

BOOK REVIEWS

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Comprehensive Management of the Upper Limb-Amputee, edited by Diane J. Atkins and Robert H. Meier III. New York: Springer-Verlag, 1989, 260 pp. Illustrated.
by *Dudley S. Childress, Ph.D.*

As the therapist stepped on the elevator she noticed the book by Atkins and Meier under my arm. "Good, isn't it?" she remarked. That, most likely, is the feeling of many therapists and others concerning the book, *Comprehensive Management of the Upper-Limb Amputee*, recently published by Springer-Verlag. This book is probably the most comprehensive current American publication on management of the upper-limb amputee, and certainly the most up-to-date book on currently available electric powered components. Although not generally as comprehensive as the *Atlas of Limb Prosthetics*, it includes many changes that have occurred in upper-limb fitting techniques since the *Atlas* was published in 1981.

The book is a welcome addition to a field where not a lot of books are published. Although stimulated by a 1981 conference in Houston, TX, entitled, "Contemporary Issues in Upper Extremity Amputation and Prosthetic Function," the book was not published until 1989, and so it, like the meeting's title, is contemporary as we move into the 1990s.

The book's intention is to cover current management techniques. Consequently, this is a book directed to clinicians. A good portion of the book focuses on the individual amputee. As the authors point out in the preface, ". . . the proper focus of amputee rehabilitation always should be on the individual amputee with respect to his or her special needs and desires." Meier makes a similar point later in the book when he says, "the entire process of amputee rehabilitation is one of education." Even though the book

is primarily directed to clinicians involved in clinical practice, it is an excellent reading resource for students of occupational and physical therapy, for prosthetics students, for medical students, and for engineering and other students interested in the state-of-the-art in upper-limb prosthetics.

The editors have arranged the articles that compose the book in a logical and readable manner. It is inevitable that the articles, by various people well-known in the upper-limb field, are of uneven quality and depth. It is also inevitable that there is redundancy of information in the articles. Redundancy is not necessarily negative, because repetition is recognized as a good pedagogical technique and because different viewpoints concerning the same prosthetic component or technique can be worthwhile. Readers of books of this nature cannot and do not expect them to flow smoothly, as if they were written by a single author.

By and large the book, with 22 chapters, 252 pages, 237 illustrations, and 24 contributors, meets its intended purpose. About one-third of the material is presented by therapists, about one-third by physician/surgeons, with the remainder presented by prosthetists, engineers, and others. The therapist authors have presented a number of cogent chapters. Of special note is the "Adult Upper-Limb Prosthetic Training" article by Diane Atkins, and the "Developmental Approach to Pediatric Prosthetic Evaluation and Training" article by Joanna Patton. In all, seven chapters were written by therapists and the book appears particularly appropriate for therapists.

The book is somewhat limited in directly expressed viewpoints from prosthetists, although Alvin Muilenberg and Maurice LeBlanc present a nice overview of body-powered components. Likewise, William Sauter gives a good overview of electric components for pediatric and adult fittings. Despite the fact that only two chapters are primarily by

prosthetists, the book should be useful to prosthetists because of its broad approach to the upper-limb field. Three chapters of the book concerning experience with several powered components, were written by people associated with companies or organizations that manufacture or market these components. Although the authors of these chapters are knowledgeable and insightful, the reviewer feels it might have been better if experiences with these components could have been presented by clinicians not associated directly with organizations of component origin.

The surgery sections of the book are generally well done, although the viewpoints are limited to those of surgeons primarily connected with one institution (Baylor University). It must be kept in mind while reading the book that surgical viewpoints often vary quite radically from place to place, and from surgeon to surgeon.

