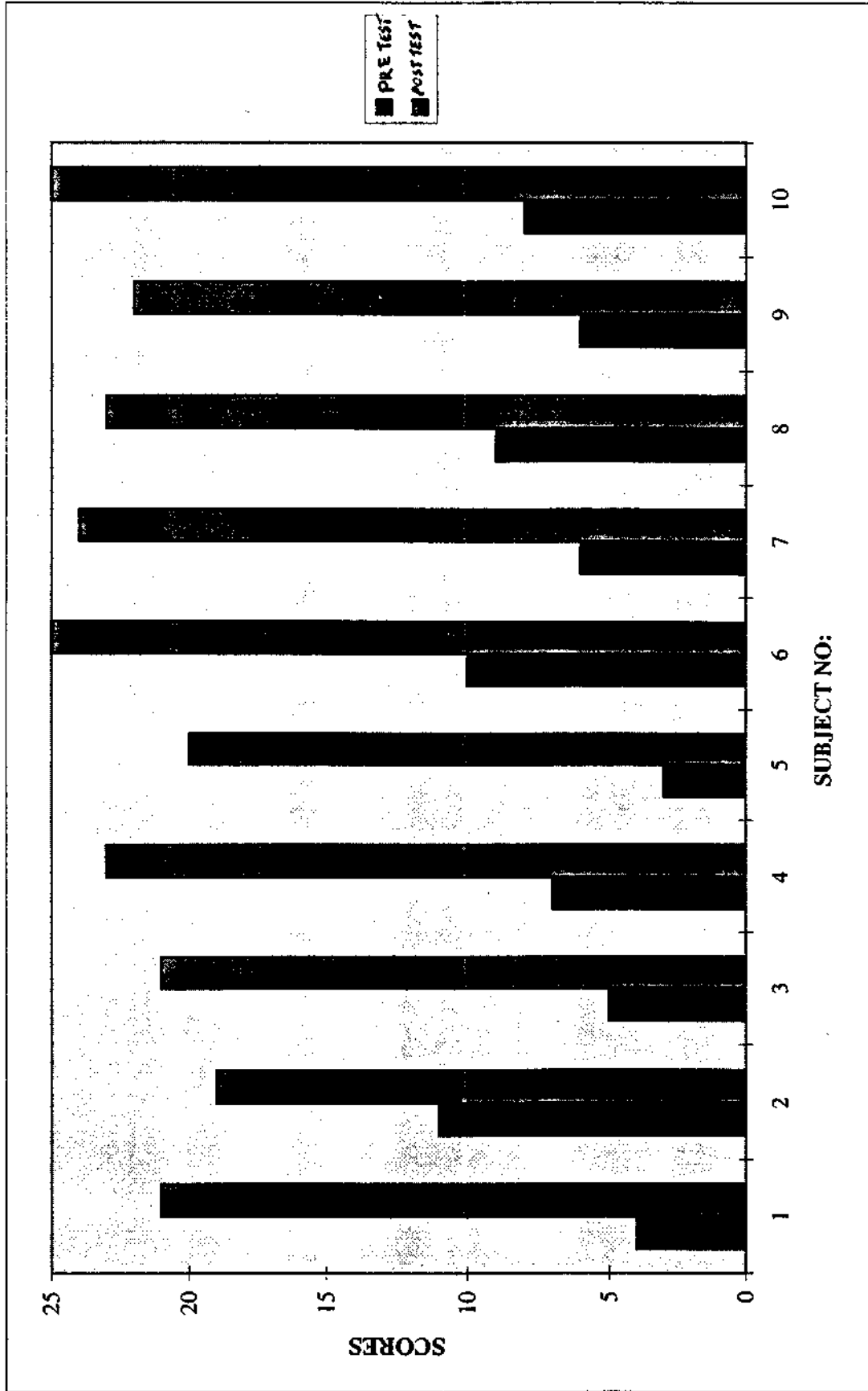
A mean of 6.9 for pre-test scores and standard deviation of 2.44 (Range: 3 to 11) was obtained when the data was statistically analysed. For the post-test scores the mean was 22.3 and standard deviation 1.99 (Range: 19 to 25).

Table 2: Showing mean, standard deviation and range of pre-test and post-test scores of Group II in Sections I and Sections II questions.

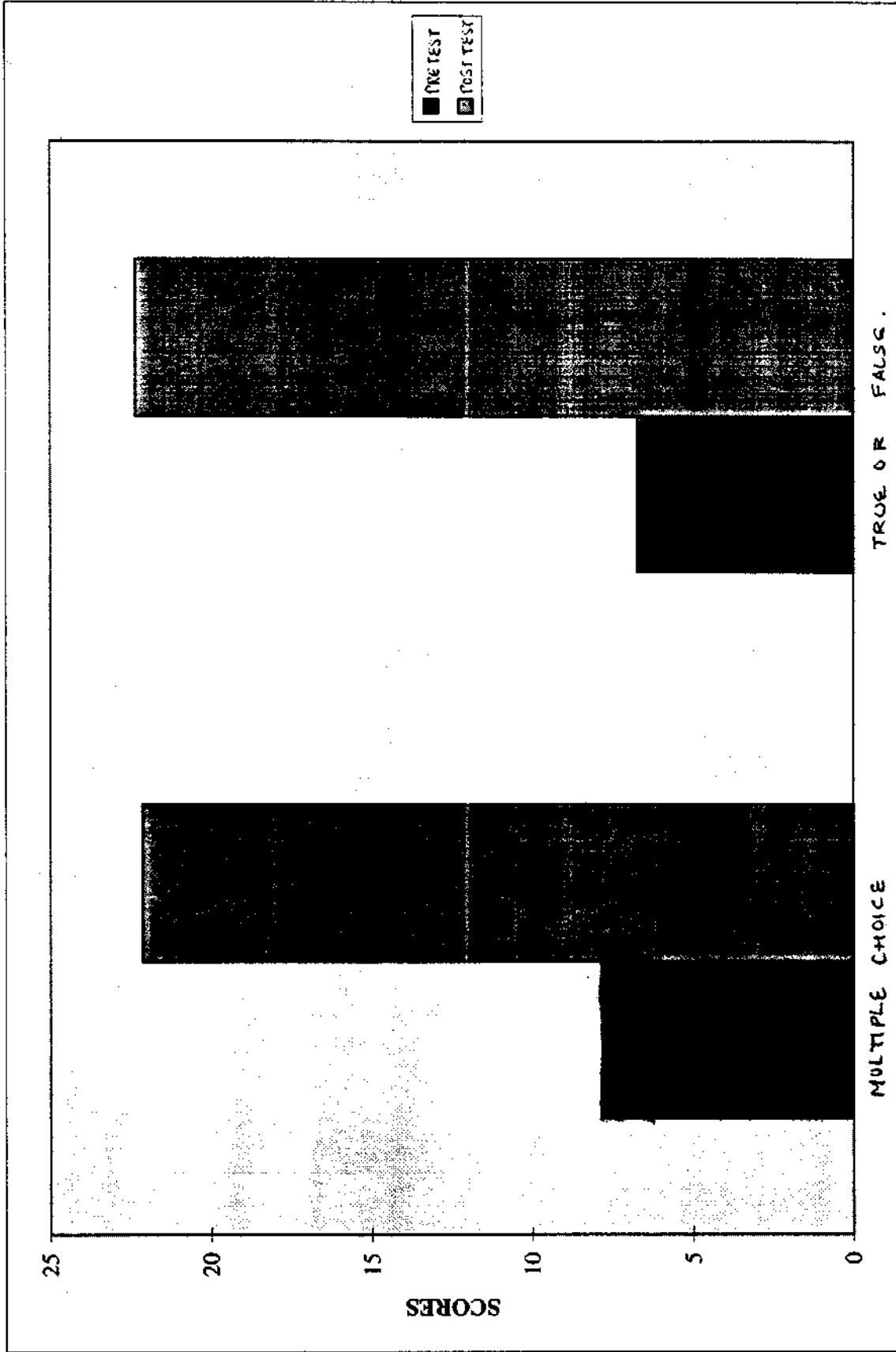
	Pre-test	Post-test	T-value
SECTION I MULTIPLE CHOICE	Mean	8.00	14.06
	Std. Deviation	2.5	
	Range	4 to 12	
SECTION II TRUE OR FALSE	Mean	6.9	17.1
	Std. Deviation	2.44	
	Range	3 to 11	



GRAPH: 4 SHOWING INDIVIDUAL PRE TEST & POST TEST SCORES OF SUBJECTS IN GROUP 2 FOR SECTION I (MULTIPLE CHOICE) QUESTIONS.



GRAPH: 5 SHOWING INDIVIDUAL PRE & POST TEST SCORES OF SUBJECTS IN GROUP II FOR SECTION II (TRUE OR FALSE) QUESTIONS.



GRAPH: 6 SHOWING THE MEAN PRE READING A POST READING SCORES OF GROUP -II FOR SECTION I (MULTIPLE CHOICE) & SECTION II (TRUE OR FALSE) QUESTIONS .

Analysis of significant difference of the mean revealed 't' value is 17.1. The difference between the means is significant at 0.01 level.

Subjective Analysis:

During the subjective analysis of the articles the five articles were rated in the following order;

- (1) Schmanian, R.D., Straker Gavian. (1980). Counselling parents of Hearing impaired child during post diagnostic period. LSHSS, 11, 4, 251-253.
- (2) Sheeley, E.D. (1977). Hearing aids for multiply Handicapped. Audiology and Hearing Education 3, 3, 8-10.
- (3) Johnson, CD. (1994). Navigating amplified options for the children. Hearing Instrument, 45, 5, 24-27.
- (4) Pearson, H.R (1984). Parenting a Hearing Impaired child - A model programme. Volta Review, 86, 4, 239-243.
- (5) Beebe, H.H. (1982). When parents suspect their child is deaf : Where to turn ? What to consider ? Hearing Rehabilitation Quarterly, 7, 4, 4-7.

I Article:

All parents rated the first article as useful, informative and interesting and they indicated that they have gained knowledge by reading the article. All the five parents wanted to read the article again and have a copy of it.

II Article:

According to all five parents who participated in the study the article was informative, useful and interesting and they indicated that they have gained knowledge by reading this article. Four out of five parents expressed their wish to read the article, again and wanted to have a copy of the article.

III Article:

The analysis showed that this article was useful, - informative and interesting to all the parents. Three out of five parents wanted to have a copy of the article and three out of them wanted to read the article again.

IV Article:

All parents reported that the article was useful, informative and interesting. Two of them wanted to read the article again and three of them wanted to take a copy of the article.

V Article:

The article was informative, useful and interesting as reported by the parents. Two of five parents wanted to take a copy of the article and read it again.

