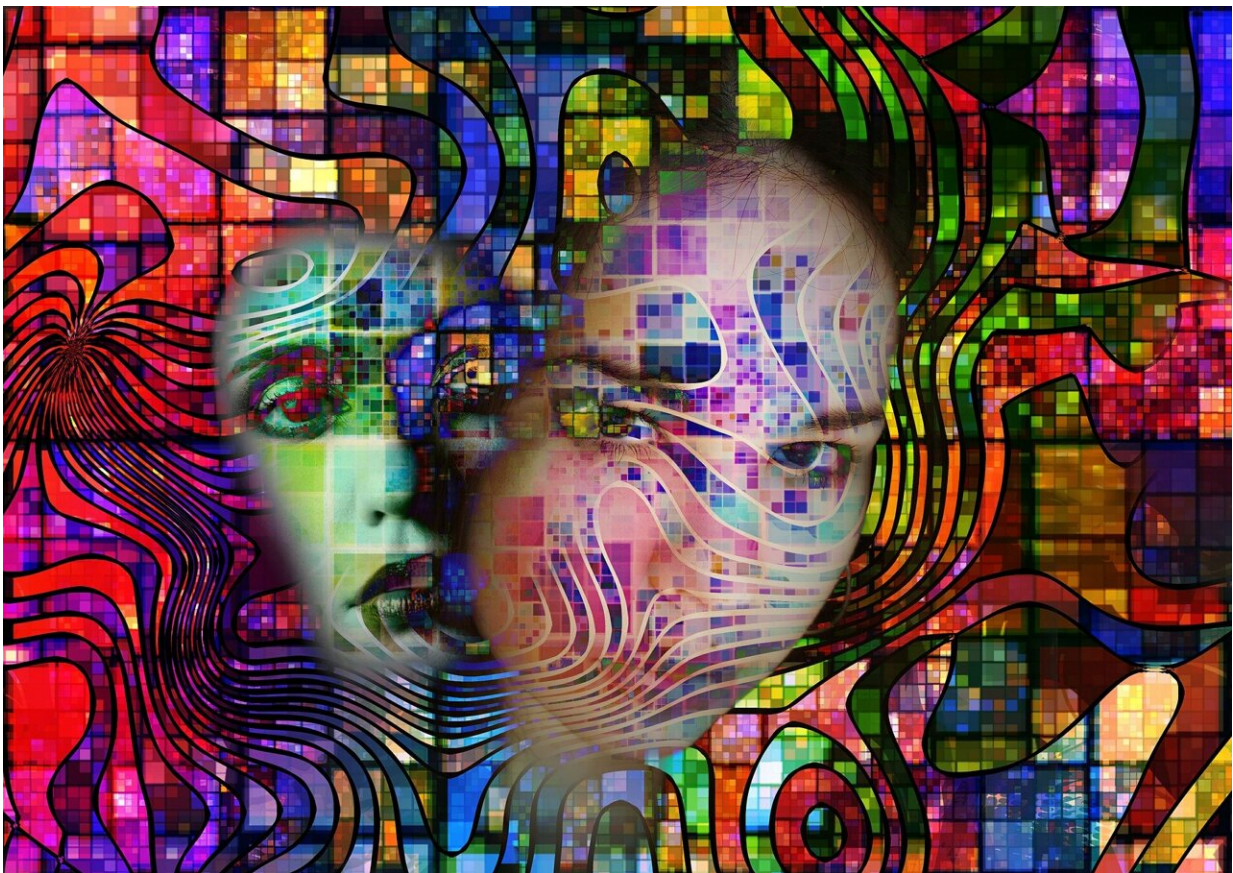


# Motivation-pleasure and expression are two latent factors underlying negative symptoms of schizophrenia patients

September 9 2022, by Zhang Nannan

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Negative symptoms such as reduced ability to experience of pleasure,

lack of motivation and diminished ability to express emotional responses for relevant social interaction are strongly correlated with clinical and functional outcomes of schizophrenia. However, these symptoms usually respond poorly to conventional treatment. It is still not clearly known for the origins, mechanisms and factor structure of negative symptoms.

Adopting the second-generation clinical assessments of negative symptoms, Dr. Raymond Chan's team from the Institute of Psychology of the Chinese Academy of Sciences and Prof. Yi Zheng Hui's team from the Shanghai Mental Health Center, together with collaborators from Hong Kong Special Administrative Region of China, have investigated the latent structure of negative symptoms in schizophrenia patients.

The researchers administered the Brief Negative Symptom Scale (BNSS) and the Clinical Assessment Interview for Negative Symptoms (CAINS) to 305 patients with schizophrenia. Then they performed confirmatory factor analysis to test four different competing models of negative symptoms of schizophrenia based on these two second-generation negative symptoms clinical tools.

According to the researchers, the 2-factor model, i.e., motivation and pleasure (MAP) and the diminished expression (EXP), had the best data fit over the other competing models. Using the CAINS alone, they found that the 2-factor model showed the best fit compared with other models. Using the BNSS alone, the 2-factor model appeared again as the best fit model in patients with [schizophrenia](#).

Moreover, when the items of both the CAINS and the BNSS were entered into the confirmatory factor analysis, the 2-factor model remained to be the best model fitting than other competing models.

Taken together, the researchers suggest that the 2-factor model is a

robust factor structure for negative symptoms, and this construct appears to be very stable across the two clinical assessment tools.

The findings were published in *Schizophrenia Research*.

Dr. Chan's team is now undertaking a series of studies to examine whether the MAP and EXP factors would also be exhibited in other psychiatric disorders such as bipolar disorders and major depressive disorders. The identification of a consistent 2-factor latent structure of negative symptoms across clinical diagnoses could promote further research to study the [clinical manifestations](#) and neural mechanisms underlying the EXP and MAP factors in different [psychiatric disorders](#).

**More information:** Shuai-biao Li et al, Revisiting the latent structure of negative symptoms in schizophrenia: Evidence from two second-generation clinical assessments, *Schizophrenia Research* (2022). [DOI: 10.1016/j.schres.2022.08.016](#)

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