Original Article

Patterns of psychiatric disorders in persons attending the Forensic Psychiatry Department of a tertiary care psychiatric hospital

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Background: A significant number of patients are referred in Forensic Psychiatry Department for civil and criminal law related reasons. Knowing their reasons for referral can help in improving service delivery.

Objectives: To estimate the proportion of different psychiatric disorders along with reasons for referrals in persons attending the Forensic Psychiatry Department of National Institute of Mental Health, Dhaka.

Methods: A cross-sectional study was conducted in National Institute of Mental Health, Dhaka in between July 2017 and December 2018. By convenient sampling technique 127 participants aged 18 and more were enrolled in the study. Sociodemographic data and reasons for referrals were collected and psychiatric disorders were diagnosed according to International Classification of Diseases (ICD) 10th edition.

Results: Of the total 127 participants, 80 (63%) were civilians seeking forensic psychiatry services; common reasons were psychiatric assessment followed by getting certificate (20.5%), getting fitness certificate (15.7%), eligibility for getting pension (11.8%) and treatment for psychiatric disorders (11%). Of the 47 (37%) participants who had criminal charges against them were referred for getting court report (20.5%), psychiatric treatment (11%), fitness to plead (3.1%) for both court report and treatment (2.4%). In the study population, schizophrenia was the most common diagnosis (34.6%), followed by bipolar affective disorders (18.1%) and mental retardation (15%). About 5.5% of the referred participants had no psychiatric disorders.

Conclusions: Nine out of ten patients referred to Forensic Psychiatry Department received a psychiatric diagnosis.

Declaration of interest: None

Introduction

Forensic psychiatry deals with both criminal and civil laws. Forensic patients can be defined as patients subjected to a criminal law trial procedure or cases for whom a court decision has been taken at the time of treatment. The patients can appear in a psychiatric hospital during pre-trial or post-trial phases for examination to establish a court report, for treatment purpose, as substitution for remand prison or when referred for psychiatric treatment.[1] Around three-quarters of forensic patients are charged with or sentenced for violence against the person, burglary, criminal damage, robbery and sexual offences.[2] Although the link between criminality and mental disorders is complex, mentally disordered individuals are over-represented in prison. Mullick et al., examined a

consecutive series of 67 male prisoners and found 91% offenders had psychiatric disorders.[3] A review of 62 surveys from 12 countries on 23,000 prisoners found around 4% had psychotic illness, 10% major depression and 65% a personality disorder.[4]

Forensic psychiatrists are also asked to submit written reports on a patient's mental state in relation to civil law. Testamentary capacity, power of attorney and receivership, some aspects of family laws, torts and contracts regulation, fitness to drive are some of the reasons for which mental state examination might be required. One of the most difficult clinical-ethical decisions encountered by forensic psychiatrists is how to balance the duty of care to their patients with the need to serve the society. To strike this balance and ensure good-quality service, information on current pattern of psychiatric disorders in forensic patients is necessary. Keeping this in mind, this study was carried out to find out the distribution of different psychiatric disorders in forensic patients.

Methods

A cross-sectional study was conducted at the indoor and outdoor units of Department of Forensic Psychiatry in National Institute of Mental Health, Dhaka in between July 2017 and December 2018. Beforehand, ethical clearance was taken from the respected authority and informed written consent or guardian's permission was taken for each participant. Patients referred to Forensic Psychiatry Department, aged 18 and more were enrolled by convenient sampling. Non-communicable patients due to severe illness were excluded from the study. A semi-structured questionnaire was used to collect sociodemographic data along with criminal records and current offence. Psychiatric disorders were diagnosed according to International Classification of Diseases (ICD) 10th edition. Statistical analysis of the results was done by using computer based statistical software, SPSS-IBM version 22.

Results

A total of 127 patients referred to the Forensic Psychiatry Department were enrolled for this study. Among them 47 (37%) were charged with criminal offenses and 80 (63%) were referred for other reasons like getting fitness certificate, obtaining power of attorney, pension related issues, etc. Mean age was 33.2±11.6 years with a range between 18 and 80 years. The sample was predominantly male (89%). Table 1 presents the sociodemographic characteristics of patients.

