MENTAL ILLNESS AND VIOLENCE: MYTH AND REALITY

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ABSTRACT

Objective: To compare the frequency and risk factors of violent behaviour in psychiatric patients, non-psychiatric patients and healthy population with the violent criminal offenders.

Study Design: A cross-sectional analytical survey.

Place and Duration of Study: The study was conducted at three tertiary care facilities in Lahore. The sample of criminal offenders was drawn from Kot Lakhpat jail, Lahore and the study was completed in six months.

Subjects and Method: One hundred and twenty subjects between the ages of 18-60 years were included in the study with 30 subjects being drawn from each population group. The psychiatric patients were those admitted with a diagnosis of a major psychiatric disorder such as schizophrenia, affective disorder, personality disorder and substance abuse based on ICD-10. The variables were categorised into personal, historical, contextual and clinical and endorsed by trained rating staff at each facility after interviewing every subject. Psychopathy, anger and impulsiveness were measured by using the Psychopathy Checklist, Novaco Anger Inventory and Barrett Impulsiveness Scale respectively. Psychiatric morbidity was excluded from the non-psychiatric and criminal population by using the General Health Questionnaire (GHQ-12).

Results: Amongst the demographic variables, age group (18-45 yrs 58.2%) and marital status (single 70%) were significantly associated with a history of violence. Other significant associations with violence included presence of violent fantasies (85%), ideas of self harm (70%), drug abuse (87%) and high scores on psychopathy and impulsiveness scales. The violent criminal population scored high on psychopathy (>12 SD=4.9) and impulsivity (>72 SD=10). Mean scores of psychopathy and impulsiveness for the psychiatric population sample dropped significantly when cases of drug abuse and personality disorder were excluded.

Conclusion: Patients with major psychiatric disorders as a group are not as violent as criminals. It is not the mental illness but history of drug abuse, deliberate self-harm, psychopathy and impulsiveness that are the common denominators in violent individuals, irrespective of a psychiatric diagnosis.

Keywords: Mental Illness; Violence; Stigma; Criminal Offenders; Violence Risk Assessment.

INTRODUCTION

For centuries people with mental illness have been kept away from the rest of the world, chained, locked up and isolated physically through brute force, legislation or in the name of ideology. Today negative attitudes lock them out of society more subtly but just as effectively. The underlying factor responsible for this mindset of the society has been the 'stigma' of mental illness [1, 2]. Stigma gives rise to shame and secrecy, therefore becoming an obstacle to the presentation and appropriate treatment of mental illness at every stage [3]. Recent years have brought to light the origins of this stigma against the mentally ill and the public's perception of mentally ill being violent is one of them. This is a major source of stigma and remains the main problem faced by the patients with psychiatric disorders. Consequently these patients are perceived and treated in the same way as violent criminals with indoor psychiatric wards in the vicinity of central jails and mental hospitals with high walls. United States Surgeon General's report on mental health 1999 revealed that the public perception of patients of psychosis as being dangerous is stronger today than it was in the

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past [4]. Like the rest of the world, ours is a society plagued with myths, misconceptions and stigmatising attitudes about mental illness with a widely prevalent stereotype image of the mentally ill as being violent and unpredictable. The Urdu term used for the mentally ill in our media and literature continues to be "pagal" (insane) (commonly used with seriously derogatory connotations) as opposed to the term "zehni mareez" (mentally ill). The criminalisation of mental illness is hardly surprising in a country where psychiatric hospitals still share common walls with high security prisons, where wards are teeming with patients living in miserable sub-human conditions, where mental asylums still flourish and are advocated by individuals no less than those assigned with sacred responsibility of caring for the mentally ill and where psychiatric patients are sometimes murdered on the streets by the so-called guardians of religion. Far from being perpetrators, patients with severe psychiatric patients are most often the victims of violence [5]. The vast majority of sufferers of mental disorders such as schizophrenia, bipolar disorder, depression and anxiety disorders want only to live in dignity like all of us, free from the suffering brought by their illnesses. Beliefs about the causes of mental disorders have shifted over the centuries, but the belief that mental disorder predisposes an individual to behave violently has endured [6]. Recent research has clearly shown that the vast majority of people who are violent do not suffer from mental illnesses though there remains a small subgroup of people with severe and persistent mental illnesses who are at risk of becoming violent [7]. Bringing about a change in the attitudes in such adverse circumstances requires a concerted campaign by all health professionals and the media, the foundations of which can only be laid on scientifically based facts achieved through sound and meticulous research carried out within the country. A number of studies in the west have examined the relationship of violence with psychiatric disorders and have as yet not clearly provided any conclusive evidence to support the hypothesis that mental illness without co-morbid substance abuse is a significant risk factor for violence or criminality. The inclusion of substance abuse and personality disorders into the domain of psychiatric illnesses remains a source of controversy. Studies aimed at violence risk assessment in psychiatric patients have linked different types of factors including personal, historical, contextual, clinical and psychometric variables with violent behaviour that have challenged the myth of all psychiatric patients being violent and unpredictable [8]. To date no research on the subject has been carried out in Pakistan and a need was therefore felt to undertake a survey aimed at determining the frequency of violent behaviour to assess the frequency of violent behaviour and study a diverse array of established risk factors for violence in psychiatric patients, non-psychiatric patients and healthy population and compare it with violent criminal offenders.

