

Relationship between Cognitive Function and Symptomology with Self-stigma in Patients with Schizophrenia-spectrum Disorders



Sherry KW Chan*, SY Sharon Kao, SL Leung, Christy LM Hui, Edwin HM Lee, WC Chang and EY Chen *Department of Psychiatry, The University of Hong Kong*

Background

Self-stigma can be understood as a process of an individual gaining awareness of the associated stereotypes, agreeing with them and thus applying them to oneself [1]. This suggests the involvement of complex cognitive processes behind the development of self-stigma. Previous studies have also suggested that clinical symptoms are related to both cognitive function and self-stigma [2,3]. The current study examined the relationship of cognitive functions, clinical symptoms and self-stigma.

Method

Sixty-four participants with schizophrenia-spectrum disorders completed the Chinese validated version of the Internalized Stigma of Mental Illness Scale (ISMI) and a brief battery of cognitive assessments. Clinical symptoms and role function were assessed respectively by the Positive and Negative Syndrome Scale (PANSS) and the Role Functioning Scale (RFS).

References

- [1] Corrigan P, Rafacz J, Rüsch N. Examining a progressive model of self-stigma and its impact on people with mental illness. *Psychiatry Res* 2011;189:339–43.
- [2] Lysaker P, Vohs J, Tsai J. Negative symptoms and concordant impairments in attention in schizophrenia: Associations with social functioning, hope, self-esteem and internalized stigma. *Schizophr Res* 2009;110:165–72.
- [3] Tsai J, Lysaker P, Vohs J. Negative symptoms and concomitant attention deficits in schizophrenia: Associations with prospective assessments of anxiety, social dysfunction, and avoidant coping. *J Ment Heal* 2010;19:184–92.

Results

Table 1: Correlations Among Cognition, Self-stigma, Functioning and Symptomology (corrected with false discovery rate).

	Composite Cognitive Score	ISMI ³ Alienation	ISMI Stereotype Endorsement	ISMI Discrimination Experience	ISMI Social Withdrawal
RFS ¹ Total	0.34*	-0.05	-0.38*	-0.30*	-0.32*
RFS Work	0.23	-0.10	-0.30*	-0.28	-0.32*
RFS Independent Living	0.19	-0.05	-0.24	-0.18	-0.21
RFS Immediate Social	0.42**	-0.020	-0.38*	-0.25	-0.26
RFS Extended Social	0.32*	-0.020	-0.37*	-0.37*	-0.27
PANSS ² Negative		0.20	0.42*	0.34*	0.34*
Composite Cognitive Score		-0.08	-0.32*	-0.29*	-0.22

Key: ¹Role Functioning Scale (RFS); ²Positive and Negative Syndrome Scale (PANSS); ³Internalized Stigma of Mental Illness (ISMI), * $p < .05$; ** $p < .01$ (after correcting with false discovery rate).

Further linear regression analyses were performed:

- Cognitive function explained 16.4% variance of **Stereotype Endorsement** ($F_{1,62} = 13.39, p = .001, R^2 = .178$, adjusted $R^2 = .164$). Adding negative symptoms to the model, the two variables explained 21.2% variance of Stereotype Endorsement ($F_{1,61} = 9.46, p = .000, R^2 = .237$, adjusted $R^2 = .212$)
- Cognitive function explained 7.9% variance of **Discrimination Experience** ($F_{1,62} = 6.43, p = .014, R^2 = .094$, adjusted $R^2 = .079$).
- Negative symptoms explained 8.3% variance ($F_{1,62} = 6.69, p = .012, R^2 = .097$, adjusted $R^2 = .083$) of **Social Withdrawal**.

Discussion

The results suggest that poor cognitive function is associated with self-stigma, though the specific nature of such a link was not explored due to the limitation of the study methodology. On the other hand, the link between self-stigma and role function provides an opportunity to form a hypothesis about the nature of the link between cognitive function and self-stigma. The study has further confirmed the link between negative symptoms and self-stigma. Future longitudinal study with a larger sample of patients with schizophrenia spectrum disorder at the same illness stage should be conducted to confirm the nature of such a proposed relationship.

*Corresponding author:

Sherry Kit Wa Chan

Department of Psychiatry, The University of Hong Kong
Queen Mary Hospital, Pokfulam, Hong Kong

Tel: (852) 22554486

Fax: (852) 28551345

Email: kwsherry@hku.hk