



Support for brain health, cognitive aging, and acquired brain injury

COGNITIVE REHABILITATION PART 3- **THE CLIENT: A CLOSER LOOK AT THE BRAIN INJURY SURVIVOR'S** **EXPERIENCE**

In the initial two parts of this CRT newsletter series (CRT part 1- What and Why? *and* CRT part 2- The How: Treatment) on the subject of cognitive rehabilitation, I provided information on the assumptions and principles of the rehabilitative process as well as the actual treatment process. In a nutshell, brain injury potentially not only impacts clients' cognitive abilities such as attention, memory, reasoning, problem solving, and orientation, but also their emotional and social functioning, and thereby their social relationships, all of which can impair their ability to function successfully in everyday life. Importantly, for rehabilitative interventions to be successful in helping brain injury clients to return to productive lives and functional independence, these interventions must be guided not only by psychometric assessment, but also by the therapist's understanding of the client's experience.

There are a number of reasons why the therapist's understanding of the client's experience is vital to the success of rehabilitative efforts: a) reliance on solely psychometric test scores may lead to underestimation of impact of brain dysfunction on client's functioning; and b) not taking into account a client's experience such as decreased insight into impairment or frustration/confusion may promote resistance to rehabilitative efforts or increase frustration and reduce motivation to participate in the program.

So, what is it like to experience a brain injury?

While I stated in the first part on the topic (*The What and Why of Cognitive Rehabilitation*) that the most common cognitive deficits experienced by brain injury clients include difficulties with attention, concentration, memory, and slowed information processing, a clients' *subjective* experience is coloured by their emotional response to their struggle and attempts to cope with the new situation. Consequently, the most common affective reactions of brain injury clients are frustration and confusion in addition to the associated mental fatigue (Prigatano, 1999).

For example, our capacity to pay attention and process information at a reasonable speed is vital to our ability to function successfully in everyday life. Situations such as driving and grocery shopping require a person to process a great deal of information within short periods of time, a capacity which also depends on the necessary but usually unconscious decisions as to *what* information to attend to. However, what was prior to brain injury an effortless task may now require great effort resulting in mental fatigue (see below) and the feeling of being overwhelmed, which may eventually result in an inability to deal *effectively* with such situations.



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If these deficits are coupled with an impairment in abstract reasoning, preventing the client from identifying ways to re-approach a problem to obtain a correct solution and, thus, leaving them without a ready response to the problem, the client may be plunged into a state of disorder (i.e. confusion), which is the hallmark of what Goldstein (in Prigatano, 1999, p.34) calls the ‘catastrophic reaction’. Unable to cope with environmental demands, the client will become emotionally overwhelmed and upset, with the consequence of eventually withdrawing from the environment. Importantly, the therapist needs to ascertain the reason for the client’s frustration and what the client means when stating that he/she is confused. This is vital to the rehabilitative process because clients’ sense of confusion may reflect more than just an inability to think clearly. Rather, it may reflect an experience that their minds ‘go blank’ when faced with an unexpected problem or when their problem-solving strategies fail. More clearly, as a result of the brain injury, the brain injury survivor is thrown into a state of mental chaos and confusion, which results from the client’s interaction with the world that suddenly does not produce the expected and rewarding results anymore.

Moreover, while problem-solving reflects the complex cognitive process of integrating different pieces of information from a variety of sources to come up with a novel solution, cognitive functions are closely associated with affective functions. The effective sense of satisfaction that comes with successfully and effectively solving a problem eludes brain injury clients, and the emotional state that non-reward brings is the hallmark of the feeling of frustration. Consequently, it is important to identify and address the *specific* frustrations of clients in order to avert a “catastrophic reaction” (Prigatano, 1999).

Further, the increased effort that it now takes to process information induces the above mentioned mental fatigue. Brodal (1973) has provided a subjective account of the mental fatigue, which results from the unsuccessful attempts to actively move a paralyzed muscle after experiencing a stroke. Despite considerable effort, the expenditure of the mental energy (i.e. will power) needed to make the paralyzed muscle move remained ineffectual (p. 677) due to the stroke-generated disorganization of neural networks that normally are responsible for the facilitation of goal-oriented movements. Only when the movement was guided through the hands-on help of the physiotherapist was the sensory information generated that was needed to direct and execute the movement (p.677/78). In other words, the correct movements that were passively generated through the physiotherapist’s help ‘created’ the compensatory re-routing of the neural network mentioned above. Despite the increased complexity in neural networking responsible for cognition, the processes involved in, for example, “going blank” when attempting to find a new solution to a problem and the compensatory re-routing of the involved networks through cognitive rehabilitation efforts are most likely equivalent as is the experienced mental fatigue.



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Lastly, it is necessary to keep in mind that the symptom profile is not only related to the brain lesion(s), but rather it is resulting from a combination of factors. In other words, the subjective experience of the brain injury client's contextual environment interacts with the cognitive disturbance (i.e. memory deficits) to produce the symptom profile. For example, Prigatano (1999) relays the experience of a team with an Alzheimer's client who, after the death of his wife and thereby losing his familiar context, showed behavioural changes (i.e. aggression), which presumably were initially mistaken as direct consequences of the brain deterioration. Once it was realized that the behavioural changes were due to the client's disability to remember that his wife died, appropriate therapeutic measures could be taken to enable him to realize the latter. As a result, the client's behavioural symptoms disappeared.

In conclusion, to make the treatment process an effective endeavour for the client, the therapist must gain an understanding of the client's subjective experience (Prigatano, 1999) in order to learn and identify the client's self-perceived needs. Importantly, the client is the most vital member of the treatment team. Thus, to form a therapeutic alliance with the client, an alliance, characterized by the respect and courtesy that is a natural consequence of considering the other person's needs and input, helps not only create a constructive environment but also allows the client a sense of control that will encourage a client's active participation in their treatment process and, thus, in his/her recovery and re-integration process into society.

References

- Brodal, A. (1973). Self-observations and neuro-anatomical considerations after a stroke. *Brain*. 96, p: 675-694.
- Prigatano, G.P. (1999). *Principles of Neuropsychological Rehabilitation*. Oxford University Press, Oxford, UK.