

Book Reviews

WHEN YOUR CHILD IS DEAF. 182 pages. (\$17.95). David M. Luterman with Mark Ross. York Press, 2712 Mt. Carmel Road, Parkton, MD 21120. (ISBN 0-912752-27-0)

This book is difficult to put down. All students of Audiology as well as any Audiologist serving children could benefit from the insight David Luterman offers from his years of working with families who have deaf children. Luterman writes with a humorous style and at a language level that most laymen can readily understand. The text also offers insight for parenting the deaf as well as the hearing child. He is successful in reminding us that deaf children are born into families who have expectations and dreams for all their children. Deafness comes as a shock that is initially perceived as preventing those dreams from coming true. Further, for families unfamiliar with hearing loss, the parenting and communication needs of a deaf child will have impact on the *entire* family structure. Luterman points out that bonding with a deaf baby for some hearing parents can interrupt the natural instincts of parenting thus creating complications that lead to poor communication.

Parents may solicit the audiologist as their "sounding board" for these and other adjustment matters. This text can prepare the audiologist to recognize that there are various issues beyond the aided tests results that influence parent-child communication. Luterman dedicates an entire chapter to parents of hearing impaired children in which they share their own lists of do's and don'ts. The controversies concerning communication methodology are also introduced.

Dr. Luterman has teamed up with Dr. Mark Ross for chapters related to the diagnostic procedures that lead to recommending the hearing aid. Mark Ross not only brings years of experience as an audiologist, and author, but as a hearing impaired individual himself. He too is masterful at writing to the parent so they become a good consumer for themselves and their child. These chapters are important for parents as they explain the rationale for ongoing audiological assessments for hearing aids and FM over the span of childhood years.

Luterman accomplishes the goal stated in his introduction of acquainting parents with the tasks of raising a hearing-impaired child. This book is a must for the clinic library. It offers timeless insights for audiological inservices or parental counseling regarding interaction of deafness and childhood. Luterman tells parents that they are very important teachers for their child and that communication barriers will need continual evaluation. The Appendix for books and organizations will be helpful for parents to become familiar with publications and sources for additional information.

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VANDERBILT HEARING AID REPORT II. 334 pages. (\$49.50). York Press, 2712 Mt. Carmel Road, Parkton, MD 21120. (ISBN 0-912752-26-2)

The Vanderbilt Hearing Aid Report II summarizes proceedings of a conference sponsored by the Department of Veterans Affairs and the Vanderbilt University School of Medicine on the topics of hearing aid selection, technology, measurement, and (re)habilitation. There are 27 contributors. Changes and advancements in clinical practice since the original report published in 1982 are detailed. The purpose of the text is to "benefit practitioners who are involved with amplification and the hearing impaired, to promote future research, and to highlight the special amplification needs of the hearing-impaired population" (p. xi). The text includes a subject and author index along with a listing of acronyms.

Part I of the *Report* provides an opportunity for clinicians to examine and re-evaluate their philosophical goals in hearing aid fitting in light of current research trends. A significant change in clinical practice has occurred since 1982 in that only 15% of audiologists rely on comparative methods as their primary means of selecting a hearing aid (Martin & Morris, 1989). While prescriptive methods have often replaced comparative methods, Humes (Chapter 2) indicates that "a good match between prescribed and obtained real ear gain, however, does not indicate that the theoretical objectives of the methods have been accomplished" (p. 20) because there are numerous averages in prescriptive fitting, such as average conversions from 2-cc to 6-cc coupler and average threshold to MCL relationships. Further, Bratt and Sammeth (Chapter 3) suggest that because there is a lack of follow-up testing after dispensing an aid, many clinicians have no theoretical goal at all in hearing aid fitting. Clarification of philosophical goals in fitting may cause the clinician to incorporate new technology, evaluation procedures, and/or (re)habilitation programs.