SUBJECTS AND METHODS

This was a multi-centre cross-sectional survey designed to study a representative population of indoor patients with major psychiatric disorders who were compared with healthy population and non-psychiatric patients in general hospital settings. A sample of convicted criminal population was also included to serve as a representative sample for violent offenders. The definition of violence was jointly agreed upon by the senior psychiatrists at the four hospitals after reviewing recent studies and was defined as "acts that resulted in physical injury to another person, sexual assaults and assaultive acts that involved the use of weapon or threats made with a weapon in hand". The

assessment of violent behaviour in psychiatric patients demanded that indoor patients with major psychiatric disorders be selected for the study to compare them with violent criminals. The most stigmatised illnesses associated with violence, for which indoor treatment is usually necessary includes schizophrenia, mood disorders, substance abuse and personality disorders. In order to compare patients with these conditions with other groups a systematic random sample was drawn from each of the four groups of subjects keeping the following inclusion and exclusion criteria.

Inclusion Criteria

The psychiatric inpatient sample consisted of those admitted consecutively over a period of one month at the acute psychiatric in-patient facilities at Sir Ganga Ram Hospital, Services Hospital, Combined Military Hospital and Social Security Hospital at Lahore. These were patients with an ICD-10 based diagnosis of schizophrenia, mood disorder, personality disorder and substance abuse made by senior consultants of each hospital. These hospitals are located in different parts of the city and cater to a diverse population. The non-psychiatric patients sample consisted of those who were admitted to the medical and surgical units of these hospitals during the same period. The healthy population was drawn from the health professionals of the hospitals including doctors and nursing staff. The sample of criminal population, drawn from Central jail at Kot Lakhpat Lahore, consisted of convicted criminals between the ages of 18 and 60 of both genders and serving a sentence for a violent crime under PPC 302 and 304. All subjects were between ages of 18 and 60 and both genders were included.

Prior to the interview each subject was explained about the research, the duration of the interview and confidentiality of information. Only those subjects were included who gave a written consent. A total of 120 subjects were included in the survey with 30 subjects representing each sample population.

Exclusion Criteria

Psychiatric morbidity was excluded from the latter three populations samples by omitting cases with a past psychiatric history and screening them with General Health Questionnaire (GHQ-12) cut-off being >=3. Subjects who were confused or had signs of organic brain disease were also excluded. Out of the 152 subjects approached, 18 (11.8%) refused to consent and 14 (9.2%) subjects dropped out before completion of data.

Data Collection Procedure

Recent studies about risk assessment of violence have described several variables and we decided to include many of these in our study and they were broadly divided into:

Personal e.g. Age, gender, marital status etc.

Historical e.g. history of violent behaviour, arrests, sexual abuse etc.

Contextual e.g. type of residence, living alone, homelessness etc.

Clinical variables pertinent to psychiatric patients sample and included diagnosis, treatment status etc.