Table 1: Distribution of forensic patients according to sociodemographic variables (N=127)

| Variable	Frequency (n)	Percentage (%)
Age (years)		
18-24	30	23.6
25-34	40	31.5
35-44	41	32.3
45-54	10	7.9
>55	6	4.8
Gender		
Female	14	11
Male	113	89
Education		
Below SSC	67	52.8
SSC	42	33.1
HSC	10	7.9
Graduation	4	3.1
Post-graduation	4	3.1
Religion		
Islam	118	92.9
Hindu	9	7.1
Marital status		
Married	67	52.8
Unmarried	60	47.2
Occupation		
Unemployed	48	37.8
Business	12	9.4
Agriculture	10	7.9
Student	6	4.7
Service	46	36.2
House wife	4	3.1
Others	1	0.8
Types of family		
Nuclear	78	61.4
Joint	49	38.6
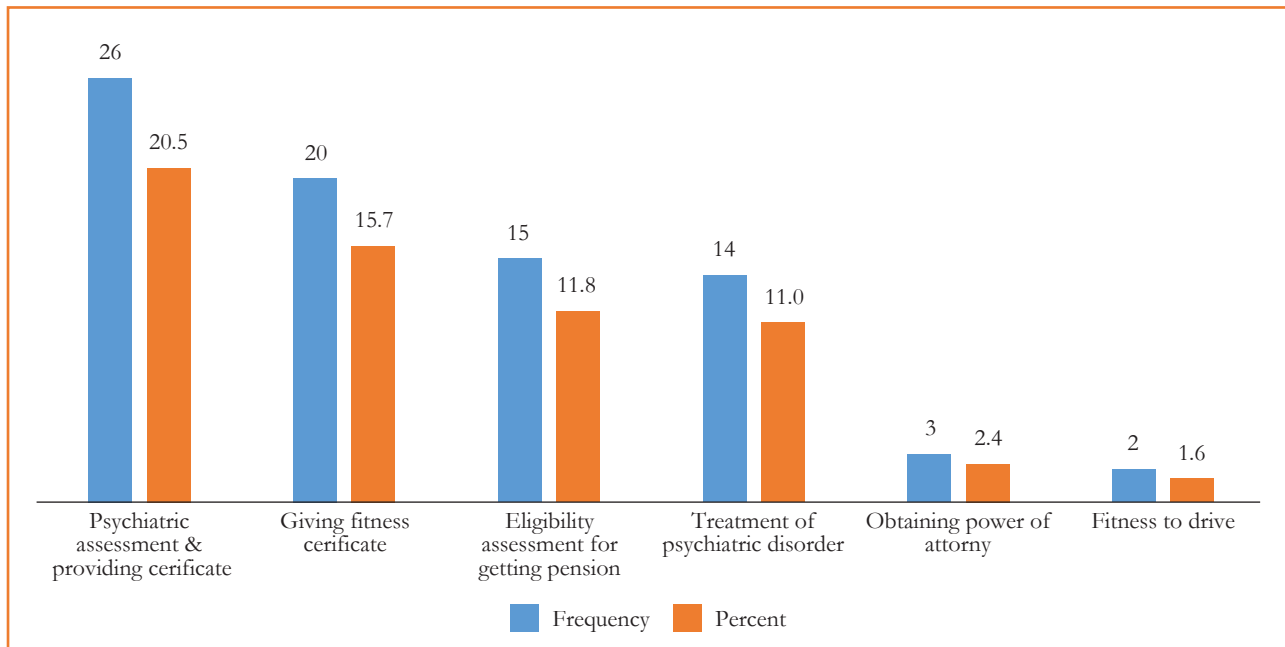
Figure 1: Frequency distribution of the respondents without criminal charge according to reasons for referrals (n=80)
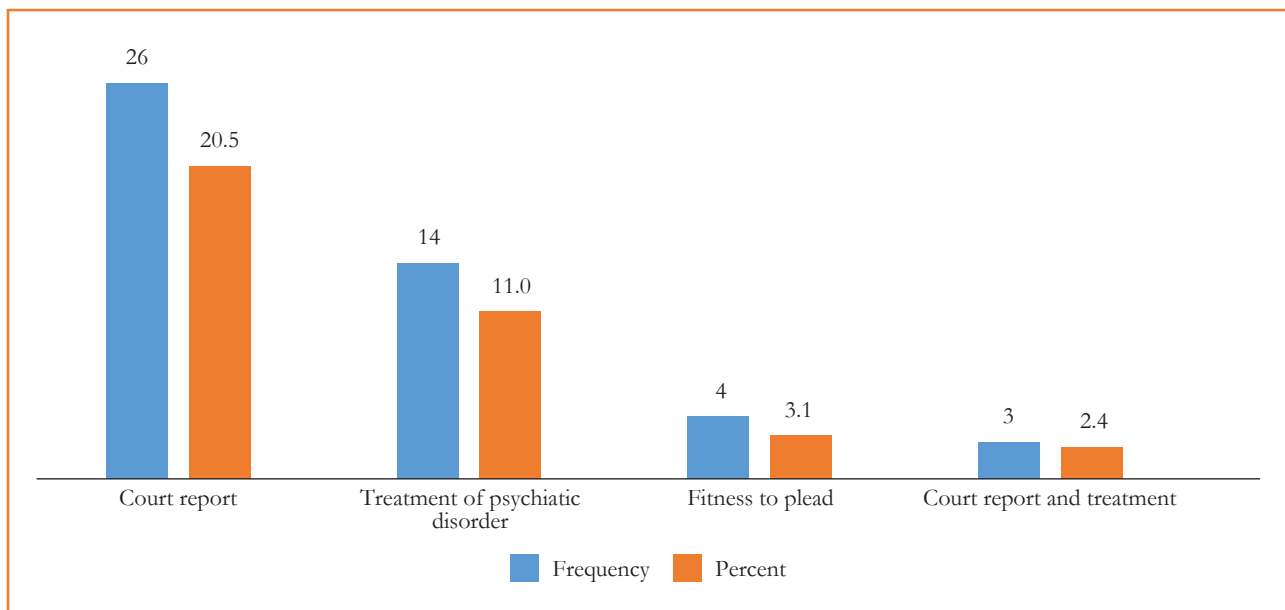

