

COGNITION

2A

In the area of cognition, the most consistent residual problem faced by the survivor of brain injury is disordered verbal and nonverbal learning. *Memory deficit is often the most significant and disabling cognitive deficit after severe brain trauma.* Research suggests that impaired new learning can be a problem that will persist for months, years and even decades after injury. (Fisher, 1985)

Moderate or severe brain injury will often affect school performance. Academic achievement scores may overestimate the child's ability to function in the classroom. Deficits in attention, memory, and behavior may diminish the child's capacity to achieve.

It may be a few years before the effects of traumatic brain injury are demonstrated. The student may well be able to perform overlearned and mastered skills in reading and spelling. However, a few years after the injury, reading problems may become apparent as a result of the child's learning difficulties. (Ewin-Cobbs, Fletcher, Levin, 1986)

Long term memory problems and attentional difficulties are characteristically observed in many children who have suffered brain trauma. Generalization of skills or information is another common problem related to brain injury. These are fundamental components of learning. The child with these deficits will have significant academic difficulties learning new material.

Remedial programs and cognitive rehabilitation must be employed to improve memory skills. Cognitive deficits demonstrated by the child who has sustained a traumatic brain injury are often different than the deficits of the child with a learning disability. Approaches and programming must meet the needs of this unique population.

COGNITIVE REHABILITATION

2B

Cognitive rehabilitation or training refers to the process of retraining individuals in the way they take in, store, and use information. Brain injury can affect perception, memory, concept formation, reasoning, and/or problem solving which are all skills necessary for successful processing of information.

Cognitive rehabilitation therapy is sometimes provided through hospitals or rehabilitation facilities immediately following acute hospitalization. When the student is reintegrated into school, it is necessary to continue some form of cognitive training. Cognitive rehabilitation and training help the student function within his/her environment. Although this treatment may initially be coordinated between an outpatient rehabilitative program and school, eventually it will become a school based intervention program.

Cognitive training focuses on the foundation skills necessary for learning. Improvement in these skills as well as development of compensatory strategies are the goals of treatment. Skill development should be addressed both in individual and group

settings where abilities such as social/verbal pragmatic competence can be addressed more suitably. Academics as well as functional life activities need to be included within treatment to aid with generalization of identified skills.

Therapists will be a vital link between the student and teachers. Interfacing and overlapping of goals between therapists and educators are essential to develop well-coordinated programs for the student. Regular meetings with all service providers will help to plan and carry out a continuum of coordinated goals and objectives. This may involve Individual Education Program (IEP) revisions as well as the devising of new methods for working together on overlapping goals.