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Homicide offending and its main determinants in patients with schizophrenia or bipolar mood disorders

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Summary

Aims: This study aimed to assess the prevalence of homicide in patients suffering from schizophrenia or bipolar mood disorders and determine the main underlying determinants of this violent behavior.

Method: In a retrospective study, we reviewed the characteristics of 600 consecutive patients hospitalized at Farabi Hospital in Kermanshah, Iran with the main diagnosis of schizophrenia (n=300) or bipolar mood disorders (n=300).. The diagnosis was made based on the psychiatric report and the DSM-IV criteria. Study information was collected by reviewing hospital record files.

Results: In our sample 13.3% of patients with schizophrenia and 20.0% of those with bipolar mood disorders committed homicide. In both groups, more than two-thirds of offenders were male and more than half were younger than 30 years. In patients with schizophrenia the main triggers of homicide were delusional beliefs (50.0%) followed by auditory hallucinations (50.0%). In bipolar mood disorders the main triggers of homicide included paranoid delusional beliefs (73.3%), excitement, irritability and impulsive behavior (20.0%), and auditory hallucinations (6.6%).

Conclusions: A notable proportion of patients with schizophrenia or bipolar mood disorders in Iran commit homicide. Homicide is considerably more prevalent in men, in younger patients, and in those with delusional beliefs.

homicide, schizophrenia, bipolar mood disorders

The relationship between violent behaviors and mental disorders is now taken into consideration by specialists in behavioral science and psychiatric disorders. Homicide is a type of aggressive behavior that may be triggered by different motivations [1]. Several factors are involved in the increased occurrence of homicide, such as socioeconomic pressures, cultural factors and literacy [2]. In fact, violence occurs when the balance between internal impulses and the individual's control systems is impaired. The most common predictor factors include a history of violence, access to means of coercion, loss of controlling anger, history of previous convictions, history of homicide, loss of parents, and chronic hostility or hatred [3]. In this context, the presence of psychiatric disorders is of particular importance [4]. In psychiatric patients, the majority of violent acts are due to the nature of their underlying illness, such as

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hallucinations, delusions or impulsive behaviors [5]. These behaviors are classed as antisocial behaviors [6]. In this study we aimed to assess the prevalence of homicide in patients diagnosed with schizophrenia or bipolar mood disorders and determine the main underlying determinants of this violent behavior.

METHOD

In a retrospective study that examined hospital records, the characteristics of 600 consecutive patients hospitalized at Farabi Hospital in Kermanshah were reviewed. The sample included 300 patients with the diagnosis of schizophrenia and 300 patients with bipolar mood disorders; the diagnosis was established based on the psychiatric report and the DSM-IV criteria. We collected information on patients who have committed homicide in both study groups, with homicide triggers such as delusions, hallucinations and impulsive behavior. The results were classified according to the patient's age and gender and the time that elapsed between the homicide and a definite diagnosis of psychiatric illness. If information was missing for a case, the case was removed from the analysis of that item; the denominator in all estimates is therefore the number of valid cases for each item. The final findings were presented as mean and standard variation (SD) for quantitative variables and as number and percentages for categorical variables.

RESULTS

Among the schizophrenia sample (213 males and 87 females), 40 patients (13.3%) had commited homicide; 75% were male and 25% were female. Also, death by suicide was determined for 34.6% of the sample, with the same male/female ratio. The main trigger of homicide in this group were delusional beliefs (20 cases, 15 men and 5 women), followed by auditory hallucinations (20 cases, 15 men and 5 women). Regarding age distribution, half of homicide offenders were aged from 20 to 30 years and only 2.5% were younger than 20 years (Figure 1). Also, the time interval between homicide offending and a definite diagnosis of illness was more than 6 years in more than half of the cases (Figure 2).

