

## Preface

**A**dult audiological rehabilitation has evolved considerably in recent years. Changes in the services provided to clients have been influenced by technological advances, clinical experience, and a growing body of research literature in our field as well as in related disciplines. Audiological rehabilitation services constitute an important component of a comprehensive hearing health care delivery program. Professionals who provide those services, and their clients, are aware of the importance and value of audiological rehabilitation programs. However, there is a growing need to demonstrate experimentally that those services provide benefits to adult and elderly clients who have a hearing loss.

It could be argued that there exists a credibility crisis in audiological rehabilitation. The effectiveness of audiological rehabilitation services is questioned by some professionals in our own profession (i.e., communicative disorders) as well as those in related disciplines (e.g., medicine). How often do we hear professionals say “there isn’t much that can be done about your hearing problem Mr. Smith?” Given the recent trends in health care administration and economics, administrators and legislators have sought (and will continue to seek) evidence that audiological rehabilitation services are effective and cost-efficient. Moreover, for ethical reasons, clients have the right to know if (and how) the services made available to them will reduce the handicap(s) they experience due to their hearing loss. Increasingly, professionals in the field of audiological rehabilitation will be required to demonstrate the effectiveness of the rehabilitation services provided to their clients. The best evidence that can be provided in support of audiological rehabilitation is experimental data that demonstrates the efficacy of our intervention programs. Hence, there is an urgent need for basic and applied research in every aspect of audiological rehabilitation.

The main purpose of this monograph is to explore directions *of future research in audiological rehabilitation*. Many established topics (and some emerging issues) related to clinical services designed primarily for adults and elderly individuals with a hearing loss are included. For each topic, the authors were asked to describe how the type of clinical services presently provided should evolve in order to ensure relevant, valid, and cost-effective audiological rehabilitation services in the next decade (i.e., by the year 2004). Given those long-term objectives, the authors were asked to indicate which short- and medium-term *research goals* should be addressed. Specifically, the authors were asked to review (briefly) current and innovative approaches in audiological rehabilitation practices and research as well as identify clinical issues that require systematic investigation. Also, the authors were asked to speculate on the direction in which research should develop within the topic area assigned to them and they

were invited to provide some insights concerning some experimental designs and methodological paradigms that may be applicable to the research issues that were identified. Where applicable, the authors were asked to point-out some potential pitfalls that should be avoided when undertaking research in their specified area of audiological rehabilitation. However, for some chapters the authors did not have the benefit of a significant body of previous research to draw from concerning their topic. For those chapters the contents of the reports are more general and speculative.

The result of this endeavor is a monograph which outlines a course of future research in audiological rehabilitation. The monograph is intended for researchers who seek to contribute to the improvement of hearing health care through the completion of relevant and methodologically sound research programs. The monograph should be helpful to advanced graduate students. Several chapters could be incorporated into advanced audiological rehabilitation courses or courses on research design and methods. Students with an interest in audiological rehabilitation will be able to identify several specific research topics that require further investigation. Professionals faced with the challenges of providing high-quality clinical services will appreciate the short- and medium-term research objectives that are identified throughout the monograph. Some of the concepts and issues addressed in the monograph may be applicable to the development of quality assurance programs. Finally, the ultimate benefactor of the monograph should be the consumers (i.e., individuals with a hearing loss who seek audiological rehabilitation services). A better understanding by professionals of the audiological rehabilitation process and its components will undoubtedly result in better services for the clients.

In selecting the chapters for the monograph an attempt was made to include topics that are relevant to current clinical practice or that promise to be an important component of future audiological rehabilitation programs. Not all aspects of audiological rehabilitation can be discussed in one monograph. For example, the authors were asked to focus on issues related to the rehabilitation needs of adults with an acquired hearing loss. However, the authors were encouraged to briefly discuss similarities and differences in the provision of services to other populations (e.g., children with a congenital hearing loss or individuals with a severe/profound hearing loss). Nevertheless, a deliberate decision was made to place the focus of the monograph on **research related to future clinical services** rather than to dwell on describing current clinical practices or to emphasize the contribution of technology in audiological rehabilitation (i.e., prosthetic devices and training equipment).

The monograph is divided into four sections. In section *one*, the introduction, the overall needs for research in audiological rehabilitation from the perspective of a professional (Chapter 1) as well as from the perspective of two individuals who represent an important consumer advocacy group (Chapter 2) are presented.

Evaluation procedures that can be used (or that are required) to identify the specific needs of clients and the type of intervention procedures required for

individuals who seek audiological rehabilitation services are addressed in section two. The specific topics selected for this section of the monograph were the evaluation of speech perception performances for individuals who have a hearing impairment (Chapter 3) and the use and application of self-report scales in audiological rehabilitation (Chapter 4). The issues discussed in those chapters may also be relevant, as outcome measures, to investigators who seek to evaluate the effectiveness of various intervention procedures.

The research and development needs related to specific intervention procedures are discussed in *section three* (Chapters 5-14). The topics included in this section were selected on the basis of the clinical services presently provided to adult clients. Some issues and topics that are emerging within our discipline were also selected. Components of audiological rehabilitation programs that are discussed in this section include: hearing aids; assistive devices; auditory, visual, and audiovisual speech-perception training; communication strategies for clients with a hearing impairment and their communication partners; personal adjustment counseling; and speech production. In each chapter the authors review current clinical practices and identify research areas and issues that require further investigations.

Some general methodological issues and approaches related to both clinical and research aspects of audiological rehabilitation are presented in *section four* (Chapters 15-18). Unlike the preceding sections of the monograph the chapters included in this section present information in a more tutorial-like fashion. The authors who contributed to this section of the monograph were assigned topics that should be considered when addressing research issues in all aspects of audiological rehabilitation. The topics discussed cover issues related to: experimental research designs; evaluation of treatment efficacy; program evaluation and decision analytic processes; and, the application of health behavior models and theoretical frameworks to applied research issues. Those topics are discussed in many other behavioral and health related fields. However, they have received little attention in audiological rehabilitation. Many of the issues discussed in this section have not been sufficiently and systematically applied to audiological rehabilitation. The quality and validity of audiological rehabilitation services and research would be improved if those issues and approaches were incorporated into investigations related to various aspects of audiological rehabilitation.

We would like to thank all the individuals who collaborated to the preparation of this monograph. First, the authors who agreed to participate in this venture complied with our guidelines concerning content and style issues as well as our requests (in some cases) for several revisions of their manuscripts. Also, we are grateful to all the individuals who reviewed one or more chapters (see list of Reviewers below). Their feedback, through the conventional peer-review process, improved the quality of the monograph. Nevertheless, the views expressed in the chapters remain the sole responsibilities of the editors and the authors.

Also, we would like to express our gratitude to the Board of Directors of the Academy of Rehabilitative Audiology (1991-92) who invited us to coordinate the preparation of this monograph as Guest-Editors. Throughout this project the Board members supported our initiatives and they expressed their confidence in our ability to complete the task. Specifically, we would like to mention the support, guidance, and encouragement received from Sue Ann Erdman and Marilyn Demorest. Also, we would like to extend our thanks and gratitude to Donald G. Sims, who was the Editor of the *Journal of the Academy of Rehabilitative Audiology* at the time that we undertook this project. Throughout the course of this project we relied on Don's advice, wisdom, and experience as a *Journal* Editor. Don participated in all aspects of the preparation of the monograph including the selection of topics and contributors, the review process, and the preparation of the cover page (note: the front and back cover pages were designed and prepared at the National Technical Institute for the Deaf, under the watchful eye of D.G. Sims).

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J-PG and NT-M

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