Table 3: The result of the subjective analysis of the 5 articles by five parents.

Article	No. of parents who rated the article informative	No. of parents rated article as informative	No. parents who gained knowledge	No. of parents who wanted to read the article again	No. of parents who wanted the article
I	5/5	5/5	5/5	5/5	5/5
II	5/5	5/5	5/5	4/5	4/5
III	5/5	5/5	5/5	3/5	3/5
IV	5/5	5/5	5/5	2/5	3/5
V	5/5	5/5	5/5	2/5	2/5

CONCLUSION:

The outcome of the field study carried out clearly demonstrated the efficiency of reading materials in the awareness and education programmes for the parents of hearing impaired children. It is evident from the results of the study that the reading materials used for the study were highly informative and beneficial for the parents of hearing impaired. Further, the study done on individuals who have no prior exposure also revealed that these articles are informative even for subjects who had no prior exposure to hearing impaired or hearing impairment. Hence they can also be used in public awareness and educational programmes. The statistical analysis of the data revealed that the subjects had gained a significant amount of knowledge on various aspects of hearing impaired, hearing impairment, parenting a hearing impaired child and rehabilitation of the hearing impaired by reading the articles.

This study clearly implied that the parents of hearing impaired children would benefit very much if such reading materials like articles, pamphlets, etc published by various authors are collected and made available and accessible to them.

It would be more beneficial and easily understood if

- each article is summarized and more articles are included.
- language of the articles are made simpler and comprehensive.

- technical terms used in the article are explained as subscription.
- the articles are aided with visual aids like diagrams to explain concepts.
- it can be made colourful by highlighting the important points.
- they are translated to other Indian languages.

By doing this more number of parents would be able to gain the information included in the article and it would inturn benefit more number of hearing impaired children for whom these reading materials are meant.

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APPENDIX - I

RATING SCALE

Title of the article

Author

1. Articles are interesting and informative to

a) Parents of hearing-impaired. Yes/No

b) To professionals in speech and hearing. Yes/No

c) Allied professionals
(teachers, social workers, etc). Yes/No

2. After reading the articles one's knowledge in the area of hearing-impaired/hearing impairment/hearing aids/education of hearing-impaired/rehabilitation of hearing-impaired increases. Yes/No

If Yes, specific items/points learnt

(i)

(ii)

(iii)

(iv)

If No, no way my knowledge increased because

1) I read public education pamphlets in the Institute.

2) I was counselled by professionals in speech and hearing

3) Others.

3) Article was informative and interesting, but I did not understand the

a) Section Page Paragraph

b) Technical terms (1)
(2)
(3)
(4)

4. Article was interesting and informative, but I would like to discuss it with

- a) Professionals/experts in speech and hearing field.
- b) Other professionals.

5) I would like to read the article again. Yes/No

6) I would like to have a copy of the article. Yes/No

7) Information is there in the article but the information is repetitive

Page No. Paragraph No. can be deleted. Yes/No

8) After reading the articles I have further questions regarding

- a) Hearing impairment b) Hearing-impaired c) Hearing aids
- d) Education of the hearing-impaired
- e) Rehabilitation of the hearing-impaired.

Signature:

Name:

Identification: Parent/Hearing Impaired/Professional/Trainee.

Counseling Parents of the Hearing-Impaired Child During the Post-Diagnostic Period



Schmaman

Felicia Denise Schmaman and Gillian Straker

Because speech-language pathologists, audiologists, and teachers of the hearing-impaired have contact with parents of the hearing-impaired child, they are urged to undertake the responsibility of providing supportive counseling to these parents during the period following diagnosis of hearing impairment. Such a service requires a broader professional role than may previously have been envisioned. The authors suggest that the counseling program be aimed at both the growth of the family as a whole as well as that of the hearing-impaired child. It should promote the succession of stages that parents appear to pass through in the process of acknowledging their child's handicap. The nature of the parents' feelings, the source of their feelings, and ways in which the professional involved may deal with these feelings are discussed. Examples from the writers' clinical experience are presented.

APPENDIX II A

All too often clinicians, be they speech-language pathologists, audiologists, or teachers of the deaf, are the only professionals who have regular contact with parents of hearing-impaired children during the immediate post-diagnostic period. These professionals are then confronted with the parents' reaction towards their handicapped child: they need a method of dealing with this situation. Their basic training has prepared them to deal with the child in a classroom (McCormick, 1975) or in some kind of didactic environment, not with what may be a very-distressed family in the home setting (McCormick, 1975). Many sources have stressed that supportive counseling of these families is required (Freeman, Malkin, and Hastings, 1975; Hedgecock, 1971; Lerman, 1976; McCormick, 1975; Webster, 1966) and that parents' early reactions to the discovery of deafness and the resolution of their feelings toward the child affect the child's future progress (Mindel and Vernon, 1971). It has also been suggested that difficulties experienced by hearing-impaired persons often have their roots in parent attitudes towards the handicap (Hedgecock, 1971) and that inadequate provision for the emotional needs of parents in most programs for the hearing-impaired has

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Lang. Sp. Hmg. Serv. Sch. XI(4). Oct. 1980 © American Speech-Language-Hearing Allocation, 1980.

ultimately limited the child's overall achievement (Mindel and Vernon 1971). It seems apparent, then, that successful instruction of the hearing-impaired child should include some form of parent guidance, especially in the initial stages following diagnosis of hearing impairment. This paper describes the nature of such counseling, as well as the role of the professional dealing with the family.

Family Counseling

Who should counsel the family? This appears to be a controversial issue. Heisler (1972), a psychotherapist, believes that the best way to facilitate family adjustment to a handicapped child, regardless of the nature of the handicap, is through psychotherapy with the parents. Parents, however, having regular contact with the clinician promoting the child's acquisition of language, often turn to the clinician for support and guidance. The authors believe a great injustice may be done to these parents if their feelings and reactions are not made an integral part of the remedial program. The clinician, then, must be equipped to deal with parental feelings as they arise in relation to the hearing-impaired child. This viewpoint is supported by McCormick (1975), who emphasizes that dealing with parents requires certain skills and techniques very similar to those used in psychotherapy and counseling. That is, the clinician dealing with the hearing-impaired child has a much broader role than has been previously attributed to him/her, the role as "parent counselor" (Webster, 1966). It has been recommended that early counseling of parents of hearing-impaired children be given by someone who is knowledgeable about hearing impairments and skilled in counseling (Freeman et al., 1975), someone who is able to give the family a great deal of emotional support as well as practical advice on what they can do to help their child (McCormick, 1975). It would seem that the clinician, whether a speech-language pathologist, audiologist, or teacher of the deaf, is in the best position to satisfy these requirements.

The family, upon receiving the diagnosis of hearing impairment for the child, seems to move into a crisis-type reaction in which feelings of shock are primary. This occurs even though the possibility of deafness may have been suspected earlier. The family's reaction depends on the structure of the family itself, its crisis-meeting resources, and its ability to cope with stress on a long-term basis. No two families will react in precisely the same way; thus the individual nature of the response of each family and each member within the family must be respected. A variety of reactions and their possible sources will be discussed with the aim of promoting empathy and sensitivity in the clinician.

Retrospective reports of parents of handicapped children have highlighted the need for help at the time when their worst fears that something is wrong

with their child have been confirmed (Gregory, 1976). The clinician is confronted with a difficult task during the first few contacts with the parents because they are in a state of shock and they seek help in changing the child's behavior so that their anxiety can be dissipated (Webster, 1966). That is, the parents may not initially realize that they need help for themselves. The clinician provides the opportunity for parents to select the content of the discussion, thereby promoting a movement from child- to parent-centered sessions (Webster, 1966). Such an approach was followed by the authors and was considered successful when the mother of a hearing-impaired child, after receiving two months of counseling, remarked that she could now see that she needed the therapy sessions more than her child did! Schontz (1965) has presented a five-stage reference model of parents' reactions to crisis that includes *shock, recognition, defence, retreat, and acknowledgement and constructive action*. These stages will be used as an outline on which to base the following discussion of parents' reactions to the diagnosis of deafness. It is important to note that these stages are presented as a theoretical framework. In practice, clearcut boundaries may not exist and more than one stage may occur at any one moment.

Shock and recognition. These first two stages represent a combination of disbelief, grief, helplessness, anger, and guilt (Mindel and Vernon, 1971). The clinician's role at this point is to try to help parents think more clearly through the initial shock (McCormick, 1975). It seems that a positive approach may be the most beneficial one. Parents need to be reminded about their child's strengths and normal skills in different areas: they need to look beyond the handicap to the child (Gregory, 1976). All too often, parents tend to generalize from the narrow range of tasks that the child cannot do and assume that there is a much larger spectrum of tasks of which he/she is incapable! This expands and adds to the child's impairment by restricting his/her opportunities to achieve his/her full potential (Gregory, 1976). Emphasis on the lack of normality tends to encourage parents to focus on the handicap of hearing impairment rather than on the whole child. Some parents will mourn for the "normal" child they thought they had before the diagnosis of hearing impairment was confirmed (Gregory, 1976; McCormick, 1975). The clinician's energy needs to be directed towards giving parents the confidence to continue to treat their child in a natural way as they did before they found that he/she had a problem. In addition, the clinician's interaction with the child may provide a model of someone who enjoys and accepts the child as he/she is and may demonstrate a more positive attitude. This direct, natural contact with the child may be used by the clinician to win the parents' confidence (McCormick, 1975).

Often diagnosis of the nature of the handicap provides a measure of relief for the parents, for example, that it is hearing impairment and not mental

retardation (Gregory, 1976). Parents have reported that before the diagnosis of hearing impairment has been confirmed, they cling to the hope that what they fear will not be true. In spite of feelings of relief, the parents also have feelings of depression (Altshuler, 1974). Parents may perceive their child's hearing impairment as some sort of personal failure (Altshuler, 1974; Dale, 1967). The presence of a defect is a blow to their aspirations for the child as an extension of themselves. The feeling that the aim of the pregnancy was not fulfilled may either implicitly or explicitly result in the wish to have another child to relieve the parents' frustrations and provide a source of language stimulation to the deaf child. The clinician should recognize that the impaired child may not be the only child in the family. Subsequent siblings may find themselves at a disadvantage. They may receive less attention as the hearing impaired sibling takes up much of the parents' time and energy, or they may have the unrealistic task of functioning as "therapists" for the impaired child in order to fulfill their parents' wishes. All these forings in turn are closely connected to the next stage in the sequence of reactions to a crisis, as depression gives way to denial. Thus, diagnosis of hearing impairment and the resulting feelings of shock, depression, and denial appear to set in motion a chain of reactions that parents experience before some degree of acceptance can be achieved.

