Aggressive Behavior in Hospitalized Patients with Schizophrenia and Bipolar Disorder.

Thesis

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By

Adel Mohamed El-Agawany (M.B.B.Ch)

Resident at Elabbasia Psychiatric Hospital

Supervised by:

Prof. Dr. Mostafa Ryad

Professor of Psychiatry

Faculty of Medicine - Cairo University

Assistant Prof. Dr. Hanan El-Shinnawy

Assistant Professor of Psychiatry

Faculty of Medicine - Cairo University

Faculty of Medicine

Cairo University

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List Of Abbreviations

- *ECA = Epidemiology Catchment Area*
- *CFSMS = Counter Fraud and Security Management Service,*
- *NHS = National Health Service*
- *MOAS = Modified Overt Aggression Scale*
- *PANSS = Positive and Negative Syndrome Scale*
- *DSM R = Diagnostic and Statistical Manual of Mental Disorders revised*
- *CATIE = Clinical Antipsychotic Trials of Intervention Effectiveness*
- *OR = Odds Ratio*
- *CI = Cumulative Incident*
- *N = Number*
- *NESARC = National Epidemiologic Survey on Alcohol and Related Conditions*
- *OAS = Overt Aggression Scale*
- *S2 = Serotonin 2*
- *5HT = 5-Hydroxtryptamine*
- *SUD = Substance Use Disorder*
- *BD = Bipolar Disorder*
- *PTSD = Post-Traumatic Stress Disorder*
- *BPD = Borderline Personality Disorder*
- *GABA = Gamma-Amino-butyric Acid*
- *P = Probability*
- *APA = the American Psychiatric Association*
- *ROAS = Retrospective Overt Aggression Scale*
- *SD = standard deviation*
- *NIHME = National Institute for Mental Health in England*
- *SPSS = Statistical Package for the Social Science*

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Abstract

Aggressive Behavior in Hospitalized Patients with Schizophrenia and Bipolar Disorder.

Objective: Aggressive behavior has been related to psychiatric patients both in in-patient and out-patient samples. In this study, we aimed to assess the aggression and violent behavior among hospitalized patients with schizophrenia and bipolar disorder and to study the association of aggressive behavior with multiple variables; where a group of patients in early phase admission is compared to a group of patients admitted for more than one month.

Method: Two hundreds patients with schizophrenia or bipolar disorder receiving were enrolled and interviewed at El Abasia psychiatric hospital about aggressive violent behavior within the week prior to the study visit. Presence of aggressive episodes, including type of aggression and severity was assessed with the Modified Overt Aggression Scale (MOAS). Violence was defined as a score of 3 or more in any of the MOAS subscores.

Results: Prevalence of recent aggressive behavior was 44% that reached the violent threshold. Recent aggressive episodes were more likely among patients with a previous history of violence, substance abuse, with low treatment satisfaction, long admission duration, premorbid antisocial personality traits, deluded patients and with impaired insight.

Conclusion: forty four percent of the studied cases showed aggressive behavior in the week prior to assessment, despite having been compliant with their medication. Most aggressive behavior was verbal rather than physical.

Significant outcomes: • Despite adherence to antipsychotic medication, admission in hospitals, a group of in-patients with schizophrenia and bipolar disorder continues to show aggressive behavior.

• A past history of violence and substance abuse are among the factors associated with the appearance of aggressive behaviors.

Limitations: A cross-sectional design does not allow a causal relationship to be established.

Key words: Aggression, violence, modified overt aggression scale, inpatients.

Introduction and Aim of the work

In recent years, several studies have been conducted to identify the frequency of aggressive events among patients with severe mental disorder. Nevertheless in many cases the profile of patients who experience an aggressive episode is still unknown. Although patients suffering from a mental disorder are generally not aggressive towards others, there is a subgroup of potentially dangerous patients with a high risk of aggression. And this makes it difficult to reduce the stigma associated with this type of disorder. **(Steadman et al., 1998) (Arango et al., 1999)**

In a study of 1011 persons with psychiatric disorders receiving treatment in public mental health service systems, **(Swanson et al., 1990)** reported a 6-month incidence of aggressive acts ranging from 18% to 21% with 3-9% of those being serious aggressive episodes (assault with a lethal weapon, sexual assault or assault and battery).The occurrence of aggression in patients with mental disorders is not explained by a single variable, but is the result of interaction among different factors related to individual and society.

Epidemiological studies conducted in the general population have shown that aggression is associated with younger males with low socioeconomic status, substance abuse problems and a history of violence **(Swanson et al., 1990)** the population of patients with mental disorder has the same risk factor as the general population plus the presence of positive symptoms, poor awareness of the disease and poor treatment compliance, all factors that has been studied by different authors and related to this type of behavior **(Walsh et al., 2004) (Torrey, 2006) (Soyka, 2007)**.

