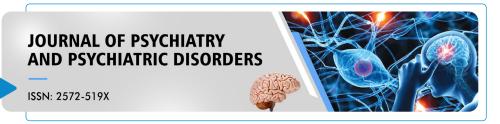**Research Article**

The Pattern of Admission, Discharge, and Outcome at a Private Psychiatry Hospital In Dhaka, Bangladesh: A Retrospective Study

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Abstract

Aim: Mental health service is a major public health concern in developing countries. The primary objective of the study is to determine the admission, discharge, and outcome patterns at a private psychiatry hospital in Dhaka, Bangladesh.

Materials and Methods: The relevant data of the patients coming to the clinic during the study period were recorded in registry books. This is a retrospective study of all new patients attending a private psychiatry clinic in Dhaka, Bangladesh, from July 2022 to June 2023.

Results: Patients who are men have more education than patients who are women. Three out of five of the students in the groups are men. Eighty-six percent of the male patients who had a business career did so. Male patients are less likely to be married than female patients. Men and women are both affected by lower socioeconomic situations in the same way. Most of the patients, both men and women, come from unitary families. It is mostly men who live in rural regions (67.2%) and urban areas (57.9%). Men voluntarily go to hospitals more often than women, and men also willingly leave hospitals more often than women. Men are more likely than women to have diabetes, high blood pressure, and togetherness. Patients who were men had more remissions, response, and recovered than patients who were women.

Conclusions: Approximately 61% of patients experienced psychiatric illness in the 20-39 age range and most (60%) of them are male patients. Schizophrenia and Bipolar Mood Disorder (Total 61.6%) get more hospital admissions than other psychiatric disorders. Maximum patients get voluntary admission (49%) and voluntary discharge (72%). Regarding outcome, 80% of patients get their disorder in full and partial remission after intervention. So, we can conclude that psychiatric patients get better management at private psychiatric hospital despite the shortage of mental health services in Bangladesh.

Keywords: Admission; Discharge; Outcome; Private Psychiatry Hospital

Introduction

Concerns surrounding an individual's mental health are a primary focal point of attention in the public health systems of both developed nations and developing nations [1]. Regardless of whether a country is considered to be industrialized or developing, the prevalence of mental illness is the primary factor in determining death rates [2, 3]. It does not matter when in a person's life they are diagnosed with a mental illness; people are always at risk. Community-based, multicentric, and service-oriented research on mental

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disease in Bangladesh, with the primary focus being on the prevalence, medical care, awareness, and attitude toward mental illness in the public. Concerns with an individual's feelings, thinking, cognition, IQ, personality, substance abuse, and the capacity to adjust socially are some examples of the severe health concerns that they are referring to. This syndrome spans a wide range of symptoms, from very basic anxiety disorders and depressive disorders to untreatable schizophrenia and even death [4-7]. Anxiety disorders and depressive disorders are on the more basic end of the spectrum. In developing nations with a significant shortage of mental health professionals, the delivery of mental health services through general healthcare is considered the most realistic alternative for improving access of underserved communities to mental healthcare [8]. This is because increasing access to mental healthcare can have a significant impact on the quality of life of these populations. This is because specialist training or certification is not required to provide mental health services as part of general healthcare. This viewpoint is strengthened by the fact that this tactic has received the most attention in recent years, and the fact that it has received this attention lends credibility to this perspective. Over 83 million people in the United States have been diagnosed with a psychiatric disease, with depression being the condition that is the most frequent altogether, according to a study that was carried out in 2014 by the World Health Organization (WHO). Depression is the form of mental illness that is most common overall. To put it another way, depression affects one person in every five people in the world. According to findings from a study conducted by the European Region of the WHO [9], one in every 15 people suffer from clinical depression. This constitutes a startlingly large and significant percentage of the overall population that is affected by this ailment. This is a figure that ought to serve as a significant wake-up call for all of us. In Bangladesh, psychiatric morbidity is a problem that may have its roots in the country's widespread poverty, unpredictable sociopolitical climate, and susceptibility to natural disasters. These factors may have contributed to the development of the problem. Each of these elements may have a part in making the problem worse. When compared to those seen in public hospitals, the patterns of psychiatric morbidity that are observed in private clinics are substantially more variable in terms of their presentation. The struggles that are associated with mental health and mental illness are currently some of the most significant difficulties that are faced in the arena of public health. In every part of the world, a sizeable section of the population struggles with some form of mental illness, and this percentage is only expected to increase. According to figures that were published by the World Health Organization (WHO), there are at least 40 million people all over the world who suffer from mental disorders such as dementia and schizophrenia [10, 11]. The prevalence of mental illness is nearly comparable in Bangladesh, a country with a large population, to the prevalence of mental illness

in any other nation on the entire planet. This is true for the overwhelming majority of the world's nations. According to the findings of one piece of research, 29% of patients who were checked in general practice had a functional problem, and 6% of patients had both a functional problem and an organic sickness in their symptoms. In the same body of research, the researchers found that 47 percent of patients suffered from a neurotic illness, 37 percent had a psychosomatic issue, 10 percent had an affective disorder, 1.44 percent suffered from schizophrenia, 2.88 percent had a substance use problem, and 2 percent suffered from an organic psychiatric condition [12]. This study aims to determine the admission, discharge, and outcome pattern at a private psychiatry hospital in Dhaka, Bangladesh.

