

DOWNLOAD PDF ASSESSMENT AND INTERVENTION IN DEMENTIA OF ALZHEIMER TYPE LINDA CLARE

Chapter 1 : Geriatric Neuropsychology: Assessment and Intervention

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Abstract Errorless learning EL is a principle used to teach new information or skills to people with cognitive impairment. In people with dementia, EL principles have mostly been studied in laboratory tasks that have little practical relevance for the participants concerned, yet show positive effects. This is the first paper to exclusively review the literature concerning the effects of EL on the performance of useful everyday tasks in people with dementia. The role of factors such as type of dementia, type of task, training intensity, EL elements, outcome measures, quality of experimental design, and follow-up are discussed. The results indicate that, compared with errorful learning EF or no treatment, EL is more effective in teaching adults with dementia a variety of meaningful daily tasks or skills, with gains being generally maintained at follow-up. The effectiveness of EL is highly relevant for clinical practice because it shows that individuals with dementia are still able to acquire meaningful skills and engage in worthwhile activities, which may potentially increase their autonomy and independence, and ultimately their quality of life, as well as reduce caregiver burden and professional dependency. Suggestions for future research are given, along with recommendations for effective EL-based training programs, with the aim of developing a clinical manual for professionals working in dementia care. These impairments predominantly affect episodic memory, with detrimental effects on daily life functioning for those suffering from the condition, inevitably severely compromising their autonomy and quality of life. If people with dementia can relearn relevant activities and skills, this may improve their sense of competence and foster their ability to partly maintain their independence, as well as reduce the burden on professional and nonprofessional caregivers. Nonpharmacologic interventions, such as cognitive rehabilitation programs, that aim to facilitate performance and optimize the relearning of skills rather than restore the impaired function, have been found to be effective. Errorless learning EL is one such cognitive rehabilitation strategy that has been gaining interest over the last two decades in the field of dementia care. This error reduction may be achieved by any combination of graded tasks where the task at hand is broken down into small steps, immediate error correction, encouraging participants not to guess, modeling the task steps, fading cues and prompts when steps are successfully performed vanishing cues, or rehearsal of the retrieval of information that is taught with increasing time intervals spaced retrieval. Because this implies that the reduction of errors facilitates the learning of behavior or skills, Baddeley ⁷ put EL forward as a potential learning aid to teach amnesic new information 30 years later, suggesting that EL addresses the relatively spared implicit memory functions in people with amnesia. To investigate this hypothesis, Baddeley and Wilson ⁸ compared EF and EL using a word stem task in adults with memory impairments of mixed etiology including dementia. Their amnesic participants showed significantly better learning and less forgetting in the EL condition. Most of the EL efficacy studies that have been reviewed so far used laboratory tasks, with positive effects being reported for controlled experimental manipulations in various patient samples. However, it remains unclear how well these results would convey to a more natural situation ie, clinical practice or the home with tasks that bear true relevance to patients. Moreover, most studies did not investigate the long-term effects of EL in people with dementia. The objective of this review therefore is to evaluate critically the effectiveness of EL in teaching people with dementia meaningful activities of daily living. These refer to all activities, tasks, or skills that have some relevance in everyday life of the individual patient that may enhance his or her autonomy. One should think of relearning the names of familiar people, retraining leisure activities, and regaining communication skills eg, preparing to go out for a walk, learning to use an MP3 player, or writing an email. Also, we examine the longevity of the

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effects reported ie, the follow-up results and provide recommendations about the practical feasibility and application of EL in clinical practice. Materials and methods Potentially relevant studies were identified by searching the PubMed, PsychInfo, and Web of Science databases until April 12, , using combinations of the search terms: In addition, reference lists from the retrieved articles were screened to identify additional papers. Articles were included for review if they met the following criteria: The study sample s comprise s people with a diagnosis of dementia. Tasks are relevant to daily life and meaningful to the participants. Intervention studies evaluate the effects of EL in tasks that are potentially useful for individuals with dementia to re learn, contributing to preservation or enhancing their autonomy. Error-reduction principles are applied. The intervention studies address the re learning of meaningful activities of daily living by means of EL. In Table 1 , various error-reducing methods are presented. Table 1 Error-reducing methods applied in the studies reviewed Method Definition No guessing The participant is encouraged not to guess to prevent errors. Either the correct response is immediately offered, after which the participant is asked to repeat it, or the correct response is provided in case of hesitation or uncertainty. Stepwise approach The task is mastered step by step. Modeling The therapist demonstrates to the participant how each step is to be performed. Verbal instruction The participant is explicitly explained what to do in each of the task steps or what is to be repeated. Visual instruction The therapist may give the participant any visual cue or prompt to help guide the participant through the task, such as a checklist with pictograms, a written action plan, or colored stickers to indicate a specific object or place. Vanishing cues Targets are presented and cues gradually withheld after successful recall trials until the participant is able to give the correct response in the absence of cues. Spaced retrieval The participant is asked to recall new information after increasing delays. The therapist provides the correct response when the participant hesitates or indicates to not know the correct response. The recall interval is then reduced until the participant is able to reproduce the desired response, after which the interval is increased again until the participant is able to give the correct response after the longest interval. Open in a separate window Outcome measures are quantitative and pertain to functioning in daily life. The intervention studies are controlled. Studies eligible for review are either group studies with a control group or control condition, comparing EL with another type of learning ie, EF or no treatment, or single-case studies eg, multiple-baseline design, reversal design, or case series. To examine the effectiveness of EL, the following study aspects were scrutinized: Results A total of 26 studies reported in 16 research articles were included, each employing some form of EL in teaching patients with dementia activities that they found relevant and meaningful for their daily lives, using error-reduction principles, quantitative outcome measures, and controlled study designs. Results for each of the studies are presented in Table 2. Table 2 Studies reviewed that compared the effectiveness of errorless learning and errorful learning or no treatment in people with dementia Study.