It has been postulated that patients with mental disorder who takes their medication are no more aggressive than the general population, as the latter variables related to the disorder are not present when the patient is clinically stable **(Torrey, 2006)**. Although factors associated with safety concern have been identified, more researches is needed to identify patient at risk, and to determine the influence of specific strategies either on community, welfare or the legal system- on improving treatment adherence and other risk factors **(Swanson, 2006)**.

Aim of Work

This work aims:

- To assess the aggression and violent behavior among hospitalized patients with schizophrenia and bipolar disorder
- To study the association of aggressive behavior with multiple variables.

Chapter 1

Aggression and Violence

Definitions:

Aggression is defined as being:

- A forceful behavior, action, or attitude that is expressed physically, verbally, or symbolically. It is manifested by either constructive or destructive acts directed toward oneself or against others. **(Mosby, 2009)**

- A behavior leading to self-assertion; it may arise from innate drives and/or a response to frustration, and may be manifested by destructive and attacking behavior, by hostility and obstructionism, or by self-expressive drive to mastery. **(Dorland, 2007)**

- A form of physical or verbal behavior leading to self-assertion; it is often angry and destructive and intended to be injurious, physically or emotionally, and aimed at domination of one person by another. It may arise from innate drives and/or is a response to frustration, and may be manifested by overt attacking and destructive behavior, by covert attitudes of hostility and obstructionism, or by a healthy self-expressive drive to mastery. **(Keane and O'Toole, 2003)**

- A maladaptive and dysfunctional, an angry reaction to real or perceived danger **(Connor, 2002).**

Aggression and Violence in Psychiatry:

Historically, some investigators of human and animal behavior, such as Sigmund Freud and Konrad Lorenz, have argued that aggressive behavior is innate but, alternatively, others have proposed that it is a learnt behavior **(Conger et al., 2003).** In all likelihood, there are both genetic and environmental contributions towards aggressive behavior **(Huesmann et al., 2003).**

Also some research on the causes of aggression were focused on social learning, modeling, family violence, child abuse, neglect, TV violence, structural and functional brain abnormalities, hormones (e.g., testosterone), and neurotransmitters (e.g., serotonin) **(Raine, 2002).**

When aggression in adults is not a response to a clear threat, it is sometimes considered a sign of mental disorder **(Brennan et al., 2000)**. In fact, there is an association between aggression and mental illness, with many mental disorders such as schizophrenia and mania manifesting aggressive behavior **(Citrome and Volavka, 2001).** Aggression may be directed outward against others, causing damage, alternatively, it may be directed inward against oneself, leading to self-damaging acts such as suicide **(Stoff et al., 1997).**

Historical Background of Aggression:

The correlations between psychiatric disorders and violent behavior have always been a subject of debate, and two questions about which it seems to be particularly difficult to reach agreement are whether psychiatric patients are more likely to be aggressive, and whether diagnoses can predict violent behavior **(Gunn and Bonn, 1973)**. Some authors have claimed that there is a correlation between psychiatric disorders and crime **(Penrose, 1939),** whereas others have found that the prevalence of criminal actions is lower in psychiatric patients than in the

general population **(Steadman et al., 1974).** However, all of these studies had a number of methodological limitations, including the fact that the samples were selected and not representative of the psychiatric population as a whole **(Tardiff, 1998).**

Studies prior to 1981 found that psychiatrists and psychologists were not accurate in making predictions about whether a patient will be violent over several years **(Monahan, 1981).** Over the past couple of decades much has been learned about violence in both the general population and the mentally ill. In addition to advances in research on predictive accuracy, the base of scientific knowledge about risk factors for violent behavior has also grown tremendously over the past 15 years **(Steadman et al., 1994).** Studies of risk factors for violence filled the literature in the 1980s and 1990s and may account for the increased accuracy of psychiatrists' and other mental health professionals' predictions of violence **(Tardiff, 1998).**

The Epidemiology Catchment Area (ECA) study found that the incidence of episodes of violence involving patients with psychiatric disorders (schizophrenia, mania, major depression and bipolar disorder) was five times higher than in the general population (16 times higher in the presence of co-morbid alcohol/substance abuse) **(Swanson et al., 1989),** and these findings are in line with those of a 30-year longitudinal follow-up study in Sweden **(Hodgins et al., 2002).** A recent US survey has found that violence is related to psychiatric disorders only in the presence of comorbid substance use/dependence **(Elbogen and Johnson, 2009).**

However, although the question of violent behavior in psychiatric disorders should really be seen in a more general cultural, environmental and social context, it is clear that episodes of violence by patients admitted to psychiatric wards cause serious problems relating to treatment, the other patients, and the staff **(Woods and Ashley, 2007).**