Materials for Audiologic Rehabilitation: Help Getting Started

Audiologic rehabilitation (AR) is the process by which hearing care professionals maximize the effective treatment of hearing loss by directly addressing patients’ communication problems and needs, and allowing patients to interact with the professional and with peers who are experiencing the same hearing challenges. Unfortunately, relatively few hearing care professionals have implemented audiologic rehabilitation programs that supplement the traditional, individual counseling and hearing aid adjustment process.

Northern & Beyer\(^1\) have documented the practical benefit of group audiologic rehabilitation. They showed a reduction in return-for-credit rate from 9% to 3% as a result of participation in a group audiologic rehabilitation program. Wayner\(^2\) described a consistent 3% return rate in a large dispensing practice in a regional medical center. These data, along with continued discussion on the value of counseling techniques, have contributed to a resurgence of interest in AR.

Starting a new AR program, however, can appear to be an overwhelming challenge when schedules are full and professional demands for time are many. This article is intended as a resource for busy hearing care professionals who have considered expanding the rehabilitative aspect of their practice for adult patients but don’t know where to start. Some may think that using “canned” material is not appropriate. However, using existing materials to jump-start a program can give hearing care professionals the experience and confidence needed to modify or develop their own materials to meet the specific needs of their practice and their patients. The rationale for and the pragmatic issues related to implementing such programs have been described elsewhere.\(^3\)-\(^7\)

Author’s Note: This brief article is a necessarily incomplete overview and not a comprehensive listing. Useful materials are bound to have been inadvertently omitted.

**Group vs. Individual Treatment**
Group audiologic programs are a cost-effective and important part of hearing instrument fitting and adjustment\(^8,9\) since family involvement and peer interactions are as important as the information that is provided. However, some activities require individual treatment. Auditory or auditory/visual training that would be needed after cochlear implantation or fitting with a frequency transposing hearing instrument may be difficult in a group setting, even if one had enough similar patients to make up a group. Most materials designed for group programs can be modified to use with one person, and some individual materials can also be used in groups. Material developed for speechreading or auditory training can usually be modified for the other modality, or for combined auditory-visual presentation. Creativity and flexibility are the keys.

**Professional Preparation**
Several references provide excellent and practical information for the practitioner who wants a review of or update to current rehabilitation procedures. Kricos\(^10\) provides an overview of the current state of audiologic rehabilitation. Comprehensive overviews can be found in Spitzer, Leder & Giolas\(^11\) and Kricos & Lesner.\(^12\) Both provide a balance of theoretical framework, practical clinical procedures and assessments. A concise summary of counseling for communicative disorders can be found in Schum.\(^13\)

The contribution of Norman P. Erber to audiologic rehabilitation has been significant. He provides a theoretical framework for communication and conversational fluency,\(^14\) and his Communication Therapy\(^15,16\) provides clinical models and procedures. Numerous tables and lists make this reference easy to use. His auditory training text\(^17\) remains a classic and continues to provide useful information.

Montgomery\(^18\) provides a concise outline and summary for presenting the essence of adult audiologic rehabilitation.
in an individual one-hour session. If formal rehabilitation programs are not possible, this can be a useful resource for those patients in need of more than the normal informational counseling aspect of hearing instrument orientation.

A discussion of the psychosocial implications of acquired hearing loss can be found in Trychin. Written for mental health workers, this handbook can also increase insight for audiologists.

For audiologists working within managed care settings that are traditionally unserved or underserved by hearing care professionals, Johnson & Danhauer provide an excellent guidebook. Filled with practical real-world suggestions, it also includes a CD-ROM containing many useful forms that can be downloaded and adapted.

**Curriculum Manuals**

Spitzer, Leder & Giolas give methods and sample activities for speech perceptual training, speechreading and voice and resonance training. They include therapy plans with goals, objectives and criteria for success for each area.

Hear Again, Inc., has published two comprehensive manuals. Each contains lesson plans and student workbooks for coping strategies and speechreading group classes, plus additional materials that can either be duplicated to give to patients or used by the clinician for specific topics. Learning to Hear Again contains lesson plans and a workbook for hearing aid orientation, while Learning to Hear Again with a Cochlear Implant contains a Personal Journal and User’s Guide.

**Hearing Aid Orientation**

Learning to Hear Again contains material for a three-week group hearing aid orientation class. Northern & Beyer have published an outline of the three-week group program offered in HearX offices. Electone has developed and published a workbook to be used by individuals during the hearing aid trial period. The Hearing Aid Handbook also offers instructional materials for hearing aid orientation with a clinician’s manual and companion booklets for children and adults. The Hearing Counseling Kit provides instructional materials that may be copied for distribution.

**Auditory and Auditory/Visual Perceptual Training**

Plant has developed numerous programs for training speech perception skills. The Tactaid II Training Program was developed for use with a vibrotactile aid, but contains a detailed program for auditory perceptual training that could be used for the hearing instrument (whether traditional or frequency transposing) or cochlear implant user. For those doing “serious” analytical training, Analytika can serve as an invaluable resource. It contains 379 lists of one-syllable word pairs that differ by one phoneme (in Australian English). Each phoneme is contrasted with all other phonemes in a separate 20-item list. This resource is available in printed or floppy disc form. Hear at Home is an auditory training program designed for home use that could also be used by the professional for individual training. It is described in the home study section below.

