EVIDENCE FOR MEMORY REHABILITATION
DOKAZI ZA REHABILITACIJO SPOMINA

Barbara A. Wilson
The Oliver Zangwill Centre for Neuropsychological Rehabilitation, Ely, Cambridgeshire, United Kingdom

Summary

A brief overview of issues and approaches in memory rehabilitation is given, emphasising neuropsychological assessment, retaining, compensatory strategies, group therapy, emotional consequences, goal setting, and hypothesising future developments. It is argued that memory rehabilitation can help people to compensate for, bypass or reduce their everyday problems and thus survive more efficiently in their own most appropriate environments, thus making clinical and economic sense.

Key words:
memory, rehabilitation programmes, retaining, compensatory strategies, goal setting

Povzetek

Prispevek podaja kratek pregled vprašanj in pristopov pri rehabilitaciji spomina s poudarkom na nevropsihološki diagnostiki, ohranjanju spomina, kompenzacijskih strategijah, skupinski terapiji, čustvenih posledicah in postavljanju ciljev ter pričakovanem razvoju v prihodnosti. Poudarja, da rehabilitacija spomina lahko omogoči ljudem, da kompenzirajo, obidejo ali zmanjšajo svoje vsakdanje težave in tako živijo bolj učinkovito v primernem okolju, zato je klinično in ekonomsko upravičena.

Ključne besede:
spomin, rehabilitacijski programi, ohranjanje, kompenzacijske strategije, postavljanje ciljev

INTRODUCTION

Memory disorders can be classified in a number of ways including the amount of time for which information is stored, the type of information stored, the type of material to be remembered, the modality being employed, the stages involved in the memory process, explicit and implicit memory, recall and recognition, retrospective and prospective memory and anterograde and retrograde amnesia.

Some recovery of memory functioning can be expected after an insult to the brain especially in the early days, weeks and months after non-progressive damage. Age at insult, diagnosis, the number of insults sustained by an individual and the pre-morbid status of the individual's brain are just a few of the factors influencing recovery. Some people will remain with life long memory impairment.

Before planning treatment for someone with memory difficulties, a detailed assessment should take place. This should include a formal neuropsychological assessment of all cognitive abilities including memory in order to build up a picture of a person's cognitive strengths and weaknesses. In addition, assessment of emotional and psychosocial functioning should be carried out. Standardised tests should be complemented with observations, interviews and self report measures.

Prispelo: 1. 2. 2010
Sprejeto: 2. 2. 2010

MEMORY REHABILITATION

Once the assessment has been carried out one can design a rehabilitation programme. It is sometimes believed that we can restore or retrain memory through rehabilitation. Is this true? Retraining is undertaken to improve performance of a specific function of the brain or to improve performance on a particular task or activity. Although there is no evidence that we can improve or restore memory functioning through retraining, we do know that people can improve on specific tasks through practice. Thus by teaching people to be more independent through the use of a pager, we are not improving memory per se but we are retraining their ability to function independently. Retraining also helps to address skills lost through lack of use e.g. through not being at work since an injury.

Rehabilitation, however, is not just concerned with restoration or retraining. Given the fact that restoration of episodic, explicit memory is unlikely in the majority of cases once the acute period is finished, compensatory approaches are the most likely to lead to change in everyday memory

functioning. There is mounting evidence that compensatory approaches can lead to improvements in independent living. In addition, we need to address the emotional consequences of memory impairment for patients and their families. Studies which reduce the impact of emotional stress are described.

Compensatory strategies are alternative ways to enable individuals to achieve a desired objective when an underlying function of the brain, such as memory, is not working effectively. Compensatory approaches to managing impairments take a number of forms. These include:

- cognitive compensations (e.g. using a verbal strategy to compensate for a defective visual memory);
- employing a method to enhance new learning, for example errorless learning or spaced retrieval may lead to more efficient learning of new information or skills;
- external aids (e.g. using a pill box to remember to take medication or an alarm to remind one to check the diary);
- environmental adaptations – modifying the environment in order to reduce cognitive demands (e.g. painting the toilet doors a distinctive colour so they can be easily distinguished or working in a quiet, non-distracting room to aid concentration).
- Evidence is provided for the effectiveness of each of these methods.

The provision of rehabilitation through memory groups is an alternative to or an addition to individual therapy. There are several reasons why group therapy is desirable. Memory impaired people may benefit from interaction with others having similar problems. Groups can reduce anxiety and distress; they can instil hope and show patients that they are not alone; it may be easier to accept advice from peers than from therapists or easier to use strategies that peers are using rather than strategies recommended by professional staff. Evidence for the effectiveness of memory groups is considered.

In addition to poor memory, those requiring rehabilitation are likely to be anxious and/or depressed. They may have mood swings, feel fearful and possibly suffer from post traumatic stress disorder (PTSD). These problems need to be addressed alongside the memory and other cognitive deficits. It is not always easy to separate cognitive, emotional, and psychosocial problems from one another. Not only does emotion affect how we think and how we behave, but also cognitive deficits can be exacerbated by emotional distress and can cause apparent behaviour problems. Studies addressing the emotional consequences of memory impairment are evaluated.

One of the main changes in rehabilitation over the past decade has been the adoption of goal setting to plan and evaluate rehabilitation. A goal is defined as something the person receiving rehabilitation wants to do, something that is relevant and meaningful to him or to her, and something reflecting his or her longer term aims. As rehabilitation is ultimately concerned with enabling people to participate effectively in valued activities, memory rehabilitation should set appropriate goals that are the main focus of intervention. Whether or not goals are achieved is, or should be, one of the main ways of evaluating the success of memory rehabilitation.

Goals are usually negotiated between patients, families and professional staff and should follow SMART principles. SMART is an acronym standing for *Specific, Measurable, Achievable, Realistic and Time based*. There are several advantages to a goal setting approach. First, it makes certain that the aims of the admission are clearly documented. Second, in addition to the rehabilitation team, patients, relatives and carers become involved. Third, it promotes team work. Fourth, it incorporates a measure of outcome, and fifth it removes the artificial distinction between outcome and client-centred activity.

The therapist carrying out memory rehabilitation should be able to carry out appropriate assessments, set goals, implement strategies, understand how to teach these strategies, recognise the importance of dealing with the emotional consequences of memory impairment and evaluate their treatment programmes. Above all they will know how to reduce the everyday memory problems of survivors of brain injury.

THE FUTURE

How is memory rehabilitation likely to change in the future? There is no doubt that we will see new developments in technology and external aids and it is to be hoped that these will benefit memory impaired people. The increasing use of sophisticated brain imaging technology such as Positron Emission Tomography is enhancing our conception of brain damage but whether this will help us with our rehabilitation programmes remains to be seen.

New assessment procedures are likely to appear to help us grasp the strengths and weaknesses of our patients, new treatments, perhaps pharmacological ones, which can be combined with our current rehabilitation techniques, may well be just around the corner and better evaluation of our interventions would be welcome. It is to be hoped that in the future memory impaired people and their families can access appropriate rehabilitation for their cognitive, emotional and psychosocial needs.

CONCLUSION

In conclusion, rehabilitation can help people to compensate for, bypass or reduce their everyday problems and thus

survive more efficiently in their own most appropriate environments. Rehabilitation makes clinical and economic sense and should be widely available to all those who need it.

Reference:

1. Wilson BA. Memory rehabilitation: integrating theory and practice. New York: The Guilford Press, 2009.