

# Preface

*Management of Motor Speech Disorders in Children and Adults* was written for graduate students and practicing speech-language pathologists interested in serving children and adults with neurologic communication disorders. The third edition of this book contains several noteworthy modifications. First, a DVD containing 27 video segments has been added (see inside back cover). These segments show children and adults with dysarthria and apraxia of speech engaged in a range of speaking tasks. Intelligibility, aerodynamic, and endoscopic assessments of speech performance are illustrated; also included are brief demonstrations showing equipment and procedures, as well as two interviews, one with a prosthodontist and the other with a speech-language pathologist involved in respiratory, palatal lift, and nasal obturation interventions. Brief descriptions of the video segments as well as case histories of the people with neurologic communication disorders who appear in the videos are provided in Appendix A. Second, the content from eight recently published practice guidelines developed by the Academy of Neurologic Communication Disorders and Sciences (ANCDS) for the motor speech disorders field has been integrated into this edition. Third, the terminology and concepts of the International Classification of Functioning, Disability and Health (ICF) model have been integrated throughout the book, reflecting the continuing emphasis in medical education on clinical decision making. Finally, a chapter describing conditions associated with motor speech disorders has been added to the book (Chapter 13). In this chapter, readers are directed to appropriate websites for up-to-date information.

Like the field of medical management more generally, the field of motor speech disorders can be characterized as having gone through a series of phases. The first era, culminating in the mid-1970s with the classic Mayo Clinic studies, was the era of diagnosis; disorders were described and differentiated from other disorders. This phase was followed by an era of treatment, during which a repertoire of interventions was developed and tested. The field is now entering the era of clinical decisions—a more sophisticated phase in which a rubric is provided to the clinician for the selection and timing of the various interventions. Readers will note that many of the descriptions of populations are organized into levels, or stages, in which speakers are characterized across a continuum of severity. Similarly, approaches to intervention are organized by stages of the disorders, so that clinical decisions can be guided by the level of functional limitation.

The organization of the book reflects this emphasis on clinical decision making. The first chapter, “Perspectives on Motor Speech Disorders: A Clinical Point of View,” reviews the perspectives from which motor speech disorders can be viewed, including the viewpoints of the neurologist, the speech physiologist, the rehabilitationist, and the

people experiencing the disorder. Motor speech disorders are defined within the framework of the ICF model.

Chapters 2, 3, and 4 deal with clinical decision making and assessment. In Chapter 2, “Clinical Examination of Motor Speech Disorders,” the components of the clinical examination are described, including the history, the physical examination, and the motor speech examination. Chapter 3 focuses on differential diagnosis of the various motor speech disorders, including apraxia and dysarthria. The Mayo Clinic model of differential diagnosis of the dysarthrias is presented. Chapter 4 discusses treatment planning.

Chapters 5 through 12 provide detailed discussion of specific areas of intervention. Chapter 5, “Management of Respiration Impairment,” outlines approaches for assessment and training of the respiratory aspects of speech: establishing respiratory support, stabilizing the respiratory pattern, and increasing respiratory flexibility. Chapter 6, “Management of Laryngeal Impairment,” reviews such management topics as establishing voluntary phonation, increasing loudness, reducing hyperadduction of the vocal folds, and improving laryngeal coordination. Chapter 7, “Management of Velopharyngeal Impairment,” reviews the assessment of and intervention for velopharyngeal dysfunction in dysarthria, including behavioral, prosthetic, and surgical methods. Chapter 8, “Management of Speech Rate,” addresses candidacy for rate control and selection of appropriate techniques. Included is a discussion of the rigid rate control techniques used with speakers who have severe impairment as well as those techniques that attempt to preserve prosody. Chapter 9, “Articulation and Prosody: Segmental and Suprasegmental Aspects of Dysarthric Speech,” presents management techniques designed to improve the production of speech and sounds and also techniques that focus on the prosodic aspects of speech, including stress patterning, intonation, and rate-rhythm. Chapter 10, “Interventions for Participation Restrictions: Enhancing Social Function in Motor Speech Disorders,” describes strategies designed to compensate for residual speech limitations by integrating supplementation and augmentative communication techniques; these strategies serve to enhance the social functioning of people with motor speech disorders. Chapter 11, authored by Katherine C. Hustad, discusses the communication characteristics, assessment, and intervention associated with childhood dysarthria stemming from cerebral palsy. Chapter 12, “Treatment of Childhood and Acquired Apraxia of Speech,” summarizes treatment approaches for children and adults with apraxia. Principles of motor learning are reviewed as they relate to a variety of clinical decisions associated with treatment planning. Finally, Chapter 13 summarizes the medical conditions and speech symptoms associated with motor speech disorders.

A project such as *Management of Motor Speech Disorders in Children and Adults* reflects the contributions of many people. The work of numerous colleagues is referenced throughout the text. We are indebted to those clinicians and researchers who have been disciplined enough to record their observations, insights, and conclusions. Unfortunately, space and confidentiality do not permit a listing of clients who have served as our “teachers.” We also acknowledge the pervasive influence of the speech pathology staff of the University of Washington Medical Center, Seattle; the Harborview Medical Center, Seattle; the Barkley Memorial Center, Lincoln; the Madonna Rehabilitation

Hospital, Lincoln; and the Munroe-Meyer Institute for Genetics and Rehabilitation at the University of Nebraska Medical Center, Omaha. Although their contributions are rarely referenced directly in this text, these colleagues have encouraged us, challenged us, listened to seemingly endless audio recordings of speakers with dysarthria, critiqued early versions of tests and software, and provided wonderful settings in which to learn about dysarthria. We would also like to acknowledge Julie Marshall, DDS, MA, for the informative interview she gave related to prosthetic management of velopharyngeal dysfunction. Finally, we wish to thank Katie Hustad for contributing Chapter 11, “Childhood Dysarthria: Cerebral Palsy,” and Vicki Philippi for filming and editing the video segments included on the DVD. Vicki managed this task while providing ongoing multimedia support to the education programs of Madonna Rehabilitation Hospital.

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