### Modeling Negative Symptom Trajectories in First-Episode Psychosis

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**Background:** First-episode psychosis (FEP) represents a critical period in schizophrenia spectrum disorders (SSDs) where early intervention can impact long-term outcomes. Particularly, negative symptoms influence functional recovery, but there are few treatment options, and high heterogeneity.

**Purpose:** This study aimed to identify distinct negative symptom trajectories in FEP and determine clinical predictors of class membership.

**Methods:** The study utilized data from the Prevention and Early Intervention Program for Psychosis (Douglas Hospital, Quebec, Canada), which collected sociodemographic, psychopathological, and functional data from FEP patients over 18 months. Growth mixture modelling (GMM) identified trajectories based on the Scale for the Assessment of Negative Symptoms, with the best model chosen using fit statistics. Predictors of trajectories were identified using multinomial logistic regression.

**Results:** Negative symptoms were best modelled by a 2-class GMM, randomizing linear slope and intercept. Of the 634 participants, 29.2% (n = 185) belonged to the Persistent High class and 70.8% (n = 449) to the Remitting class. The baseline functioning score significantly predicted class membership [odds ratio (OR) = 1.027, p = 0.001], with higher functioning scores indicating greater odds of belonging to the Remitting class.

**Conclusion:** The findings revealed distinct trajectories of negative symptoms. Baseline functioning may help determine which individuals are more likely to improve versus those with persisting symptoms. Analyses are ongoing using neuroimaging to better understand the neurobiology of these trajectories and potentially improve classification models.