Materials and Methods

The first author served at a private psychiatric clinic, and during the research project, all of the relevant information concerning the patients who visited the clinic was recorded in a registry book. This is a retrospective study in which case data were collected from every new patient who visited the private psychiatry clinic in Dhaka City, Bangladesh, between July 2022 and June 2023. The study was conducted between 2022 and 2023.

Analysis of the Data

The study for the examination of the data took place over a single calendar year, beginning in July 2022 and ending in June 2023. The technique of calculating the percentages for descriptive statistics was accomplished through the use of the SPSS application. The information was tabulated according to the categorical variables in terms of the variable that represented gender. The studies were conducted with a level of confidence equal to or greater than 95% and a threshold of p equal to or less than 0.05.

Results

Table 1 presents age distribution across various categories, ranging from a minimum age of 10 to a maximum age of 72. The aggregate age is partitioned into six distinct categories, each consisting of ten intervals. In contrast, individuals between the ages of 20 and 29 constitute the largest proportion of patients seeking psychiatric care, accounting for approximately 32.17% of the total. This percentage steadily declines as age increases, with the age group of 30-39 comprising 29.46% of patients. Notably, the lowest proportion of patients seeking psychiatric treatment is observed among individuals aged 60 and above, representing only 3.49% of the overall patient population. Among the sample of 258 patients seeking psychiatric care, it was observed that 155 individuals identified as male, accounting for 60.08% of the overall patient population. Conversely, 103 patients identified as female, constituting 39.09%

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Table 1: Distribution of sociodemographic characteristics (n=258)

Variable		Frequency (%)
Age	10-19	28 (10.85)
	20-29	83(32.17)
	30-39	76(29.46)
	40-49	39(15.12)
	50-59	23(8.91)
	60 and above	9(3.49)
Sex	Male	155(60.08)
	Female	103(39.92)
Education	Illiterate	16(6.20)
	Class 1-12	134(51.94)
	Graduate	81(31.40)
	Post-Graduate	27(10.47)
Occupation	Unemployed	27(10.47)
	Housewife	43(16.67)
	Service	70(27.13)
	Business	23(8.91)
	Student	69(26.74)
	Others	21(8.14)
	Retired	5(1.94)
Marital status	Married	178(68.99)
	Unmarried	76(29.46)
	Divorced	2(0.78)
	Widow	2(0.78)
Economic Condition	Lower	76(29.46)
	Middle	123(47.67)
	Higher	59(22.87)
Family Status	Unitary	192(74.42)
	Combined	66(25.58)
Habitat	Urban	199(77.13)
	Rural	59(22.87)
Religion	Islam	241(93.41)
	Hindu	17(6.59)

of the sample. In the realm of education, it is seen that 16 individuals among the collective group of patients receiving psychiatric care exhibit illiteracy, constituting a proportion of 6.20%. Approximately 50% of the patients had educational qualifications falling within the range of grades 1 to 12. The remaining individuals within the patient population consist of individuals who have completed their undergraduate degrees (31.40%) and those who have pursued further education at the postgraduate level (10.47%). Approximately 27% of the patient population consists of students and individuals employed in various service sectors. Moreover, a significant proportion of patients encompass individuals who are engaged in domestic duties, self-employed, or employed in various professional fields. There exists a portion of the population who are now without employment or have ceased working due to retirement. Approximately 68.99% of the patient population is classified as married, while 29.46% are categorized as unmarried. Approximately 47.67% of the

patient population is comprised of individuals from middle-class households, while 29.46% and 22.87% of patients originate from lower-class and higher-class backgrounds, respectively. Approximately 75% of individuals originate from a nuclear family structure, while the remaining portion stems from an extended family arrangement. Within the latter group, Muslims constitute 93.41% of the population, with the remaining individuals identifying as non-Muslim. Out of the total sample size of 258 patients, 199 individuals reside in metropolitan areas, while the remaining 59 patients come from rural regions.

