

**Handbook
of
Adult
Rehabilitative
Audiology**

JEROME G. ALPNER, PH.D.

EDITOR

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Dedication

Writing this book represented the challenge of covering the long-neglected area of adult rehabilitative audiology. Without encouragement and assistance from my wife in the preparation of the manuscript, this book would not have been written. I dedicate this book to Judy. It also is dedicated to my four children, Steven, Susan, Sharon, and David, with thanks for their patience.

Preface

This book attempts to fill a void in the literature for those who have any contact with hearing-impaired adults. Primary use is intended for students in speech pathology and audiology and for practicing audiologists. An effort has been made to deal comprehensively with the rehabilitation process for adults with hearing loss. This handbook can be used most effectively when the basic material is complemented with current research.

Chapter 1 considers the present status of rehabilitative audiology for adults, emphasizing the rationale for remediation procedures. The strengths and weaknesses of present philosophies are reviewed. Client input regarding what rehabilitation has meant to them is discussed in Chapter 2. Clients' feelings about the therapy process previously have been ignored in the literature.

Assessment procedures for evaluating how clients function in communication situations is the basis for Chapter 3. Measuring techniques and speechreading methodologies are discussed to assist the audiologist in planning a remediation program. Primary emphasis is on case management and information presented should enable the audiologist to obtain baseline information on how clients progress relative to pre- and post-therapy.

The hearing aid is a major component in rehabilitation. Dr. Kasten considers this aspect in Chapter 4. Quite often, after audiologic assessment, there is a significant need to work with clients to obtain the maximum benefits from amplification. This chapter emphasizes pre- and post-hearing aid orientation as well as the rehabilitative aspects involved in the hearing aid evaluation process.

Chapters 5 and 6 are concerned with the

remediation process as well as psychological and counseling aspects. Various techniques will be presented including the methodologies available to the clinician involved in therapy. Hearing loss and subsequent communication difficulties are only a part of rehabilitation. Communication deficits caused by hearing loss may manifest themselves in psychological problems such as withdrawal from society or attempts to deny the problems that may exist. Audiologists need to know the kinds of situations which may arise and how to counsel clients effectively through problem areas. This aspect of rehabilitation permits the clinician to treat the client as a total person rather than dealing only with hearing loss per se. Ms. McCarthy shares the chapter on the hearing therapy process with this author. Dr. Pollack deals with the psychological and counseling aspects of the hearing-impaired individual.

The need to provide rehabilitation for senior citizens with hearing loss has increased in importance. It is discussed in Chapter 7. Reasons for greater awareness of this population include the increasing number of senior citizens in this country as well as our desire to help them lead more productive lives. Remediation methodologies suggested for this age group often differ from the usual procedures for younger adults and are presented in this chapter.

Dr. Johnson presents a broad overview of the deaf client in Chapter 8. The congenitally deaf adult is now receiving services from audiologists on a more frequent basis. These adult deaf generally have serious speech problems and greatly reduced hearing acuity which preclude "normal" communication ability. Many rely on manual communication or total communication. The clinician needs to understand the com-

munication potential of these persons and the manner in which they may be helped. Techniques for therapy differ significantly from routine procedures and must be understood by the audiologist if any degree of success can be anticipated. The chapter focuses on the ways in which the audiologist may deal with this group.

Rehabilitation of many hearing-impaired clients may involve more than the services rendered by the audiologist. The roles of ancillary professions and individuals is considered in Chapter 9. To treat the client as a total person, it may be necessary to involve vocational rehabilitation counselors, physicians, social workers, and others. This chapter presents some ways in which they may assist the audiologist in a total approach to rehabilitation.

Chapter 10 discusses community adult aural rehabilitation programs. Any successful rehabilitation program should attempt to identify adults with hearing loss. Of the few such programs in the United States at the present time, most are public school oriented. This chapter shows the audiologist how he may learn what community needs exist, approaches by which adults can be reached for identification of hearing loss, and types of rehabilitation programs which may be established.

One of the weakest areas in adult

hearing rehabilitation has been research activity. Criticism has long been directed at adult rehabilitation because of its lack of sophisticated methodologies. Intensive research to assist audiologists in developing more meaningful approaches to rehabilitation is needed. In Chapter 11, Dr. Best identifies and explores research approaches.

