Commentary: Women, Violence, and Insanity

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There is less research about homicidal women than about their male counterparts. Women are often considered the gentler sex, and their risk of perpetrating violent acts is underestimated. In attempts to understand violence by women with mental illness, female homicide offenders found not guilty by reason of insanity (NGRI) are an important subpopulation. Understanding common factors in this subpopulation (such as psychosis with religious delusions) may help in preventing severe violence perpetrated by women with mental illness. However, as with other crimes, those with mental illness who commit homicide may often have rational, nonpsychotic motives (such as anger, jealousy, self-defense, money, or criminal intent) and would not be captured in a study of those found NGRI. Further, caution must be used when studying an NGRI population, as there are potential gender biases in findings of insanity.

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Research has consistently shown that, in the general population, men are more likely than women to commit violent acts. This gender difference decreases in those with mental illness.[1] There has been little research, however, on the gender differences in severe violence perpetrated by those with mental illness. In one of the few studies examining the characteristics of female homicide offenders with mental illness, Ferranti and colleagues[2] have reported their study comparing characteristics of women and men found NGRI for homicide.

Violence by Women in the General Population on the Rise

Men commit more violent crime per capita than women do, but increasingly, women are engaging in violent acts. The increase in female violence is evident from both statistical reviews of crime data and anecdotal evidence, such as the appearance of a female serial killer, the "black widow," Chechnyan terrorists involved in the deadly Moscow theater siege, the Beslen school attacks, suicide bombings, and the increasing number of female gang members.[3–9]

Roughly seven percent of those incarcerated in the United States are female, and the rate is increasing.[7,8] For every woman incarcerated for murder, 16.7 males are imprisoned.[7] Women were arrested for approximately one-fifth of the violent crimes committed in 2011.[9] Women who are incarcerated are reported to have mental illness at a higher rate than are men, with the two most common diagnoses being PTSD and substance use disorder.[8,10,11] Other diagnoses, such as bipolar disorder and personality disorder, may also increase the risk of criminality in women.[12]

Insanity

The insanity defense is rarely used and rarely successful. About half of insanity pleas involve violent or potentially violent offenses.[13] According to an eight-state study, the insanity defense is used in less than 1 percent of all court cases and, when used, has only a 26 percent success rate.[13] Another study in four states found that, only 0.9 percent of defendants with felony indictments had a plea of insanity.[14] Similarly, Janofsky *et al.*[15] found that 1.2 percent of all indicted defendants entered insanity pleas, and of those, only 10 percent were successful. Rates vary from state to state, but the studies agree that, overall,

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approximately one percent of defendants enter an insanity plea.

Most successful insanity defenses involve a defendant with a clear history of mental illness. Jeffrey *et al.*[16] found that defendants with a psychiatric evaluation of insanity and a diagnosis of schizophrenia were more likely to be adjudicated NGRI, whereas those with personality and substance misuse disorders were less likely. In the aforementioned eight-state study, of those cases in which the defense was successful, 90 percent of the defendants had a prior diagnosis of mental illness.[13] Insanity acquittees were also more likely to have had a prior hospitalization.[13] Understanding this general background better allows appreciation of similarities and differences in the NGRI female population studied by Ferranti *et al.*[2] and of the study's applicability to women who commit violence.

Gender Bias

For charges resulting from loss of life, a woman is proportionately twice as likely as a man to be incarcerated for manslaughter.[7] These numbers may reflect a prosecution and sentencing bias when it comes to gender. For example, women may be more willing to accept a plea bargain, prosecutors more reluctant to seek higher charges because of concerns about judge or jury nullification (e.g., women may be more sympathetic defendants), or judges and juries more likely to impose lesser sentences on women.[1,10,17–19]

These possibilities make comparing male to female NGRI acquittees difficult, because the sexes may not be as similar as one thinks. The dissimilarity may be particularly true when cases include filicide.[20] In a past study of parents who had killed their children, many mothers were adjudicated NGRI, but a paucity of fathers were.[21] Overall, in child murders, fathers are both more likely to commit filicide-suicide and are more likely to be found guilty (rather than insane).[22–24] Similarly, Ferranti *et al.*[2] reported that 17 victims of the NGRI women were under age 18, in contrast to none of the men's victims.

NGRI and Gender

Studies examining the gender differences among insanity acquittees have found female acquittees to be older, more likely to be married, and less likely to be substance abusers, with less extensive criminal histories and shorter hospitalizations.[25–27] Diagnostically, women are more likely to have a diagnosis of mood disorder or borderline personality disorder than are men.[26,27] Ferranti and colleagues[2] found similar gender discrepancies. Women were more likely to have been married. Poignantly, not only did they have lesser criminal histories, but often the woman's first arrest was for murder, which is troubling for those trying to identify who is in need of evaluation and increases the chance of erroneous risk assessments. After all, past behavior is generally the best predictor of future behavior.

