Are People with Serious Mental Illness Who Are Not Being Treated Dangerous?

(updated November 2014)

SUMMARY:

1. Most individuals with serious mental illnesses are not dangerous.

2. Most acts of violence are committed by individuals who are not mentally ill.

3. Being a young male or being a substance abuser (alcohol or drugs) is a greater risk factor for violent behavior than being mentally ill.

4. Individuals with serious mental illnesses are victimized by violent acts more often than they commit violent acts.

5. If people with serious mental illnesses are being appropriately treated, there is no evidence that they are any more dangerous than individuals in the general population.

6. All of the above statements are true, but it is also true that a small number of individuals with serious mental illnesses commit acts of violence. Almost all these acts of violence are committed by individuals who are not being treated, and many such individuals are also abusing alcohol or drugs.

I. The association between serious mental illness and acts of violence

- A Swedish study examined 24,297 patients with schizophrenia and related psychoses in Sweden over 38 years (discharged from hospitals between 1972 and 2009). Within 5 years of first being diagnosed 10.7% of men and 2.7% of women had been convicted of a violent offense (homicide, attempted homicide, assault, robbery, arson, any sexual offense, or illegal threats or intimidation). The rate of violent offense by the patients was 4.8 times higher than among their siblings and 6.6 times higher than among matched controls in the general population. Most strikingly, over the 38 years the incidence of violent behavior increased in direct proportion to the decrease in hospitalization time, i.e. “fewer annual inpatient nights were associated with more violence perpetrated by those with schizophrenia and related disorders.”


- A meta-analysis of 20 studies of the relationship between schizophrenia and violence, including 18,423 patients with schizophrenia and related psychoses, reported that
individuals with these diagnoses “are associated with violence and violent offending, particularly homicide” and this was true for those with or without comorbid substance abuse.


- A meta-analysis of 204 studies of psychosis as a risk factor for violence reported that “compared with individuals with no mental disorders, people with psychosis seem to be at a substantially elevated risk for violence.” Psychosis “was significantly associated with a 49%–68% increase in the odds of violence.”
  

- A review of 22 studies published between 1990 and 2004 “concluded that major mental disorders, per se, especially schizophrenia, even without alcohol or drug abuse, are indeed associated with higher risks for interpersonal violence.” Major mental disorders were said to account for between 5 and 15 percent of community violence.
  

- Among 3,743 individuals with bipolar disorder, 8.4 percent committed violent crimes compared to 3.5 percent of the general population in Sweden.
  

- Of 8,003 individuals with schizophrenia, 13.2 percent committed at least one violent crime compared with 5.3 percent of the general population in a study in Sweden. Concurrent abuse of alcohol or drugs accounted for much of the increased rate.
  

- A 2014 study in Israel identified 3,187 patients with a diagnosis of schizophrenia. They committed four times more violent crimes compared to the general population, and this difference was even more pronounced among women.
  

- Data on mental disorders and violence was collected on 34,653 individuals as part of the US National Epidemiologic Survey on Alcohol and Related Conditions. According to one analysis (Elbogen and Johnson), “the incidence of violence was higher for people with severe mental illness, but only significantly so for those with co-occurring substance
abuse and/or dependence.” According to another analysis (Van Dorn et al.), which criticized the first analysis, “those with SMI [serious mental illness], irrespective of substance abuse status, were significantly more likely to be violent than those with no mental or substance use disorders.”


- A 2013 study in Australia reported that individuals with schizophrenia were four times more likely to be guilty of a violent offense compared to a matched community sample. When all individuals with comorbid substance abuse were removed from the schizophrenia sample, those without substance abuse still were more than twice as likely to be guilty of a violent offense compared to the matched community sample. The authors concluded that their study “discredits the notion that the increased prevalence of violence in schizophrenia can be solely attributed to substance abuse.”


- After reviewing the psychiatric literature from 1970 to 2007, the author of the study concluded that “sound epidemiologic research has left no doubt about a significant relation between psychosis and violence, although one accounting for little of society’s violence.” She also noted that “when violence is a problem, individuals in the immediate social circle of an individual suffering from psychosis are most at risk.”


- A study in Ohio compared 122 patients with schizophrenia who had committed violent acts with 111 patients with schizophrenia who had not committed such acts. The violent patients had significantly more prominent symptoms and significantly less awareness of their illness.


- A study of 961 young adults in New Zealand reported that individuals with schizophrenia and associated disorders were two-and-one-half times more likely than controls to have been violent in the past year. If the person was also a substance abuser, the incidence of violent behavior was even higher.