Many individuals have contributed both directly and indirectly to the writing of this book. I am indebted to the numerous students who have been members of my adult rehabilitative audiology classes. As we searched together for philosophies of adult hearing rehabilitation, these students helped me to achieve differing insights regarding the need for substance in therapy. Without them, there would have been no motivating force for writing the book. In addition, I must thank the countless hearing-impaired adults with whom I have worked whose input indicated a significant role for audiologists in rehabilitation. I also acknowledge with appreciation the efforts of Charlotte Jones, who edited the manuscript. Finally, I extend a sincere thanks to LaVar Best for his encouragement and a realization that the clinician and the researcher can and should work together.

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1

Adult Rehabilitative Audiology: An Overview

Jerome G. Alpiner, Ph.D.

Several years ago this writer distributed a public service message to the local newspapers announcing registration for speech-reading classes. The resulting inquiries for instruction in "speed reading" amused the clinicians at the University of Denver Speech and Hearing Center, but it soon became disturbingly evident that a sizable segment of the population did not equate speechreading with either rehabilitative audiology or lipreading.

The decision to replace "lipreading" with a more contemporary term (speechreading, visual listening, visual hearing) had been an attempt to encourage use of more current terminology by the public. The result demonstrated that the public equates "lipreading" with therapy used to overcome hearing impairment. Other terminology is not yet accepted.

TERMINOLOGY CONSIDERATIONS

Audiologists engaged in remediation often disagree about what to call their classes, their services, and themselves. Titles such as rehabilitative audiologist, clinical audiologist, hearing clinician, or simply audiologist are currently in use. The variety may confuse those seeking therapy as well as students of rehabilitative audiology (or audiologic remediation, or aural rehabilitation, or remediation audiology). The rela-

tive youth of audiology accounts for this abundance of synonyms.

Historically, adult therapy has consisted of lipreading and auditory training. This traditional approach represents a limited view of remediation. It would be helpful to define additional terms in rehabilitative audiology, expanding them to indicate the role of the audiologist. By evaluating present methodologies, we may ascertain those remediation areas which need modification. A reasonable starting point is a sequential description of what transpires from the time a hearing-impaired adult receives an audiologic evaluation to that point where remediation begins.

PRE-REHABILITATION CONSIDERATIONS

Ideally, the adult client is referred to the speech and hearing center by an otologist or personal physician who has ruled out medical or surgical treatment. It is this writer's opinion that the audiologist should also see the self-referred client. By taking the opportunity to counsel him regarding the importance of otologic examination we reduce the risk that he remain untreated and establish our concern for the overall welfare of the client.

Following a medical referral, audiologic procedures can be implemented with the understanding that either the hearing im-

pairment is non-reversible or it has been medically minimized to the fullest extent possible.

The first step in the audiologic process is evaluation, which includes pure tone and speech audiometry and any special tests indicated. If the hearing impairment appears significant in terms of communication ability, the client will receive a hearing aid evaluation to determine if amplification will be beneficial. This text assumes that the reader has a working knowledge of audiologic assessment and hearing aid evaluation procedures, topics covered in other sources (Davis and Silverman, 1970; Newby, 1964; Pollack, 1975; Rose, 1971). The results of these evaluations are important to the rehabilitation techniques covered in this handbook.

During the audiologic process, the audiologist will be making judgments regarding necessary remediation methodologies. Techniques include evaluation of the hearing impairment (whether amplification is indicated or not), assessment of the communication function, hearing aid orientation when amplification has been recommended, and remediation including therapy and

counseling. It may be necessary to obtain assistance from other resources such as the psychologist, social worker, or rehabilitation counselor. Special considerations for the deaf or geriatric client must also be taken into account.

THE DEAF ADULT

In recent years, audiologists have become increasingly concerned with deaf adults. It was previously believed that little could be done to improve intelligibility of their verbal output and receptive input. The general attitude was to leave deaf clients to their manual communication environments. Since the attitudes of many audiologists have changed during the past several years, a section on the adult deaf is included in this text.

For a general understanding of hearing loss, a classification of hearing impairment is presented in Table 1.1. Classification is based on numerical audiologic data. It is also important to consider discrimination difficulty, benefits derived from amplification, and specific communication difficulties encountered by individual clients.