Defense. When it is evident that the child is not hearing adequately, parents, especially the mother, experience psychic pain. Distortion of what is perceived occurs to obscure reality and to provide protection against the pain of realization. This takes place in the form of defensive mechanisms that are essential to protect the parents from their feelings of anger and guilt (Heisler, 1972; Mindel and Vernon, 1971). Feelings of anger may stem from the parents' insoluble dilemma of how to love a child who represents a constant reminder of personal failure and disappointed aspirations. This anger, which threatens to spill over to the child, elicits and enhances guilt about responsibility for the handicap and results in ambivalent feelings and behavior towards the child (Altshuler, 1974; Mindel and Vernon, 1971). Other sources of anger that parents experience towards their hearing-impaired child may arise from feelings of helplessness and confusion. These feelings arise from not having anticipated a hearing-impaired child, loss of confidence in the ability to fulfill their parental function, feelings of inadequacy, and frustration in trying to communicate with their hearing-impaired child (Gregory, 1976; Mindel and Vernon, 1971). All these emotions may be channelled towards the child because he/she is disabled and not towards the disabling element, hearing impairment itself. Parents need to be helped with the fact that feelings of anger and/or resentment towards the handicapped child can and usually do coexist with feelings of love. If anger is not dealt with during counseling, parents may feel guilty about having these feelings-

They may act in the opposite manner and overprotect the child (Heisler 1972). Such overprotective behavior, although aimed superficially at protecting the child from any frustration or unhappiness, serves as a source of proof to the parents of their love for the child. Such an attitude deprives the child of the opportunity to find his/her own inner strength and to develop problem solving skills (Stinson, 1978). This topic needs to be incorporated into the counseling program. Parents may require help in allowing their child to experience frustrations, thereby building up a necessary high level of frustration tolerance in the child.

Retreat. Parents confronted with the diagnosis of hearing impairment may suddenly feel set apart from the rest of society (Mindel and Vernon, 1971). This is highlighted by mothers' reports of feelings of isolation and loneliness. They feel different from other mothers. Their child's hearing impairment has cut them off to a certain extent from the world outside their immediate family and they are embarrassed because of other peoples' reactions to their child (Gregory, 1976). Parents also report that their social activities have been curtailed.

A group of parents who have hearing-impaired children may provide each other with a positive outlet for their feelings. The clinician may take the initiative to bring such groups together and may function as the leader of the group. The most support, however, is likely to be provided by the group members themselves. This is highlighted in the authors' arranging a meeting of two mothers of hearing-impaired children. Together, they were able to explore their feelings towards their children's hearing impairment and to discover that they were not as alone as they previously thought. The mothers, in the course of their conversation, appeared to be oblivious to the clinician and their surroundings. This example emphasizes that simple procedures may be all that is required.

Acknowledgment and constructive action. During the earlier stages of crisis-reaction, the clinician may work primarily with the parents, and the hearing-impaired child may receive little direct aid. However, as Luterman (1983) has stressed, it seems that parents must first be afforded the luxury of working through their own feelings of guilt, fear, and confusion so as to deal positively with their child's needs. Furthermore, parental anxiety seems to be of a contagious nature. The child, in the presence of such anxiety, may take on this anxiety (McCormick, 1975). It is not until the parents have begun to react more positively, that is, by talking about what hearing impairment means to them, weeping, and feeling sad, that they begin to cope with their child's handicap. The clinician should welcome and not fear the parents' tears, as these provide a release for the parents. (Heisler, 1972).

Once parents acknowledge the hearing impairment, they are free to move on to the task of working with this reality. The child's hearing impairment

should be acknowledged by both parents. This assumes that both parents have been involved in the counseling process. Heisler (1972) proposes that acceptance of any handicap is not a static phenomenon. Instead, fluctuations may occur in the face of new events that again test the parents' ability to tolerate and adapt to stressful situations. Schlesinger and Meadow (1972) propose that hearing impairment is a "tragic crisis with long-term implications for family life". It would therefore seem unrealistic for the clinician to work towards "complete" parental acceptance of their child's hearing impairment. According to mothers' reports (Gregory, 1976) and documented clinical experience (Mindel and Vernon, 1971), their child's hearing impairment is never accepted.

It thus seems that the supportive role of the clinician in counseling parents of the hearing-impaired is a diverse one. The ability to discern whether it is the parents or the child who are more in need of help at any one time appears to be of fundamental importance in dealing with the hearing-impaired child and his/her family.

Family Problems Arising from Child's Hearing-Impairment

Trends from research dealing with Systems Theory indicate that any one person in a family affects other members and subsystems within that family. Only some of the possible subsystems operating in the family will be dealt with to evaluate whether a family with a hearing-impaired child is an impaired family.

Mother-child relationship. Support needs to be given to a mother in the establishment of a good relationship with her hearing-impaired child. Hearing impairment represents an extreme form of communication disorder (Gregory, 1976). When communication is interfered with, the bond between parent and child is altered along with the quality of closeness of identification of feelings. This is especially relevant for the mother of a hearing-impaired child, since she spends the most time with the child. Mindel and Vernon (1971) state that because the hearing-impaired child is forced to depend on communication of a nonverbal nature, he remains more dependent on the mother for a longer period than a hearing child. The mother may experience the hearing-impaired child's forced dependence on her as an intolerable burden, possibly resulting in guilt feelings. On the other hand, according to Heisler (1972), the mother may become over involved with the child as a result of her guilt feelings. In this situation, the child is the focus of his/her mother's attention, and her psychic energies are bound up in the relationship with him/her. The mother may then feel threatened by the child's increasing independence due to her own unresolved emotional insecurity. Emotional dependence on the child is thus necessary to the mother for her own emotional balance. This, however, may result in a battle of wills between

mother and child, as the child at this point may have reached the developmental stage of separation—individuation and symbiosis (Altshuler, 1974)

In the clinical situation, the clinician may be required to adopt a firm stand in achieving separation between mother and child while being supportive towards the mother's anxieties of separation. Such separation anxiety was seen by the authors when a mother was initially unable to leave her child alone with the clinician even when requested by the clinician to do so. Although she appeared willing to try to separate from her child, as expressed in her desire to go shopping during the remediation session, she tended to hesitate a moment too long. As a result, her child who was no longer distracted by the clinician's activities and would cling to her and cry, preventing the mother from leaving the room. When a first separation was eventually achieved, the child was found to be more responsive to remediation than when the mother was present. However, even when these observations were communicated to the mother, she still found it difficult to separate on subsequent occasions. Here, the clinician needed a lot of patience. In addition, it was necessary to persuade the mother to pursue interests held prior to the birth of her hearing-impaired child and to encourage her to spend less time with the child. Generally, the clinician aims at enhancing the mother's self-concept not only as the mother of a hearing-impaired child, but also as an individual, promoting a satisfactory mother-child relationship.

Discipline and Punishment. There is no doubt that the area of discipline and punishment presents an extremely trying one for parents of a hearing-impaired child. Parents are placed in a dilemma in their attempts to treat their hearing-impaired child as they would a hearing child, as warnings cannot be heard, nor can explanations or threats be understood. Gregory (1976) found that parents of hearing-impaired children were more apt to use physical punishment than parents of hearing children. The clinician may find that parents who resort to the excessive use of physical punishment may feel guilty for a number of reasons. They view the child as damaged in some way and by hitting him/her they are adding to the damage. At the same time they feel that, because the child is handicapped, he/she should suffer as little as possible, and therefore, should be punished less. They may also feel that hitting is meaningless to the child because he cannot understand why he/she was punished, and therefore they should not have hit him/her. Finally, they may or may not be aware that they are taking out their frustrations on the child and are unable to restrain themselves from hitting, thereby placing the child at risk of being battered.

Battering was found by the authors in the case of a two-year-old hearing-impaired girl who, according to her mother's reports, "bruised easily". The mother also mentioned that she was not battering the child, even though this question was never asked or implied at any stage. Here the therapist's non-

judgemental attitude, suggestions for alternative discipline procedures, and her acceptance of the mother's verbalizations of negative feelings towards the child and husband, seemed to lead to the elimination of battering.

Gregory (1976) found that many parents believed that because their child was hearing-impaired, he/she needed to be better behaved in other ways to make up for this deficit and to be accepted into the world. For example, some parents have insisted that their hearing-impaired child remain clean and tidy at all times, even while painting or playing with water. The authors have found that parents may tend to evaluate the adequacy of their parenting in terms of their child's behavior, thereby assuming that any misbehavior is a sign of their failure.

The clinician's acceptance of parents' frustrations in disciplining their hearing-impaired child is important. Handling a hearing-impaired child is a difficult task. It is especially difficult because temper tantrums resulting from the inability to communicate are frequent, and hyperactivity is characteristic of hearing-impaired children. If the clinician does not judge the parents' methods of disciplining the hearing-impaired child, they may be more receptive to alternative methods of discipline. The clinician may suggest that the hearing-impaired child, in view of his/her ability to derive meaning from nonverbal communication, may respond to disapproval as indicated by the parents' facial expression, together with head shaking, wagging of a warning finger, and the word "No!", thereby making hitting unnecessary. The clinician needs to point out that young children seek parental approval of their actions and behavior (Dale, 1967) and thus motivate parents to believe that there is an alternative to physical punishment. The clinician should encouraged parents to use these guidelines to evaluate their methods of discipline. parental disagreements in the area of discipline may also have to be resolved. Success in disciplining the hearing-impaired child depends on clear-cut instructions of what is expected of him/her and on the parents' ability to function as a consistent unit (Mindel and Vernon, 1971).

The marital relationship. The hearing-impaired child may have one of two effects on the marital relationship. First, the marriage partners may blame each other for the hearing impairment. This occurs when there is a history of hearing impairment in one of the spouse's families. Some authors have stated that divorce and separation are not more common in families with hearing-impaired children, although separations, when they did occur, tended to be blamed on the hearing impairment (Freeman et al., 1975). Second, the hearing-impaired child may bring the marriage partners closer together; that is, hearing impairment can have a positive effect on the parents and bring them together to face this "shared disaster" (Gregory, 1976). A difference in the degree of the parents' acceptance resulting in a lack of consistency in the management of the child may also be a problem. Grand-

parents may feel that their offspring are not capable of dealing with the hearing-impaired child, thereby adding to the parents' feelings of inadequacy and failure. The clinician needs to be equipped to deal with problem in the marital relationship and to make referrals when necessary.

The issue of whether a family with a hearing-impaired child may be an impaired family appears to be a highly individualistic one that is based on the unique reactions of the family concerned. It is impossible to determine what the ramifications of childhood hearing impairment may be on any one family.

Conclusion

In conclusion, it appears that the availability of supportive services of a broad nature may lighten the burden created by the presence of a hearing-impaired child in the family. The authors stress that such a service be included as an integral and fundamental part of any program that deals with the young hearing-impaired child during the early post-diagnostic period.