Present State Examination was employed to confirm the chart diagnosis. Psychopathy, anger and impulsiveness are traits known to have a close association with Violence and were measured by the best available instruments. Psychopathy was rated by using the Hare Psychopathy Checklist Screening version (PCL:SV). Novaco Anger Inventory was employed to measure anger and Barrratt impulsiveness scale was used to rate impulsiveness in all the subjects. A two day workshop was conducted to train eight

mental health professionals in the administration of these instruments (GHQ-12, PSE, PCL:SV, Novaco Anger Inventory, Barratt Impulsiveness Scale) through which an inter-rate reliability of 0.8 was achieved before the process of data collection began. The Urdu translations of GHQ-12 and Present State Examination (PSE) were available and have been validated in Pakistan [9, 10]. The items of the PCL:SV, Novaco Anger Inventory and Barratt Impulsiveness scale were translated in Urdu and the translation was jointly agreed. A data sheet designed to illustrate the personal, historical, contextual and clinical variables in a user friendly format was used by the raters.

The sources of information for the data included the following:

Interview with the patient/subject

Interview with a relative (i.e. a person named by the patient as someone who would know what was going on in his/her life).

Hospital/jail records

The data obtained was analysed using the Statistical Package for Social Sciences (SPSS 13.0) for Windows. While comparing the four groups with each other, the nominal data was tested for significance by using the Chi-square test. The numerical data consisted of the scores of various psychometric variables and was analysed by using One-way Anova. The association between the variables was analysed by Chi-square in case of the nominal

Table-1: Frequency of violent behaviour (%) in four groups under study (n=65)

RESULTS Significant differences were noted between the samples with 66.6% (n=20) of psychiatric patients, 30% (n=9) non-psychiatric patients and 20% (n=6) of general population resorting to some violent act in the past (Table-1). 58.2% (n=60) of those between the age group of 18 and 45 and 70% (n=35) of single individuals had a history of violent behaviour (Table-2). 70% (n=32) with self-harm thoughts and 80% (n=20) of those with a history of deliberate self-harm also had a history of violence directed towards others (Table-3). Around 85% of those harbouring violent fantasies or a suspicious attitude towards others had also engaged in violence. A significant association was also noted between a history of drug abuse and violence

with 87% (n=20) of drug abusers having a history of violent behaviour (Table-4, Fig). Chi square test was used to calculate the statistical significance. The overall highest scores of psychopathy were seen in the criminal population with a mean greater than 12 ($p<0.001$) (Table-5). Similarly the scores on the Barratt impulsiveness scale were also the highest for the criminal sample (>72) ($p<0.001$). Psychiatric sample population on the other hand revealed high mean score on the anger scale (Table-6). However the differences in the scores on the anger scale were found to be statistically insignificant ($p=0.42$). The psychiatric sample with substance abuse and personality disorder had the highest mean scores (Table-7) on all of these scales and the rest of the psychiatric patients had significantly low scores. One-way Anova was utilized as a means for testing the statistical significance since more than two groups were being compared.

Table-3: Clinical variables

	H/O VIOLENCE % (n)	NO H/O VIO % (n)	TOTAL	P- Value
Head injury (with loss of consciousness)				
Yes	55.2 (16)	44.8 (13)	29	0.901
No	53.8 (49)	46.2 (42)	91	
Self harm thoughts				
Yes	69.6 (32)	30.4 (14)	46	0.008**
No	44.6 (33)	55.4 (41)	74	
Deliberate self harm				
Yes	80 (20)	20 (5)	25	
No	47.4(45)	52.6(50)	95	0.004**
Delusions				
Yes	66.7(10)	33.3 (5)	15	0.299
Suspicious attitude				
Yes	84.2(16)	15.8(3)	19	0.004**
Violent fantasies				
Yes	86.7(13)	13.3 (2)	15	0.007**
Hallucinations				
Yes	45.5(5)	54.5 (6)	11	0.543
Drug abuse				
Yes	87 (20)	13 (3)	23	0.000**

* P < 0.05 (Pearson Chi-Square) ** P < 0.01

Table-4: Comparison of Mean Scores of Psychometric Variables Overall

	Psychiatric	Non-psychiatric	General	Criminal	Total mean
PCL:SV mean	9.2	5.5	4.1	12.4	7.8
N	30	30	30	30	120
SD	5.0	4.9	2.6	4.9	5.5
Anger score	48.3	42.4	44.1	40.1	43.7
mean	30	30	30	30	120
N	20.7	21.6	22	15.2	20
SD					
Impulsiveness	70.1	64	61	72.8	67.2
score mean					
N	30	30	30	30	120
SD	10.3	9.7	10.6	10.8	11.1