In general, we categorize a deaf client

Table 1.1. Classes of hearing handicap.^a

Hearing Threshold Level	Class	Degree of Handicap	Average Hearing Threshold Level for 500, 1000, and 2000 Hz in the Better Ear*		Ability to Understand Speech
			More Than	Not More Than	
dB ISO			dB	dB	
25	A	Not significant		25	No significant difficulty with faint speech
40	B	Slight handicap	25	40	Difficulty only with faint speech
55	C	Mild handicap	40	55	Frequent difficulty with normal speech
70	D	Marked handicap	55	70	Frequent difficulty with loud speech
90	E	Severe handicap	70	90	Can understand only shouted or amplified speech
	F	Extreme handicap	90		Usually cannot understand even amplified speech

* Whenever the average for the poorer ear is 25 dB or more greater than that of the better ear in this frequency range, 5 dB are added to the average for the better ear. This adjusted average determines the degree and class of handicap. For example, if a person's average hearing threshold level for 500, 1000, and 2000 Hz is 37 dB in one ear and 62 dB or more in the other his adjusted average hearing threshold level is 42 dB and his handicap is Class C instead of Class B.

^a From HEARING AND DEAFNESS, Third Edition by Hallowell Davis and S. Richard Silverman. Copyright 1947, © 1960, 1970 by Holt, Rinehart and Winston, Inc. Reprinted by permission of Holt, Rinehart and Winston.

with a congenital hearing loss under either a Class E or a Class F handicap. Although some of these individuals possess a Class E handicap, congenital handicaps will have prevented the client from learning linguistic and syntactic concepts necessary for normal speech and language development. A deviant auditory input system will result in defective verbal output for most deaf people. To assess an individual's hearing handicap it is necessary to consider the evaluation factors previously mentioned. A tentative decision can then be made concerning whether the client functions as a deaf person (an inability to utilize oral-aural communication as a primary communication mode) or a hearing-impaired individual (oral-aural communication as a primary communication mode).

REHABILITATION FOR SENIOR CITIZENS

In today's society there is a greater awareness of the need to provide remediation for senior citizens because our lifespan has been increased and the aging process is the most common cause of hearing loss. Methodologies in remediation for this age group may differ from the usual procedures for younger adults, but little information is available regarding successful programs for this population.

In university training programs, students seem to prefer working with children rather than "old people." Obviously, we do not dispute the need to habilitate youngsters, but wish to stress that senior citizens constitute an increasingly large segment of society's human resources. Classroom discussions invariably lead to such moral issues as the practicality of therapy for the non-productive senior citizen. This insensitivity fails to consider whether there are other roles for the senior citizen who is no longer employed. For the older adult, still physically and mentally able, confined to a home for the aged (nursing home, retirement center, extended care facility, or care center), the basic question is whether such a home is able to provide more than the basic needs of food, clothing, and shelter. It is this writer's opinion, based on experience, that most nursing homes and care centers in the United States provide only enough for survival.

From a practical point of view, it would seem reasonable to keep the senior citizen productive as long as possible. As a moral issue, there should be little question as to what we should do for those who are physically and mentally capable of communication activity. We need to do away with arbitrary levels of old age and concern ourselves with capabilities rather than limitations.

GUIDELINES FOR REHABILITATIVE AUDIOLOGY

The Committee on Rehabilitative Audiology of the American Speech and Hearing Association (ASHA) (1974) has adopted guidelines for the audiologist in the habilitation of the auditorily handicapped. Some of the designated responsibilities are pertinent to the remediation process for adults.

ASHA uses the term auditorily handicapped in reference to individuals with auditory disabilities of varying degrees. In this text, hearing impairment will be used synonymously with auditory handicap. An individual may have a hearing loss which does not result in a communication handicap.

The ASHA Committee (1974) states that audiologic habilitation is designed to help individuals with auditory disabilities realize their optimal potential in communication regardless of age. This same committee replaced the term "aural rehabilitation" with "audiologic habilitation" on the rationale that "aural rehabilitation" was restricted to programs of speechreading and auditory training.