Ferranti and colleagues[2] also found that women were more likely than men to have an affective component. When they had an Axis II disorder, it was more likely borderline personality disorder. However, this finding may have been due to a diagnostic bias in clinicians or in sampling. Weizmann-Henelius *et al.*[28] reviewed Psychopathy Checklist Revised (PCL-R) scores of Finnish violent offenders (in hospitals and prisons) and found a lower prevalence of psychopathy in female than in male offenders. Furthermore, psychopathy may be expressed differently in women than in men.

Violence, Mental Illness, and Gender

After recent high-publicity incidents of homicide committed by individuals with mental illness, there has been increased focus among the public and mental health professionals about predicting violence in the mentally ill.[29,30] Much of what is known about violence risk assessment is based on research in men. Ferranti *et al.*[2] add additional information about a subsection of the mentally ill who are understudied when it comes to violence risk assessment: mentally ill women. However, the mental health field must remember that violence in and of itself is not caused solely by psychosis or mental illness.

In the year after hospital discharge, 25 percent of women in the MacArthur study (and 30% of men) committed a violent act.[1] Most women in this sample did not have psychosis. Targets of women's violence were more likely to be family members, and the violent acts were more likely to occur in the home. Women's violence was both less likely to result in arrest for the perpetrator or in a doctor's visit for the victim. Compared with the violent men, the women were more likely to be compliant with medication and less likely to be consuming alcohol or drugs.

Evidence suggests that psychosis has a greater effect on risk of violence in women than in men.[31] Risk of violence in psychosis is often associated with sub-

stance use, noncompliance, personality disorder, and acute psychotic symptoms.[31] In a community sample of 304 women with psychosis in the United Kingdom, the 2-year prevalence of assault was 17 percent.[31] Assault was associated with prior violence, previous convictions, victimization, cluster B personality disorder, and unmet needs.[31] A recent meta-analysis found that women with schizophrenia were eight times more likely to be violent than the general population, but that there was a large variation between odds ratios (ORs) in different studies.[32] Psychosis may be associated with violence, but much of it is mediated by substance abuse.[32] Therefore, violence reduction strategies ought to include not only treatment of schizophrenia but also prevention of substance abuse.[32]

Homicide and Mental Illness

A New Zealand study found that of all homicides in the nation for a 30-year period, 8.7 percent were considered to have involved mental abnormality.[33] Having a mental illness decreased the usual male-to-female ratio for homicide. A Finnish study found female homicide offenders had a 10-fold higher odds ratio for schizophrenia or personality disorder, and the highest odds ratios for alcohol use disorder and antisocial personality disorder (ASPD).[34] In a French study of homicide offenders, the diagnoses causing the greatest risk were alcohol misuse and ASPD, with ASPD leading to a 10-fold increased risk for males and a 50-fold increased risk for women. The risk with ASPD was magnitudes higher than the risk with schizophrenia, unless there was also a comorbid alcohol problem.[35]

Victimology and Violence in the Family

Gender differences are also found in the situational context of violence. When they are violent, women are more likely than men to attack someone they know, especially family/partners or friends, rather than acquaintances or strangers.[1,8] Similarly, Ferranti *et al.*[2] found that most victims of homicidal women in their study were family, whereas this was not true of the men. Although Ferranti *et al.* provide important insight into women with mental illness who met an NGRI standard, because of the type of sample in their study, they could not elucidate the factors in play for many women who commit violent acts in the home but are not NGRI. For example, a recent Quebec study of women who killed their partners found that most of them did not have a mental illness, did not give warnings, were not intoxicated at the time, and had "very few indicators [past contact with police or mental health]. . .[to] help predict the violent lethal behavior" (Ref. 36, p 598).

In a nationwide register-based study of Finnish homicide offenders, whereas both male and female perpetrators had a troubled childhood, more women had experienced or witnessed family violence.[37] Those with mental illness are more likely to be the victims of violence than the instigators of it.[35] Of the NGRI subjects in Ferranti *et al.*,[2] more of the women were victims of abuse (as children and as adults) than were the men. This finding may speak to a cycle of family violence, particularly for the female offenders.

Motives

Shaw and colleagues[38] studied 1,594 persons who had been convicted of homicide in the United Kingdom. Although 34% had a mental disorder, most such perpetrators were not acutely ill at the time of the homicide, and most also were not in mental health care at the time of the offense.[38] In a previous study, Shaw *et al.*[39] asked when homicide perpetrators had their last contacts with mental health treatment. Most had what was thought to be a low-to-absent immediate risk. The mental health teams evaluated the risk as preventable in only 12 percent, though they specified that compliance with treatment may have decreased risk in many others. This result implies that in most cases, the murder was neither readily predictable nor attributable to mental illness.

It is accepted as truth that hell hath no fury like a woman scorned, but society often fails to appreciate that women may be motivated by the same reasons as men to commit crimes, especially murder. In addition, most forensic psychiatrists have been involved in cases of heinous crimes where the defendant may or may not have been mentally ill and the crime was committed for nonpsychotic criminal reasons, such as for lust, anger, power, jealousy, greed, or political motives.

