

Feasibility of Using the Med-eMonitor™ System in Monitoring and Enhancing Medication Compliance and Health Status in the Treatment of Schizophrenia

Abstract

Objective: The purpose of this study was to test the feasibility of using a computerized device called the Med-eMonitor™ for daily monitoring of medication compliance and symptoms, enhancing medication compliance, and for providing patient education in patients with schizophrenia.

Method: Outpatients with schizophrenia or schizoaffective disorder were assessed for psychiatric symptoms and quality of life, as well as demographic information. They were instructed in the use of the Med-eMonitor™. In some cases, their caregiver was also instructed in the use of the Med-eMonitor™. A test of knowledge about schizophrenia was administered to the patient or patient and caregiver. Over the two-month course of the study, the patient or patient and caregiver used the monitor at home to take medication, answer questions about symptoms and signs, and learn educational facts about the disease and medication. Medication compliance and symptom data were uploaded each day from the Med-eMonitor™ to an Internet-enabled database, where investigators could log on and monitor the patients, and program the devices. At the end of the study, patients or patients and caregivers filled out a satisfaction scale, and a test of knowledge about schizophrenia. Treating physicians also rated their satisfaction with the Med-eMonitor™ System.

Results: 22 patients and 16 caregivers completed informed consent. All of them were able to learn to use the Med-eMonitor™ in the clinic. Fourteen (64%) of patients used the monitor at home. There was no significant difference in demographic variables, level of symptoms, or other clinical measures between the patients who did and those who did not use the device at home. Patients had non-significant improvement from pre- to post-test on the educational quiz ($t=-1.25$; $p=.23$); however, caregivers showed significant improvement ($t=-2.39$; $p=.048$). Most patients, caregivers, and physicians were satisfied with using the Med-eMonitor™ System.

Discussion: The Med-eMonitor™ System provided for compliance enhancement with psychotropic medications, ease of central evaluation by treating professionals, additional education, and a reduced need for on-site evaluation in a population of chronic schizophrenic veterans. These results suggest that the use of computerized devices is feasible in the daily clinical monitoring and treatment of schizophrenia. Patients, caregivers, and clinicians found the program to be useful, easy to use, satisfying, and educational. It is important to re-test this population with next generation technology.

KEYWORDS: Schizophrenia, computers, medication compliance, patient education