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**THE ROLE OF SUBSTANCE ABUSE IN PREDICTION OF LONG-TERM OUTCOME OF SCHIZOPHRENIA - SYSTEMATIC REVIEW AND META-ANALYSIS**

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**Objectives:** Alcohol and other substance use problems are common among individuals with schizophrenia. Many of the previous studies have focused on clinical comorbidity, not on longitudinal studies aiming to look for possible causal associations. We aimed to investigate if premorbid or early substance use predicts long-term clinical and social course in schizophrenia.

**Methods:** A systematic review to identify potentially relevant studies was conducted. Only studies with a follow-up period of at least two years were included. We studied following outcomes: negative, positive and total symptoms, clinical remission, hospitalizations, social functioning, employment, and global outcome.

**Results:** The search identified 9343 unique potentially relevant articles of which 20 studies presenting results from 24 samples met our inclusion criteria. The meta-analysis included 5 to 13 studies in each outcome category. The studies in outcome groups were mainly moderate to high heterogeneous. In meta-analysis, substance use associated modestly with outcome, all the associations (Spearman's  $r$ ) were non-significant and between -0.05 and 0.10. Non-significant findings are explained by the fact that the original studies found often opposite results, indicating both worse and better long-term outcome for early substance users.

**Conclusions:** Although comorbid substance use associates with poorer outcome in schizophrenia, the early substance use has only a modest effect as a predictor of long-term outcome. This difference between these two designs may be explained for instance with poorer treatment adherence of dual diagnosed patients.