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Hearing Aids for the Multiply Handicapped

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Problem areas related to hearing aids are identified for individuals with several combinations of handicapping conditions. Practical suggestions are given to aid audiologists in minimizing or resolving some of the problems, and a model is presented for a long-term audiologic habilitation program which includes hearing aid selection, hearing therapy, monitoring and follow-up.

In the future audiologists will likely work with increasing numbers of individuals who have multiple handicaps. One factor is recent class actions citing the right to treatment and education based on individual need (*Mental Retardation and the Law*, 1972-1975); another is the higher incidence of handicaps associated with serious hearing impairment noted in recent years by Vemon (1969), the Office of Demographic Studies (1973), and the Urban Institute (1975). Audiologists should therefore begin to focus more on the needs of the multiply handicapped. As used in this paper, *multiply handicapped* refers to individuals with serious hearing loss plus another major disability; e.g., mental retardation, central problem (stroke, brain injury, cerebral palsy), age/senility, early blindness, emotional disturbance, and orthopedic handicap.

Specific Handicapping Conditions. *Figure 1* shows a group of second handicaps

and their associated problem areas. Certain areas present greater obstacles to those with a given handicap and therefore deserve greater attention.

Responsiveness. This refers to the individual's willingness to engage in sustained interaction. The mentally retarded may exhibit self-stimulating behavior, passivity, or aggression; the centrally involved and emotionally disturbed frequently show emotional lability; the aged often fatigue rapidly and have a short attention span.

The audiologist can employ a number of special procedures for dealing with unresponsive patients. A series of short sessions can be used to avoid fatigue, maintain attention, and avoid undesirable behaviors which could occur in a lengthy session. Behavior modification techniques can be used to increase motivation and reduce aggression. A patient who will not tolerate a hearing aid in the ear can sometimes be introduced to the aid gradually by first holding the receiver to his ear and hearing

ound through it. For a patient who is very resistant to the aid, a desensitization routine may be used beginning with his holding a ball of cotton, then placing the cotton in his ear, holding the earmold alone, placing the earmold in his ear, placing the earmold and tubing (or button receiver) in his ear, then adding the aid itself, turning the aid on to a low volume, and finally setting the volume at an appropriate level. Other personnel can supplement audiologic procedures; for example, a test assistant can institute preconditioning activities, a parent can carry out simple listening activities at home, or a teacher can observe and record listening behaviors in the classroom.

Mobility. Each of the hearing impaired multiply handicapped groups experiences mobility problems. A recent article stressed the magnitude of the problem by noting that "Few issues are as important to disabled people as accessible transportation services . . . The availability of accessible transportation affects directly the quality of life."¹ Problems with public transportation are magnified for the individual with braces or a wheelchair. For the mentally retarded and the centrally involved, the problem often is knowing where to go and

how to get there. For the early blind, the aged, and the orthopedically handicapped, the problem frequently is both self-mobility and transportation.

Individuals whose mobility problems include those of balance need an earmold made of soft material to lessen the likelihood of breaking the skin or causing other injury if a fall occurs. These patients should have aids which can be worn securely and are reasonably protected from damage. Wearing the aid in a harness is better than holding it in place with an easily detached wire clothing clip; wearing the aid to the side rather than at the middle of the chest may minimize damage if the wearer falls. A behind-the-ear aid can be secured with double-sided adhesive tape between the aid and the skin or by taping the aid in place with nonallergenic adhesive. A shell earmold will provide greater security than a canal mold, and a behind-the-ear wire can be attached if further stability is needed. Cerebral palsied children who fall frequently may require helmets to prevent head injury. If so, a hearing aid could be built into the helmet (like the one worn by professional football halfback Larry Brown).¹⁴ Because the blind depend to some extent

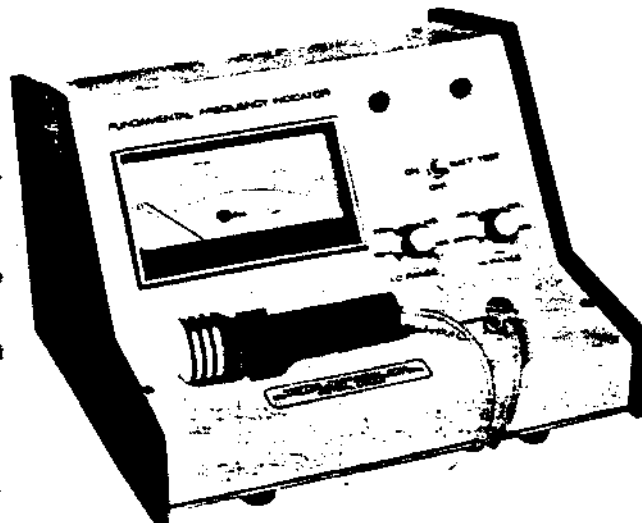
on their hearing for mobility, the audiologist should explore binaural ear-level amplification as early as possible.

The audiologist also needs to consider the mobility problem when he schedules appointments. The patient can, for example, be spared some office visits by substituting telephone communication.² or seeing only the parent when the patient's presence is not really necessary. Planning for audiologic facilities should include the reduction of architectural barriers so that patients confined to wheelchairs can have easy access to testing and therapy rooms. The patient can be helped to reach his destination more easily if he is sent a map before his first appointment, if the building is clearly marked on the outside, and if directional signs are provided both inside and outside the building.

Manipulation. Mechanical aspects of hearing aid use are major considerations for the orthopedically handicapped who have difficulty manipulating the aid because of poor motor control, artificial hands or the like. The centrally impaired individual frequently exhibits emotional outbursts which can result in damage to the instrument. The aged/senile often have difficulties in fine motor coordina-

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tion and in remembering how to use the aid.

Some guidelines for choosing instruments to reduce manipulation problems are to use a larger hearing aid, generally the type worn on the body; choose an aid with a readily accessible and easily replaced battery, and/or select an instrument with manageable controls — a large, notched volume control and a prominent on-off and telephone switch. A cover for the microphone of a body aid will protect it from drool and spilling by those with poor coordination. A cord of the correct length brought over the ear and under the collar will prevent the cord's being pulled out because of involuntary arm movements. Twisted tubing can be minimized by the use of thick-walled tubing. A battery drawer remover is available to assist in removing small batteries. A trial period with a large, easy-to-operate hearing aid may prepare the individual to handle a smaller one later. It is important that the audiologist teach a family member or associate to supervise the use of the aid, particularly in the early stages.

Family / Institution. While many handicapped persons live with their families, others reside in institutions. In either setting frustration, isolation, and emotional lability are common. The slow progress of the hearing impaired who are mentally retarded or blind frustrates their families or others who care for them. The isolation of the retarded, the blind or the emotionally disturbed inhibits social interaction and learning. Disciplining children in these three groups is difficult because of poor communication. The extreme behaviors of the emotionally disturbed create turmoil and stress. Lack of hope and progressive deterioration of the aged frequently produces difficult family or institutional situations, particularly in self-care and coping behaviors. For some individuals with hearing impairment and central problems, the abrupt change in family roles creates tremendous stress.

The audiologist can counsel family members, house parents, or aides to adopt realistic goals and he can work with a local mental health agency to provide additional help. The patient's goals and living situation should be taken into account in developing or choosing the form of communication to be used. Parents and associates should be involved in audiologic habilitation through observing behavior, evaluating changes in performance and

		ASSOCIATED PROBLEM AREAS									
		Responsiveness	Mobility	Manipulation	Family/Institution	Language	Speech	Unavailable Services	Economics	Bureaucracy/Red Tape	
SECOND HANDICAP	Mod.-to-Profound Retardation	X	X	X	X	X	X	X	x	x	x
	Central Problem	X	X	X	X	X	X	X	x	x	x
	Age/Senility	X	X	X	X	X	x	x	X	x	x
	Early Blindness	x	X	x	X	X	X	X	x	x	x
	Emotional Disturbance	X	x	x	X	X	x	x	x	x	x
	Orthopedic Handicap	x	X	X	X	x	x	x	x	x	x

Figure 1. Problem areas are shown for the multiply handicapped hearing impaired. The symbol (x) means the problem may be present for a particular disability; (X) means the problem is common.

planning for program continuation.

Language. Language development and utilization are major problems for the young hearing impaired, especially those with mental retardation, central impairment, and early blindness. The mentally retarded show problems in learning and using language which are directly related to their intelligence. Typically the severely retarded show a lack of inquisitiveness and have difficulty making verbal associations. The centrally impaired individual may also show highly deviant language behavior, particularly in recall and expression. The deaf-blind individual experiences the greatest difficulty because of his inability to use the two sensory avenues which are most important for gaining information and providing feedback.

Individuals whose communication is ineffective may benefit from using a language board, pictures, low-level vocabulary, facial expressions, natural gestures, formal signs, or fingerspelling in the hand. The audiologist needs to find out whether there are idiosyncratic ways already used to communicate "good," "hurt," etc. Any of these forms of communication may aid in hearing aid selection procedures.

Speech. The mentally retarded may produce only isolated speech units or none at all. The centrally involved individual may not even recognize speech as being of importance. The blind are deprived of secondary visual clues for learning speech.

Special procedures may be employed when carrying out evaluations of these individuals. The use of a pointing or pantomimed response may substitute for the

spoken one. The audiologist may need to use the assistance of a parent or aide to interpret to the blind individual by spelling in his hand. Measurements can be devised for specific situations using small closed sets of words which sound very different so the individual with defective speech can be understood. Another response technique is the two-alternative choice in which the individual chooses between same and different, or better and worse. Consideration should be given to the use of a bone conduction receiver to provide a tactile signal, especially during training of the hearing impaired blind patient. If the individual uses ear-level aids, a third aid would be required to provide vibration by means of a hand-held bone conduction receiver.

