



Definition of and Competencies for Aural Rehabilitation

Committee on Rehabilitative Audiology

The following Committee on Rehabilitative Audiology Report was adopted by the ASHA Legislative Council in November, 1983. Present and past committee members responsible for the development of this statement include O. T. Kenworthy, past Chair; James McCartney, current Chair; Evelyn Cherow, ex officio; Jaclyn Gauger, Robert Hinkle, Antonia Maxon, Mary Pat Moeller, Mary Jo Osberger, Thomas Rees, Jan Colton, Cheryl Deconde, Gene Del Polito, William Haas, Gerri Kahn, Dorothy Stein, Dean Garstecki, and Vice Presidents for Clinical Affairs, Hughlett Morris and David Yoder.

The following Definition of and Competencies for Aural Rehabilitation Position Statement and the Guidelines for Graduate Training in Amplification were each developed by a separate standing committee of the Association in response to a charge formulated by the Legislative Council. In November, 1983, the Legislative Council adopted the products of both committees. In addition, a recommendation was made that these be published together in order to convey to the membership that the content of the two documents is viewed by Council to be significantly interrelated.

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Background

Some apparent contradictions among ASHA policies, as well as discrepancies between those policies and clinical practice, have obscured who should provide services in aural rehabilitation and who should supervise those services.

- A position paper adopted by Legislative Council in 1973 (Asha, 1974), *The Audiologist: Responsibilities in the Habilitation of the Auditorily Handicapped*, indicated that the

audiologist is the main provider and supervisor of aural rehabilitation.

- A resolution by the American Board of Examiners in Speech-Language Pathology and Audiology (ABESPA; ABESPA, 1979), now the Professional Standards Council, specified some supervisory roles in aural rehabilitation: audiologists supervise assessment procedures, including hearing aid selection and fitting, and speech-language pathologists supervise speech and language assessment of the hearing-impaired clients. No position was taken about supervision of intervention.
- Meanwhile, in actual practice, many speech-language pathologists provide services to hearing-impaired clients, particularly in settings where such services by an audiologist are not available.
- There continued to be differences among audiologists and differences among speech-language pathologists in their interests, training, experience, and competencies in aural rehabilitation.

The apparent discrepancies between Association policy and clinical practice led this Committee to shift the focus of debate over who should provide aural rehabilitation services. Rather than endorse either audiologists or speech-language pathologists as the primary service provider, the Committee chose to delineate comprehensive service delivery as a set of proposed minimal competencies (Committee on Rehabilitative Audiology, 1980). Those minimal competencies however, did not offer a corresponding definition of aural rehabilitation and did not address current variations in clinician's skills, interests, and training. Therefore, this report proposes:

- a revised definition of aural rehabilitation that is consistent with the proposed minimal competencies and complements the definition provided in the 1973 Position Statement; and,

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- a revision of the minimal competencies that subdivides the required body of special knowledge into areas of expertise consistent with present clinical practice.

Definition of Aural Rehabilitation

Aural rehabilitation refers to services and procedures for facilitating adequate receptive and expressive communication in individuals with hearing impairment. These services and procedures are intended for those persons who demonstrate a loss of hearing sensitivity or function in communicative situations as if they possess a loss of hearing sensitivity. The services and procedures include, but are not limited to:

- I. Identification and Evaluation of Sensory Capabilities
 - A. Identification and evaluation of the extent of the impairment, including assessment, periodic monitoring and re-evaluation of auditory abilities.
 - B. Monitoring of other sensory capabilities (e.g., visual and tactile-kinesthetic) as they relate to receptive and expressive communication.
 - C. Evaluation, fitting and monitoring of auditory aids and monitoring of other sensory aids (e.g., visual and vibrotactile) used by the auditorily handicapped person in various communicative environments (e.g., home, work and school). Such auditory and sensory aids are taken to include all amplification systems (group and individual), as well as such supplementary devices as telephone amplifiers, alarm systems and so on.
 - D. Evaluation and monitoring of the acoustic characteristics of the communicative environments confronted by the hearing-impaired person.
- II. Interpretation of Results, Counseling and Referral
 - A. Interpretation of audiologic findings to the client, his/her family, employer, teachers, and significant others involved in communication with the hearing-impaired person.
 - B. Guidance and counseling for the client, his/her family, employer, caregiver, teachers, and significant others concerning the educational, psychosocial and communicative effects of hearing impairment.
 - C. Guidance and counseling for the parent/caregiver regarding: educational options