Figure 2: Frequency distribution of the respondents with criminal charge according to reasons for referrals (n=47)

Among the study respondents without criminal charges, common reasons for referrals were psychiatric assessment followed by getting certificate (20.5%), getting fitness certificate (15.7%), eligibility for getting pension (11.8%) and treatment for psychiatric disorders (11%) (Figure 1).

Among the study respondents with criminal charges, about 20.5% respondents were referred for court report, 11% for psychiatric treatment, 3.1% for fitness to plead and 2.4% for court report and treatment (Figure 2).

Table 2: Distribution of patients according to major category of ICD-10 4 digit-code (n=797)

ICD Code	Psychiatric Diagnosis	Frequency (n)	Percentage (%)
F20	Schizophrenia	44	34.6
F31	Bipolar affective disorder	23	18.1
F72	Mental retardation	19	15
F29	Unspecified nonorganic psychosis	11	8.7
F32	Depressive episode	7	5.5
F19	Mental and behavioral disorder due to multiple drug use	4	3.1
F00	Dementia in Alzeimer's type	2	1.6
F23	Acute and transient psychotic disorders	2	1.6
F06	Other mental disorder due to brain damage	1	0.8
F09	Unspecified organic mental disorder	1	0.8
F22	Delusional disorder	1	0.8
F25	Schizoaffective disorder	1	0.8
F03	Unspecified dementia due to brain injury	1	0.8
F42	Obsessive compulsive disorder	1	0.8
F60	Emotionally unstable personality disorder	1	0.8
F91	Conduct disorder	1	0.8
	Total	**120**	**100**

Schizophrenia was the most common diagnosis (34.6%), followed by bipolar affective disorders (18.1%) and mental retardation (15%). About 5.5% of the referred participants had no psychiatric disorders. Table 2 shows the distribution of participants according to their diagnoses.

Discussion

We observed that in our sample, majority were in early adulthood to early middle age, males, educational level below SSC and married-unmarried ratio was near one to one. Previously, Mullick et al. (1998) studied 67 male prisoners at BSMMU, Dhaka, age ranging from 22 to 55 years with the mean age of 34.2 years, majority of the respondents were in the group of 30-39 years, 94% were males and 61% were married.[3] A study on 250 female prisoners conducted in Bangladesh revealed the point prevalence of mental disorder was about 66%.[5] In that study, majority (47%) of the female prisoners were in the range of 20-29 years, about 45% were divorced, 47% were illiterate Another study conducted on 48 forensic psychiatry patients at the same institute revealed the age ranged from 15 to 65 years with the mean age 33.9 years;

42 respondents were males and rest were females.[6] Crime is predominantly an male activity and antisocial traits can be seen in youths long before they commit crime; hence our study sample is predominantly male with younger adults.[7] The reasons behind male and young age predominance are described as complex interaction between biological factors with family, psychological and social factors.[7] Also we assumed, as economic activities is mainly concentrated among males in low-and-middle income countries – they are more likely to referred for fitness certificates for variety of reasons.