Unavailable Services. The unavailability of audiologic habilitation applies especially to the aged because of a shortage of professionals who are interested in geriatric problems. Federal funds for the elderly are usually spent for medical and food programs rather than for hearing aids, hearing therapy, and other services aimed at improving the quality of life. The over-65 population increased roughly four million per decade from 1950 to 1970 and continues to increase according to mid-1975 census estimated. Local funds may be limited when the elderly are concentrated in a community, while more and more of the elderly are living away from their immediate families, thereby losing family support for obtaining help with communication problems. Some of these factors, particularly the absence of strong

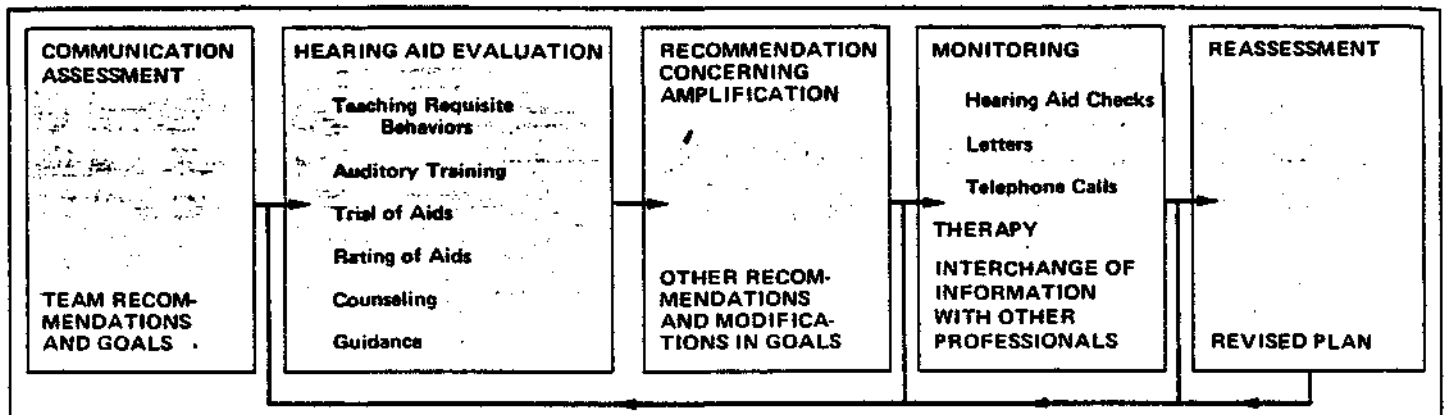


Figure 2. A model for audiologic habilitation of the multiply handicapped begins with communication assessment and continues through monitoring and other follow-up procedures.

family ties to create a "push" for services, can also affect individuals with other handicaps.

The audiologist should consider some of the following ways of supplementing available services on a cost-benefit basis: He can serve the elderly or orthopedically handicapped by an itinerant program. For example, a weekly visit can be made to a nursing home to establish and provide group communication therapy and staff inservice training. The audiologist could expand clinic hours during which services are available to include evening and Saturday appointments to allow more family

participation. He can train family members to assist in the therapy process, and assist local personnel in cooperative planning for developing programs and facilities. He can additionally provide hearing aid clinics, possibly in conjunction with county health or crippled children's services, to ensure the best use of amplification. Continuing services for the multiply handicapped hearing impaired will be available only if a demand is made by patients and their families, if the public is educated to the need for services, and if ASHA and other professional groups lobby for legislative action. An important

task for the audiologist is publicizing the need for audiologic habilitation.

Economics. The cost of goods and services is a consideration for all groups of the multiply handicapped hearing impaired. State and federal programs frequently provide for educational services to those under 21. Therefore, many hearing impaired children who are blind or retarded may receive low-cost services, whereas other groups, especially the aged, may not.

For patients in poor financial circumstances, hearing aid costs can change from a tertiary consideration⁵ to a secondary or even a primary one. Cost estimates should take into consideration the initial outlay, batteries, repair, replacement parts, harness, earmolds, and life expectancy of the aid. When money is not available, the audiologist may ask a service club to provide funds. Service organizations frequently underwrite expenses once they are apprised of the expected benefit, the financial circumstances of the family, and the program cost. The audiologist can also refer clients to Medicaid, Crippled Children's Service, local or regional public service programs, and other such programs.

Bureaucracy/Red Tape. Difficulty in getting into programs, delays in processing, and poor interagency communication affect all groups. The audiologist can assist his patient by maintaining an up-to-date file of available services and eligibility requirements, and by following appropriate referral procedures. After determining that a referral is appropriate and securing a release form signed by the patient, the audiologist would send the agency a report giving specific recommendations which include length and frequency of therapy; expectations for progress; need for future evaluations; cost of services, and necessity of other referrals. After a week or so the audiologist should follow-up with a telephone call to clarify questions and ensure

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personal attention to his patient's needs. He should check at specified intervals to monitor recommendations and maintain communication with other agencies.

Planning For Successful Amplification.

Figure 2 displays a procedure for audiologic habilitation with the multiply handicapped hearing impaired. The first box shows communication assessment followed by team-generated recommendations and goals. Assessment includes the areas listed by the ASHA Committee on Rehabilitative Audiology (1974). The ensuing recommendations and goals would be generated by the total habilitation team in conjunction with the patient and family. The second box shows the hearing aid evaluation which, like the Deshon plan, extends over several days or weeks.⁵ Similar evaluation procedures have been used for many years with children and others who have complex communicative problems.

Hearing Aids. When necessary, the hearing aid evaluation begins with the development of behaviors for responding to amplification. These include attending to activities and expressing concepts of good/bad and same/different. While working on behaviors the audiologist can intro-

duce a desk auditory training unit. Training time with the desk aid depends upon individual responsiveness and progress. When the patient tolerates headphones and amplified sound and when he consistently shows awareness of sound, a wearable aid is introduced. An inexpensive but durable instrument with a minimum of adjustments is preferable. A satisfactory aid, made on the west coast, sells with accessories for under \$90. This instrument is used to establish gain levels and dynamic range, teach care of the aid and safe wearing habits, and provide a baseline for subsequent evaluation.

The hearing aid evaluation continues with the trial of other wearable aids. Each would be given a four-part evaluation. First, standard tests of aided performance are used. Second, nonstandard tests are employed, such as listening to questions while a radio is playing, adjusting gain repeatedly in identical sound environments, and distinguishing between male and female voices. Third, a rating scale can be completed by the wearer or an associate. The scale to be filled out by a parent might include questions such as "Does he look at you when you call his name?" or "Does he talk more when he

wears the aid?" Fourth, parents and others can be taught simple, rapid ways to record behaviors such as how many hours a day the hearing aid is worn.

The final stage of the hearing aid evaluation is counseling and guidance. The audiologist helps set realistic goals for hearing aid use, estimates the patient's capacity for speech, language, and auditory development, and relates these to the other handicap. The patient and his associates are given further instructions on the care and use, including a wearing schedule, of the aid.

The audiologist can now make a specific recommendation concerning amplification. On one hand, he can recommend that trial use of amplification be continued, especially if no changes in aided performance have been observed by himself, the teacher, the parent, the aide, or the wearer. Other reasons for continued trial amplification are destructive behavior and equivocal test findings. On the other hand, the audiologist may recommend that a specific instrument be purchased, usually when the individual requires no more than limited supervision with the aid, when he has a positive attitude toward it, when de-

Continued on page 32

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HEARING AIDS continued from page 14

finite benefit has been established by standard tests, and when positive reports are given by the patient, his associates, and other professionals. In making the recommendation, consideration is also given to hearing aid specifications, wearability, durability, and availability of local service. At this time revisions may need to be made in goals related to hearing aid use or in the overall plan for habilitation. If a communication system has not been firmly established by this time, specific recommendations may now be possible.

Monitoring and Follow-up. The fourth box in *Figure 2* shows monitoring, therapy, and interchange of information with other professionals. Monitoring includes the four part hearing aid checks described as a part of the hearing aid evaluation procedure. It also includes assessing progress and discussing problems, which can be done by mail, telephone, or office consultation. Recommendations, such as nonintensive hearing therapy, can be carried out now. If therapy is carried out by someone else, the audiologist should apprise himself of the patient's progress.

It is important that the audiologist communicate his findings and recommendations to other professionals and obtain reports from them. Audiologic reports should include specific suggestions concerning amplification, listening experiences, favorable signal-to-noise ratios, and the like. Staffings and open communications by all involved professionals and sub-professionals can result in a more consistent approach to habilitation.

The final box in *Figure 2* shows that an audiological reassessment should follow at regular intervals. It should be carried out one year after the initial evaluation — sooner if there is a need — and should determine any change in function which may lead to revisions in the habilitation plan; for example, reassessment may lead to recycling through another hearing aid evaluation or further monitoring. By following a model such as this one, the audiologist can provide optimum service to the multiply handicapped.

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Navigating amplification options for children

CHERYL DECONDE JOHNSON, EDD

When children with hearing loss are placed in regular classrooms in their neighborhood schools, the team of individuals helping these children often feel they are sailing in uncharted waters. Without the centralized support and recognition that occurs when greater numbers of students with disabilities are together, the complexity of selecting from among the amplification choices can be mind-boggling. The assistive technology explosion has been accelerated recently by two recent legislative acts: the Technology Related Assistance for Individuals with Disabilities Act (1988) and the Americans with Disabilities Act (1990). Where once the choices for helping children with hearing loss included only hearing aids and auditory trainers, now assistive listening devices are being offered in a constantly expanding array.

Where does the team begin to evaluate the child's needs and to select the most appropriate amplification system? The entire support team, including the dispensing audiologist, the educational audiologist, the classroom teacher and the parents, should consider the following:

1. Is the child a candidate for a personal and/or assistive listening device?
2. What is the most appropriate am-

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plification arrangement?

3. Which amplification systems are available through the school?

4. Who will provide or pay for the system?

5. How can the equipment best be managed?

Start by operating under the premise that all children with hearing loss are candidates for amplification until determined otherwise. Then decide what amplification options are available through the child's school and how eligibility is determined.

Next evaluate the child's auditory skills relative to the acoustical barriers which he or she will encounter in the home and school listening environments. Noise, distance from the speaker and reverberation are often overlooked in accessibility planning. Decisions based solely on audiometric thresholds and word recognition abilities usually are not sufficient.

Evaluate the child's listening environments to determine the feasibility of using various amplification devices. In the school environment, consider class size, room size, room acoustics, typical distances between the child and teacher, the activity and noise level, the teacher's instructional, the child's learning style (auditory, visual, hands-on), the material being taught and the loudness and clarity of the teacher's voice and the other children's voices. For the home environment, consider family size, house size, noise level, the family's style of communication, the loudness and clarity of the parent's and sibling's voices and the activities and types of interactions.

A trial period with the amplification system can be useful. Develop a rating scale for listening skills which can be administered both before the system is installed and after the system has been used for awhile. Allow a long enough trial period to account for the initial "novelty" effect to wear off.

Set up a communication link with the entire team at the school. Be especially sensitive to the needs of the classroom teacher. The technology of hearing aids and assistive listening devices can be overwhelming. Remember that the teacher has responsibilities for the other children in the classroom as well and may need extra assistance in learning to handle these devices. Offer specific instruction in the use of the equipment and stop in often in the beginning to monitor the equipment, as well as the child's performance with the device.