The term habilitation has not been universally accepted as a replacement for rehabilitation either medically or legally. We will use rehabilitation as a restoration process of the communication function. It is our belief that habilitation should be defined as the process of developing the communication function, a skill not previously possessed by an individual. Habilitation is frequently used, for example, with congenitally deaf children. For the adult with acquired loss of hearing, remediation procedures are aimed at restoring, as nearly as possible, that function the client had previous to the hearing loss. With limited modifications of the ASHA Committee guidelines (1974), the plan for comprehensive audiologic re-

habilitation may include any or all of the following components:

1. Selection of an amplification system to make available as much undistorted sensory information as possible.
2. Development, remediation, or conservation of receptive and expressive language abilities.
3. Counseling for client and family.
4. Continuing re-evaluation of auditory function.
5. Assessment of the effectiveness of rehabilitative procedures.

DEFINITIONS OF THE REHABILITATIVE PROCESS

Terminology considerations are stressed in this text for the benefit of readers who may be confused by the variety of nomenclature currently used. As the student gains experience, he will better understand the definition problems inherent in this profession. For the present, we need to define what is meant by the words used in audiology.

The remediation process will be referred to as rehabilitative audiology, except when the word habilitative is used for specific situations. The audiologist's role will be remediation oriented. Keeping in mind that audiologists also engage in diagnosis and research, we will designate these roles specifically.

Speechreading, lipreading, visual listening, and visual hearing will be used synonymously. Aural rehabilitation will be used synonymously with rehabilitative audiology. This procedure will facilitate understanding of various literature references cited throughout the text. Any deviations from these definitions will be indicated.

THE PRESENT STATUS OF REHABILITATIVE AUDIOLOGY

Oyer and Frankmann (1975) have stressed the need to approach the various aspects of rehabilitative audiology from a conceptual framework. They believe that it is necessary to proceed from a number of assumptions in order to more effectively understand and develop a meaningful remediation process. Their assumptions appear reasonable since we are interested in

rehabilitating the "total" person who may have been handicapped by hearing loss. Their assumptions follow:*

1. Aural rehabilitation is one facet of the multi-disciplinary problem areas referred to as audiology, just as clinical hearing measurement or the experimental approach to the study of the normal process of audition are facets.
2. Aural rehabilitation is a psychosocial education process, and therefore lends itself to analysis within a conceptual framework.
3. Aural rehabilitation, as a process, must be examined as a dynamic interrelated flow of events, and therefore cannot be studied meaningfully as events occurring in isolation.
4. Communication handicap stemming from auditory deficit can be alleviated in varying degrees through the process of aural rehabilitation.
5. Self-adjustment that has been distorted by the effects of hearing loss can be modified through the process of aural rehabilitation.
6. Social adjustment that has been adversely affected by a hearing loss can be modified through the process of aural rehabilitation.
7. Every aspect of the process of aural rehabilitation can be further clarified through rigorous empirical and experimental investigation.
8. There is at present no available well-organized conceptual framework by which to study the process of aural rehabilitation.
9. Given the proper attention through thoughtful conceptualization, pooled clinical impressions, and rigorous scientific research, the success of the aural rehabilitation process can be predicted for individuals within a specific range.

The above assumptions prompt the question, "If we know so little about the rehabilitative audiology process, how do we know our methodologies are appropriate?" After all, we have been providing rehabilitation services for adults in this country since about 1900. The majority of therapy has focused on speechreading and auditory training, yet little information is available on the results of therapy using these techniques (O'Neill and Oyer, 1973).

We find ourselves utilizing techniques which have no supportive documentation

* From THE AURAL REHABILITATION PROCESS: A CONCEPTUAL FRAMEWORK ANALYSIS by Herbert J. Oyer and Judith P. Frankmann. Copyright© 1975 by Holt, Rinehart and Winston. Reprinted by permission of Holt, Rinehart and Winston.

for their success. Of the last 100 hearing-impaired clients seen at the University of Denver Speech and Hearing Center for hearing rehabilitation, 89 indicated they were better able to communicate after 8 weeks of therapy. They had received 1 hour of therapy per week which included speech-reading, auditory training, communication training, and counseling. The results of their pre- and post-therapy speechreading tests, however, showed no significant change. Subjectively, the clients reported they had been helped to communicate better, but the clinicians had no valid instrument to substantiate these personal feelings.

