REVIEW

Current Trends in Cognitive Rehabilitation for Memory Disorders

Haruo Kashima, Motoichiro Kato,[1] Haruo Yoshimasu and Taro Muramatsu

Department of Neuropsychiatry, School of Medicine, Keio University, Tokyo,
[1]Department of Neuropsychiatry, Tokyo Dental College Ichikawa General Hospital, Chiba, Japan

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Abstract. Progress in the neuropsychology of memory disorders has provided a foundation for development of cognitive rehabilitation for amnesic patients. Accumulating evidence in the past two decades suggested that certain training techniques could be beneficial to many amnesic patients, such as teaching and acquisition of domain-specific knowledge, motor coding, reality orientation, and metacognition improvement. In this article we review and discuss the current trends in cognitive rehabilitation of memory disorders and provide a future direction in this emerging field. In addition, our experience in the successful rehabilitation of Korsakoff syndrome patients is also introduced. (Keio J Med 48 (2): 79–86, June 1999)

Key words: cognitive rehabilitation, memory disorder, domain-specific knowledge

Introduction

Progress in the neuropsychology of memory disorders has provided a foundation for development of cognitive rehabilitation for these patients. In fact, accumulating evidence in the past two decades suggested that certain training techniques could be beneficial to many amnesic patients. These include repetitive practices or exercises which train direct memory, mnemonic or internal strategies which are visual imagery or verbal strategies that train information retention and recall, and external memory aids or strategies which aim at compensating for the memory disorder. However, there remain several unsolved problems, such as the extent to which improvement on trained items generalizes to untrained items and difficulty in initiation and use of the newly learned strategies without prompting. More importantly, there are many severely amnesic patients who are totally refractory to cognitive rehabilitation.

The aim of this article is to review and discuss the current trends in cognitive rehabilitation of memory disorders and provide a future direction in this emerging field. At present, rehabilitation can be classified into teaching and acquisition of domain-specific knowledge, motor coding, reality orientation, and metacognition improvement; papers of each category will be reviewed and discussed in Part I, with emphasis on their theoretical and practical implications. In Part II, our successful rehabilitation of Korsakoff syndrome patients will be presented.

Part I: Recent Progress in the Cognitive Rehabilitation for Memory Disorders

Teaching and Acquisition of Domain-Specific Knowledge

"Domain-specific knowledge" is the term first advocated by Glisky and Schacter,[1–3] who emphasized that for brain injury cases, rehabilitation aiming at the acquisition and maintenance of knowledge of specific domains that have practical significance to the patients' daily life is more important than a rehabilitative technique that aims at total memory improvement.

Research has suggested that, although the core symptom of amnesia is the inability to learn new information, the patients can often acquire specific facts or knowledge that are related to their own environment.

Reprint requests to: Dr. Haruo Kashima, Department of Neuropsychiatry, School of Medicine, Keio University, 35 Shinanomachi, Shinjuku-ku, Tokyo 160-8582, Japan