Cognitive Rehabilitation: Advancing the Stature of Occupational Therapy

In the year 2000, we may look back at this, the adolescence of cognitive rehabilitation, as a defining moment for occupational therapy—the period in which occupational therapy's role in this transdisciplinary field changed to either equal professional partner or technical assistant. The results of 252 surveys returned from 389 organizations providing cognitive rehabilitation services highlight its current transdisciplinary nature (Mazmanian, Martin, & Kreutzer, 1991) and allude to occupational therapy's nominal level of participation and leadership (only 3% of the respondents were from occupational therapy). Of the total respondents, 37% indicated that multiple disciplines provided cognitive rehabilitation at their facilities. When single disciplines were identified as primary providers, psychology and speech and language pathology were most often named. Limited occupational therapy participation in the field is further indicated by the fact that only 5 of the 151 members of the Society for Cognitive Rehabilitation, Inc., have designated themselves as occupational therapists (Society for Cognitive Rehabilitation, 1993b). I maintain that the ways in which the profession and individual practitioners address current issues in cognitive rehabilitation now will determine the direction of the field itself as well as our future contribution and professional role.

To increase our profession's stature in this transdisciplinary field, we must determine what components of cognitive rehabilitation are appropriate for occupational therapy practice. Having done that, we must ensure that our qualifications are adequate for equal professional partnership with other disciplines and actively contribute to the development of this emerging field. I begin by summarizing salient issues in cognitive rehabilitation (terminology, efficacy, provider qualifications) and then offer suggestions specific to occupational therapy.

Current Issues in Cognitive Rehabilitation: Terminology, Efficacy, and Provider Qualifications

Terminology

In reference to defining cognitive rehabilitation, Sohlberg and Mateer aptly suggested that "perhaps the most fundamental question to be answered is what is it?" (1989a, p. 3). In the literature, terms such as cognitive remediation, cognitive retraining, and cognitive rehabilitation are often used interchangeably but are not synonyms (Abreu & Toglia, 1987). The term cognitive rehabilitation includes two general domains of intervention: (a) methods to restore cognitive function (cognitive retraining or remediation) and (b) methods to circumvent the cognitive deficit (compensatory techniques). Cognitive retraining refers to a constellation of procedures designed to improve basic cognitive functions (such as attention, visual processing, memory) in the hope that gains will generalize to the range of skills to which these cognitive processes relate (Gordon & Hibbard, 1991). These procedures are often based on computer-augmented, repetitive drills and are premised on a restorative model, a process of trying to reverse an underlying cognitive deficit. On the other hand, when compensation is the focus of cognitive rehabilitation, the clinician accepts the continuing presence of the specific cognitive deficit or deficits and seeks to help patients effectively use residual skills by teaching them ways to minimize the extent to which problems impinge on daily life activities. Compensatory strategy training includes teaching clients to use cognitive prostheses (e.g., memory notebooks, alarms) and modifying the demands of the task or environment to bring it into the person's competence level (Prigatano, 1987). The distinction between these two domains is important when components of cognitive rehabilitation appropriate for occupational therapy practice are considered.

Efficacy

Efficacy in cognitive rehabilitation is ultimately measured by its objective influence on function and the subjective value of these changes to the consumer. In terms of objective efficacy data, the first decade of research on cognitive rehabilitation supports an encouraging, although not uniformly favorable, prognosis (Gianulos, 1991). Cognitive retraining approaches have, in general, received the most criticism for failing to reliably improve performance in everyday living or hasten the spontaneous recovery process (Butler & Namerow, 1988; Conделuci, Ferris, & Brock, 1992). Some clinicians and researchers believe that training in compensatory techniques offers the most promise for improving functional performance.
(Dougherty & Radomski, 1993; Prigatano, 1987) and a number of single-subject studies (Sohlberg & Mateer, 1989b; Zenicus, Wesolowski, & Burke, 1990; Zenicus, Wesolowski, Krankowski, & Burke, 1991) are cause for cautious optimism. Definitive conclusions regarding effectiveness are as yet elusive for a number of reasons, such as issues of internal validity in studies that used neuropsychological test data as the dependent variables, confounding effects of other aspects of the rehabilitation program, and difficulties establishing control or comparison groups.

The value of cognitive rehabilitation must be defined by consumers and payers. Papastrat (1992) cited a survey by Jones and Evans in which 50 financial providers were asked to rank 15 potential client outcomes for persons with traumatic brain injury. The results of this survey are consistent with a survey of family members (Condeluci et al., 1992): both financial providers and family members gave highest priority to independence in activities of daily living (ADLs). Independence in ADLs and the ability to manage their own affairs were among the top three desired outcomes selected by survivors of brain injury (Condeluci et al., 1992). Only those cognitive rehabilitation approaches regarded as effective at contributing to improved levels of self-management and independence should be considered in establishing standards of practice for occupational therapy.

