

ORIGINAL RESEARCH

The Raven's Standard Progressive Matrices Performance is Associated with Premorbid Intelligence, Functioning or Adjustment in Patients with Schizophrenia

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Abstract

Objective: The assessment of premorbid intelligence and adjustment/functioning in schizophrenia is quite important for clinical evaluation. Several methods can be used to estimate premorbid functioning. However, these methods may be affected by retrospective bias, verbal skills, and the disorder itself. This study aimed to investigate whether the Raven's Standard Progressive Matrices Test (RSPM) performance is related to premorbid intelligence/functioning, or adjustment in schizophrenia.

Methods: Schizophrenia patients (n=31) and healthy controls (n=30) were included in the study. The Premorbid Adjustment Scale (PAS), the Positive and Negative Syndrome Scale (PANSS), and the Personal and Social Performance Scale (PSPS) were applied to patients with schizophrenia, while the WAIS-R and the RSPM were applied to all participants.

Results: No statistically significant differences were observed between the groups in terms of age, sex, and total years of education (p=0.86, p=0.06 and p=0.10, respectively). Healthy controls performed significantly better than the patient group in terms of intellectual abilities as measured by the RSPM and the WAIS-R. The RSPM performance was correlated with all WAIS-R scores, total years of education, and the academic subscale of the PAS, while it was not correlated with the PAS-developmental scores or the PSPS and PANSS scores of patients with schizophrenia.

Conclusion: The results of the study support the validity of the RSPM which is an easily applied tool that is not affected by verbal skills as a good measure of premorbid intelligence, and adjustment/ functionality in patients with schizophrenia.

Keywords: Premorbid Functionality, Premorbid Adjustment, Premorbid Intelligence, Raven's Standard Progressive Matrices Test, Schizophrenia, WAIS-R

INTRODUCTION

Premorbid adjustment, functioning or intelligence is an important feature of the course and the prognosis of schizophrenia. In general, poor premorbid functioning together with premorbid adjustment seem to predict an earlier age of onset, more severe negative symptoms, cognitive deficits, poor treatment response, chronicity and increased length of hospitalization (1-6). Premorbid functioning refers to the intellectual and psychosocial skills of patients in educational, occupational and social areas and interpersonal relations during the premorbid

period (2). Therefore, it is important to evaluate premorbid functioning and adjustment to determine specific biological phenotypes in schizophrenia which is a highly heterogeneous disorder. Thus, such studies might help understand the etiology, determine appropriate treatment goals, and provide individualized treatment (7). Moreover, assessments of premorbid functioning and adjustment will enable the identification of high-risk individuals and the development of disease prevention interventions for these individuals (8-9).

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Citation: Kizilpinar CS, Bastug G, Ozel-Kizil ET. The Raven's Standard Progressive Matrices Performance is Associated with Premorbid Intelligence, Functioning or Adjustment in Patients with Schizophrenia. Psychiatry and Behavioral Sciences 2023;13-3:137-145. Doi: 10.5455/PBS.20230213045240

Received: Feb 13, 2023

Accepted: Mar 25, 2023



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