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The hearing assistance team may find that acoustic accessibility becomes an issue for the entire school environment and that "inclusion" may mean inclusion not just for the child with hearing loss, but for all students with special hearing needs. G

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Parenting a Hearing-Impaired Child: A Model Program

Helen R. Pearson

The first community to which an individual belongs is the community of a family. Community, as defined by Lewis and Lewis (1977, p. 9) is:

- a system of interdependent persons, groups and organizations that:
 - a. meets the individual needs,
 - b. affects the individual's daily life.
 - c. acts as intermediary between the individual and the society as a whole.

The caretaker role in the early years of child-rearing fits this definition. Further, the term "family" may mean all the people who live in the same house, a group of people who are related by blood or marriage, or two parents and their offspring. The family unit of today consists of father, mother, and a child or children; a couple without children maintains the status of husband and wife—the act of childbearing changes their status to father and mother. A man and woman without children are a couple; the advent of a child changes this status to family.

People who become biological parents of an offspring are expected to assume the parent role efficiently and effectively with virtually no preparation. Spock (1946) assured parents that they should trust their instincts and that parenting would come naturally. Knox (1978) states that parents are expected to be experts even though their resources consist solely of their own experiences being raised and trial and error. Awareness of people's fallibility in a role for which they are ill-prepared is a sign of the changing times. The enlightened society of today questions the ignorance with which past generations assumed parenthood. Knox (1978) also outlines several needs that must be met for a child to develop self-esteem:

- I. A child needs an advocate. This is not to say a child should get blanket approval for anything he or she *does*, but it does mean implicit approval of the child as a person. A child needs approval

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as he or she self-consciously tests new roles, and whole-hearted support of the child as a person encourages these new ventures.

2. A child needs to be *respected* and *listened to*. The child who knows his or her ideas have some worth will feel like a worthy person. Attention and respect for those ideas make a child feel important.
3. A child needs to *experience joy*. The little unexpected pleasures in life need to be heeded, rather than ignored for the sake of adhering to a rigid schedule. Laughter is a vital ingredient to keeping a note of levity in everyday occurrences.
4. A child needs someone to "*let go*." The child needs to be given more responsibility and the opportunity to make decisions and to profit from mistakes. Parents keep their child close to them by releasing their hold gradually, so that the child can grow in confidence.

In addition to meeting these needs, a parent must set limits for a child. The child will be comfortable knowing what is expected. If the limits are too demanding, the child feels restricted; if they are too loose, confusion results. Consistent expectations are another important feature of effective parenting. This applies to scheduling as well as discipline. Of course, there can be exceptions—too strict adherence can produce rigidity both in activities and in ways of thinking. A parent needs to be flexible in ideas and guidance style, while adhering to basic guidelines.

Being a parent is an all-consuming effort. It can bring joy to both parent and child, but there must be love and understanding. Time together is important, but the quality of experiences together is more significant than the quantity of time. The periods of time that a child is alone are important. A child needs solitude to develop self-knowledge, to reflect and to learn to depend on inner resources. Time alone can be precious.

Finally, a parent should have empathy for a child along with respect and appreciation. A parent can share the triumphs as well as the tragedies of life. Early on a parent will feel the child's pain and take pride in his or her achievements. The feeling is ever-present, strengthening as the child grows older.

The Beebe Approach

The Helen Beebe Speech and Hearing Center in Easton, Pa. was founded in 1944 by Helen Hulick Beebe. This program is based on a unisensory philosophy of training, which capitalizes on residual hearing in the hearing impaired. By eliminating lipreading from early language instruction, the very young hearing-impaired child is forced to depend on and develop confidence in what he or she hears. The unisensory approach teaches the child to listen and acquire language skills through amplified hearing. Because the child is taught to use residual hearing effectively, many of the difficulties of learning to speak are minimized.

The large degree of success in habilitating profoundly hearing-impaired children at the Helen Beebe Speech and Hearing Center lies in the involvement of the parents. Mother and father (as well as siblings and grandparents) are an integral part of a philosophy that uses the auditory approach. The therapy is one-to-one, and the parent is expected to follow through during the child's waking hours. These dedicated parents work with their children to create a learning atmosphere in the home, while the Center lends support with teaching and constructive advice.

Behavioral management is the first prerequisite to effective teaching. Too often a parent (or another person in the hearing-impaired child's environment) feels sorry for the child's assumed inability to understand. The "poor little deaf child syndrome" is the first hurdle to be overcome in dealing with the family and child. Overprotection, according to "Parenting a Hearing-Impaired Child" (1979), is stifling and leads a child to believe that he or she cannot handle situations alone, in turn leading to a general lack of confidence.

The first positive step a parent can make is to judge each child as an individual and a child first—a child who happens to have a hearing impairment. The desired result at the Beebe Center is normalcy. The hearing-impaired child requires the same limitations and guidelines as the normal-hearing child.

The child can be expected to function at a level of capabilities that is not necessarily limited by hearing loss. High expectations result in higher performance. Once a child has begun to acquire language, the parents' expectations can follow the same developmental sequence as for normal-hearing children.

Parents need to look to the child's peers to set a model of expectation for behavior and development. The "terrible twos," for example, is a stage most children pass through; the misbehavior associated with this period has little to do with hearing impairment. Conversely, expectations must be realistic for each child. There is no formula for treatment, but each child must be regarded as an individual and each parent must look to normal child development as a guide.

The Larry Jarret House

The Larry Jarret House is affiliated with the Helen Beebe Speech and Hearing Center. It originated in May 1975 to serve families who traveled great distances for consultation and evaluation at the Center. One family at a time stays at the House for a period of one week.

This week is an intensive one. The child is seen daily at the Center for therapy; a staff therapist provides guidance and therapy daily for another hour; and a different "teaching mother" provides support and/or ideas every afternoon. In addition, the child is evaluated for sensory integration by an occupational therapist and the family confers with the

consulting psychologist. The week concludes with a full staff conference. The spare hours during the day are set aside to observe therapy of children who may present some of the same problems or progress as the child of the week. The evenings are reserved for viewing videotapes and reviewing the library, as well as looking through albums and notebooks for innovative ideas and creative activities.

The number of family members in attendance is not limited. Most often it consists only of mother and child, but sometimes the siblings and father attend also. Sometimes other therapists visit for part of the week. The objective is to maintain a home-like atmosphere so that living an auditory approach can be modeled to the family both formally and informally.

During the staff lessons at the House, a formal lesson is demonstrated to the family and at some point the mother and/or father may be asked to give a demonstration lesson for critique. What is more important, the staff stresses the carryover of concepts and language to daily living. Parents are advised on how to capitalize on situations to teach language and how to best utilize their talents for providing continual language stimulation.

Several kinds of situations are set up to demonstrate points to the family as well as to observe interaction among all of the family members. Simple household activities are used—for example, making Play Doh, sorting laundry, making trips to the grocery store, visiting the local dairy at milking time, going on scavenger hunts, and participating in special local events.

The Home Environment

Parents are encouraged to keep a diary for themselves to mark milestones and chart progress. A diary is valuable because it provides a way to look back and observe changes that are too subtle to be seen daily, while they are obvious over a period of time. Just as important are experience books, which every family in the program is expected to keep as a means of capitalizing on everyday events and expanding each child's language. These books contain some Polaroid photographs and cards, but the drawings representing the child and his or her environment and activities have more impact. The books should contain daily entries and become a source of pride to the children. The stated event is a take-off point for comments, questions, and conversation. The language should always be above the child's level and incorporate some new vocabulary. The captions are *not* intended to teach the child to read; rather they are for the use of the various individuals in the child's environment. As children who use diaries grow older, they suggest items for their diaries to their mothers, developing their creative thinking. This way, they develop a sense of self in the general scheme of existence.

The unisensory philosophy can succeed only with parent involvement. It is a family-oriented approach based on the importance of natural interaction to learning language in the same way that a normal-hearing child does. Hard work and total commitment are required, as the goal is auditory-verbal communication with which every person in the growing child's environment can be comfortable. The expectations are similar to those for any child, for individuals tend to reach higher when more is expected of them.

Each child is treated as an individual, for each child comes with a unique personality and world view. The parent of a hearing-impaired child will go through many trials and tribulations. Strong support is necessary; the parent becomes a stronger, more mature, more humble person because of having effectively parented a hearing-impaired child who is reaching his or her potential. The acceptance of the child as a person is the first step in effective intervention. Parents may feel impatient for progress; however, progress cannot be measured by tests but rather by the growth of the individual. The supportive parent allows a child to experience failures. By giving a child responsibility for profiting from mistakes, learning from experiences, and not being satisfied with less than his best performance, the child learns self-acceptance.

The following gifts are invaluable for helping a child chart life's course: responsibility, versatility, confidence, assertiveness, sensitivity, and humor. Hearing-impaired children, like all children the world over, require acceptance, approval, and love from their parents.

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APPENDIX II B

When Parents Suspect Their Child Is Deaf: **Where to Turn? What to Consider?**

Helen Hulick Beebe

Scientific and professional literature abounds in studies updating all the technological and educational advances available to help hearing-impaired people from infancy to maturity. Educational institutions, public and private organizations, profit and non-profit agencies offer their presumably updated services to parents of hearing-impaired infants and to adults who are trying to cope with their hearing problems.

The adult, either one who has been through traditional educational programs or one who has just become aware of his/her hearing impairment, can often investigate therapeutic options and make subjective and/or objective evaluation of available services. But what of the parents who suddenly, "out of the blue" so to speak, are faced with the recognition that they have a child who cannot hear? Almost as a reflex reaction, two questions arise in one form or another: Will the child talk? How will he/she be educated?

If parents suspect a hearing loss, the doctor to whom they first go for help should be able to guide them in the proper direction to have a hearing evaluation and, if indicated, a pre-

scriptive regime for ameliorating the situation in which they have found themselves. Unless the child had been designated a high risk birth, the parents could very well be traumatized, and a competent physician should be prepared to at least partially settle their minds at rest about the avenues open to them for habilitating and educating their child who at this point is probably being labeled "deaf."

What should the physician, who presumably is the first one consulted, know?

1. The location of a reliable audiology center to which he can direct parents for further testing.
2. That time is of the essence in starting habilitative procedures.
3. That very rarely is deafness total.
4. That very small amounts of residual hearing can be amplified.
5. That infants can be fitted with appropriate binaural amplification.
6. That amplified residual hearing can be trained to develop natural oral language and speech.
7. That there is a very good chance that the child may remain at home and go to regular school with hearing peers.
8. That there are various philosophies about educating a child with even a profound hearing loss.

A medical doctor should at least have some general information on the subject of available habilitative and/or educational resource. If he cannot offer guidance beyond designing a reliable audiologic service, then the audiologist should be prepared to answer any reasonable questions parents might have.

Audiologists may function on a private basis or in collaboration with a medical team specializing in otolaryngology. They are more likely to be found serving as a team member in larger hospitals or university speech and hearing clinics. Unfortunately, geographic location will have some bearing on the nature and extent of the information that is offered.

