Chapter 1

The Importance of a Functional Memory System

Impaired memory is one of the most persistent and pervasive deficits after injury to the brain (Parente and DiCesare 1991). A reliable memory system is vital for independent living. Memory difficulties may create more challenging barriers to independent functioning, social adaptation, family life and school or work endeavors than do physical deficits (Vogenthaler 1987).

A functional memory system provides a sense of continuity in the environment. Without it, daily events are disconnected, distorted or forgotten. The individual lives from moment to moment, and there is a loss of control over oneself and the environment (Toglia 1993).

Therapists working with clients who have short-term memory difficulties must find systems and strategies that match the clients' specific needs.

Clients with significant memory difficulties who are not able to develop compensatory systems become dependent on others to make sure they follow through on important activities. They may demonstrate significant difficulty in recalling basic information, such as meals they have eaten, phone conversations they have had, activities they have participated in or people they have seen recently. This confusion leads to repetition of activities that may lead to weight gain, reduced sense of self and extraordinary frustration. Family members may be overwhelmed.

The process leading to retrieval of new information involves attending to relevant stimuli, registering the stimuli, storing the information effectively and then being able to retain the information.

Using *Functional Memory Manual*

This manual is written for members of the interdisciplinary neurorehabilitation team: neuropsychologists, speech-language pathologists, occupational and physical therapists, and cognitive therapists. Special education teachers also may apply the strategies discussed here to improve recall in students with memory deficits.

Functional Memory Manual is designed primarily for clients with memory deficits due to acquired brain injury as a result of motor vehicle, bicycle or pedestrian accidents, stroke, aneurysm or anoxia, work-related brain injury, assault, encephalitis, meningitis and brain tumor. It also may be used with clients with dementia and other types of memory impairments.

The exercises contained in *Functional Memory Manual* are appropriate for clients with mild, moderate and severe memory deficits.

With more than 30 years of combined experience in the area of neurorehabilitation, the authors have tested these exercises clinically with clients at three different levels of functioning: mild, moderate and severe. The authors have modified the exercises to meet the needs of clients at each level. They also have extensive experience with clients at Level 4 (high) with subtle memory deficits requiring more advanced challenges. Some of these clients may have had superior memories prior to their injuries and currently are adapting to a memory system that is still within normal limits yet reduced from pre-injury levels.

Instructions at the beginning of each chapter provide guidance in selecting activities for individual clients. Evaluation results, discussion with family members and significant others, performance in individual and group sessions, and clinical experience all provide the information necessary for selecting appropriate exercises for each client.

Before beginning any memory exercise with a client, review and suggest appropriate strategies to help the client encode and retrieve the information you will present. Specific strategies are discussed in Chapter 2, and clear examples are provided. Additional examples of strategy application are presented at the beginning of each chapter.

The rationale for the hierarchy of exercises is explained at the beginning of each chapter or activity.