Association of the Korean-Polyenvironmental Risk Score for Psychosis (K-PERS) with Clinical Outcomes in Patients with Schizophrenia Spectrum Disorders (SSDs)

Ariana Setiani[1,2], Young-Chul Chung[1,2]

[1]Departement of psychiatry, Jeonbuk National University Medical School, Jeonju, Republic of Korea.
[2]Research Institute of Clinical Medicine of Jeonbuk National University Biomedical Research Institute of Jeonbuk National University Hospital, Jeonju, Republic of Korea

Background/Objective

The contribution of environmental factors on the etiology and pathogenesis of schizophrenia were largely acknowledged. However, the specific role of these factors in the course of schizophrenia has not yet been fully understood. In this study we aim to investigate the potential use of K-PERS in predicting clinical outcomes of patients with SSDs.

Methods

Patients were identified from the participants of Korea Early Psychosis cohort study which is a naturalistic cohort study. We performed univariate and stepwise multiple logistic regression to identify factors that might serve as predictor of clinical outcomes.

Result

A total of 224 patients with SSDs met the inclusion criteria. Adjusted to sex, age, and education, univariate regression analysis demonstrated that K-PERS-I, particularly adulthood difficulties was significantly associated with treatment response at 2-month follow up (B 0.082; p 0.038), while in K-PERS II adulthood trauma was significantly associated with remission with partial functioning at 12-month follow up (B -0.171; p 0.018). Stepwise regression revealed that in K-PERS I, childhood trauma was significantly associated with remission (B -0.135; p 0.047), remission with partial functioning (B -0.202; p 0.006), and full remission with full functioning (B -0.357; p 0.004) at 6-month follow up.

For K-PERS-II, significant associations were found between 2-month treatment response with both urbanicity (B -0.452; p 0.005), and adulthood live events (B 0.120; p 0.044). Additionally, at 6-month follow-up urbanicity was associated with remission (B 0.327; p 0.034), while childhood trauma was linked to remission with partial functioning (B -0.067; p 0.028), and full remission with full functioning (B -0.152; p 0.014).

Table 1. Predictors of clinical outcomes among the subdomains of the K-PERS-I and K-PERS-II

	K-PERS-I			K-PERS-II		
Outcome variables	Predictor	B (p)	95% CI	Predictor	B (p)	95% CI
2-month						
Treatment response	Adulthood life events	0.082 (0.038)	1.005-1.173	Urbanicity	-0.452 (0.005)	0.465-0.870
				Adulthood life events	0.120 (0.044)	1.003-1.267
6-month						
Remission (5-month duration)	Childhood trauma	-0.135 (0.047)	0.764-0.998	Urbanicity	0.327 (0.034)	1.024-1.877
Remission with partial functioning (5-month duration)	Childhood trauma	-0.202 (0.006)	0.708-0.943	Childhood trauma	-0.067 (0.028)	0.881-0.993
Full remission with full functioning (2-month duration)	Childhood trauma	-0.149 (0.050)	0.742-1.000	-	-	-
Full remission with full functioning (5-month duration)	Childhood trauma	-0.357 (0.004)	0.548-0.894	Childhood trauma	-0.152 (0.014)	0.761-0.969
12-month						
Remission with partial functioning (11-month duration)	-	-	-	Adulthood life events	-0.171 (0.018)	0.732-0.971

CI, Confidence Interval; K-PERS, Korea Polyenvironmental Risk Score.

Conclusion

Adulthood adverse events, childhood trauma and urbanicity were associated with clinical outcomes of SSDs. Assessing environmental factors is crucial to predict patient outcomes and is therefore necessary for developing a comprehensive, individualized treatment plan.

References

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