Table-5: Mean scores of violent population

	Psychiatric	Non-psychiatric	General	Criminal	Total mean
PCL:SV mean	10.4	9.2	4.8	12.4	10.6
N	20	9	6	30	65
SD	5.5	6	2.5	4.9	5.5
Anger score mean	49.5	43.3	32	40.1	42.7
N	20	9	6	30	65
SD	23.4	19.9	21	15.2	19.5
Impulsiveness score mean	69.3	70.7	60.8	72.8	70.3
N	20	9	6	30	65
SD	9.1	6.7	3.4	10.8	9.7

Table-6: Personality Disorder & Substance Abuse

	Psychiatric
PCL:SV mean	14.1
N	8
SD	5.2
Anger score mean	55.5
N	8
SD	18.1
Impulsiveness score mean	70.8
N	8
SD	8.4

Table-7: Psychiatric Disorders Excluding Personality Disorder & Substance Abuse

	Psychiatric
PCL:SV mean	7.5
N	22
SD	3.6
Anger score mean	45.7
N	22
SD	21.4
Impulsiveness score mean	69.8
N	22
SD	11

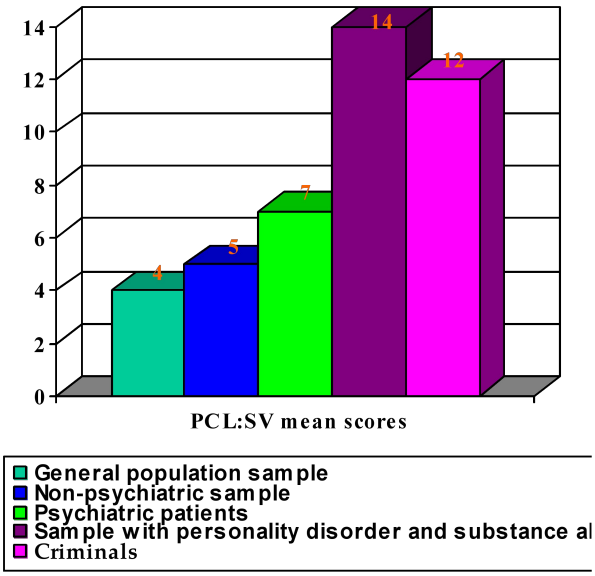

Figure: Mean psychopathy scores for psychiatric population decrease considerably when those diagnosed with personality disorder and substance abuse are excluded from the sample of psychiatric patients.

DISCUSSION

The link between violence and mental illness has been the subject of many studies but no such study had been conducted in our country.

Violence can be broadly divided into three categories-self-inflicted, inter-personal and collective. The stigmatising force however remains the interpersonal category of violence, which needs to be studied in our population of psychiatric patients. In the absence of any comprehensive theory of violence by people with mental disorder from which could be derived hypothesized risk factors, recent studies have suggested that a number of variables might be potent risk factors for violence by people with mental disorders. These variables were measured either by using standard instruments or were based on patient self-reports and collateral informants or hospital/jail records. By using a comprehensive list of all the possible risk factors of violence and comparing them in different groups of populations, there has emerged a clearer picture between the association of mental illness and violence in our set-up. In a country where psychiatric patients are treated at par with criminals [9] a survey is needed to compare the two groups to bring to light the actual position of a

psychiatric patient in the spectrum between normality and criminality. In this study significant differences were noted between the four populations for a history of a violent act. 66.6% (20) of psychiatric patients, 30% (9) non-psychiatric patients and 20% (6) of general population had resorted to some violent act in the past (Table.1). The history of a violent act was based on either the subject's self-report or from information derived from informants or from hospital/jail records. These included acts leading to injury to others and assaults or threats made with a weapon in hand. The figures obtained were comparable to those seen in ECA study [8] in which 54.5% of those with a diagnosis were involved in violent behaviour compared to 15.5% of those with no diagnosis. The high prevalence figures for violence in the psychiatric inpatients can be explained by the fact that violent act is a major criteria for psychiatric hospitalization [11]. Studies of psychiatric inpatients are therefore precisely for these reasons very problematic. However it should also be kept in mind that the major mental illnesses seen in our psychiatric sample are rare conditions and account for only a small percentage of psychiatric morbidity.

