Depression, Suicide and Suicide Prevention in Schizophrenia

By Wayne S. Fenton, M.D.

Although suicidality is always a concern in the treatment of patients with mood disorders, the risk of suicide in schizophrenia is less widely recognized. Schizophrenia is a common and debilitating illness that most commonly affects young people in their late teens and early twenties. While schizophrenia patients were once largely confined to institutions, with the availability of better treatments (including new medications to alleviate hallucinations, delusions and disorganized thinking), most people with schizophrenia live and function in the community. Nonetheless, schizophrenia is among the top ten causes of disability world-wide and reduces the life span of those afflicted by an average of ten years. Suicide is the single greatest cause of premature death among patients with this disorder.

Psychiatry's traditional division of psychotic conditions into affective psychosis and dementia praecox (schizophrenia) contributes to the belief that schizophrenia and depression are non-overlapping. Recent population-based studies, however, question this long-held assumption. Based on over 20,000 household interviews, the National Institute of Mental Health Epidemiology Catchment Area Study (ECA), found that 1.5 percent of the U.S. adult population met criteria for a life-time diagnosis of schizophrenia (Robins LN, Regier DA eds, 1991). Compared to those without a mental disorder, people with schizophrenia were fourteen times more likely to experience an episode of major depression (Judd, 1998). Depression is common both early and late in the course of schizophrenia, and may be particularly severe during or immediately following the resolution of an acute psychotic episode (McGlashan and Carpenter, 1976).

Characteristics of Suicidality in Schizophrenia

As many as half of all patients with schizophrenia experience suicidal ideation and/or make suicide attempts. Compared to other patient groups, suicide attempts in schizophrenia appear to be 1.) of greater violence and lethality, and 2.) more likely to be unexpected or "out of the blue." In one study of emergency room admissions, schizophrenia patients were twice as likely as other patients to use a more violent (jumping, stabbing, hanging, firearm) rather than less violent (overdose, single cuts in non-dominant arm) suicide attempt method (Nieto et al, 1992).

If patients with schizophrenia struggle with suicidal ideation prior to suicide, it appears as though they only rarely directly communicate this to their clinicians. Studies of completed suicides among schizophrenia patients both in the United States and Finland indicate that up to three quarters of schizophrenia patients who kill themselves have seen an apparently unsuspecting clinician within a week of their death. In the first two years of operation of the innovative Madison, Wisconsin Program of Assertive Community Treatment (PACT), for example, eight of ten schizophrenia patients who died by suicide saw a program clinician within 72 hours of death. Suicide may occur during an acute illness exacerbation, but the first three to six months following an inpatient stay (when post-episode depression may emerge) appears to be a particularly high risk period for schizophrenia patients.

Risk Factors for Suicide in Schizophrenia

Risk research in schizophrenia has identified both general and disease-specific risk factors for suicide in this disorder (see Table). To better characterize the schizophrenia patient at high risk, we studied illness natural history, functional outcome and suicidal behavior in 322 patients hospitalized between 1955 and 1975 and followed-up an average of 23 years after index admission. Over the follow-up period 40 percent of patients experienced suicidal ideation, and 23 percent a suicide attempt; nineteen suicides accounted for 43 percent of all deaths among patients studied. Paradoxically, patients most likely to achieve a good recovery from schizophrenia were also at the greatest risk for suicide. Good prognostic features such as better premorbid functioning, higher IQ, later age of illness onset and an intermittent illness course with few negative symptoms placed patients at the greatest risk for suicide. These individuals maintained the capacity for abstract thinking, and the ability to recognize and experience loss associated with a severe and sometimes deteriorating psychiatric disorder. In contrast, patients with severe negative symptoms (loss of motivation, lack of purpose, flat affect) were at great risk for life-long disability, but rarely attempted or completed suicide (Fenton, 2000a).

Clinical Implications

Modern treatment for schizophrenia integrates pharmacological, psychotherapeutic, and rehabilitation/community support interventions in treatment plans individualized to the specific patient's phase and severity of illness (Fenton, 2000b). Each major component of treatment offers potential areas of intervention to promote suicide risk reduction. Neurobiologic studies suggest that impulsivity, aggression and suicide may be associated with a reduction in central serotonin function. Evidence is emerging that new generation antipsychotic agents, which may normalize both dopamine and serotonin function, are associated with a reduction in suicidality as well as a primary antidepressant effect. Significant dysphoria and/or a history of suicidal behavior is an indication for a pharmacologic trial with a newer antipsychotic agent. Data also support the efficacy of adjunctive antidepressant medication for patients with schizophrenia whose symptoms of psychosis have stabilized and who meet syndrome criteria for major depression.

Some form of case management or individual psychotherapy combined with medication is probably the most common treatment provided for schizophrenia patients in the United States. Patients with schizophrenia who die by suicide are often individuals who face the psychological task of modifying their ideals and expectations to accommodate the reality of a disabling illness. Therapists have long believed that assisting the patient to acknowledge, bear and put into perspective the painful feelings associated with the illness is the central psychotherapeutic task for these patients. In one study, assessing self-esteem and appreciating the protective function of psychotic symptoms were identified after the fact as key issues overlooked by clinicians treating schizophrenia patients who later die by suicide. A second set of clinical issues relates to differentiating inability to function from unwillingness to function: inappropriate goals or aspirations can reinforce a patient's sense of inadequacy or failure. Clinicians treating patients with schizophrenia should be aware of actuarially defined high-risk patient groups. Additional clinical support should be provided for high-risk patients, particularly during high risk periods: following a loss, hospital discharge, conflict with family, failure or other assault to self esteem, or during a period of post-psychotic depression. Finally, data that suggests schizophrenia patients may be less prone to communicate suicidal ideation and frequently see a mental health clinician in the days preceding suicide should compel clinicians to actively elicit suicidal ideation. Inexperienced clinicians may be afraid to directly ask patients about suicidality for

fear of "putting the idea in their head," but rather than support these concerns, available data indicate that the clinician who does not ask directly about suicidality will not be in a position to intervene to prevent it. Finally, the fact that many suicides among schizophrenia patients occur shortly after hospital discharge suggests that providing more comprehensive aftercare and community support, particularly in the first three post-discharge months, might be expected to reduce suicide mortality during this high risk period. A series of intermediate steps between inpatient and outpatient care should be considered as part of hospital discharge planning for patients with schizophrenia who are at high risk for suicide.

Risk Factors for Suicide in Schizophrenia

General Risk Factors:

1. Male 2. Caucasian 3. Depression 4. Self-reported hopelessness 5. Self-reported suicidal ideation 6. Prior suicide attempts	7. Poor psychosocial functioning 8. Social isolation / inadequate social support 9. Deteriorating health 10. Significant loss 11. Current or past substance abuse 12. Family history of suicide

Disease-Specific Risk Factors :

1. Long-term illness with exacerbations 2. Ill and functioning poorly at discharge 3. Awareness of illness, fear of deterioration 4. Excessive dependence or loss of faith in treatment	5. Depressed mood, hopelessness, hostility at last visit or last hospitalization 6. Prominent positive symptoms 7. Male: Female ratio attenuated

Note: Risk factors compiled from studies by Caldwell and Gottesman (1990, 1992), Roy (1992) and Meltzer (1 998).

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