Dr. Yoshio Setoguchi presents an insightful chapter concerning evaluation of pediatric amputees. The book concludes with interesting chapters by Dr. Rolf Sörbye of Sweden, and Dr. Ernst Marquardt of Germany. Sörbye and Marquardt are now in their retirement years and it is pleasing to read about their experiences. They, along with Setoguchi and others, give the book a slight pediatric tilt, but it is a lean that is not objectionable. Marquardt's career is in the tradition of several great German surgeon/physicians interested in prosthetics and general rehabilitation as well as surgery/medicine. It is to be hoped that his chapter in this book is only a prelude to a complete volume of his own that will pass along his tremendous knowledge and experience to the amputation/prosthetics field.

The book is recommended for personal, laboratory, and institutional libraries. It meets a definite need of the field and its appearance is timely.

Advances in Pain Research, Volume 13, edited by S. Lipton and E. Tunks. New York: Raven Press, 1990, 402 pp. Illustrated.
by *Jerome D. Schein, Ph.D.*

Subtitled "The Pain Clinic," this current volume in a distinguished series brings together 48 papers by 103 authors from Argentina, Australia, Belgium, Canada, France, India, Israel, Italy, Japan, The Netherlands, Sweden, Switzerland, United Kingdom, United States, and West Germany. The papers are grouped under: Basic Science for Understanding Clinical Pain; Evoked Potentials: Influence of Drugs; Pain in Internal Medicine; Myofascial Pain; Neuropathic Pain; The Painful Spine; The Management of Nonmalignant Pain; Cancer Pain; and Pharmacological Pain Therapy.

As would be expected in a portmanteau carrying so many topics, some chapters proclaim great progress, while others bewail the lack of positive achievements. For example, 6 million persons annually are found to have cancer, about half each in developed and underdeveloped countries, with pain as a major symptom in 7 of 10 cases. Yet "our own studies done in the United States show that only approximately half of patients with pain report relief that could reasonably be defined as adequate" (p. 287). "There are still many physicians and surgeons who regard consulting a specialist pain clinic or pain clinician for their patients' chronic pain treatment a slur on their professional integrity" (pp. xxviii-xxix). Countering such negative assessments of pain control in practice are accounts of new techniques (hormonal drugs for treatment of some cancer pain), versions of older approaches (transcutaneous electrical neural stimulation with electrodes inserted into the epidural space), and up-to-date findings with regard to established procedures ("gate control"). Taken together, the chapters that comprise this book justify its claim to representing the relatively new medical specialty of pain relief.

Developing Strategies for Communications about Disability: Experiences in the U.S., Hong Kong, India, and Pakistan, Monograph No. 47, by Barbara Kolucki. New York: World Rehabilitation Fund, 1989, 112 pp. Illustrated.

by *Jerome D. Schein, Ph.D.*

The author shares her experiences as a professional who worked with disabled people on "Sesame Street," participated in a television series about people with disabilities in Hong Kong, and has been involved with educational projects in India and Pakistan. From these encounters, she draws a series of conclusions about developing public attitudes toward people with disabilities, among which are: "The process is as important as the product" and ". . . real progress in the area of media for/about people with disabilities can only be achieved by getting 'outside the field' of rehabilitation." The appended commentaries by Robert H. Ruffner, Louise Duval, and Sandra Gordon add balance to the author's views.

Financing the Purchase of Devices for Deaf and Severely Hard of Hearing People: A Directory of Sources, Monograph Series B, No. 3. Compiled by the Technology Assessment Program and the National Center for Law and the Deaf, Gallaudet University, and the Bureau of Economic Research, Rutgers University. Washington, DC: Gallaudet University, 1989, 26 pp.
by *Jerome D. Schein, Ph.D.*

This directory is addressed to consumers, advocates, and service providers. It seeks to bring order in the chaos of financing and support for technological aids that involves federal, state, and local government agencies, as well as private programs. Each resource is described in terms of the provisions of its program(s), the type of funding, and where to obtain additional information, since the variations introduced in program administration at the point of implementation are so numerous that the directory cautions the reader to query further when unfavorable decisions are made by the agency personnel. Among the programs presented are reduced rates by telephone companies, assistance for equipment purchases by Lions Clubs, reimbursements by Medicaid, and those specific to states.