A large majority (80%) of those from psychiatric, non-psychiatric and general population who had a history of substance abuse were also violent in the past. This correlates well with the Canadian study of 1996 by Arboleda Florez [10, 12] and the Mac Arthur study (2001) on violence risk assessment [7]. These studies had concluded that substance abuse appeared to be a significant risk factor for violence and criminality among community, hospitalised, and offender populations and had gone on to predict that it was unlikely that a member of the public was at risk of violence from someone with a non-substance abuse disorder. In our study a significant association was noted between a history of drug abuse and violence with 87% (20) of drug abusers having a history of violent behaviour ($p<0.001$).

Significant differences were noted in prevalence of violence amongst the different age groups with a preponderance seen in 18-45 age group in our study ($p=0.037$). However gender was not found to be an association in this study, which contradicted previous studies [7]. This could be explained in part by the sample being over-represented for males (7:3). This over-representation can be understood as arising from the hospital-based nature of the study and is a handicap seen in most such studies.

Another interesting finding of statistical significance was that 70% (35) of single (unmarried) individuals had a history of violent behaviour ($p=0.013$), an association not seen in the Mac Arthur study.

Seventy percent (32) with self-harm thoughts ($p=0.008$) and 80%(20) of those with a history of deliberate self-harm ($p=0.004$) also had a history of violent act directed towards others. This statistically significant association was not seen in the review of literature and needs to be looked in greater detail by subsequent studies using larger samples.

Around 85% of those harbouring violent fantasies ($p=0.007$) and a suspicious attitude towards others ($p=0.004$) had also engaged in violence.

Psychopathy, as measured by a screening version of the Hare Psychopathy Checklist [13], was strongly associated with violence. The "antisocial behaviour" component of psychopathy, rather than the "emotional detachment" component, accounted for most of this relationship. This correlated well with

earlier studies, which had detected a similar relationships [7, 14].

A comparison of the scores of psychopathy and impulsiveness yielded interesting results. The average score on psychopathy for the psychiatric population was 9.2 (SD=5) as compared to 12.4 (SD=4.9) in the criminal group. However the mean score for the psychiatric group came down to 7.5 (3.6) when those diagnosed with personality disorder and substance abuse were excluded (Table.7, Figure). The mean psychopathy score of subjects diagnosed with personality disorder and substance abuse was 14.1 (SD=5.2) (Table.6, Figure). The mean psychopathy scores for the non-psychiatric group was 5.5 (SD=4.9) and the general group was 4.1 (SD=2.6). Both psychiatric and non-psychiatric group who had indulged in violence showed high mean scores for impulsiveness (70) (Table.5) as compared to the general population (60.8). But both psychopathy and impulsiveness was, as expected, highest in the criminal population. The average anger scores were highest in the psychiatric population but the result was not statistically significant. The limitations of the study are that a causal inference cannot be made on the basis of these findings. Also being a hospital based study, the samples were not truly representative of the population.

The effect of these correlates of violence may be considered as additive, so that an individual with high scores on psychopathy and a history of substance abuse, who then develops a psychotic disorder, may present a significantly increased risk of violence. While deriving the profile of a psychiatric patient likely to show violence, one can see from this study the following common denominators all of which with the exception of item 6 may be present in any violent individual in the society without a psychiatric diagnosis:

- Male between the ages of 18 and 30.
- Single marital status.
- Positive history of deliberate self-harm or self-harm thoughts.
- Positive history of violent fantasies or suspicious attitude towards others.
- A positive history of substance abuse.
- Diagnosis of antisocial personality disorder and schizophrenia.
- Measured on have psychopathy checklist (Screening version) and Banatt impulsiveness scale

CONCLUSION

Patients with major psychiatric disorders as a group are not as violent as criminals. They may therefore not be treated in jails, locked wards and asylums. Most patients with psychiatric disorders are like other non-psychiatric patients and can be managed in routine wards. It is not the mental illness but psychopathy and impulsiveness that are the two common denominators in violent individuals. A variety of demographic, contextual and personality factors might also interact complexly to cause violence. Psychiatric patients do not run the same risk of being violent as criminal offenders and therefore need to be saved from the stigma that they suffer of being considered as violent.

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