Table 2 presents a comprehensive overview of socio-demographic factors about gender, specifically distinguishing between males and females. The data indicates that a higher proportion of males are observed below the age of 50, while a lower proportion of males are observed above the age of 50, in comparison to their female counterparts. There is a disparity in educational attainment between male and female patients, with male patients often exhibiting higher levels of education. Within the student groups, a majority of three-fifths consists of male individuals. Within the realm of business occupations, it is observed that a significant majority of male patients, specifically 82.61%, are engaged in business-related pursuits. This study comprises a greater proportion of male married patients. The proportion of unmarried male participants is higher in comparison to the female patients. Both boys and females experience similar levels of socio-economic disadvantage. The majority of male and female patients are sprung from nuclear households. The individual in question is of the male gender. The proportion of male patients in rural areas is 67.80%, whereas in urban areas it is 57.79%. It is noteworthy that there exists a higher rate of voluntary hospital admissions among guys, and similarly, males exhibit a greater tendency for voluntary discharge when compared to females. In the patient population, it is observed that males have a higher prevalence of diabetes, hypertension, and comorbidity compared to females. Male patients obtained more remission, and recurrence compared to their counterparts.

Table 3 depicts the types of psychiatric disorders among the respondents. A total of 258 clinically diagnosed patients were enrolled in the study. The majority of the patients are diagnosed as Schizophrenia, constituting 36.4% of the study population; followed by Bipolar Mood Disorder, 25.2%. Among the 258 patients, 29 (11.2%) patients are Conversion Disorder, 26 (10.1%) Brief Psychotic Disorder, 12 (4.7%) Schizophreniform Disorder, 10 (3.9%) Delusional Disorder, 8 (3.1%) Major Depressive Disorder. However, 6 (25%) patients have Obsessive-Compulsive Disorder. Only 6 (2.3%) patients are labeled as Dementia.

Table 4 describes the Types of admissions, discharge, outcomes, and comorbidity of the patients. Around 49% of patients exhibit voluntary admission, while around 72.09%

Table 2: Distribution of sociodemographic characteristics with respect to Sex (n= 258)

Variables		Sex		P value
		Male (%)	Female (%)	
Age	Oct-19	64.29	35.71	0.2562
	20-29	63.86	36.14	
	30-39	65.79	34.21	
	40-49	51.28	48.72	
	50-59	43.48	56.52 55.56	
	60 and above	44.44		
Education	Illiterate	50	50	0.1772
	Class 1 -12	56.72	43.28	
	Graduate	61.73	38.27	
	Post-Graduate	77.78	22.22	
Occupation	Unemployed	77.78	22.22	0
	Housewife	0	100	
	Service	68.57	31.43	
	Business	82.61	17.39	
	Student	69.57	30.43	
	Others	76.19	23.81	
	Retired	60	40	
Marital status	Married	55.62	44.38	0.0249
	Unmarried	72.37	27.63	
	Divorced	50	50	
	Widow	0	100	
Economic condition	Lower	50	50	0.0266
	Middle	60.16	39.84	
	Higher	72.88	27.12	
Family types	Unitary	59.9	40.1	0.919
	Combined	60.61	39.39	
Habitat	Urban	57.79	42.21	0.168
	Rural	67.8	32.2	
Religion	Islam	59.75	40.25	0.6868
	Hindu	64.71	35.29	
Types of admission	Voluntary	54.33	45.67	0.0383
	Involuntary	72.16	27.84	
	Emergency	47.83	52.17	
	Reception Order	50	50	
	Others	42.86	50	

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Types of discharge	Voluntary	61.83	38.17	0.6506
	On Request	55.38	44.62	
	Others	57.14	42.86	
Medical comorbidity	DM	61.54	38.46	0.0718
	HTN	56.41	43.59	
	IHD	20	80	
	DM & HTN together	51.72	48.28	
	Others	44	56	
	None	67.77	32.23	
Outcome	Full Remission	58.97	41.03	0.9419
	Partial Remission	59.62	40.38	
	Recurrence	50	50	
	Response	64.71	35.29	
	Recovered	66.67	33.33	
Follow up	Yes	61.72	38.28	0.2652
	No	53.06	46.94	

Table 3: Diagnosis of the patients (n=258)

SL. No.	Psychiatric Disorders	Frequency (%)
1	Schizophrenia	94 (36.4)
2	Bipolar Mood Disorder	65(25.2)
3	Conversion Disorder	29(11.2)
4	Brief Psychotic Disorder	26(10.1)
5	Schizophreniform Disorder	12(4.7)
6	Delusional Disorder	10(3.9)
7	Major Depressive Disorder	8(3.1)
8	Obsessive-Compulsive Disorder	6(2.3)
9	Substance Use Disorder	6(2.3)
10	Dementia	2(0.8)

of patients experience voluntary discharge. Approximately 37.60% of patients are admitted to healthcare facilities against their will, whereas approximately 25.19% of individuals are discharged from these facilities by their own desire. Out of the total sample size of 258 individuals, it was observed that 121 participants did not exhibit any comorbidities apart from psychiatric conditions. There are a total of 39 patients who have been diagnosed with both diabetes mellitus (DM) and hypertension (HTN) separately. Following the administration of medication, a significant proportion of patients, specifically 60.47%, have achieved complete remission, while an additional 20.16% have experienced partial remission. The follow-up rate for patients is 81%. The remaining individuals did not participate in the subsequent activities.

