Objective: To investigate the link between the use of specific types of substances and suicidality in adolescent inpatients with schizophrenia and schizoaffective disorder.

Methods: We performed a ten-year naturalistic retrospective study of 178 adolescent inpatients diagnosed as suffering from either schizophrenia or schizoaffective disorder. A comparison was made between the suicide-attempting adolescent inpatients and the non-attempting subjects, by the use of specific types of substances, measurements of psychotic, depressive and aggressive symptoms and clinical data reported during their hospitalization.

Results: The suicide attempters reported considerably greater usage of inhalants and lysergic acid diethylamide (LSD). Alcohol and methylene-dioxy-methylamphethamine (MDMA) were also used significantly more by this group. However, no differences were found in the usage of cannabis, amphethamines, cocaine and opiates. The suicide attempting patients were found to have had more previous psychiatric admissions, a greater level of deliberate self-harm behavior and a higher level of suicide ideation, but rather a decreased severity of psychotic symptoms.

Conclusions: This study is the first report of the association between specific types of substances and suicidality in the high-risk population of adolescent psychotic inpatients. The strong association between inhalants, LSD, alcohol and MDMA with suicidality is relevant to suicide prevention and intervention programs in adolescent-onset schizophrenia.