ORIGINAL ARTICLE

Study of Prevalence of Violence and its Association with Psychopathology in Patients with First Episode of Psychosis in One of the Tertiary Care Centre of North India

Sunny Garg[1], Ramesh Kumar[2], Vineet Sharma[3], Alka Chauhan[4]

Authors' affiliation: [1]Senior Resident; [2]Professor; Dept. of Psychiatry, IGMC, Shimla; [3]Senior Resident, Dept. of Psychiatry, Pt. Jawahar Lal Nehru Medical College, Chamba; [4]Junior Resident, Dept. of Psychiatry, BPS GMC Khanpur, Sonipat
Correspondence: Dr. Sunny Garg, Email: docter.sunny@gmail.com, Mobile No.: 99816496415

ABSTRACT

Introduction:. Violence is extremely diffuse and complex phenomenon.. Violence is among the leading cause of death. Individual with mental disorder may be two or three times more likely to behave violently and acquiring a criminal conviction for violence. Patients with substance abuse are among the highest risk groups than patients with psychosis. Psychopathology is also a major determinant of violence.

Aims and objectives: To study the socio- demographic variables, clinical profile and relationship of violence and psychopathology in patients with first episode of psychosis.

Methods: A cross sectional observational study of 200 patients was done. Patients with first episode of psychosis diagnosed according to ICD-10, who met the Inclusion criteria. Patients information was recorded on the socio-demographic and clinical profile sheet. Thereafter, Modified Overt Aggression Scale (MOAS) for assessment of violent behavior and Comprehensive Psychopathology Rating Scale (CPRS) for assessment of psychopathology were applied.

Results: Most of the patients were between 21-30 years, male, unemployed, unmarried. Most of the patients were diagnosed as cases of schizophrenia. Verbal aggression was shown by all the patients. Suicidality was shown by only 8 patients. Most of the patients were having delusions and Hallucinations.

Conclusions: Violent behavior is possibly the result of psychopathology. Therefore, psychopathology is an important factor in inducing violent behavior in patients with first episode of psychosis.

Key words: Violence, Psychopathology, Substance abuse, Verbal aggression.

INTRODUCTION

Psychosis is defined as a mental disorder in which the thoughts, affective response, ability to recognize reality, ability to communicate and relate to others are sufficiently impaired to interfere grossly with the capacity to deal with reality. The classical characteristics of psychosis are impaired reality testing, delusion, hallucination, illusion. [1]

Violence is a universal phenomenon. Violence is among the leading cause of death for patients with psychosis, accounting for 14 % and 7 % of deaths among males and females respectively. [2] If current trends in violence behavior continues, the WHO predicts that violence and suicide will both individually feature in the top 20 causes of death in patients with psychosis upto 2030.

Violence has largely been ignored. The lack of clear definition of the problem may be one of the reason. [3] The challenge is to define the violence in such a way that it capture the range of acts by perpetrators and the subjective experiences of the victims without becoming so broad that it lose meaning or so broad that it describe the natural vicissitudes of everyday living in terms of pathology. [4]

Major determinants of violence in patients with psychosis are socio – demographic and economic factors such as being young, male and of lower socio - economic status and are sparked by the conditions of their social life. [5] In the Mac Arthur Violence Risk Assessment Study the most likely targets of violence were family members or friends and the violence typically occurred at home. Substance abuse is also a major determinant of violence. A concurrent substance abuse disorder doubled the risk of violence in patients with psychosis. [6]

In patients with psychosis there is an evidence for an association between active delusions and violent behavior. [7] Studies have shown a correlation between being actively hallucinated and violence inducing

behavior. In those patients where hallucinations reinforce delusional pre – occupations, the risk of violence may be greater. [8] In view of the above mentioned facts, the current study to assess the violence in patients with first episode of psychosis was planned. As far as we are aware, very few studies have been conducted in the past in the States of the Northern India. So our study was conducted in one of the tertiary care hospital of North India after getting through the Ethical Committee approval.