From Barrier Free to Safe Environments: The New Zealand Experience, Monograph No. 44, by Bill Wrightson and Campbell Pope. New York: World Rehabilitation Fund, 1989, 112 pp. Illustrated.
by Jerome D. Schein, Ph.D.

The author presents principles that incorporate safety and accessibility into the design of environments. The monograph is enriched by two commentaries, in one of which it is argued that the problems confronting the architect in New Zealand are little different from those in other countries and that the solutions proposed are applicable virtually everywhere. The appendix contains detailed guidelines for builders, a most valued addition for those concerned with accessibility and safety.

Geriatric Rehabilitation, edited by B. Kemp, Kenneth Brummel-Smith, and Joseph W. Ramsdell. Boston: College-Hill, 1989, 459 pp. Illustrated, paperbound.
by Jerome D. Schein, Ph.D.

Since persons over 74 years of age constitute the fastest growing segment of the population, the surge of interest in geriatric medicine comes naturally, fulfilling what the Department of Veterans Affairs has called "the demographic imperative." The book under review addresses one aspect of serving elderly people in 28 chapters divided into five sections: Overview, Major Disabling Conditions, Improving Functional Abilities, Organizing Rehabilitation Programs, and Special Issues in Geriatric Rehabilitation. The philosophy underpinning the collection sees rehabilitation as "a biopsychosocial approach to illness" that aims to reduce disabilities and handicaps through a "systems approach to care." While well-stated here and there in the text, especially in the initial chapters and a later one

specifically on this topic, the teamwork concept virtually disappears as the separate essays unfold. That individual authors of chapters should focus solely on their assigned topic without regard to its role in the overall scheme of geriatric rehabilitation is perhaps inevitable, but it would have reassured this reader if the editor had insisted on each chapter at least mentioning how the aspect of rehabilitation interdigitates with the others.

No one selection of issues and emphases will satisfy even the majority of readers. I found the discussions of communication too limited. Aphasia occupies only three pages of text, unilateral hearing losses and tinnitus are not mentioned, and auditory training is given scant attention in comparison to the central role it plays in geriatric rehabilitation (the space given to hearing aids equals that given to sign language—an unlikely approach to solving the auditory rehabilitation of persons in this category). On the other hand, entire chapters are devoted to the very serious and frequent problem of falling and to "deconditioning" (loss of physical fitness). A brief but refreshing essay on technology counters tendencies to overenthusiasm about what can be expected in terms of decreased health-care costs and increased benefits to elderly patients. Overall, the book offers a broad variety of relevant, well-written material.

A Handbook for the Laryngectomee, 3rd edition, by Robert L. Keith. Danville, IL: Interstate Publishers, 1989, 87 pp. Illustrated.
by Jerome D. Schein, Ph.D.

Finding materials that can be given to patients in preparation for radical surgery and that can be sent home with those who require extensive follow-up care presents rehabilitators with a difficult problem: writing style may be too sophisticated or content too barren of important material for the average patient. If the patient has recently undergone a laryngectomy, this compact text offers a solution to these difficulties. It is written simply, without talking down to the patient, factual without being dull, nicely illustrated but not cartoonish, and printed with ample leading and a fairly large type face that should increase its usefulness with older patients. Family caregivers, too, will find the book helpful in resolving their concerns. Also significant is its modest price.

Handbook of Hearing Aid Amplification: Volume II, edited by R.E. Sandlin. Boston: College-Hill, 1989, 459 pp. Illustrated, paperbound.
by Jerome D. Schein, Ph.D.

Traditionally, a handbook (from the German *handbuch*) is intended to be a compact compilation of facts about a topic. As such, its contents should be aphoristic and should provide extensive references to the literature on which the punctate statements are based. In short, a handbook is intended as a practitioner's guide rather than a student's text.