REMEDATION ASPECTS FOR THE HEARING-IMPAIRED ADULT

The specific speechreading techniques of Mueller-Walle (Bruhn, 1949), Jena (Bunger, 1961), Kinzie and Kinzie (1931), and Nitchie (1950) are still evident to some degree in rehabilitation programs. Publications describing these techniques may be purchased today but little information can be found on their effectiveness.

The Mueller-Walle Method is based primarily on rapid identification of syllables through rhythmic drills. In this method, the observer is trained to pay close visual attention to lip movements, associating them with sounds in syllables. The lipreader is encouraged to become familiar with charts which classify the sounds according to the ways they are formed.

The Jena approach employs kinesthetic and visual cues. It emphasizes the patterns and rhythms of speech production while encouraging the client to become kinesthetically aware of the different sounds by producing them himself. In the first two lessons, the client studying the Jena Method learns vowel and consonant charts illustrating the visual characteristics of sounds. Subsequent lessons emphasize three basic principles of kinesthesia, imitation, and rhythm.

Nitchie's approach includes awareness of lip movements for producing consonants, vowels, and diphthongs, but stresses training with key words, sentences, and short stories. Ordman and Ralli (1957) reported that, with the Nitchie approach, "The pupil is led, by the use of clue words, to lipread a

series of simple associated sentences and without conscious effort, to analyze the distinctive characteristics of the various movements."

The Kinzies developed a method combining the Mueller-Walle and Nitchie Methods. They developed a series of graded lessons in lipreading which were designed to provide lipreading instruction for both children and adults at different levels of ability.

The above methods of lipreading may be classified as predominantly analytic or synthetic in their approach. Generally, the analytic approach stresses close attention to the speaker's lip movements in order to recognize individual sounds. The synthetic approach stresses comprehension of the message by recognizing key words and employing associational and contextual cues. Historically, the Jena and Mueller-Walle Methods are considered primarily analytic with emphasis on sentence drills and recognition of individual sound units. The Kinzies' and Nitchie's approaches are predominantly synthetic and emphasize the thought or general idea of the message.

As indicated previously, no published research has proved or disproved the effectiveness of any of these methods. Perhaps the lack of research base for evaluating lipreading instruction accounts for the scarcity of new formal methods being introduced in the United States.

RESEARCH CONSIDERATIONS

Binnie and Alpinier (1969) attempted to determine whether any significant differences in lipreading methods could be found. They wanted to assess the value of different approaches in lipreading instruction. Further, they desired information on the usefulness of the Utley film, a lipreading test known as "How Well Can You Read Lips?" (1946). An underlying purpose of the project was to evaluate what happens when non-valid methods are used in lipreading instruction and then to compare the effectiveness of these methods with the non-valid Utley test. The Utley was used because other lipreading tests developed since 1946 were validated on the basis of this particular instrument. It was hypothesized that this pilot study would reveal the present status

of lipreading instruction and therapy evaluation.

Fifteen adult subjects, ages 35–65 years, with sensorineural hearing loss, were selected for this study. All subjects had received an audiologic examination at the University of Denver Speech and Hearing Center. None had participated in any previous lipreading instruction.

The 15 subjects were randomly divided into three groups of 5 each. Group One received instruction in the Jena Method during a 9-week course for 1 hour each week. Group Two was assigned to the Nitchie program and those individuals also received a 9-week course in lipreading instruction for 1 hour each week. Group Three, the control group, received no formal training in lipreading and provided the basis for comparison with Groups One and Two. Group Three also was used to rule out the possible effects of learning on test performance.

Before and after therapy, the subjects' lipreading abilities were assessed in their respective groups of 5. They received the Utley silent film word and sentence test. In addition to this test, individual phonemes (vowels and consonants) were selected from the International Phonetic Alphabet and were recorded on video tape (Ampex VR-7000) by a male speaker. Subjects were seated in a semi-circular arrangement approximately 10 feet from the screen or television monitor. The test materials were presented inaudibly. Subjects were instructed to watch the speaker's lip movements and write the responses on prepared answer sheets. One point was allowed for each item correctly identified. The homophony of responses was considered on the consonant and vowel test. For example, if the stimulus item was /p/ and the response was /b/ or /m/, the response was counted as correct.

