Published in final edited form as:

JAMA. 2010 August 4; 304(5): 563–564. doi:10.1001/jama.2010.1097.

Violent Behavior in Mental Illness: The Role of Substance Abuse

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COMMENTARY

That comorbid substance use disorders substantially increase the risk for violence in mental illness has been known for decades.¹ However, the prevailing view, based on US¹ and Scandinavian epidemiologic studies,² has been that serious mental illness also confers a significant relative risk for violence even in the absence of such comorbidity. Accordingly, a broad clinical consensus has emerged that violence risk management in psychiatric patients with dual diagnoses requires treatment of both the underlying psychopathology and comorbid substance abuse.

Recent epidemiologic studies have prompted reexamination of this prevailing view.^{3–5} These new studies report little if any increased risk for violence associated with serious mental illness (such as schizophrenia, bipolar disorder, or major depressive disorder) unless there is comorbidity with substance use disorder. However, there is substantial evidence that substance use comorbidity is only one of several factors that may increase the risk of violent behavior for individuals with severe mental illness.

Converging lines of evidence indicate that violence in schizophrenia is heterogeneous in its etiology and manifestation, and that violent behavior can neither be fully understood nor successfully managed without specifying different causal pathways and perhaps types of that behavior.⁶ Thus, attempts to characterize a general relationship between violence and mental disorder are inherently inadequate, both conceptually and empirically.

Emerging evidence suggests that irrespective of comorbidity with substance abuse disorder, at least 2 alternative pathways to violence may occur in patients with schizophrenia: one pathway that is associated with a history of long-standing antisocial behavior problems typically beginning in childhood, and another pathway without such history.⁷ Antipsychotic medications may do little to reduce risk for the first type of violence, but may be highly effective in reducing the second type, which is more related to acute psychotic symptoms. Along these same lines, factor analysis has suggested etiological subtypes of violence in psychiatric inpatients.⁸ The first (antisocial) pathway is consistent with the literature on comorbidity between schizophrenia and personality disorder.⁶

Additional Contributions: Helpful comments by Richard Van Dorn, PhD, University of South Florida, are gratefully acknowledged. Dr Van Dorn received no compensation in association with his contribution to this article.

Financial Disclosures: Dr Volavka reports receipt of funds supporting travel and honoraria from Eli Lilly and Co and from Merck. Dr Swanson reports receipt of research funding and consulting fees from Eli Lilly and Co; and an Independent Research Scientist Career Award from the National Institute of Mental Health, which partly funded preparation of this article.

For individuals with schizophrenia complicated by substance abuse disorder, there may be several pathways to violent behavior. Acute pharmacological effects of alcohol and certain drugs such as cocaine can increase violence risk.⁷ In patients with underlying mental illness, pharmacological effects of alcohol and other substances may increase inherent violence risk by exacerbating psychiatric symptoms. Specifically, violence may become much more likely when substance abuse is added to the combinations of impaired impulse control and symptoms such as hostility, threat perception, grandiosity, and dysphoria. Substance use disorders are also associated with treatment nonadherence, which is well known to increase the risk for violence in outpatients with serious mental illness.⁶

Several general criminogenic mechanisms can lead to violence, independently or in tandem with substance abuse. For example, illicit drug trade occurs typically in the poorest neighborhoods or in predatory social environments in which respect is achieved by violence. Criminogenic mechanisms underlying violence in patients with schizophrenia and comorbid drug abuse disorders have been little studied.

Most discussions of violence risk in relation to serious mental illness and substance abuse pertain to patients living in the community. However, violent behavior also occurs on secure wards of psychiatric inpatient facilities. Some persistently violent inpatients may have a history of substance abuse, but inpatient violence can persist months or years after ingested alcohol or drugs have been metabolized. Continued access to illicit substances on inpatient wards is unlikely. The fact that violent behavior in psychotic inpatients responds to antipsychotic medications, particularly clozapine,⁹ makes it unlikely that such violence occurring on closed wards can be explained by substance abuse or that it could be prevented by substance abuse treatment. Such treatment, however, should be provided to inpatients with substance abuse history to reduce the likelihood of renewed substance use, violent behavior, and psychotic relapse after discharge.

Violence in hospitalized individuals with serious mental illness is not always explained by acute psychosis. In one study, only 20% of assaults on a ward housing mostly patients with schizophrenia were directly attributable to psychosis; the remaining 80% were due to confusion, impulsiveness, or psychopathic traits.⁸ These inpatients were housed on a secure ward without access to alcohol or illicit substances.

For some patients with schizophrenia, maladaptive personality attributes may predispose them to violent behavior indirectly or directly. Indirectly, personality attributes may make some psychiatric patients more susceptible to alcohol and drug use disorders, but they may also influence the risk of violence independently of comorbid substance use disorder. For example, a history of childhood conduct problems has been identified as a risk factor for violence in patients with schizophrenia,⁷ and psychopathic traits have been observed to be elevated in violent patients with schizophrenia in comparison with those who are not violent.⁶

For cases in which violence among schizophrenia patients is not attributable to psychosis, the patient's personality, rather than comorbid substance use disorder per se, may be the primary underlying cause of violence. Recognizing that this is the case would have important risk management and policy implications and would not devalue the importance of treating comorbid substance use disorders. These disorders have well-known deleterious effects and need to be vigorously treated. However, psychosocial interventions need to be added to the management of persistently violent patients with schizophrenia, whether with or without comorbid personality disorders, who circulate between the criminal justice and mental health systems. Such interventions should probably be long-term. Currently available models use cognitive behavior therapy, conflict management, as well as substance abuse

treatment modules. Promising results using these approaches in combination with antipsychotic medication are emerging.¹⁰

Taken together, these observations suggest that violence in mental illness, and the pathways that lead to it, are complex phenomena. Violent behavior may be the cumulative result of many factors interacting over the life course, including genotype, childhood maltreatment, and cognitive impairment. Scientific evidence for the effects of some pathways is stronger than for others. Modifying these diverse risk factors may call for different, if complementary, interventions. In the end, reducing violence among individuals with serious mental illness requires consideration of psychotic symptoms, as well as personality disorders, trauma history, homelessness, adverse social environments and stressors, and a range of general criminogenic factors. Substance abuse is central to the explanatory model because it is often intertwined, in various ways, with all of these vectors of violence; accordingly, its treatment should be a component of risk management in individuals with serious mental illness. However, the weight of evidence suggests that features of schizophrenia such as psychotic symptoms and comorbid personality disorders are also likely to be independent risk factors for violence in individuals with schizophrenia.

Acknowledgments

Funding/Support: National Institute of Mental Health grant K02-MH67864.

Role of Sponsor: The National Institute of Mental Health had no role in the preparation, review, or approval of the manuscript.

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