available; selection of educational programs; and facilitation of communicative and cognitive development.

- D. Individual and/or family counseling regarding: acceptance and understanding of the hearing impairment; functioning within difficult listening situations; facilitation of effective strategies and attitudes toward communication; modification of communicative behavior in keeping with those strategies and attitudes; and, promotion of independent management of communication-related problems.
 - E. Referral for additional services (e.g., medical, psychological, social, and educational), as appropriate.
- III. Intervention for Communicative Difficulties
 - A. Development and provision of an intervention program to facilitate expressive and receptive communication.
 - B. Provision of hearing and speech conservation programming.
 - C. Service as a liaison between the client, family and other agencies concerned with the management of communicative disorders related to hearing impairment.
 - IV. Re-evaluation of the client's status
 - V. Evaluation and modification of the intervention program

Proposed Minimal Competencies for the Provision of Aural Rehabilitation

Definition of Terms:

The terms *basic knowledge*, *basic understanding*, and *special knowledge* require some specification before proceeding to the proposed competencies. Considered relative to the familiar taxonomy of Bloom (1956; Bloom, Hastings, & Madaus, 1971) we would define these terms as follows:

- Basic knowledge incorporates what Bloom refers to as *knowledge*. It involves the "recall of specifics and universals, recall of methods and processes, or recall of a pattern, structure or setting (Bloom et al., 1971; p. 271)."
- Basic understanding may be equated with Bloom's category of *comprehension*. "This represents the lowest level of understanding or apprehension such that the individual knows what is being communicated and can make use of the material or idea... without necessarily relating it to other material or seeing its

fullest implications (p. 272) This may involve the processes of translation, interpretation and/or extrapolation.

- Special knowledge refers to the remainder of Bloom's categories which include *application, analysis, synthesis, and evaluation*. It is at this level that the learner is expected to not only possess knowledge but also to demonstrate the ability to apply and elaborate upon the knowledge.

Basic Knowledge and Basic Understanding

Persons providing aural rehabilitation should demonstrate:

- I. A basic knowledge of general psychology, sociology, mathematics, general physics, zoology, human anatomy and physiology.
- II. A basic understanding of normal communication processes, including:
 - A. Anatomic and physiologic bases for the normal development and use of speech, language and hearing; such as, anatomy, neurology, and physiology of speech, language and hearing mechanisms;
 - B. Physical bases and processes of the production and perception of speech and hearing; such as, (a) acoustics or physics of sound, (b) phonology, (c) physiologic and acoustic phonetics, (d) perceptual processes, and (e) psycho acoustics; and,
 - C. Linguistic and psycho linguistic variables related to the normal development and use of speech, language, and hearing; such as, (a) linguistics (historical, descriptive, sociolinguistics, urban language), (b) psychology of language, (c) psycho linguistics, (d) language and speech acquisition, and (e) verbal learning and verbal behavior.

Special Knowledge

- III. A special knowledge of the following areas should be demonstrated, depending upon whether the chosen area of expertise is to be adults (A), children (C) or hearing aid selection (H):

Area of Expertise

- A. As regards *auditory system disorders*, persons should be able to:
 - ACH • identify, describe and differentiate the various disorders of auditory function such as disorders of the outer, middle and inner ear, the auditory nerve and the

associated neural and central auditory system pathways.

