

DIALOGUE

Learning from our successes and failures: Reflections and comments on “Cognitive Rehabilitation: How it is and how it might be”

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Barbara A. Wilson's article in this issue is a thoughtful and scholarly commentary on the present state of cognitive rehabilitation. Her review of the meaning of the term “rehabilitation,” and her reminder that we are better at treating disabilities than impairments after brain damage, set the background for her four major points. First, there are currently four basic approaches to cognitive rehabilitation. Second, two of these approaches are of little help to patients. Third, combining learning theory, cognitive psychology, and neuropsychology is helpful in dealing with the “everyday problems of brain-injured people.” Finally, this latter approach combined with the holistic approach is promising, especially given that patients' personality disturbances must be considered if neuropsychological rehabilitation is to be effective.

Her discussion of the various approaches to cognitive rehabilitation and “what is wrong” with each is interesting but somewhat misses the mark, at least when she discusses the “holistic approach.” In my opinion, it is inaccurate to characterize the holistic approach as arguing that it is futile to separate cognitive from emotional or motivational disturbances. The model simply states that both cognition and emotion interact in a complicated way, and that when one attempts to rehabilitate cognitive deficits one must pay attention to the individual's emotional and motivational disturbances *at the same time* (Ben-Yishay & Prigatano, 1990; Prigatano & Ben-Yishay, in press). This key component of the holistic approach is not adequately integrated by the other approaches.

The holistic approach propounds that the social milieu of rehabilitation is an important factor in patient outcomes

(Prigatano et al., 1986). This point also needs to be emphasized. Group work alone does not define a holistic approach; rather, it is placing an individual in a therapeutic environment (Prigatano, 1989; i.e., a milieu day-treatment program) that influences psychosocial outcomes (Prigatano et al., 1994). The holistic approach clearly underscores that patients' emotional and motivational reactions to their impairments can greatly contribute to their degree of disability.

Another limitation of Wilson's discussion is the lack of a full description of the impact of patients' impaired self-awareness on cognitive rehabilitation. Although this important disturbance is receiving increasing attention (Prigatano & Schachter, 1991), it is not yet adequately integrated in many rehabilitation approaches. Patients often have limited insights about the severity of their impairments and associated disabilities (Prigatano, 1991a). They may therefore resist rehabilitative activities that they need (Prigatano, 1989). To deal with this problem, the therapist must understand what patients actually experience (Prigatano, 1991b, 1994).

Consequently, I have argued in various publications that a phenomenological approach must be incorporated as an adjunct to neuropsychological rehabilitation, including cognitive rehabilitation (Prigatano, 1991b, 1994, 1995). By entering their phenomenological field and helping patients better understand their personal reactions to the consequences of their brain injury, therapists can greatly facilitate the adjustment process. Because many workers in this field continue to overlook the importance of psychotherapy in the rehabilitation of brain dysfunctional patients (Prigatano, 1991b), it is heartening that Wilson used the term psychotherapy in a discussion of cognitive rehabilitation.

Wilson's discussion of the combined approach is useful, and places its contribution to cognitive rehabilitation in perspective. Teaching patients to compensate for memory impairments, for example, is an important contribution of

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cognitive rehabilitation and is readily integrated into a holistic approach. In fact, Wilson, with colleagues Susan Kime and David Lamb, has published a case that clearly illustrates how this integration can be achieved (Kime et al., 1996). I can only echo that the combination of these approaches holds much promise for the future.

Concomitantly, however, I must stress that there are very real differences between the combined approach (which has a strong connection to behavioral theory) and the holistic approach. Both camps recognize the importance of the laws of learning in the training or education of individuals, brain injured or not. Both approaches emphasize the need to evaluate systematically the neuropsychological consequences for patients. The behavioral approach, however, does not attribute any real significance to the patients' subjective experiences for therapy or retraining. In the classic behavioral approach, such subjective experiences are viewed cautiously, and even considered misleading for therapists. It is the patients' behavior, not their feelings, that counts. By definition, the behavioral tradition excludes the validity of a phenomenological approach. Teaching patients to control their anxiety through such methods as systematic desensitization is different from paying attention to their subjective reactions to brain injury. In contrast, the phenomenological approach posits the importance of patients' personal reactions and their integration into any comprehensive method of care.

I do not emphasize these differences to cause needless polarity between proponents of the two approaches, which both have value. We must recognize, however, that there are real differences in the underlying philosophies of the two approaches that can lead to real differences in the implementation of treatment. Disregard for these differences glosses over the important contributions of the holistic approach and makes it appear to be simply a more comprehensive form of the combined approach, which it is not.

