Interrelationships between different domains of negative symptoms in schizophrenia
1 September 2022, by Zhang Nannan

Negative symptoms are core features of schizophrenia and determinants of clinical and functional outcomes. Negative symptoms are complex psychopathology, and comprise avolition, anhedonia, asociality, alogia and affective blunting. However, the underlying factor structure of negative symptoms in schizophrenia is yet to be determined. It is unclear whether the previous findings are "measurement-invariant," which provide stronger support to the validity of the reported factor-structure.

In clinical practice, multiple measurement scales are used to assess negative symptoms including the self-reported scales and the clinical interview. Moreover, the issue of "domain-specific correspondence" of the five consensus domains of negative symptoms in schizophrenia has not yet been studied.

In order to address this unclear issue, Dr. Raymond Chan from the Institute of Psychology of the Chinese Academy of Sciences (CAS) and his collaborators have adopted network analysis to specifically examine the interrelationship between negative symptom domains captured by different rating scales, and to examine the domain-specific correspondence across multiple scales in schizophrenia patients.

They assessed negative symptoms using the Brief Negative Symptom Scale (BNSS) and the Self-evaluation of Negative Symptoms (SNS), and the Scale for Assessment of Negative Symptoms (SANS) to 204 patients with schizophrenia.

According to the researchers, the SANS and the BNSS intermingled together, whereas the SNS clustered together.

In addition, the SANS attention domain was at the periphery of the network while the SANS anhedonia-asociality and the SANS affective flattening showed the highest node strength.

Specifically, the five nodes of the BNSS bridged the nodes of the SANS and the SNS. BNSS blunted affect and SANS anhedonia-asociality also exhibited the highest bridge strength.

Taken together, these findings support that the BNSS may bridge the clinical interview rating and the self-reported measure of negative symptoms in schizophrenia patients. Their findings further suggest domain-specific correspondence in the bridge centrality network, supporting the measurement-invariance of the NIMH negative symptoms consensus.

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