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Neuropsychological Rehabilitation. Theory, Models, Therapy and Outcome, by B.A. Wilson, F. Gracey, J.J. Evans and A. Bateman (2009). Cambridge: Cambridge University Press

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Neuropsychological Rehabilitation. Theory, Models, Therapy and Outcome is a handbook published in English, yet to be translated into Spanish, which summarizes the state of Neuropsychological Rehabilitation in the international context. The work is coordinated by a group of authors of recognized international prestige in the field.

The extent of the interest in neuropsychological rehabilitation is reflected in the numerous articles and books published in recent years, while the specialist journal *Neuropsychological Rehabilitation* first appeared as early as 1991.

It would seem relevant here to define neuropsychological rehabilitation, since its conceptualization and beliefs about it will often influence intervention designs.

There are two *general goals* of neuropsychological rehabilitation: (i) to promote the recovery of functions *per se*, that is the means, capacity or ability necessary to achieve particular objectives, and (ii) to promote the recovery of objectives, working with patients to enable them to once again achieve certain goals employing means different from those they used prior to the lesion. The objective in the first case is the *restoration of the function*, and in the second, its *substitution or compensation*.

The book combines scientific rigour with knowledge from professional clinical practice at the Oliver Zangwill Centre, and is structured in four sections, which can be outlined as follows.

Section 1: Background and theory: (I) Towards a comprehensive model of neuropsychological rehabilitation. (2) Evidence for the effectiveness of neuropsychological rehabilitation. (3) Goal setting as a way of planning and evaluating neuropsychological rehabilitation. (4) The Oliver Zangwill Centre approach to neuropsychological rehabilitation.

Section 2: Group interventions: (5) The Understanding Brain Injury (UBI) group. (6) The Cognitive Group, Part 1: Attention and Goal Management. (7) The Cognitive Group, Part 2: Memory. (8) The Mood Management Group. (9) The Psychological Support Group. (10) Working with families in neuropsychological rehabilitation. (11) Communication Group. (12) Practically based project groups.

Although rehabilitation assessments and processes should be *individualized and personalized*, there is also a clear need for *group interventions*. According to Tirapu, Martínez, Casi, Albéniz and Muñoz (1999), the advantages of group intervention would include: (i) They are highly suitable when the treatment goal concerns social behaviours, since the group situation is itself a real situation; consequently, it enhances learning and facilitates the reproduction of fictitious social situations (role-playing); (ii) They are a powerful source of reinforcement; (iii) The presence of other members with similar difficulties calms and disinhibits the participants, as well as helping them to become more aware of the illness; (iv) They provide a wide variety of models of behaviour and coping, factors which assist learning and generalization; and (v) They involve substantial savings of time and money on permitting simultaneous attention to several patients with one or two therapists.

Section 3: Case illustrations: (13) Peter: successful rehabilitation following a severe head injury with cerebrovascular complications. (14) Lorna: applying models of language, calculation and learning within holistic rehabilitation: from dysphasia and dyscalculia to independent cooking and travel. (15) Caroline: treating post-traumatic stress disorder after traumatic brain injury. (16) Interdisciplinary vocational rehabilitation addressing pain, fatigue, anxiety and impulsivity: Yusuf and his 'new rules for business and life'. (17) Judith: learning to do things "at the drop of a hat": behavioural experiments to explore and change the 'meaning' in meaningful functional activity. (18) Simon: brain injury and the family – the inclusion of children, family and wider systems in the rehabilitation process. (19) Adam: extending the therapeutic milieu into the community in the rehabilitation of a client with severe aphasia and apraxia. (20) Malcolm: coping with the effects of Balint's syndrome and topographical disorientation. (21) Kate: cognitive recovery and emotional adjustment in a young woman who was unresponsive for several months.

The case study is a highly appropriate technique in idiographic research. The case study concept accounts for a substantial part of the methodology used by doctors in the collection and dissemination of information. It is characterized by the intensive study of the individual in

question and is based on the person's clinical records. Given the lack of any type of control, no relationships can be identified, nor generalizations made. However, case studies can provide information on which to base hypotheses or with which to revise previous knowledge.

Section 4: Outcomes: (22) Is this approach effective? Outcome measurement at the Oliver Zangwill Centre.

It cannot be denied that assessing the effectiveness of a neuropsychological rehabilitation programme is somewhat complex, and involves significant methodological difficulties. For example, we cannot endorse the efficacy of a therapy if it has not been tested with different types of patients, deficits, application times, and so on. Generally, this type of information is not available, so that we can only affirm or deny its efficacy for certain circumstances. On evaluating the efficacy of any intervention initiative, various factors should be taken into account (Junqué & Barroso, 1994): (i) The different variables relating to the individual can determine the outcome of a rehabilitation programme: age, nature of the lesion, time, laterality, motivation, etc. It is extremely difficult to be able to select groups of patients homogeneous in all these variables, and at the same time a number of groups sufficient for generalization of the results to different conditions; (ii) An alternative has been to use N=1 designs, with the concomitant problems of control and generalization; (iii) Another alternative is the use of multi-centre studies. In this case, problems of homogeneity of criteria constitute the principal difficulty. Moreover, on selecting the dependent variable it must be borne in mind that this has to be truly significant, of genuine value for the patient's adaptation to his or her environment. Also, it is necessary to carry out both early assessments and long-term follow-up studies, since only in this way will it be possible to ascertain whether the effect of the intervention occurs early on or if it is maintained over time; (iv) Another factor to consider is the rehabilitation process itself. Therapeutic interventions are far from simple, so that variations in the components of the programme can give rise to very different outcomes. The assessment of a programme should involve the possibility, moreover, of identifying its most effective components and provide control procedures that permit the elimination of non-specific effects, such as practice, therapists' training or empathy. Finally, it is necessary to assess the cost-benefit relationship and to show that the rehabilitation programme can produce outcomes beyond what would be obtained with standard patient care. In the area of neuropsychology, the assessment of rehabilitation programmes has traditionally been based on comparing the results of baseline evaluations with the results of assessments made after the intervention (León Carrión & Machuca, 2001).

The design, development and application of a neuropsychological rehabilitation programme require the collaboration of a multi-professional team of specialists, with a view to developing an integrative and harmonious rehabilitation process. Consequently, *Neuropsychological Rehabilitation* is aimed especially at the different types of specialist who participate or should participate in such work: (i) Psychologists, whose intervention addresses psychological disorders resulting from brain damage (depressive and anxiety disorders, disorders related to personality or social skills, etc.); (ii) Educational Psychologists, responsible for the design and development of multidisciplinary rehabilitation programmes applied in the areas of cognitive, behavioural and emotional disorders; (iii) Speech therapists, responsible for the assessment and rehabilitation of speech and language disorders caused mainly by the brain lesion; (iv) Neurologists, who cover the medical-biological aspects of the problem; (v) Physiotherapists, responsible for the assessment and physical rehabilitation of motor disorders following brain injury; and (vi) other professionals, such as social therapists or social workers.

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