AIMS AND OBJECTIVES

Objective of the study was to study the socio-demographic variables and clinical profile of the patients showing violence in first episode of psychosis and to study the relationship of violence and psychopathology in patients with first episode of psychosis.

METHODOLOGY

It was a cross sectional observational study. The sample was obtained from the patients attending the in- patient unit of the Department of Psychiatry in one of the tertiary care hospitals, located in northern India. Two hundred patients with first episode of psychosis fulfilling the inclusion criteria were included in the study.

Inclusion criteria: Patient with age 18 to 60 years current diagnosis of first episode of schizophrenia, persistent delusional disorder, acute and transient psychosis, schizoaffective disorder, manic episode or severe depression with psychotic symptoms, and given a written informed consent (by thee patient and / or family members) were included in the study.

Exclusion criteria: Cases with history of any other psychiatric disorder in the past or history of any serious physical illness or having mental retardation was excluded.

Socio demographic profile of the patients was recorded on a self designed semi structured proforma which includes age, sex, education, occupation, marital status, family structure and locality. The scale devised by Kuppuswamy et al was used to determine Socio economic Status. [9] Modified Overt Aggression Scale (OAS –M) [10] was used to collect data about violent behavior of the subjects. This was developed by Coccaro and collaborators in 1991 to assess violent behavior. This scale is 25 item, semi structured interview with nine subscales. It is a short instrument, relatively easy to administer. Comprehensive Psychopathological Rating Scale (CPRS) [11] was developed by an interdisciplinary task group and is intended to measure changes in psychopathology over time. The scale contains 67 items, including one global rating and one item documenting the reliability of the interview. Most (40) of the items are based upon reported symptoms. The scale is graded from 0-3 for each item.

Patients with first episode of psychosis diagnosed according to ICD-10, who met the Inclusion criteria were included in the present study. A written informed consent was obtained from the subjects and / or their family member. Patients information was recorded on the socio-demographic and clinical profile sheet. Detailed history was obtained from the patient and / or family member followed by Physical and Mental Status Examination of the patients. Thereafter, Modified Overt Aggression Scale (MOAS) for assessment of violent behavior and Comprehensive Psychopathology Rating Scale (CPRS) for assessment of psychopathology were applied.

Data collected were subjected to descriptive (mean, percentage) statistics for analyzing the socio - demographic variables and inferential statistics (Spearman's rank correlation coefficient or Spearman's rho) for studying the correlation between violence and psychopathology. All the statistical analysis were carried out using SPSS Software for stats.

RESULTS

Most of the patients were between age group 21-30 years (50 %) with a mean age of 29.75 Years. Majority of the patients were male (65 %), studied up-to or above matriculation (70 %), Unmarried (65 %), Unemployed (70 %), living in Joint families (70 %), belongs to Middle (83 %) socio economic status. Three fourth of the patients were from Rural areas. In this study only 5 % patients were without formal schooling (Tabe 1).

Most of the patients were diagnosed with Schizophrenia (60) and Mania with Psychotic symptoms (55). Depression with psychotic symptoms was diagnosed in only (10) patients (Table 2).

Verbal aggression was expressed by all the male and female patients. Irritability (90 %), aggression against others (80 %) and aggression against objects (75 %) were revealed by a large number of the patients (Table 3).

Aggression against objects was seen in equal majority (83% each) in patients with schizophrenia and acute and transient psychosis. Aggression against others was expressed by all the patients with substance induced psychosis and persistent delusional disorder. Maximum aggression against self was revealed by patients with depression with psychotic symptoms. Half of the patients with depression with psychotic symptoms attempted suicide.

