

Abstract

Background: The National Institute of Mental Health had issued an important consensus statement which proposed a theoretical framework on negative syndrome, and called for development of new measurement instruments. The Motivation and Pleasure Scale–Self-Report (MAP-SR) was designed in accordance to the novel conceptualization of negative syndrome and to address the limitations of existing measures.

Aims: This study aimed to develop and validate the Chinese version of the MAP-SR (C-MAP-SR) in a local sample with chronic schizophrenia, and to evaluate the construct of negative syndrome measured, through comparison with healthy population.

Method: The C-MAP-SR was developed by forward and backward translations, and reviewed by an expert panel and a focus group. One hundred and fifty schizophrenia patients and 80 healthy subjects were recruited for the systematic evaluation of the psychometric properties of the C-MAP-SR. Receiver Operating Characteristics (ROC) curve analysis was performed to examine the sensitivity and specificity. Differences in the C-MAP-SR scores between schizophrenia patients and healthy subjects were examined.

Results: The C-MAP-SR showed excellent internal consistency (Cronbach's alpha = 0.90) and high test-retest reliability (intraclass correlation coefficient = 0.98). The original four-factor model was supported by confirmatory factor analysis. Convergent validity was evidenced by significant correlations between the C-MAP-SR and the negative subscale of the Positive and Negative Syndrome Scale, the Scale for Assessment of Negative Symptoms, the Clinical Assessment Interview for Negative

Symptoms and the Temporal Experience of Pleasure Scale ($r = -0.659, -0.556, -0.719$ and 0.432 respectively). Discriminant validity was evidenced by lack of significant correlation between the C-MAP-SR and the Calgary Depression Scale for Schizophrenia, the Simpson-Angus Scale and the Barnes Akathisia Rating Scale. The correlation with the Social and Occupational Functioning Scale was moderate ($r = 0.632$), while that with the Beck Cognitive Insight Scale was insignificant. The cut-off at 32/33 (with an area under the ROC curve of 0.845) was found to be optimal in identifying schizophrenia patients who had prominent negative symptoms, with a sensitivity of 86.2% and a specificity of 70.7%. The C-MAP-SR was able to distinguish schizophrenia patients from healthy subjects, in particular in anticipatory and consummatory pleasure.

Conclusion: The C-MAP-SR is a brief, reliable and valid self-report scale for assessing negative symptoms in patients with schizophrenia. The findings of our study have strong clinical implications, and would promote more local research in the important area of negative syndrome of schizophrenia.

Keywords: negative symptoms, schizophrenia, validation, Motivation and Pleasures Scale – Self Report, MAP-SR.