Of those with the diagnosis of bipolar mood disorders, 237 (79.0%) were male and 63 (21.0%) were female. Homicide offending was found in 60 patients (20.0%), of whom 49 (81.6%) were male and 11 (18.3%) were female. The main triggers for homicide in these patients included paranoid delusional beliefs in 73.3% (men 79.5%, women 20.5%), excitement, irritability and impulsive behavior in 20.0% (men 91.6%, women

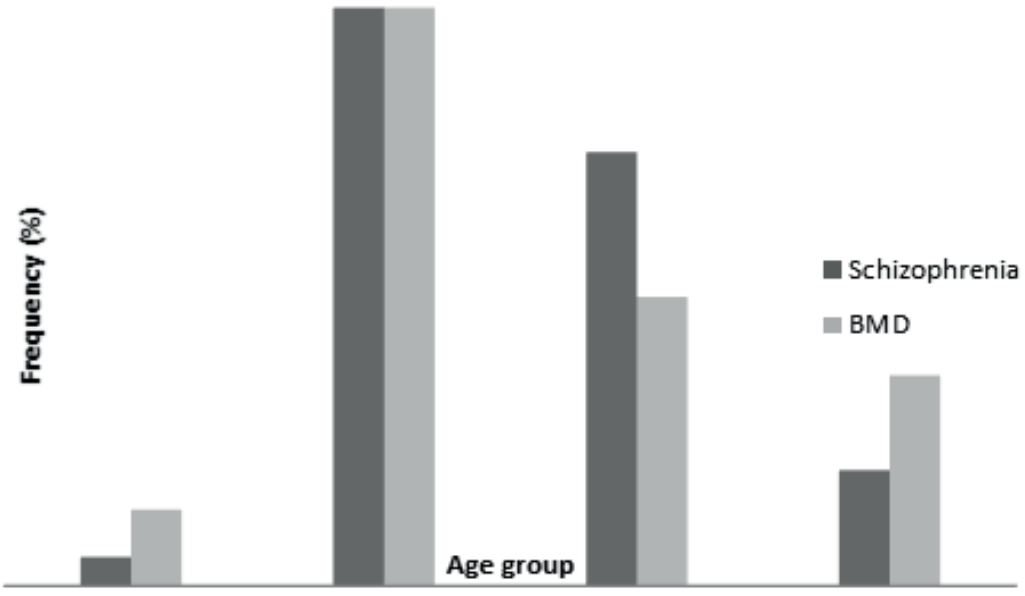

Figure 1. Age distribution in patients with schizophrenia and bipolar mood disorders (BMD) who are homicide offenders

8.4%), and auditory hallucinations in 6.6% (men 75.0%, women 25.0%). Age distribution regarding homicide offending (Figure 1) showed that half of offenders were aged 20 to 30 years and 6.6% were younger than 20. Also, the time interval between homicide offending and a definite psychiatric diagnosis ranged from 1 to 3 years in 63.3% and more than 6 years in 10.0% of offenders (Figure 2).

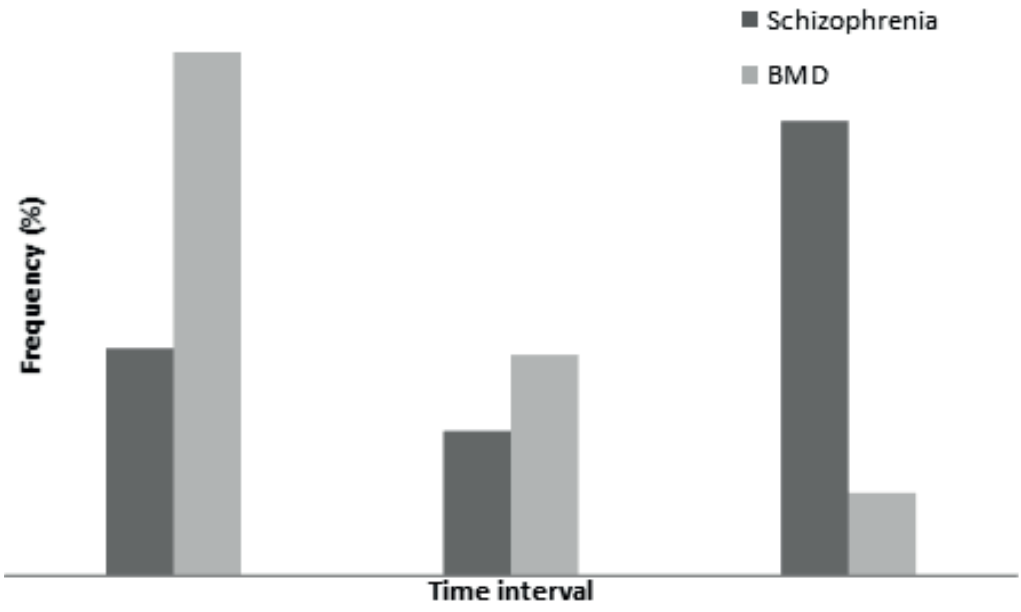

Figure 2. Time interval between homicide offending and definite diagnosis in patients with schizophrenia and bipolar mood disorders (BMD)

