CHAPTER 2

OVERVIEW OF APHASIA AND APPROACHES TO APHASIA INTERVENTION

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INTRODUCTION

Aphasia is an acquired neurogenic language disorder characterized by impairment of an individual’s ability to comprehend and produce language symbols for everyday communication. Aphasia is the most common communication disorder resulting from brain damage. Cerebrovascular accidents (CVAs) or strokes are the leading cause of aphasia in adults. However, aphasia also may result from brain trauma, brain tumors, or a specific inflammatory or neurodegenerative disease process.

INCIDENCE AND PREVALENCE

According to the National Stroke Association (NSA) (2006), stroke is the third leading cause of death in the United States (after heart disease and cancer) and is the leading cause of disability in adults. Further, the NSA reports that approximately 5.4 million Americans are living with the effects of stroke at any given time. Recent epidemiological data provided by the American Heart Association (AHA, 2003) reveal that nearly 700,000
individuals in the United States experience a new or recurring stroke each year, and the reported incidence of stroke is on the rise (Williams, Jiang, Matchar, & Samsa, 1999). Two-thirds of the individuals who experience a stroke survive and require post-stroke rehabilitation (National Institute of Neurological Disorders and Stroke, 2002). An estimated one million individuals in the United States currently have aphasia (National Institute on Deafness and Other Communication Disorders, 2006).

**DOMAINS AFFECTED AS A RESULT OF APHASIA**

Depending on the site and extent of the neuroanatomical lesion resulting from a CVA or other brain damage, aphasia results in language impairments affecting spoken and written modalities including word retrieval (naming), fluency, auditory comprehension, repetition, reading comprehension, and written language production. According to Davis (2007), aphasia selectively impairs the cognitive systems and processes necessary for the comprehension and use of language, and therefore, may be regarded as a cognitive impairment. Additionally, several researchers have demonstrated that aphasia impairs select processes in cognitive domains, such as attention (Murray, 2002; Laures, Odell, & Coe, 2003), working memory (Wright, Newhoff, Downey, & Austermann, 2003; Wright & Shisler, 2005), verbal episodic memory (Beeson, Bayles, Rubens, & Kaszniak, 1993), spatial memory (Burgio & Basso, 1997), and executive function (Mayer, Murray, Turkstra, & Lorenzen, 2006).

**DISORDERS ACCOMPANYING APHASIA**

Aphasia is frequently associated with concomitant disorders affecting motor speech functions (e.g., dysarthria or apraxia of speech), sensory recognition (agnosia), reading (alexia), writing (agraphia), and swallowing ability (dysphagia). These disorders are discussed briefly below.

*Dysarthria*

Dysarthria (*Greek: dys = damaged + arthron = articulation*) is a collective term for a group of neurogenic speech disorders resulting from impairment of the neuromuscular execution of speech (Duffy, 2005). Dysarthria may be