Provider Qualifications

At present, consumers of cognitive rehabilitation services have no way of ensuring the competency of individual clinicians. The issue of therapist qualifications is further complicated by the transdisciplinary nature of the field withpersons from neuropsychology, speech and language pathology, occupational therapy, and special education performing similar, sometimes overlapping functions. Various professional organizations advocate establishing competency standards within the field. For example, the Head Injury Task Force of the American Congress of Rehabilitation has recommended that, at a minimum, qualified clinicians should have specific training or experience in brain–behavior relationships and cognitive processes (Gianutsos, 1991). The Society for Cognitive Rehabilitation, formed in 1989, has established guidelines, requirements, and procedures for voluntary certification of cognitive rehabilitation professionals (Society for Cognitive Rehabilitation, 1993). At present, individual therapists are ultimately responsible for determining whether they are qualified for independent or supervised practice, but it seems likely that in the future, credentialing procedures will make those determinations.

Recommendations for Occupational Therapy

These and other issues serve as a wake-up call to the occupational therapy profession. As occupational therapists, we can improve our stature on the cognitive rehabilitation team and contribute to the quality of cognitive rehabilitation services by intensifying our efforts within and outside the profession.

Efforts Within Occupational Therapy

To function as full partners in the development of this transdisciplinary field, occupational therapy as a profession must define standards of cognitive rehabilitation practice that are consistent with our history and expertise. The American Occupational Therapy Association (AOTA) Statement regarding management of persons with cognitive impairment (AOTA, 1991) described generic goals for occupational therapy intervention, but it represents only a first step. In the hope of continuing this dialogue, I suggest that cognitive retraining is outside the scope of traditional occupational therapy practice. In addition to its dubious effect on functional performance, cognitive retraining efforts are often tedious with little external validity for clients.

Teaching patients to use compensatory techniques, however, has a direct link to improved performance on everyday tasks and is clearly consistent with occupational therapy theory and expertise (Allen, 1987). Helping survivors to reestablish disrupted habit sequences and to use cognitive prostheses are two examples of cognitive rehabilitation efforts directed toward compensation that reflect occupational therapy’s unique contribution to the team. Briefly, habits and routines are the means by which most adults accurately and efficiently carry out complex series of steps (related to self-care, for example) with little conscious effort. Historically, they have been of concern to occupational therapists as a foundation to productive living (Ryan, 1925; Slagle, 1934). Wood (1988) suggested that, after brain injury, rituals and routines that were once automatized are disrupted, requiring the survivor to approach many self-care tasks as if they were new events to organize each time they are carried out. Looking beyond the survivor’s level of independence in activities of daily living, treatment efforts to restore and link disrupted habit sequences address activity patterns of daily living (Davis & Radomski, 1989; Mayer, Keating, & Rapp, 1986). Similarly, teaching brain injury survivors to use cognitive prostheses (e.g., notebooks, alarms, electronic data cards) in the context of personal, household, and work activities is a logical extension of traditional occupational therapy practice in which patients with physical limitations are taught to use adaptive equipment and technological aids to optimize occupational performance.

As we define cognitive rehabilitation standards for occupational therapy practice, we must also define our role with respect to other disciplines. In theory and under optimum conditions, transdisciplinary service provision promotes team cooperation and suitable discipline-specific contributions to the effort. Reality for many practitioners is a daily jockeying for position, with persons at each facility negotiating areas of service provision on the basis of personal and departmental histories rather than professional education and clinical expertise.

Efforts Outside Occupational Therapy

To improve our stature, we must not only determine how we as occupational therapists can best contribute to cognitive rehabilitation programming, but also how we may work with other disciplines to shape the direction of the field itself. Here are some ideas.

First, all cognitive rehabilitation professionals must be charged with demonstrating the utility of their inter-
ventions. Single-subject research designs allow occupational therapists to integrate empirical findings and methods into clinical practice and provide a means for occupational therapists to contribute to the ongoing quest for effective treatment strategies in cognitive rehabilitation.

Additionally, as occupational therapists, we must make sure that our skills and knowledge base meet credentialing standards so that we are able to maintain an equal professional partnership with our colleagues from neuropsychology and speech and language pathology. Individual memberships in interdisciplinary organizations such as the Society for Cognitive Rehabilitation give us a voice in the direction and development of the field.

Finally, AOTA should explore participation on the American Speech and Hearing Association/American Psychological Association Division 40 Task Force on Cognitive Rehabilitation (Society for Cognitive Rehabilitation, 1992).

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**References**


Papastrat, I. A. (1992). Outcome and val-


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