PREFACE

My first contact with children who had cerebral palsy occurred about 30 years ago. At that time, young clinicians could refer to the pioneering works of colleagues like Palmer, Westlake, and Rutherford for help in planning speech therapy programs for their clients. The therapy regimens of those authorities were physiologically and holistically oriented, much like current regimens. Today's communication specialists in cerebral palsy owe much to the hard and good work of those early authorities.

Over the last 30 years, there has been a remarkable growth of knowledge concerning the treatment of communication disorders of the child with cerebral palsy, as well as a spread of this knowledge to the treatment of a broader category of neurologically involved children now subsumed under the classification of developmentally disabled. Since the commonly encountered communication disorders among these children are organismic in nature, the clinical approach must also be organismic. This issue of *Seminars* is divided, therefore, into assessment and treatment sections, with each section being as inclusive as space would allow.

The assessment section begins with an article by Wilson and Davidovicz, who remind us that, although the most apparent problems in cerebral palsy are neuromuscular, the most debilitating may be perceptual, cognitive, and linguistic. Although there have been advances in treating the neuromuscular problems, relatively little progress has been made in shedding light on the cognitive and educational issues. They believe that neuropsychological assessment of higher cortical function in children with cerebral palsy may have begun to provide the needed information to formulate meaningful educational or rehabilitation intervention strategies. They also present their model of neuropsychological assessment. In a related article, Nober, concerned with assessment of auditory processing, points out that the numerous causative agents for cerebral palsy may also involve peripheral and central portions of the auditory processing mechanism. Such involvement may not only pro-

duce the more common types of hearing loss, but also more subtle types of auditory impairment, all of which may contribute to speech-language-learning deficits. Nober also identifies the wide spectrum of tests currently available to assess the auditory processing mechanism of the child with cerebral palsy.

The last portion of the assessment section addresses the issue of tonus, posture, and movement problems in cerebral palsy. My article introduces the concept of speech movement readiness in the prespeech infant and the need to include an evaluation of such readiness in any comprehensive workup of the motor-speech disorder in cerebral palsy. At least two classes of movements are described: basic and skilled, with skilled movements emerging from basic movements. Movements include those needed to assume various speech postures, as well as hand, listening, and oral movements. The importance of the assessment of speech movement readiness to therapy planning is implied and a guide for evaluating such readiness is presented. Sheppard's article focuses more specifically on the assessment of oral-motor behaviors. She contends that examination of oral-motor behaviors should include an evaluation of oral reflexes, oral postural control, control of oral secretions, various eating behaviors, vocal behaviors, and voluntary, nonverbal movements. She believes that such an inclusive oral examination produces data upon which a more accurate diagnosis and treatment plan can be formulated. Sheppard also presents a guide for doing such an in-depth assessment of oral-motor behaviors.

The treatment section opens with an article by Morris, who emphasizes that our personal beliefs about the nature of cerebral palsy and about our abilities and professional roles strongly influence how we plan treatment for the child. By being aware of this concept and by identifying personal beliefs about cerebral palsy and therapy, the clinician can develop treatment programs that support those beliefs as well as raise questions about and modify those beliefs when appropriate. Among the factors that influence Morris' formulation of treatment plans for the young child with cerebral palsy with communication disorders are the knowledge of normal development, the connection between prespeech and speech skills, and the interacting frameworks in treatment, that is, the interaction among learning, communicative, physical, and sensory environments.

The next two articles are concerned with specific procedures and techniques aimed at the respiratory, phonatory, and oral-motor problems of infants and young children with cerebral palsy. Many of the treatment beliefs expressed by Morris are reflected in both these articles. Davis, in her article on the treatment of respiratory and phonatory problems in cerebral palsy, bases her intervention techniques on knowledge of normal respiratory and phonatory patterns in infants up to the age of speech onset and of abnormal patterns found in children with cerebral palsy. Her emphasis in therapy is on influencing the postural and kinesthetic environments in which respiration and phonation occur rather than on direct attention to respiratory and phonatory processes. Alexander in her article on the treatment of oral-motor problems also bases her treatment program on knowledge of normal and abnormal developmental patterns. More specifically, she believes that speech pathologists working to improve oral-motor functioning in infants and children with cerebral palsy must base their treatment plans on knowledge of normal and abnormal oral-motor development in feeding, sound-making, and speech activities, and on the appreciation of the relationship between oral-motor development, general movement development, and respiratory-phonatory functioning.

Naturally, it is the fondest wish and goal of communication specialists working with children with cerebral palsy that all their children learn to speak, but, alas, this is not always possible. The last article by Ferrier and Shane, therefore, is devoted to computer-based communication aids for the nonspeaking child with cerebral palsy—an area that has experienced great

growth in recent years. The authors provide some historical perspective on augmentative and alternative communication systems, including nonelectronic and electronic communication aids, but concentrate on the latest developments in electronic communication aids made possible by the general purpose personal computer. Such a computer, with appropriate attachments, not only allows the nonspeaking child to communicate, but also to participate in educational and vocational endeavors. Factors involved in the selection-prescription process for general purpose computer-based systems is discussed, and a list of available software for education and communication purposes is also provided.

Even a rapid scan of the impressive articles contained in this issue of *Seminars* reveals the great strides made over the last 30 years by the field of Speech-Language Pathology and Audiology in the understanding and care of communication disorders of the person with cerebral palsy. It should be quite clear that to become an expert on such communication disorders should be regarded as a prodigious feat requiring not only knowledge and experience in all aspects of communication sciences and disorders, but special knowledge in developmental neurophysiology as well. How great is the professional challenge, but how sweet are the personal rewards!

Edward D. Mysak, Ph.D.
Guest Editor