**Abstract**

**Background:** Schizophrenia is associated with poor clinical and functional outcome. Traditional neurocognition, baseline negative symptoms and demographic factors such as premorbid adjustment have been identified as possible predictors of outcome. However, previous research did not include novel neurocognitive measures (such as prospective memory and emotion-behaviour coupling) as potential predictors. This study examined the predictive value of traditional and novel neurocognitive functions, demographic variables and clinical symptoms at illness onset on clinical and functional outcomes in first-episode schizophrenia.

**Methods:** We assessed the symptomatic and functional outcome of a historical cohort of 164 first-episode schizophrenia patients in a local early intervention clinic who had undergone comprehensive neurocognitive and symptom assessments at illness onset after an average of 4.7 years.

**Results:** A total of 109 first-episode schizophrenia patients completed follow-up outcome assessment. Neurocognition (executive function, working memory, verbal memory and prospective memory) significantly predicted outcome score on the Social Occupational Functioning Assessment Scale (SOFAS) ($R^2 = 0.15$, $p = 0.002$). When demographic factors (premorbid adjustment, length of education and baseline IQ) and baseline negative symptoms were considered together with neurocognition, the model

predicted an additional 17% of the variance. ($R^2 = 0.32$, P < .001). Neurocognition (executive function, verbal memory and prospective memory) predicted negative symptoms outcome denoted by scores on the Clinical Assessment Interview for Negative Symptoms (CAINS) ($R^2 = 0.12$, P = 0.004). Again, when demographic and baseline negative symptoms were considered together with neurocognition, the model predicted an additional 27% of the variance. ($R^2 = 0.39$, P < .001). In subgroup analysis, patients were divided into a cognitively-intact and a cognitively-impaired group based on baseline neurocognitive performance. Cognitively-intact patients had less negative symptoms measured by the CAINS motivation and pleasure subscale ($p = 0.012$) and expression subscale ($p = 0.005$) at end-point. Social functioning denoted the by First Episode Social Functioning Scale (FESFS) did not show any significant difference between the two groups.

**Conclusion:** Neurocognition, particularly prospective memory, is a potential predictor of clinical and functional outcome in first-episode schizophrenia patients. Premorbid adjustment and negative symptoms at illness onset also contribute to outcome. These variables could be potential targets of clinical monitoring and intervention.