DISCUSSION

In our study, 13.3% of patients with schizophrenia and 20.0% of those with bipolar disorder were revealed to have committed homicide. There are many studies in the literature that investigate homicide in various countries. In parallel, various recent studies have shown an association between mental disorders and violent behavior that most ascribed to more severe mental disorders such as schizophrenia, bipolar disorder, major depression and delusional disorder. In a meta-analysis by Large and colleagues [7], a pooled proportion of 6.48% of all homicide offenders had a diagnosis of schizophrenia. In Meehan et al.'s survey of 1594 people convicted of homicide, 5% had schizophrenia [8]. In the Epidemiologic Catchment Area study, 8–10% of individuals with schizophrenia reported that they had engaged in violent behavior within the 12 months preceding the interview, compared with 2% in the general population [9]. In Australia, an increase in the number of individuals with schizophrenia convicted of murder ran parallel to the increase in the overall homicide rate [10]. The authors of another study examined the criminal records of 2861 individuals first hospitalized for schizophrenia, comparing them to an equal number of individuals residing in the same community. The authors observed convictions for at least one violent act in a significantly higher percentage of individuals with schizophrenia than in those without schizophrenia residing in the community (8.2% and 1.8%, respectively) [11]. Regarding homicide in mood disorders, in a study conducted in Canada, the prevalence of major depression was 17% and the prevalence of bipolar disorder was 4.8% among homicide offenders [12]. Hodgins [13] evaluated a sample of patients with severe affective disorders and schizophrenia over a period of 24 months after their release. The study sample consisted of 104 male patients, 30 of whom had been diagnosed with severe affective disorders and 74 of whom had been diagnosed with schizophrenia. By the end

of the follow-up period, 33% of the patients with severe affective disorders and 15% of those with schizophrenia had committed crimes that were described as violent [13]. In this context, some studies have estimated the risk for homicide offending in patients with schizophrenia. Golenkov et al. found that the odds ratio for homicide associated with schizophrenia was 13.5 and the risk for homicide offences in schizophrenic patients is more than 13 times that of other individuals [14]. In another study, it was shown that schizophrenia increased the risk of homicide 16.6 times in the recent cohorts and 12.7 times in the older cohorts [15]. In Wallace et al. study [11], the risk of being convicted of at least one violent act was found to be 3.6–6.6 times greater among individuals with schizophrenia than among controls. In our study, a notable number of patients with psychiatric disorders committed homicide and the number was considerably higher in men than in women. The observed high prevalence of homicide in these patients highlights the importance of psychopathy assessment among violence-prone individuals with schizophrenia and bipolar mood disorders.

Despite the fact that various studies have demonstrated a significant association between mental disorders and homicide, it remains unclear why some patients display this violent behavior and others do not. In our study, male gender, young age, illness duration and delusional beliefs were the main determinants and triggers of homicide in both schizophrenic and bipolar disorder patients. In a similar study by Schwartz et al. [16], manic symptoms and substance misuse were significantly correlated with more extreme homicidality. They also showed that men displayed significantly heightened homicidality than women. In a study by Belli & Ural [17], some factors, including sociodemographic characteristics, young age, alcohol addiction, substance misuse, non-compliance with treatment, fulfillment of criteria for antisocial personality disorder and paranoid subtype, history of suicidal ideation and attempts, and history of frequent hospitalization increase the potential for violent episodes and were identified as certain triggering factors for homicide. In Golenkov et al.'s study, family history of psychological disorders and positive psychological symptoms such as delusions of persecution and auditory hallucinations were shown to be associated with higher homicide offending [14]. In Fazel et al.'s study [18], some clinical factors on admission such as evidence of poor self-care, substance misuse and previous hospitalization for a violent episode were associated with homicide; however, depression appeared to be inversely associated with homicide, and there was no relationship with the presence of delusions or hallucinations. Valença also showed that comorbid alcohol/drugs disorders and personality disorders as well as a lack of adherence to treatment might increase homicide risk [19].

In line with some previous reports, our study lends support to the hypothesis that clinicians should pay particular attention to evaluating homicidality in patients who are male and are younger, and those who show delusional beliefs. It is now clear that patients with an increased risk of perpetrating homicide should be detected and monitored closely.

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