A test for significance of difference between means of small samples (Spence et al., 1968) demonstrated no significant differences between the pre- and post-test treatment conditions. This suggests that the Control Group's scores in lipreading did not show improvement and rules out the effect of practice (that is, viewing the same

test on two occasions) as a basis for possible improved scores. Neither the Jena nor the Nitchie Groups demonstrated significantly better scores on the lipreading tests administered in this study after 9 weeks of training. The lipreading methodology employed did not seem to make a difference in terms of demonstrating better performance in lipreading ability.

To demonstrate the difference between treatment (Jena and Nitchie Groups) and no treatment (Control Group) the difference scores of the pre- and post-tests were pooled for the treatment groups and compared to those of the control group. Statistical analysis failed to demonstrate any significant difference. The treatment groups could not identify test materials any better than the group with no formal lipreading experience.

This study contained a number of limitations which could have influenced the difference scores. They are discussed for the value they may have in future studies of this nature. First, research of this type should be carried out with large samples of the hearing-impaired population. Second, more intensive lipreading sessions, over a longer time period, should be completed before assessing the value of lipreading instruction. The appropriate number of sessions a client should receive in lipreading instruction has never been determined.

The most important limitation of this study may be the tests which were used. The Utley continues to be utilized for validation criteria and to assess lipreading ability because it contains reliability standardization data and is commercially available. It appears to be a very difficult film test, however, and not necessarily a good measure of lipreading ability. Characteristics necessary for successful lipreading have never been determined. The Word section of the Utley test contains 36 items but standardization data demonstrate a mean score of only 6.8 and a standard deviation of 3.7. The Sentence section contains 125 items with a mean score of only 33.6 and a standard deviation of 16.3 (Utley, 1946). These data would indicate that lipreading performance, as measured by this test, is quite restricted and extremely variable.

DiCarlo and Kataja (1951) reported that the Utley test was so difficult that only 19% of the items could be answered correctly. One of the reasons for this difficulty could be the manner of presentation. The test items are administered inaudibly. Considering that only about one third of our English sounds are visible, it may not be surprising that the Utley scores are low.

The Utley test stimulated further investigative endeavors in measuring lipreading ability. The Barley Speechreading Test (Barley, 1964) was developed using Central Institute for the Deaf (CID) Everyday Sentences (Davis and Silverman, 1960). Jeffers and Barley (1971) reported that the Barley Test, Form A, was indicated to be a valid test of speechreading using the Utley Test, Form B, as the criterion test. Results obtained with these two tests were very similar. A second study indicated high correlations between both forms of the Barley Test and the Utley Sentence Test, Form A. When comparing the Barley Test, Form A, with the Utley Test, Form A, correlations were 0.79. When the Barley Test, Form B, was compared to the Utley Test, Form A, correlations were 0.83.

The subjects' low scores on both the Barley and Utley tests might be explained by the medium used. Jeffers and Barley (1967) report that one of the limitations of the Utley Sentence Test may be due to inherent difficulties in film presentation rather than in the content of the film per se. They administered the Utley Test to college students and to hearing-impaired adults, using both a film and "live" presentation without voice. The college students did twice as well as the hearing-impaired groups with the film version and three times as well with the "live" presentation. While the "live" version tested the same skill as the filmed version, it needs to be emphasized that it still is not known what skills are being measured and how the lipreading test relates to clients' communication function either pre- or post-therapy. Other lipreading tests continue to use the non-valid Utley test for validation.

It should be determined whether future efforts should be directed toward measuring lipreading ability or measuring communica-

tion function. Practically, audiologists should be able to predict communication ability with a valid lipreading test. To date, there is no such lipreading instrument. Development of such tests should be a high priority in audiology.

The remediation value of visual cues as a supplement to audition, under adverse listening conditions, was examined by Neely (1956), O'Neill (1954), and Sumbly and Pollack (1954). These studies demonstrated that the listener can increase his receptive communication ability by giving visual attention to the speaker. Dodds and Harford (1968) found that a bisensory auditory and visual listening condition provided the best scores for Utley sentences. Preliminary investigation by Binnie and Barrager (1969) demonstrated that scores for monosyllabic words presented visually only were approximately 25%. Bisensory articulation function curves, however, demonstrated the following pattern:

0 dB SL—55%
8 dB SL—85%
16 dB SL—95%

Consequently, Binnie and Barrager (1969) recommended that lipreading tests be devised employing some auditory cues to complement the restricted visual channel.