- B. As regards *audiologic assessment procedures*, persons must be able to:

- ACH • provide and interpret pure-tone and speech audio metric measures used to evaluate peripheral and central auditory/functions including, but not limited to, measures of threshold sensitivity and measures to differentiate sites of auditory dysfunction.

- ACH • identify and perform screening examinations for speech and language problems.

- ACH • determine the need for referral to other medical and non-medical specialists for appropriate professional services.

- C. As regards *evaluation of personal and group amplification, and other sensory aids*, persons must be able to:

- ACH • perform and interpret measures of amplification-system characteristics

- ACH • provide and interpret behavioral measures of listener performance with amplification.

- ACH • demonstrate skills in the fitting and adjustment of amplification (e.g., modifying tubing, manipulating controls, and fitting earmolds).

- ACH • plan and implement a program of orientation to hearing aid use as a means of improving communicative function.

- ACH • evaluate and describe the effects of amplification use on communicative function.

- ACH • evaluate and describe the influences of environmental factors on communicative function.

- ACH • describe the availability and use of sensory aids, as well as telephone and telecommunication devices, for hearing-impaired persons.

- ACH • design and implement a program for monitoring and maintaining both personal and group amplification systems.

- ACH • describe alternate methods of hearing aid selection and procurement.

- D. As regards *normal communicative development and the effects of hearing impairment on communicative development*, persons must be able to:
- C • describe the semantic, syntactic, pragmatic and phonologic aspects of human communication as they relate to normal communicative development both in terms of comprehension and production.
 - C • describe the effects of hearing impairment on the development of semantic, syntactic, pragmatic and phonologic aspects of communication, both in terms of comprehension and production.
- E. As regards the *assessment of and intervention upon communicative skills* of hearing-impaired individuals, persons must be able to:
- AC • administer or provide for the administration of all assessment measures in the client's preferred mode of communication.
 - AC • administer and interpret appropriate standardized and non standardized measures of speech and voice production.
 - AC • administer and interpret appropriate standardized and non standardized measures of language comprehension and production skills and/or alternate communicative skills, such as signing.
 - AC • administer and interpret appropriate standardized and non standardized measures of auditory, visual and combined auditory-visual communicative skills.
 - AC • describe communicative skills based upon a comprehensive assessment of communicative abilities.
 - AC • determine and describe communicative needs of the hearing-impaired individual.
 - AC • develop and implement a rehabilitative intervention plan based on considerations of communicative skills and communicative needs of the hearing-impaired individuals.
 - AC • develop and implement a system for measuring and monitoring the appropriateness of the rehabilitative intervention plan.
- F. As regards *conservation of hearing and prevention of communicative problems*, persons must be able to:
- ACH • plan and implement a program of periodic monitoring of auditory abilities and communicative function.
 - ACH • describe the effects of environmental influences, hearing aid use, and sources of trauma on residual auditory function.
 - ACH • evaluate measures of environmental acoustic conditions and relate that evaluation to effects upon communicative skills.
- G. As regards the *psychological, social, educational, and vocational ramifications of hearing impairment*, persons must be able to:
- ACH • describe normal aspects of psychosocial development.
 - ACH • describe the impact of hearing impairment on psychosocial development.
 - CH • describe the effects of hearing impairment on learning.
 - CH • describe, in general terms, systems and methods of educational programming.
 - ACH • identify the need for and availability of psychological, social, educational and vocational counseling.
- H. As regards *communicative-rehabilitative case management*, persons must be able to:
- ACH • describe various techniques of interviewing and interpersonal communication.
 - ACH • demonstrate skills in interviewing and interacting with communicatively-impaired individuals and their families.
 - C • plan and implement in-service and public-information programs for allied professionals and other interested individuals concerning the prevention, identification, assessment and management of hearing impairment and resulting communicative disorders.
 - C • plan and implement parent-education programs concerning the management of hearing impairment and resulting communicative disorders.
 - H • plan and implement in-service and public-information programs for allied professionals, parents and other interested individuals concerning the prevention,

- identification, assessment and management of auditory disorders only.
- ACH • demonstrate the ability to communicate case information to allied professionals and others working with communicatively-impaired individuals.
- AC • plan and implement service programs with allied professionals who serve hearing-impaired persons.

