Prediction of Early Functional Recovery and Symptom Remission After a First Episode of Schizophrenia

Joseph Ventura, L. Felice Reddy, Kenneth L. Subotnik, Catherine Sugar, and Keith H. Nuechterlein

Abstract: 3182 characters (without spaces); Max allowable: 3200 characters (without spaces).

Background: After a first episode of psychosis (FEP) and initial treatment, positive symptom improvement is frequently relatively robust. However, recovery outcomes, e.g., social functioning, role functioning, quality of life in early and established psychosis samples can be highly variable. Recent meta-analyses have reported recovery rates ranging from 21% to 57%, depending on how recovery was defined (Huxley et al 2022; Hansen et al 2023). Identifying potentially modifiable contributors to functional recovery could have critical clinical implications.

Methods: Participants were 81 young people with early phase schizophrenia (onset < 2 years before study entry) enrolled in the UCLA Aftercare Program. A 12-month Coordinated Specialty Care intervention included medication management, case management, psychoeducation, group therapy, and cognitive remediation. Premorbid adjustment and cognition were assessed with the Cannon-Spoor Premorbid Adjustment Scale and MATRICS Consensus Cognitive Battery (MCCB), respectively, at baseline. Recovery was assessed longitudinally using the Social and Role subscales of the Global Functioning Scale (GFS) by trained raters using a cut-off of ≥ 7 that was empirically derived. Negative symptoms were assessed with the SANS (Expressive and Experiential) and positive symptoms with the SAPS (Delusions / Hallucinations and Disorganization). Ratings of objective Quality of Life (QOL) were made with the Heinrichs Scale. GFS, SANS, and SAPS assessments were conducted at baseline and then every three months for one year. Negative symptom remission was defined as less than or equal to ≤ 2 on the SANS; and Positive symptom remission was defined as ≤ 2 on the SAPS (Andreasen et al 2005). For participants with at least 6 months of data, we used the Last Observation Carried Forward to month 12 in this analysis.

Results: At the 12-month point, social recovery was achieved by 54% of participants and role recovery by 46% of participants. Positive symptom remission was achieved by 72% of participants. Symptom remission for expressive negative symptoms was achieved by 69% of participants and by 58% for experiential negative symptoms. Good QOL at 12 months was achieved by only 24% of participants. Only 18% of our sample achieved a good outcome in all domains combined. Using logistic regression analysis, we found that higher social recovery was predicted by higher premorbid social adjustment (p=.001) and by a higher overall cognitive composite score (p=.039). Better role recovery was predicted by a higher premorbid education level (p=.016) but was not related to the cognitive composite score (p =.339).

Discussion: Through this longitudinal analysis we identified treatment targets and clinically meaningful changes in response to treatment interventions. Our participants responded robustly to coordinated care in that 72% achieved positive symptom remission, which is consistent with previous reports. The similarity of expressive negative symptom remission (69%) compared to positive symptom remission (72%) suggests that certain negative symptoms can respond to comprehensive treatment in early course schizophrenia participants. We provide confirmation that high levels of premorbid functioning and baseline level of cognitive performance can predict subsequent social and role functioning even 12 months after study entry. Positive symptom recovery exceeded rates of early social and role functioning and improvements in quality of life. These findings support the view that positive outcomes can be obtained after a first episode of schizophrenia in a coordinated specialty care program and confirm that good work/school functioning and quality of life are among the most difficult outcomes to achieve.