

Social cognition in schizophrenia

Nare Torosyan, Robert G. Bota

Department of Psychiatry, University of California, Irvine, CA, USA

Social cognition describes the mental processes by which individuals perceive, process, and utilize information in social interactions.¹ It is a topic that has attracted significant interest, as it can account for differences in daily functioning and quality of life.² Numerous studies investigating this construct, especially as it relates to individuals with schizophrenia, have emerged in the last decade.

Social cognition encompasses various domains that include emotion perception, theory of mind, social knowledge, and attributional style.³ Emotion perception describes ability to recognize and identify emotions. Theory of mind refers to one's ability to comprehend mental states and intentions. Social knowledge involves awareness of the roles, rules, and goals underlying social interactions. Attributional style is an individual's manner of interpreting the cause of events, specifically, tendency to attribute behaviors or events to personal or external factors. Impairments in these domains have been observed in patients with schizophrenia, and may contribute to one of the defining features of this disorder, social dysfunction.⁴ Studies have demonstrated consistent relationships between deficits in performance on social cognitive measures and poor functional outcomes, particularly social problem solving, social behavior, and functioning in the community.⁵ Impaired social functioning, in turn, is a poor prognostic factor and is predictive of relapse.⁶

Research also suggests that race is a significant moderator of emotion identification and functional outcomes, with weaker associations identified in samples of primarily Caucasians.⁷ Charernboon *et al.*⁸ investigated social cognition in an Asian population with clinically stable schizophrenia.

The results demonstrated significant deficits in performance on social cognitive tests and a significant correlation between emotion perception and negative symptoms of the disorder. Their work suggests that deficits in social cognition are a defining feature of schizophrenia, regardless of race or culture. Additional research across different patient populations will be important for further characterizing how race impacts the relationship between social cognition and social functioning.

The aforementioned studies have potentially important implications in the clinical setting, as addressing these deficits may improve social outcomes. Recent studies have explored the effect of broad-based and targeted social cognitive interventions on improving social cognitive skills.⁹ Broad based interventions involve a combination of training in social cognition, social skills, and neurocognition, while targeted interventions focus solely on training in specific social cognitive domains. These interventions have been associated with positive outcomes in patients with schizophrenia, particularly in emotion processing and theory of mind.⁸ Additional studies employing a well-validated battery of tasks will be important for better characterizing interventions associated with improved social cognition and functioning, and for clarifying the role of social cognition as a target in the treatment of schizophrenia.

References

1. Ludwig KA, Pinkham AE, Harvey PD, et al. Social cognition psychometric evaluation (SCOPE) in people with early psychosis: a preliminary study. *Schizophr Res* 2017 [Epub ahead of print].
2. Pinkham AE. Social cognition in schizophrenia. *J Clin Psychiatry* 2014;75:14-9.
3. Penn DL, Sanna LJ, Roberts DL. Social cognition in schizophrenia: an overview. *Schizophr Bull* 2008;34:408-11.

Correspondence: Robert G. Bota, University of California at Irvine, Irvine Health Neuropsychiatric Center, 101 The City Drive South, Orange, CA 92868, USA.
Tel.: +1.714.456.2056.
E-mail: rbota@uci.edu

Key words: social cognition; interventions; schizophrenia.

Contributions: the authors contributed equally.

Conflict of interest: the authors declare no potential conflict of interest.

Received for publication: 15 May 2017.

Accepted for publication: 15 May 2017.

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0).

©Copyright N. Torosyan and R. Bota., 2017
Licensee PAGEPress, Italy
Mental Illness 2017; 9:7228
doi:10.4081/mi.2017.7228

4. Valaparla VL, Nehra R, Mehta UM, et al. Social cognition of patients with schizophrenia across the phases of illness. A longitudinal study. *Schizophr Res* 2017 [Epub ahead of print].
5. Couture SM, Penn DL, Roberts DL. The functional significance of social cognition in schizophrenia: a review. *Schizophr Bull* 2006;32:S44-63.
6. Sullivan G, Marder SR, Liberman RP, et al. Social skills and relapse history in outpatient schizophrenics. *Psychiatry* 1990;53:340-5.
7. Irani F, Seligman S, Kamath V, et al. A meta-analysis of emotion perception and functional outcomes in schizophrenia. *Schizophr Res* 2012;137:203-11.
8. Charernboon T, Patumanond J. Social cognition in schizophrenia. *Ment Illn* 2017;9:7054.
9. Tan BL, Lee SA, Lee J. Social cognitive interventions for people with schizophrenia: a systematic review. *Asian J Psychiatr* 2016 [Epub ahead of print].