Violence and mental illness: an overview

HEATHER STUART

Department of Community Health and Epidemiology, Abramsky Hall, Queen's University, Kingston, Ontario, K7L 3N6, Canada

This paper evaluates the relationship of mental illness and violence by asking three questions: Are the mentally ill violent? Are the mentally ill at increased risk of violence? Are the public at risk? Mental disorders are neither necessary nor sufficient causes of violence. Major determinants of violence continue to be socio-demographic and economic factors. Substance abuse is a major determinant of violence and this is true whether it occurs in the context of a concurrent mental illness or not. Therefore, early identification and treatment of substance abuse problems, and greater attention to the diagnosis and management of concurrent substance abuse disorders among seriously mentally ill, may be potential violence prevention strategies. Members of the public exaggerate both the strength of the association between mental illness and violence and their own personal risk. Finally, too little is known about the social contextual determinants of violence, but research supports the view the mentally ill are more often victims than perpetrators of violence.

Key words: Mental illness and violence, stigma, violence prevention, victimization

Are the mentally ill violent? Are they more violent than people without a mental illness? Are they a risk to public safety? These questions have framed both the scientific and the public debate surrounding the relationship of violence to mental illness.

Unless otherwise stated, 'violence' will refer to acts of physical violence against others, since these are the most fear-inducing for the public and the greatest determinants of social stigma and discrimination. The term 'mental illness' will be reserved for non-substance related disorders, usually major mental illnesses such as schizophrenia or depression. Substance related disorders and concurrent substance abuse will be identified and discussed as separate risk factors.

ARE THE MENTALLY ILL VIOLENT?

Over time, there seems to have been a progressive convergence of mental illness and violence in day-to-day clinical practice. From early declarations disavowing the competence of mental health professionals to predict violence, there has been a growing willingness on the part of many mental health professionals to predict and manage violent behaviour. With the advent of actuarial risk assessment tools, violence risk assessments are increasingly promoted as core mental health skills: expected of mental health practitioners, prized in courts of law and correctional settings, and key aspects of socially responsible clinical management (1,2).

Many psychiatrists, particularly those working in emergency or acute care settings, report direct experiences with violent behaviour among the mentally ill. In Canada, for example, where violence in the population is low relative to most other countries, the majority of psychiatrists are involved in the management and treatment of violent behaviour, and 50% report having been assaulted by a patient at least once (3). However, clinical experiences with violence are not representative of the behaviours of the majority of mentally ill. Social changes in the practice of psychiatry, particularly the widespread adoption of the dangerousness standard for civil commitment legislation, means that only those with the highest risk of violence receive treatment in acute care settings.

In fact, a serious limitation of clinical explanations of violent and disruptive behaviour is their focus on the attributes of the mental illness and the mentally ill to the exclusion of social and contextual factors that interact to produce violence in clinical settings. Even in treatment units with a similar clinical mix and acuity, rates of aggressive behaviours are known to differ dramatically, indicating that mental illness is not a sufficient cause for the occurrence of violence (4). Studies that have examined the antecedents of aggressive incidents in inpatient treatment units reveal that the majority of incidents have important social/structural antecedents such as ward atmosphere, lack of clinical leadership, overcrowding, ward restrictions, lack of activities, or poorly structured activity transitions (4-6).

The public are no less accustomed to 'experiencing' violence among the mentally ill, although these experiences are mostly vicarious, through movie depictions of crazed killers or real life dramas played out with disturbing frequency on the nightly news. Indeed, the global reach of news ensures that the viewing public will have a steady diet of real-life violence linked to mental illness. The public most fear violence that is random, senseless, and unpredictable and they associate this with mental illness. Indeed, they are more reassured to know that someone was stabbed to death in a robbery, than stabbed to death by a psychotic man (7). In a series of surveys spanning several real-life events in Germany, Angermeyer and Matschinger (8) showed that the public's desire to maintain social distance from the mentally ill increased markedly after each publicized attack, never returning to initial values. Further, these

incidents corresponded with increases in public perceptions of the mentally ill as unpredictable and dangerous.