Technically, a reliable hearing test can be done by an efficient audiologist using reasonably modern equipment. If necessary, referral can be made to centers which afford more complicated differential evaluations. When indicated, X-rays, for example, can be prescribed where there is suspicion of structural cochlear damage.

A well-informed audiologist, or a clinic team of otologist, hearing therapist and audiologist, can save a family a great expenditure of time, money, and energy as well as heartache by offering practical, realistic information about available resources. It is up to the parents to decide whether they will settle for the most convenient and/or least expensive services or whether they will investigate opportunities more far afield which might necessitate a greater expenditure of effort and money.

One way or another, the parents should be told that there are basically three routes to follow in educating the hearing-impaired child. One called Total Communication (T.C.) recommends early fitting of hearing aids and at the same time teaches lipreading as well as one of the systems of signed language. In this system, it is necessary for parents and those interested in communicating with the child to also learn sign language. Communication with the general public requires an interpreter.

A second route is called oral/auditory or oral/aural. This is the traditional oral approach which also now advocates early detection and prescriptive hearing aids. Lipreading is trained as the avenue through which to acquire language. Audition is trained as an auxiliary sense which aids in voice modulation and awareness of sound. Teachers of the deaf who have been trained in these respective philosophies may work as itinerant while the child is at preschool level and some-

times educate the parents in group sessions. Later, children are assigned to special classes either day or residential, private or public, also taught by teachers trained in the respective philosophies. Occasionally, children in these classes are partially or fully integrated into regular classrooms.

The third approach is called auditory-verbal (also unisensory or Acoupedic). It too emphasizes early fitting of appropriate amplification, but discourages use of signs, gestures, even of lipreading. This may sound unreasonable, or even cruel, but it is done in order to force the child to achieve the maximal use of amplified hearing, even though this may be a relatively small amount. The critical difference between the traditional oral/aural and auditory-verbal is that in the latter language and speech are acquired in a natural way via auditory channels. Intensive auditory training, one of the requisites of this approach, carried out by therapists and followed through via parents, is what accomplishes this goal. The child learns to imitate the melody of speech (the suprasegmentals) which is a very important "carrier of the message." It is the lack of this speech melody which accounts for the relatively poor intelligibility of the speech of many hearing-impaired people. A person speaking with exact articulation, but lacking a natural speech melody, can be entirely unintelligible. On the other hand, a person with natural speech melody (appropriate intonation), but with imperfect articulation, may be more easily understood.

Success in the auditory-verbal approach, assuming it is directed by a reliable center or clinic, does require parents or surrogates who are not only motivated but who do their part with guidance in developing auditory acquisition of language. Eventually, such parents will also be required to requisition the appropriate school handling of the child. Since Public Law 94-142, parents must actively participate in the planning of an Individual Educational Program required for every handicapped child.

No one philosophy is right for every child.

It is not very likely that a family doctor, a pediatrician or an otologist will have had

Unwillingly, the mass media, chiefly television, have promoted the idea that deaf children cannot learn to talk. Sign language is a very fascinating form of communication with great human interest appeal, but obviously it is not the "language of choice" for the community as a whole.

Helen Hulick Beebe is the Executive Director of the Helen Beebe Speech and Hearing Center located in Easton, Pa. Mrs. Beebe is an internationally known lecturer and the author of A Guide to Help the Severely Hard of Hearing Child.

background adequate to understand firsthand the pros and cons of any one philosophy of education of the deaf. It is incumbent upon audiologists and those in charge of training and educational programs to be informed about what can be done, with even profound hearing loss, to achieve the maximum potential with the child involved. The ultimate decision as to which educational regime to follow rests with parents. In fairness to them and to the child whose future is at stake, they should be given the opportunity to make that choice and not be limited because appropriate facilities seem beyond their reach financially or geographically.

We have stated that all three philosophies recommend early hearing evaluation and early prescriptive amplification. In the Total Communication approach, parents are expected to learn sign language. In the traditional oral approach, parents are expected to talk to the child for the purpose of stimulating language growth. They do this chiefly via lipreading. In the auditory-verbal approach parents must be faced honestly with an explanation of how much responsibility lies with them. Therapy which is on a one-to-one basis is offered as demonstration — guidelines if you will — for expansion and experiential development. The whole regime, if it is to be successful, is parent oriented.

The task of teaching a child to make sense of the world of sound is a complex one. Hearing aids make it possible for the brain to perceive sound. However, there is an important difference between perception (awareness) of sound and discrimination (differentiation) of sound(s). To be simply aware of the presence of a particular sound, whether it be the blare of a car horn or the sound of an orchestra, is a far less sophisticated task than differentiating the complex and subtle variations of sound that comprise human speech and language. Simply fitting a child with a hearing aid is not enough. Sound would be reaching the brain, but it would have no meaning.

It is the responsibility of the parent (with the careful, consistent guidance of an auditory therapist) to help the hearing-impaired child to sort out and make sense of the profusion of sounds in his/her world. Auditory training is not just something that is done once or twice a week by a trained therapist.

Rather, it is the day-to-day commitment to guiding the child from the confusing bombardment of sound to the association of sound and meaning, and to the fine discrimination of sounds that make up language and communication. This statement need not scare off the prospective teaching parent! There are many who, although very skeptical and even feeling they lacked "taste for the task," have found with guidance from professionals as well as from other parents that they could not only do the job, but could eventually, in turn, help other parents to "learn on the job." The task can be rewarding and can strengthen rather than place a strain on family relations.

The audiologist or whoever might be counseling the parents might suggest a program because of geographic convenience. Reference has been made to the geographic location of auditory-verbal centers placing a limit on the choice offered to parents of a hearing impaired child. Although the philosophy of auditory-verbal (otherwise known as Acoupedic or unisensory) has been known for more than a century, it has been practically developed only since the early 1940's when wearable hearing aids became available. Relative to traditional oral or total communication programs, there are not very many areas where this type of training is available. Universities are still for the most part training teachers along traditional lines.

At the VOICE Conference ("Learning to Listen, The First Option") in Toronto in 1979, the consensus was that although every child might not ultimately achieve the goals of this route, he should be given the opportunity up

(Continued on pages up

Photos Needed

The League's Job Placement Service is assembling an exhibit of photographs of hearing-impaired people on the job. If you have such pictures and would be willing to share them with us, please contact Harriet Burk Goodwin at the League, (212) 741-7650.

Australian Audiologist Visits League on World Rehabilitation Fund Grant

An Interview with Douglas Fifield

Q. Could you describe your activities here at the League? Just what was your mission here?

A. When Dr. Madell wrote to me during the year, she mentioned the League had been interested in some work that we published on the making of two special ear impressions to enable high-powered hearing aids to be fitted successfully. She had tried to use this technique, had found some problems with it, and asked if I could come over to have a look at the problems and show the staff at the League how to go about producing those ear impressions. So during the time I have been here I've had a careful look at the difficulties the League has been having with the special materials and techniques used for manufacturing the earmolds. I also trained the staff in the production of the multi-stage impression technique.

Q. Therefore, your main concern here was this particular technique which you developed at the National Acoustics Laboratory and disseminating that technique here: Could you give us a brief background on the

In May 1982, the New York League for the Hard of Hearing played host to a most distinguished visitor from Australia - Douglas Fifield of the Australian National Acoustics Laboratory. Mr. Fifield was visiting the League under the auspices of the Visiting Scientists Program of the World Rehabilitation Fund. In his native Australia, Mr. Fifield is audiologist in charge of the field services section for the National Acoustics Laboratory, which is part of the Australian Department of Health and is responsible for the design, manufacturing and fitting of hearing aids as part of a government-run health care entitlement program.

Mr Fifield's purpose in visiting the League was to share with its professional staff special earmold materials and procedures he helped develop that are used to eliminate the feedback associated with high-powered hearing aids. These procedures are largely unknown in the United States, although they have become widely practiced in Australia. Through Mr. Fifield's efforts and the support of the World Rehabilitation Fund, the larger was become one of the very few hearing rehabilitation organizations in the United States to offer this technique for the development of earmolds.

The following is an edited version of an interview Mr. Fifield gave at the League on May 28, 1982.



Above: Douglas Fifield demonstrates new technique for making earmolds.

News in Brief



The League on the Patricia McCann Show

The League went on the air recently when WOR Radio personality Patricia McCann (on the right) broadcasted an installment of "The Patricia McCann Magazine" from the League. The show focused on the problems of deaf and hard of hearing people. Pictured above with Ms. McCann is Elizabeth Ying, League speech pathologist.

Dr. Levine Receives Award

Dr. Edna S. Levine, Professor Emeritus at New York University, was the 1982 recipient of the prestigious Alice Cogswell Award given by the Gallaudet College Alumni Association. Dr. Levine, who serves on the League's Honorary Editorial Board, received the award for her outstanding service to deaf people.

Lincoln Center Announces TTY Service

Lincoln Center for the Performing Arts has announced the installation of a telephone/teletype TTY to handle information calls and ticket requests from speech-or hearing-impaired patrons. The TTY cisco 87-805, and the service is available on weekday from 10 A.M. until 5 P.M. only. The service offers information on performance times, ticket availability, prices and access to the Lincoln Center Credit card service center charge.

(Continued from page 6)

to the point when an alternate route had to be chosen. A decision based on audiometric findings, multiple problems or family skepticism could be premature. Early treatment in some cases can be considered diagnostic therapy, for it is not until the receptive centers of the brain have received adequate language input that expressive skills emerge.

In 1978, a group of professionals who had been working successfully but independently for many years with an auditory approach decided to organize. Their purpose was to proclaim that more hearing-impaired children, even those who are profoundly deaf, could follow the route of mainstreaming in all aspects of life from the beginning. This group, now known as the International Committee of Auditory-Verbal Communication, is now officially affiliated with the Alexander Graham Bell Association for the Deaf. Its purpose is to motivate and educate parents and professionals in order to advocate and facilitate auditory-verbal communication. In this way, a truly auditory approach can be made available to all hearing-impaired children.

-Children with only vibratory reaction to amplification have responded positively to an auditory regime.

Gifts to the League

The New York League for the Hard of Hearing is a nonprofit community service organization dedicated to a complete program of testing, education and rehabilitation services for all hearing impaired men, women and children in Greater New York. The United Fund, foundations, friends who have been served and helped by the League contribute to support its work. While gifts are unrestricted, they can be made in a number of ways: cash contributions; gifts or pledges of securities or property, now or in the future; various trust arrangements which, from a tax point of view, can benefit you as well as the League; bequests: some people may prefer to designate their contributions for any of the League services such as: audiology, research applications, education, counseling, services for the aging



Mayor Koch Proclaims May "Better Hearing and Speech Month"

On May 2, Edward I. Koch, Mayor of the City of New York, proclaimed May "Better Hearing and Speech Month." In ceremonies at City Hall, Dr. David Sencer (above right), New York Commissioner of Health, presented the official proclamation to Sherri Marlow. Sherri, seven years old, is a client of the New York League for the Hard of Hearing and the daughter of Mrs. Barbara Marlow. Dr. Jane Madell (above left), Director of Audiology at the League, also attended the presentation.