Table 1 : Sociodemographic Profile

Socio demographic profile	Patients (%)
Age (in years)	
< 20	30 (15%)
21-30	100 (50%)
31-40	50 (25%)
41-50	10 (5%)
51-60	10 (5%)
Sex	
Male	130 (65%)
Female	70 (35%)
Locality	
Rural	150 (75%)
Urban	50 (25%)
Education	
No Formal Schooling	10 (5%)
Up to Primary	50 (25%)
Up to Matriculation	80 (40%)
Above Metric	60 (30%)
Occupation	
Unemployed / Housewife	120 (60%)
Farmer	50 (25%)
Self Employed	10 (5%)
Student	20 (10%)
Family Structure	
Nuclear	60 (30%)
Joint	140 (70%)
Marital status	
Unmarried	80 (40%)
Married	120 (60%)
Socioeconomic status (Kuppuswamy's scale)	
Upper	-
Upper middle	75 (37.5%)
Lower middle	90 (45%)
Upper lower	35 (17.5%)
Lower	-

Table 2 : Diagnostic Categorization

Diagnosis	Patients (%)
Substance Induced Psychosis	30 (15)
Schizophrenia	60 (30)
Persistent Delusional Disorder	15 (7.5)
Acute and Transient Psychosis	30 (15)
Schizoaffective Disorder	-
Non Organic Psychosis	-
Mania With Psychotic symptoms	55 (27.5
Depression With Psychotic symptoms	10 (5

Table 3: Violence On Modified Overt Aggression Scale (Moas)

MOAS – Subscale	Males (n=130)(%)	Females (n=70)(%)	Total
Verbal Aggression	130 (100)	70 (100)	200
Aggression Against Objects	100 (77)	50 (72)	150
Aggression Against Others	110 (84)	55 (78)	165
Aggression Against Self	50 (38)	15 (21)	65
Irritability	120 (92)	60 (86)	180
Suicidality	30 (23)	10 (14)	40

Aggression was significantly (positively) correlated with hostile feelings, decreased sleep, decreasd appetite, feeling controlled, ideas of persecution, delusional mood, morbid jealousy, other delusions and commenting voices, other auditory hallucination, hallucinatory behavior, visual hallucination and agitation. Irritability was significantly (positively) correlated with indecision, concentration difficulties, decreased sleep, feeling controlled, disturbed thoughts, ideas of persecution other auditory hallucination, agitation and hallucinatory behavior. Suicidality was significantly (positively) correlated with sadness, pessimistic thoughts and suicidal thoughts.

DISCUSSION

Throughout the history, across various cultures violence and mental illness have been considered interrelated. In various studies people with mental illness showed an increased rate of violence after controlling for possible confounding variables.[4] Understanding the various factors associated with violence in mental illness is the first step in its prevention through efficacious therapeutic approaches. The opinion among psychiatrists recently has been that people with mental illness are more violent, when extrinsic factors, such as demographic variables are taken into account. [12]

65 % patients were < 30 years of age and were male in our study. Almost similar findings were observed in previous studies by Stuart and Florez [5] , Biancosino et al [13] and Nielssen and large [14] wherein violence was more commonly seen in young and male patients (63%). Young age and Male gender has been considered as a major determinant of violence in various studies. [5, 14] However, a study by Garekar and Bhargava [15] found no significant gender differences in patients. 60 % of patients were unmarried. Payne et al [16] and Biancosino et al [13] also observed that most of their patients were unmarried (81%). 70 % of the patients had studied up to matriculation or above. Only 5 % patients were without any formal education. But in the studies by Biancosino et al [13] and Nielssen and Large [14] , most of the patients had attained lower level of education. It may be due to the differences in demographic variables of our study samples.

Majority (70 %) of the patients were unemployed in our study as in Payne et al [16] 88% were unemployed. About 83 % of the patients belonged to middle socioeconomic class and only about 17 % belonged to lower socioeconomic class. Stuart and Florez [5] found that lower socio economic status was found to be major determinant of violence. This contrast may possibly be due to use of different tools for the assessment of socioeconomic status.