Programmable and automatic noise-reduction circuitry along with digital signal processing techniques are also investigated in the text. Fabry (Chapter 6) indicates that some individuals still elect to use level-dependent-frequency-response amplification although speech reception in noise is not improved, suggesting that factors other than speech intelligibility contribute to user satisfaction. Further research needs to be conducted to determine the number of frequency responses that are necessary for such a hearing aid fitting. More fundamentally, Bentler (Chapter 7) indicates that standards need to be established to determine who is a candidate and how to prescribe gain when investigating conventional versus noise-reduction aids.

New insights on evaluation procedures and electroacoustic measurements are summarized in the *Report*. Hawkins (Chapter 10) outlines some of the limitations of functional gain measures as follows: (a) testing is usually done at octave or half octave intervals causing the audiologists to miss many of the peaks or dips in amplification, (b) large test-retest variations have been documented, and (c) a conceptual limitation occurs in that aided sound field measurements plotted on the audiogram imply that hearing is better and allows more input of sound

which is not the case in instances of cochlear and/or eighth nerve damage. While Hawkins recognizes advantages in the use probe-tube microphone measurements, he cautions the clinician to be aware of the variety of factors that affect measurement such as sound field equalization, loudspeaker azimuth, reference microphone location, probe-tube insertion depth, and signal level. Stelmachowicz (Chapter 11) discusses a procedure whereby once Loudness Discomfort Level is established, a probe-tube microphone can be used to measure corresponding Sound Pressure Levels in the ear canal.

Further regarding hearing aid evaluation, Byrne (Chapter 16) indicates that paired comparisons show greater sensitivity to different amplification systems than speech recognition tests. Cox, Alexander, and Gilmore (Chapter 17) talk about the use of self-assessment questionnaires in evaluating of amplification systems. They indicate that self-assessed benefit is affected by the type of listening environment and that perceived benefit is influenced by the format of the questionnaire. Further McCarthy (Chapter 18) suggests that while traditional hearing aid evaluation procedures produce better results in noise than in quiet in the clinic, self-reports of hearing aid users in the real world show the opposite perception. In terms of electroacoustic measurements, Kates (Chapter 12) indicates that research needs to be conducted in the measurement with computer-based systems using stimuli closer to speech in order to give the clinician a better understanding of what the hearing aid users are receiving.

The final chapters of the text written by Montgomery, Gordon-Salant, Weinstein, and Compton address current issues related to aural rehabilitation and assistive listening devices. Montgomery (Chapter 19) views the goals of rehabilitation as being four-pronged in nature. First, aural rehabilitation provides the clinician with "insurance" that the aid will be used. Second and third, the issues of auditory-visual integration and user education concerning amplification systems can be addressed. Finally, training can be given to hearing aid users to become more assertive communicators in order to avoid situations that put them at a disadvantage. Compton (Chapter 26) discusses the value of assessing client's telephone, interpersonal, media, and alerting communication needs and providing appropriate assistive listening devices.

Overall the book provides a comprehensive summary of current thinking in the areas of hearing aid fitting and (re)habilitation. Such a summary allows practicing clinicians to re-think, re-evaluate, and potentially add new components to their Hearing Aid Evaluations. In the rapidly changing field of audiology, the fact that audiologists can access a wide breadth of current information in a single *Report* is highly valuable.

REFERENCE

- Martin, F.N., & Morris, L.J. (1989). Current audiologic practices in the United States. *Hearing Journal*, 42(4), 25-44.

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HEARING AIDS, WHO NEEDS THEM? 168 pages. (\$11.70). David P. Pascoe. Big Bend Books, P.O. Box 43001, St. Louis, MO 63143. (ISBN 0 962 8963 0 6)

Pascoe recommends the book *Hearing Aids – Who Needs Them?* to persons falling into the following categories: (a) those who think they need a hearing aid, but do not know how to get one; (b) those who know someone who needs a hearing aid or should have a hearing test; (c) those who have just bought a hearing aid and are learning how to use it; and (d) those who have used hearing aids for years and now want to know about new hearing aid technology.

While I would agree that lay hearing impaired persons can derive some benefit from the book, I am also confident that it would be an excellent addition to the library of audiology and speech pathology students, speech pathologists, and health professionals working with the hearing impaired. Throughout the chapter by chapter review I will highlight which group of individuals I believe would most benefit.