• A study of 63 inpatients with schizophrenia in Spain reported that the best predictors of violent behavior were being sicker (i.e., higher scores on symptom measures) and less insight into their illness. "The single variable that best predicted violence was insight into psychotic symptoms."


• A 10-year follow-up of 1,056 severely mentally ill patients discharged from mental hospitals in Sweden in 1986 reported that "of those who were 40 years old or younger at the time of discharge, nearly 40 percent had a criminal record as compared to less than 10 percent of the general public." Furthermore, "the most frequently occurring crimes are violent crimes."


• A study of 331 individuals with severe mental illness in the United States reported that 17.8 percent "had engaged in serious violent acts that involved weapons or caused injury." It also found that "substance abuse problems, medication noncompliance, and low insight into illness operate together to increase violence risk."


• In a study in Finland, an unselected birth cohort of 11,017 individuals was followed for 26 years. Men with schizophrenia without alcoholism were 3.6 times more likely to commit a violent crime than men without a psychiatric diagnosis. Men with both schizophrenia and alcoholism were 25.2 times more likely to commit a violent crime.


• There is very little data that can be used to estimate the percentage of severely mentally ill individuals who become violent. The best study used the Danish psychiatric case register, covering the whole country, and convictions for criminal offenses. Between 1978 and 1990, 6.7 percent of males and 0.9 percent of females with "major mental disorders" (psychoses) were convicted of a violent crime ("all offenses involving interpersonal aggression or a threat thereof") compared with 1.5 percent males and 0.1 percent females among individuals with no psychiatric diagnosis. Since these are only convictions, it can be assumed that another unknown percentage committed a violent act for which they were not charged or convicted.

A study in Switzerland compared 282 men with schizophrenia with a matched control group in the general population. The patients were five times more likely to have been convicted of violent crimes, mostly "assaults resulting in bodily harm." The more acutely ill the patient was, the more likely he was to have been violent.


A study of 538 individuals with schizophrenia living in London reported that the men had a 3.9 times and women a 5.3 times greater risk for conviction for assault and serious violence compared to a control group with other psychiatric diagnoses.


A Swedish study examined the criminal records of all individuals born in Stockholm in 1953 and still living there 30 years later. Men and women with a severe mental illness were 4.2 times (men) and 27.5 times (women) more likely to have been convicted of a violent crime compared to individuals with no psychiatric diagnosis.


In a follow-up of patients released from a psychiatric hospital, Dr. Henry Steadman et al. reported that "27 percent of released male and female patients report at least one violent act within a means of four months after discharge."


In a carefully controlled study comparing individuals with severe mental illness living in the community in New York with other community residents, the former group was found to be three times more likely to commit violent acts such as weapons use or "hurting someone badly." The sicker the individual, the more likely they were to have been violent.


In reviewing many of these studies in 1992, Prof. John Monahan concluded: "The data that have recently become available, fairly read, suggest the one conclusion I did not want to reach: Whether the measure is the prevalence of violence among the disordered or the prevalence of disorder among the violent, whether the sample is people who are selected for treatment as inmates or patients in institutions or people randomly chosen from the open community, and no matter how many social and demographic factors are statistically taken into account, there appears to be a relationship between mental disorder and violent behavior."

A 1990 study investigated violent behavior among severely mentally ill individuals in 1,401 randomly selected families who were members of the National Alliance for the Mentally Ill (NAMI). In the preceding year, 11 percent of these individuals were reported to have physically harmed another person.


The Epidemiological Catchment Area (ECA) surveys carried out 1980–1983 reported much higher rates of violent behavior among individuals with severe mental illness living in the community compared to other community residents. For example, individuals with schizophrenia were 21 times more likely to have used a weapon in a fight.


A Swedish study of 644 individuals with schizophrenia followed for 15 years reported that they committed violent offenses at a rate four times greater than the general population.


In reviewing early studies on discharged psychiatric patients, Dr. Judith Rabkin concluded: "Arrest and conviction rates for the subcategory of violent crimes were found to exceed general population rates in every study in which they were measured."


II. Most acts of violence committed by individuals with serious mental illness are carried out when they are not being treated

A 2013 meta-analysis of 110 studies, which included 45,533 individuals with schizophrenia and other psychoses, identified several risk factors for violent behavior: non-adherence with medication; non-adherence with psychological therapies, drug abuse, alcohol abuse, and lack of insight..