In some countries, such as the United States, public opinion has become quite sophisticated. The public judge the risk of violence differently, depending on the diagnostic group, with rankings that broadly correspond to existing research findings. For example, Pescosolido et al (9) surveyed the American public (N=1,444) using standardized vignettes to assess their views of mental illness and treatment approaches. Respondents rated the following groups as very or somewhat likely of doing something violent to others: drug dependence (87.3%), alcohol dependence (70.9%), schizophrenia (60.9%), major depression (33.3%), and troubled (16.8%). While the probability of violence was universally overestimated, respondents correctly ranked substance abusers among the highest risk groups. Similarly, they significantly overestimated the risk of violence among schizophrenia and depression, but correctly identified these among the lower ranked groups.

Public perceptions of the link between mental illness and violence are central to stigma and discrimination as people are more likely to condone forced legal action and coerced treatment when violence is at issue (9). Further, the presumption of violence may also provide a justification for bullying and otherwise victimizing the mentally ill (10). High rates of victimization among the mentally ill have been noted, although this often goes unnoticed by clinicians and undocumented in the clinical record. In a study of current victimization among inpatients, for example, 63% of those with a dating partner reported physical victimization in the previous year. For a quarter, the violence was serious, involving hitting, punching, choking, being beaten up, or being threatened with a knife or gun. Forty-six percent of those who lived with family members reported being physically victimized in the previous year and 39% seriously so. Three quarters of those reporting violence from a dating partner retaliated, as did 59% of those reporting violence from a family member (11). In addition, many people with serious mental illnesses are poor and live in dangerous and impoverished neighbourhoods where they are at higher risk of being victimized. A recent study of criminal victimization of persons with severe mental illness showed that 8.2% were criminally victimized over a four month period, much higher than the annual rate of violent victimization of 3.1 for the general population (12). A history of victimization and bullying may predispose the mentally ill to react violently when provoked (13).

ARE THE MENTALLY ILL AT INCREASED RISK OF VIOLENCE?

Scientists are less interested in the occurrence of isolated acts of violence among those with a mental illness, and more interested in whether the mentally ill commit acts of violence with greater frequency or severity than do their non-mentally ill counterparts. Therefore, the question of whether the mentally ill are at a higher-than-average risk of violence is central to the scientific debate.

Definitive statements are difficult to make and it is equally possible to find recent literature supporting the conclusions that the mentally ill are *no more* violent, they are *as* violent, or they are *more* violent than their non-mentally ill counterparts (14). Prior to 1980, the dominant view was that the mentally ill were no more, and often less likely to be violent. Crime and violence in the mentally ill were associated with the same criminogenic factors thought to determine crime and violence in anyone else: factors such as gender, age, poverty, or substance abuse. Any elevation in rates of crime or violence among mentally ill samples was attributed to the excess of these factors. When they were statistically controlled, the rates often equalized. However, although the main risk factors for violence still remain being young, male, single, or of lower socio-economic status, several more recent studies have reported a modest association between mental illness and violence, even when these elements have been controlled (1-2,7,13-16).

Because of the significant methodological challenges faced by researchers in this field, the nature of this association remains unclear. For example, violence has been difficult to measure directly, so that researchers have often relied on official documentation or uncorroborated self-reports. The prevalence of violence has been demonstrated to differ dramatically depending on the source (17). Most samples have not been representative of all mentally ill individuals, but only of those with the highest risk of becoming dangerous, such as those who are hospitalized or arrested. Study designs have not always eliminated individuals with a prior history of violence (a major predictor of future violence), controlled for co-morbid substance abuse, or clearly determined the sequencing of events, thereby weakening any causal arguments that might be made (14).

The MacArthur Violence Risk Assessment Study recently completed in the United States (1,18,19) has made a concerted effort to address these problems, so it stands out as the most sophisticated attempt to date to disentangle these complex interrelationships. Because they collected extensive follow-up data on a large cohort of subjects (N=1,136), the temporal sequencing of important events is clear. Because they used multiple measures of violence, including patient self-report, they have minimized the information bias characterizing past work. The innovative use of same-neighbour comparison subjects eliminates confounding from broad environmental influences such as socio-demographic or economic factors that may have exaggerated differences in past research.