Certainly, cognitive rehabilitation will develop as we learn from both our successes and our failures. Failures associated with the holistic approach are often the result of inadequate screening—the failure to select patients who can best benefit from such programs. Many of these individuals have such severe deficits that holistic rehabilitation programs cannot help them become productive, regardless of how much attention is given to their subjective or personal states. The holistic approach is most successful when patients can engage in cognitive and related tasks that help them achieve a more realistic view of their strengths and limitations. This information, coupled with practice in a work trial, helps them return to a productive lifestyle. Patients who benefit the most from this approach tend to be 6 to 12 months beyond their injury. Enrolling patients into these programs sooner if they are in a more acute stage after injury may result in less successful outcomes.

Finally, I would like to make a few suggestions concerning cognitive rehabilitation, which should be based on one new or evolving and two historical injunctions. The latter are well known. First, cognitive rehabilitation ultimately must

be based on a scientific understanding of the normal brain mechanisms underlying higher cerebral functions as well as the nature of the dysfunction itself. This has been observed by many researchers and clinicians including Luria (1948/1963) and more recently, Pöppel and von Steinbüchel (1992) and Christensen et al. (1991). Second, once the underlying mechanisms are understood, devising methods to retrain patients or to teach them to compensate for their deficits based on that knowledge will most likely prove quite helpful. In this regard, the role of repetition or practice deserves mention. Luria, for example, was acutely aware that having patients practice a task repetitively would foster the automaticity of the behavior and insure its utility as an appropriate compensatory technique.

Awareness, however, that so-called static brain lesions are seldom static (Geschwind, 1985) is still evolving. Various brain pathologies interact with higher cerebral systems to produce a dynamic pattern of recovery or deterioration after brain injury (Prigatano & Wong, in press). From my perspective, we have failed to study these complicated patterns of recovery and deterioration after many types of brain injury. These patterns are also superimposed on normal aging and developmental processes. Cognitive rehabilitation must consider how various recovery and deterioration mechanisms contribute to the changing clinical picture we observe in patients. This approach will help systematize efforts at both cognitive rehabilitation and neuropsychological rehabilitation. By focusing on what cognitive rehabilitation can be, as well as summarizing what it has been, we are in a better position to advance the field. As we do so, however, we must consistently report both the successes and failures of cognitive rehabilitation if we are to develop a realistic view of what it can and cannot achieve.

In this regard, the work of Berg et al. (1991) is exemplary. In an initial controlled study, these investigators demonstrated that patients with closed head injuries who were taught strategies for learning relevant information performed better on learning and memory tasks than patients given pseudorehabilitation (“drill and practice”) or no training. Later, Berg and colleagues (Milders et al., 1996) presented 4-year follow-up data on this initial controlled memory training study. They noted that “in contrast to the results 4 years earlier, memory performance was the same for all three patient groups” (p. 223). This type of investigation should be the model to which we all aspire. We must report the limitations of our successes and what long-term follow-up data actually reveal. Only then can we construct an accurate database to determine what cognitive rehabilitation is now and what it can be in the future.

My final comment points to the need to place cognitive rehabilitation into a larger perspective. I have argued that cognitive rehabilitation is but one of five components of neuropsychological rehabilitation (the other four being psychotherapy, the establishment of the therapeutic milieu, education, and working alliance with the patient and family, and a protected work trial; Prigatano, 1992). To establish an effective therapeutic milieu, there is a crucial and ongoing

need to work with an interdisciplinary staff on their emotional reactions to the brain dysfunctional patients whom they treat.

Not all patients need neuropsychological rehabilitation. Many, however, do. The challenge now confronting rehabilitation therapists, specifically, the issues surrounding managed care in the United States, is how to rehabilitate appropriately the higher cerebral functioning of brain-injured patients while recognizing that all five ingredients may well be needed in some format for many patients. In the past, we have implemented this model through day-treatment programs that have been time-consuming and, some might argue, expensive. I believe, however, that the financial argument is spurious. If a proposed therapy works (i.e., produces a productive individual), the cost is worth the outcome. Society is likely to agree that an investment of \$50,000 to \$60,000 is cost-efficient if a patient can return to and maintain work after brain injury. If, however, a therapy fails to achieve this outcome, the costs will be difficult to justify.

The increasing pressure to justify rehabilitation efforts from a financial perspective again points to the need for clear evaluations of the successes and failures of neuropsychological rehabilitation. To do so, both the immediate effects of intervention and the long-term consequences must be assessed. If cognitive rehabilitation is placed in this perspective and its scientific underpinnings continue to be explicated, defined, and measured, neuropsychologists—be they clinical, experimental, or cognitive in orientation—assuredly can make a tremendous contribution to the care of brain-dysfunctional patients, as well as expand the scientific basis of neuropsychology.

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