Future research should demonstrate the amount of sound required to complement lipreading for optimum identification of speech. Since most hearing-impaired adults have some degree of residual hearing, this approach may be more realistic than traditional lipreading.

HEARING AIDS AND REHABILITATION

For some time, audiologists have been concerned about the client's purchase of a hearing aid and his subsequent rehabilitation. The ASHA Committee on Rehabilitative Audiology Guidelines (1974) state that the hearing aid evaluation process is an integral part of rehabilitative audiology. The evaluation procedures are discussed in depth elsewhere (Pollack, 1975; Rubin, 1976).

The important considerations here are pre- and post-test procedures for the client purchasing an instrument. He may purchase

the aid from a commercial source (hearing aid dealer) or a hearing aid dispenser (an ASHA-certified audiologist). It should be noted that the Veterans Administration has its own procedures for evaluation and dissemination.

All persons who provide aids should be aware that there may be a need for rehabilitation, including both pre- and post-hearing aid orientation. In addition, physicians should be cognizant of the potential value of rehabilitative audiology for their patients. Anyone with a handicapping hearing loss should be referred to the audiologist for remediation. Obviously there is a need to improve the client's communication function to a level as near normal as possible, whether or not a hearing aid has been recommended. Hearing aids and other rehabilitative procedures are not perfect substitutes for normal ears but the combination can significantly help the client improve his communication ability.

THE ROLE OF ANCILLARY PROFESSIONS

Experience has shown that there is often a need to convince both physicians and disseminators of hearing aids of the importance of rehabilitative audiology. McCarthy (1976) devised a series of questions and answers indicating why rehabilitation is important for many clients. This approach focuses on a situation in which many audiologists have found themselves attempting to justify rehabilitative services.

McCarthy's defense of audiology emphasizes the following points:

1. While the hearing aid dealer's experience in fitting aids is undoubtedly vast, the audiologist has more intensive knowledge of the entire hearing process. Audiologists are trained to rehabilitate the hearing-impaired person by educating him about his hearing loss, teaching him how to adjust to his hearing aid, demonstrating to him how to adapt to his environment with his hearing aid, and discussing with him how to make the most of environmental, facial, gestural, and listening clues. We cannot justify fitting a client with a hearing aid and allowing him to struggle with the adjustment process on his own. It is our training in dealing with the client after the hearing aid evaluation that, in large part, differentiates us from the hearing aid dealer.

2. Audiology is relatively young and not read-

ily visible to the public. Since the ASHA Code of Ethics prohibits direct advertising, many people are referred to us by other hearing-impaired persons who attended one of our lipreading or hearing aid orientation groups. At present, we are largely dependent upon hearing aid dealers to sell aids to people after we have evaluated them. There is little reciprocity. Hearing aid dealers rarely refer newly aided clients to audiologists for rehabilitation, the time when clients may need assistance the most.

3. The main benefit of lipreading groups is to give hearing-impaired individuals an opportunity to interact with their peers, exchanging feelings and attitudes in an atmosphere of mutual understanding. With the guidance of the audiologist, they can learn about their hearing loss, its ramifications, and available remediation procedures. While dealers or physicians can answer certain questions for them, it may be more meaningful to hear responses from others experiencing similar problems. Lipreading groups do not create good lipreaders. The main purpose of teaching lipreading is to develop better communicators through therapy processes which may include counseling.

4. Modification of attitudes toward hearing losses, families, and jobs is of great importance for improving communication ability. Improvement may be demonstrated by various scales of communication function (Alpiner, 1975; Sanders, 1975).

McCarthy (1976) summarizes by saying that audiologists have the technical skill and education to do hearing aid evaluations and the training to help the client become a better communicator.

The audiologist, whatever his specialty, cannot be all things to all hearing-impaired adults. Hearing loss may result in other problems for the hearing-impaired person. Psychological, vocational, medical, and social difficulties, for example, may result from the breakdown in the communication process. The audiologist should know when to make the appropriate referrals. Our interactions with other disciplines can be more effective if we know when, how, and to whom a referral should be made. Conversely, persons in other professional disciplines may encounter the same problem with regard to our services. The diversity of our audiologic activities and the variety of audiology titles further complicate our interactions with others.