In this study, the prevalence of violence among those with a major mental disorder who did not abuse substances was indistinguishable from their non-substance abusing neighbourhood controls. A concurrent substance abuse disorder doubled the risk of violence. Those with

schizophrenia had the lowest occurrence of violence over the course of the year (14.8%), compared to those with a bipolar disorder (22.0%) or major depression (28.5%). Delusions were not associated with violence, even 'threat-control override' delusions that cause an individual to think that someone is out to harm them or that someone can control their thoughts. Previous cross-sectional studies conducted in the United States (20,21) and Israel (22,23) had linked threat-control override delusions to an increased risk of violence.

The importance of substance abuse as a risk factor for violence has been well articulated in other studies. Consequently, this may stand out as one of the robust clinical findings in the field (24-28). Substance abuse in the context of medication non-compliance is a particularly volatile combination and poor insight also may be a factor (25).

ARE THE PUBLIC AT RISK?

It is important to keep in mind that both serious violence and serious mental disorder are rare events. Therefore, it is difficult to judge the practical importance of findings that may show an elevated risk of violence among samples of mentally ill as they tell us little about public risk.

One way of approaching this issue is ask who are the most likely targets of violence by the mentally ill: members of the general public or members of their close personal networks? Most recent studies suggest that violent incidents among persons with serious mental disorders are sparked by the conditions of their social life, and by the nature and quality of their closest social interactions (29). In the MacArthur Violence Risk Assessment Study (1), for example, the most likely targets of violence were family members or friends (87%), and the violence typically occurred in the home. Discharged patients were less likely to target complete strangers (10.7%) compared to their community controls (22.2%). Similarly, in a social network study that followed 169 people with serious mental disorder over thirty months (30), violence most frequently erupted in the family when relationships were characterized by mutual threat, hostility, and financial dependence; when there was a diagnosis of schizophrenia with concurrent substance abuse; and when outpatient mental health services were used infrequently. Of the over 3,000 social network members studied, only 1.5% were ever targets of violent acts or threats.

A related question asks to what extent do mentally ill contribute to the overall prevalence of community violence. Using data from the Epidemiologic Catchment Area studies conducted in the United States, Swanson (31) reported population attributable risks for self-reported physical violence. Attributable risk refers to the overall effect a factor has on the level of violence in the population. For those with a major mental disorder, the population attributable risk was 4.3%, indicating that violence in the community could be reduced by less than five percent if major mental disorders could be eliminated. The population attributable risk for those with a substance abuse disorder was 34%, and for those with a comorbid mental illness and substance abuse disorder it was 5%. Therefore, by these estimates, violence in the community might be reduced by only 10% if both major mental disorders and comorbid disorders were eliminated. However, violence could be reduced by over a third if substance abuse disorders were eliminated.

Using a similar approach, a Canadian study asked what proportion of violent crimes involving a police arrest and detention could be attributed to people with a mental disorder. They surveyed 1,151 newly detained criminal offenders representing all individuals incarcerated in a geographically defined area. Three percent of the violent crimes accruing to this sample were attributable to people with major mental disorders, such as schizophrenia or depression. An additional seven percent were attributable to offenders with primary substance abuse disorders. Therefore, if major mental illness and substance disorder could be eliminated from this population, the proportion of violent crime would drop by about 10% (32).

CONCLUSIONS

Several general conclusions are supported by this brief overview. First, mental disorders are neither necessary, nor sufficient causes of violence. The major determinants of violence continue to be socio-demographic and socio-economic factors such as being young, male, and of lower socio-economic status.

Second, members of the public undoubtedly exaggerate both the strength of the relationship between major mental disorders and violence, as well as their own personal risk from the severely mentally ill. It is far more likely that people with a serious mental illness will be the victim of violence.

Third, substance abuse appears to be a major determinant of violence and this is true whether it occurs in the context of a concurrent mental illness or not. Those with substance disorders are major contributors to community violence, perhaps accounting for as much as a third of self-reported violent acts, and seven out of every 10 crimes of violence among mentally disordered offenders.

Finally, too much past research has focussed on the person with the mental illness, rather than the nature of the social interchange that led up to the violence. Consequently, we know much less than we should about the nature of these relationships and the contextual determinants of violence, and much less than we should about opportunities for primary prevention (30). Nevertheless, current literature supports early identification and treatment of substance abuse problems, and greater attention to the diagnosis and management of concurrent substance abuse disorders among seriously mentally ill as potential violence prevention strategies (25).

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