The focus of Chapter 1 is to help people determine whether or not they are candidates for a hearing aid. Pascoe discusses candidacy for hearing aids as a function of severity of hearing loss, the articulation index, life style, age, and motivational level. This chapter is relevant to lay hearing impaired persons, speech pathology/audiology students, as well as health professionals working with the hearing impaired.

Chapter 2 provides a discussion of hearing tests that can be self-administered or administered by audiologists to determine candidacy for hearing aids. Test options include those done at home (e.g., digital watch test, word tests), self-evaluation questionnaires, hearing screening tests administered at a variety of sites, or complete hearing tests. A description of hearing tests concludes this chapter. The latter discussion offers a sentence about the traditional hearing tests which the hearing impaired must undergo and concludes with a description of professionals and sites where hearing tests are administered. Once again this chapter is basic enough to be understood by lay hearing impaired persons, and detailed enough so that students and health-care professionals can benefit from the material contained within the chapter.

Chapter 3 contains an extremely detailed discussion of acoustics, anatomy and physiology of the ear and hearing, as well as psychoacoustics. Pascoe includes a discussion of the audiogram, as well. Chapter 4 continues with a more detailed description of the audiogram, types of hearing loss, the tympanogram and an extensive discussion of speech tests including tests of loudness discomfort, as well as the articulation index. These chapters are comprehensive and easily comprehensible by speech pathology/audiology students, speech pathologists as well as health professionals working with the hearing impaired. I believe the chapters are too detailed for lay hearing-impaired persons, however they would be a nice adjunct to group aural rehabilitation sessions led by audiologists. Many of the figures are especially descriptive.

Chapter 5 provides an extensive discussion of speech acoustics, and the relation between hearing loss and speech perception. It may be too detailed for lay hearing-impaired persons, but is very suitable for students, professionals, and as an adjunct

to group rehabilitation sessions with adults or parents of hearing impaired children.

Pascoe views Chapter 6 as the most important in the book. I would agree that this is an extremely relevant chapter to the hearing impaired as well as for parents of the hearing impaired, students or professionals working with the hearing impaired. The chapter begins with a discussion of environmental, speaker, and listening variables which can influence the ability to understand others. Next, Pascoe discusses speechreading and strategies the hearing impaired can adopt to improve the ability to understand the speech of others, including environmental manipulation as well as assertiveness training.

The next two chapters provide a discussion of the advantages/disadvantages of hearing aids, and provide realistic expectations for what hearing aids can be expected to provide. Chapter 8 details the process of purchasing hearing aids including a description and depiction of available styles and their appropriateness for persons with different levels of hearing loss, and differing lifestyles. Pascoe also discusses the issue of binaural versus monaural hearing aids, the variations in and determinants of hearing aid costs, insurance options as well as warranties. This chapter concludes with a discussion of the steps one must take to purchase a hearing aid and the variables the audiologist considers when matching the hearing aid to the hearing impaired individual. These two chapters are written in a style comprehensible by the hearing impaired, parents of hearing impaired children, and professionals working with the hearing impaired. It is one of few books that details all of the specifics entailed in purchasing a hearing aid.

Chapter 9 discusses the hearing aid orientation and adjustment to hearing aids including hearing aid insertion, maintenance, operation and troubleshooting. The trial period receives extensive discussion because it is so important to consumer satisfaction. Again, this chapter is ideal for the intended audience as well as for professionals conducting rehabilitation sessions with the hearing impaired and their families. It has excellent diagrams, and detailed discussions which are easily understood by those with little background in audiology.

The final chapter describes the life expectancy of hearing aids. Digital hearing aids and assistive listening devices are briefly discussed.

In sum, the majority of chapters in this book are well written and well illustrated especially for the hearing impaired or parents of hearing impaired children. It documents material which is rarely covered in traditional texts on hearing aids or in pamphlets routinely distributed to the hearing impaired. The book is an excellent resource for the hearing impaired and professionals in audiology and speech pathology should use it as reference in the waiting area of a busy clinic or for possible sale to consumers. Each book contains a handy order form for purchase of the book from Big Bend Books. It is well worth the \$11.70 price.

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