Tye-Murray also provides an easy-to-use-workbook designed to provide stimuli and instructions for the clinician and printed cues to the patient.

**Conversational Fluency**

Training to reduce interruptions in conversational fluency and the use of conversational strategies depends on interactions between the hearing care professional and the patient. It is sometimes difficult to lead these therapeutic conversations spontaneously. Erber’s QUEST?AR provides a series of 30 sequential questions that can be used to “simulate” conversations. Tye-Murray also provides printed materials for guided conversational interactions.

**Speechreading**

Williams provides materials for 31 speechreading sessions. “Fill-in-the-blank” worksheets for closed-set word discrimination, word discrimination in sentences and sentence completion activities are provided and can be
duplicated for patient use. This three-ring notebook is available from A.G Bell. Learning to Hear Again\textsuperscript{22} and Learning to Hear Again with a Cochlear Implant\textsuperscript{23} contain lesson plans and a class workbook for a five-week speechreading workshop. Additional speechreading materials are included for individual work. Tye-Murray's communication training manual\textsuperscript{29} also provides speechreading activities. Kaplan, Bally & Carretson\textsuperscript{31} continues to be a useful resource. Videotapes for home practice are described below. Additionally, A. G. Bell publications offer a variety of traditional speechreading materials.

**Telephone Use**
Erber\textsuperscript{32} and Castle\textsuperscript{33} have developed materials specifically designed to assist the hearing-impaired person with telephone use.

**Coping Strategies**
Trychin\textsuperscript{34,35} has produced a series of materials that can be used to stimulate discussion concerning coping strategies and the effects of hearing loss on interpersonal relations. These are described in the videotape section. Learning to Hear Again\textsuperscript{22} and Learning to Hear Again with a Cochlear Implant\textsuperscript{23} contain lesson plans and a class workbook for a four-week coping strategies workshop. Erber,\textsuperscript{15,16} Carmen\textsuperscript{36} and Tye-Murray\textsuperscript{29} also contain sections that address coping strategies.

**Videotapes**
Trychin has made a series of videotapes\textsuperscript{34,35} that are effective for coping strategies training. Each includes a series of short scenes to be viewed, then the tape is stopped for group discussion. Accompanying workbooks contain transcript of the scenes plus discussion questions. The workbooks allow for independent use of these tapes for home study. These and additional related titles are also available from SHHH Publications.

Several videotape series are available for speechreading practice\textsuperscript{37-40} A. G. Bell and Gallaudet Press are sources for these tapes that can be used as home study material from a clinic lending library.

Training of caregivers or members of other professions can be facilitated by video presentation.\textsuperscript{41} Videos are also an excellent way to inform patients about assistive technology.\textsuperscript{42,43} They can be shown in a waiting room or added to the lending library.

**Home Study**
A Bridge to Healing\textsuperscript{36} is a useful reference for first-time hearing aid users, with general information about hearing loss and tinnitus, hearing instruments, emotional aspects of hearing loss, and ways to improve listening and hearing. The table of contents allows the audiologist to assign specific chapters based on the individual patient's needs.

Electone has developed a 21-day program for hearing instrument adjustment that is an excellent workbook when patients cannot come into the office for repeated visits.\textsuperscript{24} This has been used successfully in rural areas with follow-up conducted by
For patients or communication partners with reading skills at the high school or college level, Erber could provide insight into the effects that hearing loss can have on communication.

Hear Again Inc has published materials to be used independently by cochlear implant users and hearing instrument users.

Hear at Home by Plant is an auditory training program designed for home study. There are separate three-ring binders for the “talker” and the “receiver,” so that the hearing-impaired person and their partner have printed materials to use during ten training sessions. Careful instructions are given in the “Talker’s Handbook” for family members or friends. Word and sentence practice is included. While the intent is to improve the speech reception of the hearing-impaired person during the adjustment to new hearing instruments, talkers also receive training in producing clear speech for the listener.

Hear What You've Been Missing presents information about hearing, hearing loss, hearing technology, intervention options and support services in a question-and-answer format. Likewise, the Hearing Counseling Kit and Learning to Hear Again provide materials on a variety of topics related to hearing impairment. Sections may be selected based on specific clients' needs and duplicated.

Audio tapes can be also used successfully for home training. Books on tape can be used to provide effective listening training. Individuals with poor auditory skills can listen to unabridged tapes while following the printed text. Auditory training tapes with accompanying work sheets are available from Auditec of St. Louis. These will be limited by the quality of the tape player used, but can be useful for home practice for selected patients.

Additional Resources
A more extensive listing of materials and a table summarizing those materials and how they may be used is presented in table form in Hearing Care for the Older Adult. This list has been reprinted by permission in the Learning to Hear Again manuals.

References
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