NYC Museums Offer Interpreter-on-Request

Interpreter-on-Request is a new service for deaf and hearing-impaired people who wish to attend events at a New York City museum. Through this service, a hearing-handicapped person can request an interpreter to be at any museum event not listed in the museum's monthly calendar of interpreted events. To request this service, write or call the Education Department of the sponsoring museum at least one week before the event.

Among the museums in New York City offering this service are: the Museum of Modern Art (708-8792 or TTY 247-1230); American Museum of Natural History (873-1300); the Brooklyn Museum (638-5000); Cooper-Hewitt Museum (860-6868).

Nexus in Brief

Blue Cross & Blue Shield Announces TTY Number

Deaf and hearing-impaired persons may now contact Blue Shield and Blue Cross of Greater New York by using the special TTY telephone number (212) 490-4160. This new service will permit hearing-impaired subscribers and medicare beneficiaries to communicate directly with a Blue Cross/Blue Shield trained representative. The telephone service augments the Personal Interview services for deaf persons at the Blue Cross and Blue Shield Information Center, 622 Third Avenue in Manhattan.



League Honors Volunteers

The New York League for the Hard of Hearing honored its dedicated corps of volunteers at a cake and coffee reception on May 20. The volunteers received certificates of recognition in appreciation of the more than 2,000 hours they contributed to the League in 1982. Special recognition was given to Estelle Rib for her 25 years of volunteer service. Mrs. Rib (above left) is shown at the reception with Ruth R. Green, League Administrator.

Gifts donated by Bristol-Meyers were distributed to the volunteers to say "Thanks" for stuffing envelopes, making phone calls, speaking to senior citizen groups, and generally being there when needed.

APPENDIX - III

Name _____ Age _____ Sex _____
 Occupation . _____
 Education qualification _____
 Address _____

Phone:

Name of the Child _____ Age _____ Sex _____
 Case No. _____ Education _____

Date : _____ Signature of the Parents. _____

NAVIGATING AMPLIFICATION OPTIONS FOR CHILDREN

Jonhson, CD

Section I

I Choose the correct answer:

1. To select appropriate amplification system child's auditory skills relative to _____ should be evaluated.
 (a) language skills (b) listening environment (c) none above.
2. To help a child with hearing loss hearing aids, auditory trainers and also _____ are developed.
 (a) assistive listening devices (b) speaker (c) mic (d) none above.

3. _____ is a very important aspect that has to be considered while evaluating the listening environment of a hearing-impaired child.
 (a) home environment (b) therapy environment
 (c) travelling situation (d) none.
4. _____ is the most important factor considered while selecting an appropriate hearing aid.
 (a) language skills (b) intelligence (c) audiometric threshold (d) none.
5. _____ can be given to check whether hearing aid is suitable.
 (a) trial period (b) amplification (c) tests period
 (d) none.

Section II

II State whether True/False:

1. Audiometric thresholds and word recognition abilities are not the only criteria on which selection of an appropriate amplification system is based on. True/False
2. Child's listening environment is to be evaluated in order to determine the feasibility of using various amplification devices. True/False
3. Hearing aids, auditory trainers and assistive listening devices are generator systems developed to help children with hearing-impairment. True/False
4. To select appropriate amplification system a child's auditory skills relative to cognitive skills should be evaluated. True/False

5. For the evaluating child's listening environment child's school environment need not be taken into consideration.

True/False

**COUNSELLING PARENTS OP HEARING IMPAIRED CHILD
DURING THE POST-DIAGNOSTIC PERIOD**

- Schmannan, F.D & Strakes, G.

Section I:

I Choose **the** correct **answer**:

1. Feelings and reactions of _____ is an integral part of remedial programme.
(a) parent (b) therapist (c) teacher (d) none of the above
2. The clinician dealing with hearing-impaired child has also role as _____.
(a) teacher (b) parent counselor (c) none of the above.
3. Parents needs to concentrate on child's _____ to look beyond handicap.
(a) abilities (b) disabilities (c) intelligence (d) none of the above.
4. Parents should _____ the hearing-impaired child for the progress of the child.
(a) overprotect (b) accept (c) punish (d) none of the above.
5. Parents must develop a _____ attitude towards the hearing-impaired child.
(a) positive (b) negative (c) mixed (Positive and Negative) (d) None of the above.

Section II:**II State whether the statement is true or false:**

1. Parent's early reaction to the discovery of deafness and the resolution of their feelings towards the child affect the child's future. True/False.
2. Parents feelings and reactions are not to be made an integral part of the remedial programme. True/False.
3. The difficulties experienced by hearing-impaired persons may have their roots in parent's attitude towards the handicap. True/False.
4. Parental anxiety affects the child. True/False.
5. When the communication is affected the bond between the parent and the child is not affected. True/False.

HEARING AID FOR MULTIPLY HANDICAPPED**Section I:****I Choose the correct answer:**

1. An individual's willingness to engage in sustained interaction is termed
 (a) responsiveness (b) communication (c) behaviour
 (d) none above
2. _____ techniques can be used to increase motivation and reduce aggressive while using hearing aid.
 (a) Behaviour modification (b) speech reading (c) Auditory training (d) none.

3. The final stage of hearing aid evaluation is_____.
- (a) standardized tests (b) Counselling and follow-up
(c) Behaviour modification (c) None
4. _____include suggestion concerning amplification, listening experience, favourable signal to noise ratio, details of evaluation etc.
- (a) hearing aid prescription (b) audiological report
(c) speech and language report (d) none.
5. Audiological reassessment should be carried out _____ after the initial evaluation.
- (a) 3 years (b) 2 years (c) 1 year (d) 5 years.

Section II:

II True/False:

1. A series of short sessions can be used to avoid fatigue and maintain attention and avoid undesirable behaviour. True/False.
2. Individuals with mobility problem need earmould of soft material. True/False.
3. Wearing a hearing aid in a harness is better than holding it in place using a clothing clip. True/False.
4. Parents and associates should be involved in audiometric habituation through observing behaviour, evaluating changes in performance and planning for programme combination. True/False.
5. Wearing a hearing aid to the middle off the chest rather than side of the chest may minimize damage to the aid if the wearer falls. True/False.

PARENTING A HEARING IMPAIRED CHILD : A MODEL PROGRAMME

- Helen R Pearson

Section I:

I Choose the correct answer:

1. The first community to which an individual belong to is

(a) Family (b) School (c) Society (d) None.

2. _____ is an important feature of effective parenting.

(a) Consistent expectation (b) No expectation (c) High expectation (d) None of the above.

3. The parents should have _____ for a child along with respect and appreciation.

(a) Sympathy (b) Anxiety (c) Empathy (d) None.

4. Child should be expected to function at the level of _____ that is not necessarily limited by hearing loss.

(a) Capabilities (b) disabilities (d) intelligence
(c) None.

5. The _____ of a child as a person is the first step in effective intervention.

(a) rejection (b) over protection (c) acceptance (d) none.

Section II:

II State whether True or False:

1. A hearing impaired child needs to be respected and listened to.

True/False

2. The child needs to be given more responsibility and opportunity to make decisions and to make profits from mistakes. True/False
3. Quality of experience together during parent child interaction is more significant than the quantity of time. True/False
4. Over protection leads to general lack of confidence in child. True/False
5. The hearing impaired child requires same limitation and guidelines on the normal child. True/False

WHEN PARENTS SUSPECT THEIR CHILD IS DEAF : WHERE TO TURN ?

WHAT TO CONSIDER ?

- Helen Hulick Beebi

Section I:

I Choose the correct answer:

1. If parents suspect hearing loss, the doctor whom they first go for help should be able to guide them in the proper directions to have_____.
a) hearing aid (b) speech therapy (c) hearing evaluation
(d) none.
2. In_____approach parents are expected to learn sign language.
(a) total communication (b) traditional approach
(c) auditory training (d) none above.

3. _____ makes it possible for the brain to perceive sound by the hearing impaired children.
 (a) lip reading (b) hearing aids (c) loudspeaker (d) none of the above.
4. The ultimate decision as to which educational programme to follow rest with _____.
 (a) parents (b) teachers (c) therapist (d) None of the above.
5. Discrimination of sounds means _____.
 (a) identifying the presence of sound (b) differentiating various sounds (c) None of the above.

Section II:

II State whether True/False:

1. Deafness is rarely total and there are very small amounts of residual hearing which could be made use of by a hearing aid. True/False
2. Fitting a hearing impaired child with a hearing aid is just enough to develop speech. True/False
3. A person speaking with exact articulation but lacking natural speech melody can be entirely unintelligible. True/False
4. Auditory training is something to be done once or twice a week by a trained therapist. True/False
5. Child learns to listen through intensive auditory training. True/False

APPENDIX - IV

GROUP - I

SECTION I:

Multiple choice questions:

Subject	Pretest scores	Post test scores	Subject	Pretest scores	Post test scores
1	10	22	16	5	24
2	5	23	17	7	20
3	8	24	18	9	23
4	7	24	19	6	25
5	11	24	20	10	25
6	8	25	21	6	21
7	12	25	22	5	18
8	7	25	23	10	22
9	8	23	24	4	19
10	11	24	25	7	22
11	6	24	26	6	24
12	10	25	27	5	21
13	9	25	28	7	22
14	5	25	29	3	20
15	6	23	30	11	23

(GROUP I)

True - False Scores : [SECTION II]

Subject	Pretest scores	Post test scores	Subject	Pretest scores	Post test scores
1	7	21	16	4	22
2	10	24	17	8	23
3	6	23	18	10	25
4	5	25	19	5	24
5	10	22	20	8	24
6	12	25	21	7	20
7	8	24	22	3	19
3	10	25	23	10	20
9	6	24	24	6	23
10	12	25	25	6	24
11	7	23	26	5	20
12	7	24	27	4	19
13	9	25	28	8	23
14	6	24	29	5	18
15	9	25	30	10	25

GROUP - II

Multiple Choice SECTION 1			True/False	
Subject	Pretest Scores	Post test Scores	Pretest Scores	Post test Scores
1	8	24	4	21
2	12	23	11	19
3	9	20	5	21
4	11	20	7	23
5	8	23	3	20
6	7	24	10	25
7	5	22	6	24
8	4	18	9	23
9	6	25	6	22
10	10	23	8	25