A 2014 study in Sweden linked the psychiatric and criminal national registers. It included 82,647 patients who were prescribed antipsychotic or mood stabilizing medication. It thus could track when patients were and were not taking their medication. The study reported: "Compared with periods when participants were not on medication, violent crime fell by 45% in patients receiving antipsychotics…and by 24% in patients
prescribed mood stabilizers.”


- A 2014 study from Denmark and Norway followed 178 individuals with first episode psychosis and assessed violent behavior over 10 years. It reported that “after treatment initiatives, the overall prevalence of violence in psychotic patients drops gradually to rates close to those of the general population.”


- Researchers in Turkey examined 49 individuals with schizophrenia who had committed homicide. They reported that 42 of the 49 “were not using their medication regularly and that treatment compliance was considerably low.”


- Meta-analyses of studies of individuals with serious mental illness who commit acts of violence, including homicides, report that a disproportionate number of these acts occur during the person’s first psychotic episode before they have been treated.


- A study in New York assessed 60 severely mentally ill men who had been charged with violent crimes. The author reported that medication noncompliance and lack of awareness of illness both played significant roles in causing the men’s violent behavior.


- A study of 907 individuals with severe mental illness reported that those who were violent were “more likely to deny needing psychiatric treatment.” The authors concluded that “clinical interventions that address a patient’s perceived need for psychiatric treatment, such as compliance therapy and motivational interviewing, appear to hold promise as risk management strategies.”

A study of 1,011 outpatients with severe psychiatric disorders in five states reported that "community violence was inversely related to treatment adherence," i.e., the less medication individuals took, the more likely they were to become violent."


A four-state (New Hampshire, Connecticut, Maryland, and North Carolina) study of 802 adults with severe mental illness (64 percent schizophrenia or schizoaffective disorder, 17 percent bipolar disorder) reported that 13.6 percent had been violent within the previous year. "Violent" was defined as "any physical fighting or assaultive actions causing bodily injury to another person, any use of lethal weapon to harm or threaten someone, or any sexual assault during that period." Those who had been violent were more likely to have been homeless, to be substance abusers, and to be living in a violent environment. Those who had been violent were also 1.7 times more likely to have been noncompliant with medications.


In the three-site MacArthur Foundation Study of violence and mental illness, 17.4 percent of the patients were violent in the 10-week period prior to hospitalization, during which time they were not being treated, compared to an average of 8.9 percent for the five 10-week periods after hospitalization during which most of them were being treated.


A study of 331 individuals with serious mental illness in North Carolina reported that "the combination of medication noncompliance and substance-abuse was a significant predictor of serious violent acts in the community."


An English study of 1,015 forensic patients with severe mental illness ("functional psychosis") reported that the diagnosis of "schizophrenia was most strongly associated with personal violence" and that "more than 75 percent of those with a psychosis were recorded as being driven to offend by their delusions." The authors concluded that "treatment appears as important for public safety as for personal health."

A study of 348 inpatients in a Virginia state psychiatric hospital found that patients who refused to take medication "were more likely to be assaultive, were more likely to require seclusion and restraint, and had longer hospitalizations."


In an analysis of data from the ECA study, the authors noted that "mentally ill individuals with no treatment contact in the past six months had significantly higher odds of violence in the long term" and that "moderate levels of agitation and psychoticism increase the risk of violence." They then conclude: "This would seem to provide a strong argument for providing more interventions targeted specifically to persons with combined mental illness and addictive disorders who are likely not to comply voluntarily with conventional outpatient therapies."


A study of 133 outpatients with schizophrenia showed that "13 percent of the study group were characteristically violent." Having inadequately treated symptoms of delusions and hallucinations was one of the predictions of violent behavior. Specifically, "71 percent of the violent patients . . . had problems with medication compliance, compared with only 17 percent of those without hostile behaviors," a difference that was statistically highly significant (p< 0.001).


A study of severely mentally ill patients in a state forensic hospital found a highly significant correlation (p< 0.001) between failure to take medication and a history of violent acts in the community.

Smith LD. Medication refusal and the rehospitalized mentally ill inmate. *Hospital and Community Psychiatry* 1989 40:491–496.

A study of inpatients diagnosed with schizophrenia reported an inverse correlation between their propensity to violence and their blood level of antipsychotic medication.

Yesavage JA. Inpatient violence and the schizophrenic patient: an inverse correlation between danger-related events and neuroleptic levels. *Biological Psychiatry* 1982;17:1331–1337.