Among the participants, we observed schizophrenia, bipolar affective disorders, mental retardations, unspecified psychosis and major depressive disorder were the prevalent conditions. Mullick et al. (1998) observed in 67 male prisoners, schizophrenia (45%), bipolar disorder (18%), depressive disorder (9%), substance related disorder (11%), anxiety disorder (5%), adjustment disorder (5%) were the most frequent diagnoses. In 2005, a similar type study was conducted in same institute where schizophrenia (37%), substance related disorder (15%), bipolar disorders (8%), major depression (2%), obsessive

compulsive disorder (2%), brief psychotic disorder (2%), psychosis NOS (8%), dementia (2%), intellectual disability (4%), acute stress disorder (2%) were the frequent diagnoses.[6] A review article reported presence of high levels of psychiatric disorders in forensic patients with criminal charges against them where high prevalence of personality disorders (50-90%), mood disorders (20-60%) and psychotic disorders (15-20%) coupled with substance abuse disorders are observed.[10]

Schizophrenia patients are 4 to 6 times more likely to be involved in violent crime; however, Fazel et al. (2009) reported the likelihood increased only when there is comorbid substance abuse involved.[8] Similarly, patients with bipolar affective disorders are significantly more likely than community members to be charged with, convicted of, and be found guilty of, violent, non-violent and intermediate level criminal offences.[9] In Bangladesh as individuals with mental retardations receive disability allowance and certain other benefits, a good number of participants were referred for getting disability certificates. Limitations of the study include cross-sectional study design, which limits the strength of causal relationship. Also, sample was enrolled from a single center, so generalizability might be an issue.

Conclusions

Findings revealed nine out of ten patients referred in Forensic Psychiatry Department received a psychiatric diagnosis. Forensic Psychiatry is still in its infancy in Bangladesh – our findings emphasized the need for legal, organizational and clinical reorganization of forensic psychiatry services in Bangladesh.

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References

1. Sestoft DM, Gottlieb P. Retslige patienters status i sundhedsvaesenet [Status of forensic patients in the health system]. Ugeskr Laeger. 1994; 156(29): 4224-4228.

2. Rutherford M, Duggan S. Forensic mental health services: facts and figures on current provision. Sainsbury Centre for Mental Health; London: 2007.

3. Mullik MSI, Khanam M, Nahar JS. Psychiatric profile of the prisoner referred for psychiatric assessment. Bang J Psychiatry. 1998; 12(2): 69-75.

4. Fazel S, Danesh J. Serious mental disorder in 23000 prisoners: a systematic review of 62 surveys. Lancet. 2002; 359(9306): 545-550.

5. Hasan MK, Jahan NA, Khanam M, Begum AA. Study on prison population: Psychiatric morbidity among female prisoners. Bangladesh Journal of Psychiatry. 2004;18(2): 41-54.

6. Hamid MA, Hossain MD, Ahmed HU, Rahman MM, Karim ME. Types of psychiatric disorder among patients attended in forensic psychiatry department of National Institute of Mental Health, Dhaka. Bangladesh Journal of Psychiatry. 2005; 19(2): 51-57.

7. Mundia L, Matzin R, Mahalle S, Hamid MH, Osman RS. Contributions of sociodemographic factors to criminal behavior. Psychol Res Behav Manag. 2016; 9: 147-156.

8. Fazel S, Långström N, Hjern A, Grann M, Lichtenstein P. Schizophrenia, substance abuse, and violent crime. JAMA. 2009; 301(19): 2016-2023.

9. Daff E, Thomas SD. Bipolar disorder and criminal offending: a data linkage study. Soc Psychiatry Psychiatr Epidemiol. 2014; 49(12): 1985-1991.

10. Palijan TZ, Muzinić L, Radeljak S. Psychiatric comorbidity in forensic psychiatry. Psychiatr Danub. 2009; 21(3): 429-436.