How does this handbook meet these tests? With respect to some of its chapters, it does fairly well. Chapters on fitting procedures, postfitting rehabilitation, central auditory-processing deficits, speech stimuli in hearing aid evaluations, sound-field audiometry, and auditory brainstem responses are compact and authoritative. The chapters on pediatric and geriatric populations, cochlear implants, and probe-test measurement meet the handbook challenge in exemplary fashion.

Only the chapter on the psychology of hearing-impaired persons disappoints this reviewer. It repeats much of the nonsense in the literature and misstates others. The redundant list of "characteristics of hearing-impaired persons" confuses references to early deafened and late deafened people, and those who are deaf and those who are hard of hearing. It serves little purpose in this day to repeat canards like "they tend to be immature" not only because such stereotypes do not aid the practitioner, but also because they insult the rehabilitation client. Worse, the empirical basis for such judgments cannot withstand scientific scrutiny, which would, in many instances, expose the specious methods that gave rise to them.

Pediatric Rehabilitation, edited by M.K. Logigian and J.D. Ward. Boston: College-Hill, 1989, 340 pp. Illustrated.

by Jerome D. Schein, Ph.D.

The editors address this book to "students and entry-level clinicians in allied health and special education, particularly in the disciplines of occupational therapy, physical therapy, and speech-language pathology." Does that explain low-level description, fuzzy discussion of concepts, and lack of current references? Two examples will suffice.

The customary definition of blindness is explicated as follows: "This means one cannot see the same detail at 20 feet even with correction that a normal sighted person can see at 200 feet, or that the visual field, the area within which objects are seen by the eyes in fixed position, is very narrow" (page 242). Does it help students to learn that visual acuity refers to seeing "the same detail" and that a visual angle of 20 degrees is "very narrow?" Later readers learn, under "Goals of Rehabilitation," that "Blind children and their families need help" (page 243), and "The first

purpose of rehabilitation is to periodically monitor the child's total development," while "The second purpose of rehabilitation is to create the conditions favorable for normal development of the blind child" (page 244). Of 63 references, only four are from 1986, and none after that year, while 12 are dated 1969 or earlier, with the majority in the 1970s.

In the section devoted to autism, no mention is made of the association between autism and various genetic disorders, including Fragile X syndrome, of subgroups of autistic children amenable to different therapeutic approaches, or of arguments about mainstream versus self-contained classrooms as the basis for educational treatments. Issues of medication and aversive techniques to control disruptive and self-destructive behavior are barely touched. From the presentation of assessment procedures, readers would not be aware of observational procedures, which are being used more and more, but are told about the Binet and ITPA tests, which demand verbal skills and cooperation rarely seen in this population. Of 33 references cited, only four were published after 1980, a period in which extensive research has been reported.

Research on the Use of Sensory Aids for Hearing-Impaired People. *The Volta Review*, 1989, 91(1), 138 pp. Illustrated.

by Jerome D. Schein, Ph.D.

The 10 chapters that make up this monograph present 19 researchers' summaries of current research on sensory aids for persons with impaired hearing. Harry Levitt discusses the advantages of computer-based speech training over conventional speech therapy, emphasizing the importance of keeping the operation of computer systems simple. His views seem to be contradicted by Lynne Bernstein, who argues that "profound hearing impairment has an effect on all aspects of the speech production process . . . the training of isolated behaviors exclusively is likely to be inadequate" (p. 23). Charles Watson and Diane Kewley-Port encourage empirical studies of computer-based speech training to resolve the conflicting views, offering a framework for ordering the various approaches extant. The use of orometry (measuring tongue actions through sensors placed in the mouth) is advocated by Samuel Fletcher. Turning to speech reception, four chapters focus on tactile aids, emphasizing their role in speechreading. A remaining article discusses tactual vocoders in a program designed to improve speech production—syllable range, pronunciation accuracy, and grammar. As a celebration of the centennial of the Alexander Graham Bell Association, this monograph succeeds in fulfilling its objective.