Table 4 : Violence In Various Diagnostic Categories

Diagnosis (cases)	Items on MOAS subscale (%)					
	Verbal Aggression	Aggression against objects	Aggression against others	Aggression against self	Irritability	Suicidality
Substance induced psychosis (n = 30)	30 (100)	20 (67)	30 (100)	10 (33)	30 (100)	5 (16)
Schizophrenia(n= 60)	60 (100)	50 (83)	55 (92)	25 (42)	60 (100)	20 (33)
Persistent Delusional Disorder (n=15)	15 (100)	5 (33)	15 (100)	-	15 (100)	5 (33)
Acute and Transient Psychosis (n=30)	30 (100)	25 (83)	25 (83)	5 (16)	20 (67)	5 (16)
Mania with Psychotic Symptoms(n=55)	55 (100)	40 (72)	35 (63)	15 (27)	45 (82)	-
Depression with Psychotic Symptoms (n = 10)	10 (100)	5 (50)	5 (50)	10 (100)	10 (100)	5 (50)

We observed that verbal aggression (100 %), irritability (90 %), aggression against others (83 %), aggression against objects (75 %), aggression against self (33 %) and suicidality (20 %) in patients with first episode of psychosis. Almost similar findings were observed by Payne et al [16] and Jones et al [17] , in which verbal aggression (50 %), aggression against others (33 %), aggression against objects (37 %), aggression against self (16 %) were observed. But other studies like Nielssen and Colleague [18] and Bobes and Arango [19] differ in this respect.

Nielssen and Colleague [18] observed that aggression against self (54 %) was more than aggression against others (39 %) while Bobes and Arango [19] noted verbal aggression, aggression against objects, aggression against others, aggression against self in 44 %, 29 % 19 % and 8 % respectively. Differences in these results may be due to difference in demographic profile of patients as well as cultural differences with previous studies which were from western countries.

In the present study, most (30 %) of violent patients were diagnosed with schizophrenia, and 27.5 % with mania with psychotic symptoms as in study by Jeremy Coid et al [20] and Garekar and Bhargava [15] found that almost similar number (35 %) of patients with Schizophrenia. However, with regard to schizoaffective disorder (19%), depression with psychotic symptoms (14 %), psychosis NOS (12 %) and mania with psychotic symptoms (10%), the results were different as compared to that of our study. Swartz et al [6] described that substance use doubled the risk of violence and patients with substance abuse or substance induced psychosis had high violence rate than patients schizophrenia and affective psychosis. The discrepancy in the results may be due to use of different diagnostic methods, sample size and different genetic profile of study subjects. We have also observed that violence and its various aspects are positively correlated with psychotic symptoms like feeling controlled, ideas of persecution, delusional mood, morbid jealousy, commenting voices, other auditory hallucination, visual hallucination and hallucinatory behavior. According to Appelbaum [21] and Milton et al [22] delusions in particular were not associated with high risk of violence. This may be due to the fact that delusions are often associated with chronic psychotic conditions that are frequently attended by social withdrawal and small social networks.

According to Foley et al, psychotic decompensation and rich symptomatology increases the violent potential among the patients with first episode of psychosis. [23] In fact, violent patients exhibit poor impulse control, lack of insight, lack of judgement or diminished awareness of legal implications of their acts. [23,24] These findings suggest a possibility of violence among patients with first episode of psychosis to be the outcome or complication of psychopathology. Thus, psychopathology is a strong determinant of violent behavior. [24]

CONCLUSION

Majority of the patients in our study were either diagnosed with schizophrenia or mania with psychotic symptoms. In the present study, we found that verbal aggression was the main component of violent behavior followed by irritability, aggression against others, aggression against objects, aggression against self and suicidality (least common). Violent behavior in patients with first episode of psychosis is possibly the result of psychopathology. Therefore, psychopathology is an important factor in inducing violent behavior.

LIMITATIONS OF THE STUDY :

There were certain limitation of the study. This study had a cross sectional design. As this was a hospital based study therefore the results have limited generalization. The sample size in the present study was small. No control group was studied.

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