Discussion

Terminology

This Committee recommends use of aural rehabilitation as the appropriate descriptive term for the following reasons:

1. With the accompanying definition as supporting documentation, the term aural rehabilitation is no longer as restrictive as was contended in the 1973 position statement.
2. The term audiologic habilitation is potentially viewed as discipline specific and, therefore, more restrictive. By incorporating specific reference to audiology this term potentially limits both service provision and supervision to audiologists. As noted previously, this is inconsistent with present practice and with at least one aspect of Association policy (ABESPA, 1979).
3. The term habilitation suggests skill establishment and skill replacement rather than elaboration of existing skills. Such a view is inconsistent with existing literature on normal language acquisition (Fletcher & Garman, 1979) and language development of the hearing impaired (e.g., Curtiss, Prutting & Lowell, 1979; Skarakis & Prutting, 1977).

As defined above, aural rehabilitation addresses communicative skills which are known to exist in some form. Therefore, the process becomes a rehabilitative one rather than habilitative. Furthermore, the orientation implied by the term habilitation potentially disregards the fact that the majority of auditory disorders are adventitious in nature and are suffered primarily by adults with an established set of communicative skills.

4. The term rehabilitation is better recognized by third-party payers and others not familiar with this profession's terminology.

Training Implications

As a clinical service, aural rehabilitation occupies a unique position. The duties of the aural-rehabilitation service provider cover a broad range of specialized skills that may be addressed by speech-language pathologists, audiologists, teachers of the hearing impaired, psychologists, counselors and physicians. Cross-disciplinary training, therefore, seems requisite to properly prepare clinicians to provide aural rehabilitation. To be maximally effective, training programs may need to draw upon courses in several areas and departments. The proposed minimal competencies may provide training programs with guidelines in the selection, evaluation and monitoring of coursework and clinical experiences. Furthermore, a competency-based approach may allow training programs to indicate more clearly to potential employers what to expect from graduating students. This not only increases the credibility of the training program but may also improve student performance for at least two reasons. First, employers may be less inclined to impose unrealistic expectations upon the clinician. Second, if the content of the training is properly specified, the clinician should be better prepared to meet the critical demands of the work setting (Northcott, 1973). From the clinician's perspective, such shifts in job-readiness and employer attitudes should lead to increased credibility, effectiveness and job satisfaction. More importantly, from the client's perspective these shifts should facilitate improved service delivery.

A repeated concern is that the implementation of competencies will necessarily increase the time required for students to matriculate. This is a legitimate point in view of rising educational costs and declining enrollments at the graduate level. Such a concern, however, is predicated on the assumption that all training occurs at the preservice level. It seems unreasonable, though, to expect any preservice training program to be the complete source of knowledge in any profession. We should only expect that preservice training will provide the emerging professional with the skills for meeting a limited set of client and employer needs and the strategies for acquiring new knowledge and skills on the job.

From this viewpoint, then, continuing education assumes a prominent role in training clinicians. It, therefore, becomes critical that we delineate training and service-delivery guidelines that extend beyond the preservice level. As such, the proposed minimal competencies are intended to delineate comprehen-

sive service delivery independent of training method or level.

Continuing Education

The need for and utility of in-service training in aural rehabilitation is well documented in the literature (Davis, 1977; Garstecki, 1978; Hochberg, Levitt & Osberger, 1980; Davis & Shepard, 1983; Hochberg & Schmidt, 1983; Maxon & Brackett, 1983). For example, studies by Hochberg et al., (1980) and Hochberg & Schmidt (1983) examined the need for in-service training to upgrade speech-language pathologists' skills in teaching speech to hearing-impaired children. Based on a questionnaire survey, they found that a large percentage of speech-language pathologists learned such speech-training techniques from outside reading and from in-service training. This survey further revealed that 95% of the clinicians surveyed felt they would benefit from continuing professional education designed to improve their competence in providing speech and language services to hearing-impaired children.

