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Mechanisms of self-disturbances in individuals at risk of psychosis – importance of traumatic-life experiences and cognitive biases. A prospective study with 12-month follow-up.

SUMMARY

Introduction: Self-disturbances, i.e. anomalies in subjective experiencing of self and the outside world, are considered a core feature of psychotic disorders, and by some researchers also the basis for the development of psychotic symptoms. Prospective studies indicate that self-disturbances predict the onset of psychotic disorders in clinical high risk groups. Moreover, these phenomena are present not only in individuals with clinical psychosis risk or with diagnosis of psychotic disorders, but also in healthy people who are characterized by a high frequency of psychotic-like experiences. Despite their great importance to the conceptualization of psychosis, we still know very little about their prevalence in non-clinical populations and underlying mechanisms. Some researchers have proposed theoretical models according to which cognitive biases (dysfunctional information processing patterns) and traumatic experiences underlie self-disturbances. However, there is still a lack of empirical data that would verify these assumptions. It is also unknown whether self-disturbances can predict changes in the severity of subclinical positive symptoms and/or the development of psychosis in non-clinical groups with high a frequency of psychotic-like experiences.

Methods: The study was organized in three stages. In the first stage, self-report internet screening was conducted on a sample of 3217 people aged between 18 and 35 years to assess the prevalence of self-disturbances in the non-clinical population (non-help-seeking) and their relationship with psychotic-like experiences. A short version of the Inventory of Psychotic-like Anomalous Self-Experiences (IPASE) was used to measure self-disturbances, and the 16-item version of the Prodromal Questionnaire (PQ-16) was used to measure psychotic-like experiences. Cluster analysis was conducted to analyze the extent of which these two phenomena are linked. Next, a group of 193 people with a high psychometric risk of psychosis (high frequency of psychotic-like experiences compared to the sample studied) was selected

from the population participating in online screening. This group participated in the second stage of the study, which aimed to verify the hypothetical model of self-disturbances mechanisms in the form of cognitive biases and traumatic experiences. The selected group was evaluated with the Comprehensive Assessment of At Risk Mental States (CAARMS) clinical interview to assess subclinical positive symptoms and with the Short Questionnaire of Examination of Anomalous Self-Experience (SQEUASE) interview to assess self-disturbances. Cognitive biases were assessed with experimental tasks (source monitoring deficits, overperceptualization and jumping to conclusion) and with the self-report Davos Assessment of the Cognitive Biases Scale (DACOBS). Moreover, participants completed the Childhood Experiences of Care and Abuse Questionnaire (CECA.Q) for the evaluation of childhood traumatic experiences and the IPASE questionnaire for the evaluation of self-disturbances. Mediation analysis was used to test relationships between variables. The third stage of the study took place 12 months later. It was attended by 139 individuals out of 193 who took part in the second stage. This stage of the study involved reassessment of subclinical positive symptoms (CAARMS) and self-disturbances (IPASE). Prospective study enabled determination of the predictive value of self-disturbances for the change in the frequency of positive symptoms and/or the development of psychosis, as well as determination of the stability of self-disturbances. The final model was tested with path analysis.

Results: The results from the first stage of the study indicate that 86.46% of respondents have ever experienced at least one self-disturbance. The cluster analysis revealed their strong association with psychotic-like experiences. The three identified groups were characterized by similar intensity of both phenomena. The results of the second stage of the study indicated that self-disturbances are a statistically significant mediator of the relationship between traumatic experiences and subclinical positive symptoms, as well as between cognitive biases and positive symptoms. However, the latter relationship was confirmed only in the case of self-reported cognitive biases. Those cognitive biases that were measured with experimental tasks turned out to be unrelated to the other variables. Further hypotheses were tested using path analysis, which included both mechanisms of self-disturbances (traumatic experiences and cognitive biases) and predictive value of self-disturbances for positive symptoms 12 months later (the third stage of the study). The postulated mechanisms of self-disturbances in the form of relationships with traumatic experiences and self-report cognitive biases were confirmed. A significant indirect effect of traumatic experiences on subclinical positive symptoms measured 12 months later was also revealed. The overall model, including self-disturbances mechanisms, explained 32.9% of

the variance of subclinical positive symptoms. Self-disturbances measured in the second stage of the study, however, did not significantly predict the level of positive symptoms in the third stage of the study. Moreover, the results showed a significant decrease in the severity of self-disturbances in the second measurement.

Conclusions: The results of the presented studies indicate that self-disturbances are present not only in clinical groups, but also in individuals that are not seeking help. The obtained outcomes support hypotheses regarding the role of traumatic experiences and subjectively assessed cognitive biases in shaping self-disturbances. The combined assessment of traumatic experiences, cognitive biases and self-disturbances explains significant amount of variance in the severity of subclinical positive symptoms. The lack of prospective prediction of positive symptoms with the use of self-disturbances is likely due to the lower stability of the latter phenomena. Therefore, in non-clinical groups self-disturbances can have more of a state-like than trait-like nature.