

## Relationship between Positive and Negative Symptoms of Schizophrenia and Psychotic Depression with Risk of Suicide

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**Objective:** Suicide is one of the most important early causes of death in psychotic patients. The main object of this research was to determine the relationship between positive and negative symptoms of schizophrenia and psychotic major depressive disorder (MDD) with suicidal history and risk.

**Methods:** Sixty five patients with schizophrenia compared to 65 patients with psychotic MDD in a cross sectional study. Patients were evaluated using positive and negative syndrome scale (PANSS) (to measure severity of psychopathology) and the California risk estimator for suicide. Collected information were analyzed using SPSS 11/8 version by t-test, chi-square and ANOVA and Pearson correlation test.

**Results:** There was a significant relation between positive symptoms with suicidal risk and histories of suicidal attempts in patients with schizophrenia ( $r = 0.708$ ,  $p < 0.0001$  and  $r = 0.55$ ,  $p < 0.0001$  respectively). Negative symptoms also had a significant but reverse relation with suicidal risk and histories of suicidal attempts in this group ( $r = -0.529$ ,  $p < 0.0001$  and  $r = -0.512$ ,  $p < 0.0001$  respectively). There was a significant reverse relation between positive symptoms and suicidal risk in patients with psychotic MDD ( $r = -0.26$ ,  $p < 0.036$ ). Negative symptoms did not have a significant relation with suicidal risk in this group. Also there was no significant relation between positive or negative symptoms and histories of suicidal attempts in MDD patients.

**Conclusion:** Positive and negative symptoms have different relationships with suicide in patients with schizophrenia and psychotic MDD.

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### Introduction

Schizophrenia is a psychiatric syndrome with involvement of thought, emotion, movement and behavior. Schizophrenia is found in all societies and in different areas in the world with similar incidence and prevalence. Prevalence of the disorder is the same in men and women (1,2). Schizophrenia has a heterogeneous genetic basis (3).

J. Crow in 1980 classified the schizophrenic patients to 2 groups, I and II based on the presence of positive or negative symptoms. Symptoms of Schizophrenia include positive symptoms such as hallucinations, delusions, disorganized behavior and inappropriate forms

of thought. Negative symptoms include restricted affect, loss of motivation and poverty of speech, social withdrawal and anhedonia (4).

Suicidal attempt and suicide is significantly prevalent in patients with schizophrenia. Suicidal attempts and suicide have been reported in 20-50% and 10% of patients, respectively (5). This rate is 20 fold in these patients compared to general population. The most important risk factor for suicidal attempts is major depression. Other risk factors include being in early phase of disorder, young age, male sex, being single, severe disorder with multiple recurrences, recent hospitalization, good insight, cognitive impairments, high socio-economic status, poor social functioning and social support (6).

In one study in USA 187 patients, 87 with schizoaffective disorder, 5 with schizophrenia and 33 with schizotypal personality disorder had 19 years of follow-up. Results showed

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