Child Murder and Motives

Similar to the multiplicity of motives for other types of violence, child murder has many motives. In the aforementioned study of NGRI filicide by Fried-

man *et al.*,[21] because of the sample type, the two most common motives found in the mothers were altruistic filicide (murder out of love) and acutely psychotic filicide. This is despite the fact that the most common cause of all filicides is fatal maltreatment (chronic abuse or neglect) and not serious mental illness.[40] Additional motives include an unwanted child (most common in neonaticide, or murder in the first day of life) and spousal revenge (the Medea complex; least common). Depending on the sample type (general population, psychiatric, or criminal), the results may be disparate.[41]

Filicide is distinct, in that there is much less research into male offenders than into female offenders,[23] although mothers and fathers kill at roughly similar rates. Fathers are more likely to commit suicide in a joint act of filicide-suicide than are mothers; however, many women found insane had also planned suicide.[24,42] A substantial number of the NGRI homicides committed by women in Ferranti *et al.*[2] were filicides, providing further data about this type of violence, but potentially limiting the generalizability of the findings. Although not every woman who commits infanticide has a perinatal psychiatric disorder (e.g., postpartum depression or postpartum psychosis), many in this sample may have had those disorders. Women who have a perinatal psychiatric disorder may be a special subpopulation with unique risk, presentation history, illness prognosis, and risk of reoccurrence.

Ferranti *et al.*[2] found religious delusions to be more common in those mothers who killed children. Religious delusions, particularly delusions about the child, may elevate risk to that child and should prompt further evaluation and intervention. However, one must also remember that the sample was of those found NGRI, and consider that the understanding of moral wrongfulness may be impaired because of religious delusions. For more in-depth analysis of insanity and mental illness in filicide cases, see Friedman *et al.*[43]

Risk Assessment and Prevention

Studying an NGRI sample of women as Ferranti *et al.*[2] did allows us to examine a specific subgroup of those who kill: those who were severely mentally ill at the time of the homicide and met the legal criteria for insanity. By the very definition of NGRI, this group would be likely to have psychosis or a severe mood disorder. In light of the aforementioned gender differences, the most important information Ferranti and colleagues provide is about the factors leading to a successful NGRI defense for women, rather than about violence risk assessment in general. For example, regarding commission of filicide, although both Andrea Yates[44] and Susan Smith may have had mental illness, different motives and risk factors suggest different preventive strategies and different likelihood of a successful NGRI plea. Based on motive, different preventive strategies have been proposed for filicide. [40]

Clinicians may underestimate the risk of violence in women.[10,31] Psychiatrists often do not ask mothers about filicidal thoughts.[45] It is easy in hindsight to identify the risk factors after an event has taken place, but it can be difficult to accomplish beforehand, especially if the individual has never presented to police or mental health authorities in the past.

Although results from Ferranti et al.[2] may be helpful in considering risk, there may also be limits to how much data can be reasonably collected from a screening instrument. The HCR-20 (Historical Clinical Risk management) is a commonly used instrument in violence risk assessments. Many violence risk assessment instruments including the HCR-20 and the Hare Psychopathy Checklist were normed on men,[8,46,47] potentially affecting the tools' sensitivity and specificity when applied to women.[10,47] Not surprisingly, given gender disparities in violent tendencies, studies evaluating use of risk assessment instruments in females have shown mixed results.[47] Although the HCR-20 scores for mental illness history and acute symptomatology may seem clear cut, impressions such as insight, history of psychopathy (e.g., what levels meet that threshold), and substance use problems (e.g., functional alcoholism) are more prone to variance, self-report errors, and potential gender biases.[48] In addition, many studies of violence and criminal behavior in women have noted that women with mental illness are often arrested less often than men when a violent act occurs, especially if it is of lower severity,[1,10] which could in turn affect the historical section of the instrument, such as age at first violent incident. When a meta-analysis of the HCR-20 considered predictive accuracy based on gender, it indicated an AUC of 0.72 for men and 0.62 for women.[48] This result suggests some utility for women, but the possibility is that factors may have to be weighted differently for women and have

different questions included or different cutoff scores to make it as effective in women as it is in men.[47]

In addition, a common finding across studies is that people with mental illness who commit violence often meet diagnostic criteria for multiple conditions. For example, in addition to a major mental illness such as schizophrenia, diagnoses of substance use disorder or personality disorder (borderline, antisocial, and narcissistic) may be found. Because of the potential multifactorial confluence and the lower rate of occurrence of delusion-influenced violence in women, it is harder to obtain sufficiently large sample sizes for the adequate study of this finding in women.[10]

Conclusions

Most violence by women occurs in the home and does not stem from psychosis. Women's risk of perpetrating violence is traditionally underestimated and understudied. However, women with mental illness who engage in violent acts often have comorbid substance use or personality disorder. Ferranti *et al.*[2] have helped to fill a gap, particularly regarding the characteristics of women found NGRI. The study of the intersection of women and violence is highly complex and could be compared with feeling different parts of the elephant, with various samples and questions. More study of violence in women is needed across various populations to understand better how to detect people at risk of committing violence, to provide treatment when appropriate, and ultimately to prevent violence when possible.

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