Abstract

Evaluation of cognitive status is a crucial element of geriatric assessment and rehabilitation. The Montreal Cognitive Assessment (MoCA) is a brief cognitive screening tool designed to assess a broader range of cognitive function than the Mini-Mental State exam (MMSE). The MoCA is a useful tool to examine cognitive function in the frail elderly, and it is more sensitive to subtle changes in mental status than the MMSE. However, the MoCA has not been extensively studied in the geriatric rehabilitation population.

Method

Participants

A sample of 47 patients admitted to the geriatric rehabilitation inpatient service at Bruyère Continuing Care was recruited. The service adopts an interdisciplinary approach designed to optimize independent function in the frail elderly. The research assistant made contact with the patients as soon as possible after admission to the inpatient rehabilitation program which typically consisted of daily physiotherapy, occupational therapy, and social work. All patients provided written informed consent, and the study was approved by the University of Waterloo School of Pharmacy.

Procedure

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Analyses and Results

Statistical analyses:

The MoCA was scored and categorized into three levels: normal (26-30), intermediate (20-25), and abnormal (<20). The test-retest reliability of the MoCA was assessed using intraclass correlation coefficients (ICCs) and Krippendorff’s alpha. The MoCA was found to have excellent test-retest reliability with ICCs ranging from 0.95 to 0.97 and Krippendorff’s alpha ranging from 0.80 to 0.85.

Mental status of independent geriatric patients and those needing assistance

We compared the mental status (MoCA scores) of patients deemed independent on the KELS to that of patients rated as requiring assistance. The MoCA was found to be a useful tool in predicting the level of assistance required by patients in their daily activities. As such, these findings support the hypothesis that the MoCA is a useful tool in predicting the level of assistance required by patients in their daily activities.

Discussion

Summary of key findings:

• The results support our hypothesis in that there is a significant difference in the MoCA scores of patients who need assistance on the KELS and those who do not.

• Qualitative examination of the scores shows that patients who are independent on the KELS have significantly higher scores on the MoCA than patients who require assistance. This held true over time and regardless of the type of assistance required.

Implications and future studies:

• From a diagnostic point of view, Razani et al. (2009) argue that the MoCA is a useful tool in predicting the level of assistance required by patients and that it may also help clinicians anticipate patients’ level of autonomy in regards to instrumental activities of daily living. As such, the MoCA may be the best tool available to assist in making care plan decisions for these patients.

• Future studies should further expand the criterion validity of the MoCA by examining its relationship with variables such as rehabilitation outcome and discharge destination. This will provide further evidence for the MoCA’s clinical utility beyond the identification of cognitive impairments.

References