

Abstract

Background: Schizophrenia patients exhibit impairment in prospective memory (PM), the ability to remember to carry out an intended action in the future. PM is considered crucial for everyday functioning, including how one manages and properly adheres to prescribed medication regimen. Medication is a vital component in the treatment of schizophrenia. Unintentional non-adherence due to unrecognised PM deficits may lead to serious consequences. Despite the clear implications, the relationship between PM and medication management remain poorly understood in patients with schizophrenia. This study aimed at examining the relationship between PM and the ability to manage medications in patients with schizophrenia, and how this translated further into real-life medication taking behaviour.

Methods: In this study, 82 patients with schizophrenia were recruited. The Medication Management Ability Assessment (MMAA), together with a computer-based PM assessment and a comprehensive set of neurocognitive tests were administered. Possible risk factors for poor treatment adherence such as insight and other clinical variables were measured. A questionnaire on self-report PM complaints was also administered. Eighty of the participants were followed up after three months and their medication adherence rates were measured. Factors that predicted MMAA scores and poor adherence were examined.

Results: PM was a robust predictor of medication management ability in schizophrenia patients. A series of hierarchical regression analyses revealed that time- and event-based PM together accounted for a significant proportion of the variance (72%) in MMAA score, far beyond the effect of all other traditional neurocognitive variables, clinical and demographic factors. At three months, using 80% of adherence rate as cut-off, 25 out of the 80 participants were regarded as non-adherent. Time- and event-based PM were associated with, but failed to predict treatment non-adherence. Using logistic regression analysis, only poorer insight at baseline and recruitment in inpatient setting predicted non-adherence. Self-report PM complaints did not correlate with objective PM measurement, MMAA, or the final adherence rate.

Conclusions: Overall, these findings support the hypothesis that PM captures a unique aspect of cognition that is essential for optimal medication management. The relationship between PM and insight is complex, and both are likely to contribute to good treatment adherence. Health care professionals should have high vigilance regarding PM impairments since patients with schizophrenia are likely to misperceive their actual PM abilities. Simple techniques such as the use of external cues may be helpful in compensating for the effect of PM deficits and should form part of the educational package for patients with schizophrenia.

Keywords: Schizophrenia; Prospective memory; Medication management;
Treatment adherence