Although the need for continuing education is clearly established, the most effective method for implementing such training is open to further study. In fact, the National Commission on Allied Health Education (1980) recommended that participants carefully examine the issue of delivery systems for continuing education. The question arises, then, whether a competency-based approach might be effectively applied to continuing education in our field. An example of a successful application of this approach is a project conducted by Hochberg & Schmidt (1983). After intensive in-service training, speech-language pathologists and teachers of the hearing impaired completed a rating scale designed to identify their relative degree of confidence in various areas of competence. Competencies were classified relative to direct provision of services or implementation of in-service training for other staff. The results indicated that, after training, the participants felt more confident in those activities related to direct provision of services. They felt less confident in presenting didactic materials and demonstrating the application of the methods to their colleagues. Although more rigorous evaluation procedures may be needed to assess training effects, this study demonstrates the feasibility of identifying and teaching specific competencies utilizing in-service training.

Consumer and Professional Needs

Competency-based training may also service as a mechanism for meeting some consumer and professional needs that appear to be interdependent. For

instance, a number of reports in the literature have identified the following concerns:

1. Public information relative to the services we provide and the impact/importance of those services is lacking (Stream & Stream, 1980; Smaldino & Sahli, 1980; Sweetow & Barrager, 1980). This lack of awareness has been identified in both large metropolitan areas (Pearlstein, Russel & Fink, 1977) and in rural areas (Kellarney & Lass, 1981).
2. Hearing aid orientation programs are not always offered to hearing-impaired clients by audiologists or speech-language pathologists (Barrager, 1978; Brooks, 1979; Sweetow & Barrager, 1980; Stevenson & Dawtry, 1980).
3. Most programs in aural rehabilitation do not target specific goals and objectives relative to counseling of clients. Yet, such counseling has been shown to have a significant impact upon prognosis (Oyer, Freeman, Dixon, Donnelly, Goldstein, Lloyd & Mussen, 1976; Brooks, 1979; Sweetow & Barrager, 1980; Flahive & White, 1981).

It is reasonable to expect that, if we re-oriented our certification and training to reflect the consumer needs and concerns expressed in points two and three above, that customer satisfaction and the credibility of our profession might concomitantly improve. This, in turn, would address the professional concerns raised in point one. In an era of declining resources, such consumer support represents a crucial element of professional survival. It is noteworthy that the proposed competencies specifically address the consumer concerns raised relative to counseling and hearing aid orientation.

Certification Standards

How then might we reorganize our present training and certification standards to meet these consumer and professional needs? In examining the present certification standards, it is this Committee's opinion that they do not require sufficient training of either audiologists or speech-language pathologists to meet the minimal competencies as proposed. For instance, many audiologists who meet current standards might have difficulty demonstrating even a basic understanding of language development or language intervention. Similarly, speech-language pathologists might encounter difficulty in demonstrating competency in such content areas as amplification systems and implications of audiologic assessment.

What remains before our profession then is the task of specifying how the current standards might align with the proposed competencies. Clearly, that process will require lengthy and detailed study. In the course of that study, however, this Committee recommends that we consider:

- the unique status of aural rehabilitation as a cross-disciplinary area of service provision;
- the need for clear role definitions in the provision of aural rehabilitation to reduce duplication of service and increase cost effectiveness;
- the utility of balancing our training expectations between preservice and continuing education efforts;
- the consumer needs underlying the proposed minimal competencies;
- the need for an official Association policy that addresses both the consumer and professional needs raised here; and,
- the potential utility of addressing the issue Of who should provide aural rehabilitation by specifying what services should be provided.

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