Discussion

This research provides significant contributions to the understanding of the mental health situation of the private sector in Dhaka, Bangladesh. The comprehension of admission patterns and characteristics plays a pivotal role in enhancing the delivery of mental healthcare and facilitating policy creation in Bangladesh. This study represents a noteworthy advancement in the field of mental health by addressing the mental health requirements of the populace and fostering holistic wellness. The study is expected to provide insights into the demographic characteristics of the patients, including variables such as age, gender, and socioeconomic status. This data can facilitate the identification of potential variations in psychiatric admissions among specific age groups or genders. An essential component of the research pertains to the principal psychiatric diagnoses. The aforementioned data has the potential to provide valuable insights into the prevalence rates of several mental health illnesses in Dhaka, hence facilitating the informed distribution of resources and the development of effective treatment strategies. It is imperative to comprehend comorbidities, as psychological diseases frequently manifest concurrently with other medical conditions. The research may elucidate prevalent comorbidities and their influence on the efficacy of therapeutic interventions. The study is anticipated to investigate the origins of patients before their arrival. The acquisition of this information is of utmost importance for comprehending the many routes individuals take to access psychiatric care, such as the prevalence of primary care physicians, specialists, or self-referrals. The examination of the duration of hospital admissions might yield valuable

Table 4: Types of admissions, discharge, outcome, and comorbidity of the patients (n=258)

Variable		Frequency (%)
Types of Admission	Voluntary	127(49.22)
	Involuntary	97(37.60)
	Emergency	23(8.91)
	Reception Order	4(1.55)
	Others	7(2.71)
Types of Discharge	Voluntary	186(72.09)
	On Request	65(25.19)
	Others	7(2.71)
Medical Comorbidity	DM	39(15.12)
	HTN	39(15.12)
	IHD	5(1.94)
	DM & HTN	29(11.24)
	Others	25(9.69)
	None	121(46.90)
Outcome	Full Remission	156(60.47)
	Partial Remission	52(20.16)
	Recurrence	4(1.55)
	Response	34(13.18)
	Recovered	12(4.65)
Follow Up	Yes	209(81.01)
	No	49(18.99)

insights into the severity of medical conditions and the efficacy of therapeutic interventions. This retrospective study is of considerable significance for multiple reasons: This study provides significant perspectives on the mental health situation in Dhaka, focusing on addressing the unique requirements of the Bangladeshi populace. The results of this study can provide valuable insights for healthcare practitioners in allocating resources effectively, enabling them to better anticipate and address the most prevalent psychiatric diseases and comorbidities. Enhancing collaboration between primary care and psychiatric services can be facilitated with a comprehensive understanding of referral sources. This study has the potential to assess the efficacy of existing treatments and pinpoint areas that could be enhanced. The findings of this study have the potential to provide valuable guidance for policymakers, healthcare institutions, and mental health practitioners in Dhaka, Bangladesh, across various domains. Hospitals possess the capacity to customize their services to cater to the distinct requirements of the surrounding community, thereby guaranteeing the provision of efficient and culturally attuned healthcare. The development of preventive measures and early intervention techniques can

be facilitated through the identification of prevalent illnesses. The findings from the study can be utilized by policymakers to develop policies that are specifically targeted at enhancing mental health services and increasing accessibility within the region. The study has the potential to provide valuable insights for guiding future research endeavors, particularly in locations characterized by a high prevalence of issues and unaddressed requirements.

Conclusion

The findings of this study indicate a significantly elevated occurrence of psychiatric diseases within the population of Bangladesh. The findings of the study indicated a higher prevalence of males relative to females. The correlation between persistent fatigue and frequent exposure to numerous stressors has been associated with a heightened susceptibility to psychosomatic ailments, including stress-related disorders and depression, among graduate students. The occurrence of these injuries can be ascribed to the exposure of graduate students to a multitude of stressors. The explication of these significant and innovative findings has the potential to contribute to the advancement of personalized methods of mental healthcare that are tailored to the needs of this specific demographic. Furthermore, these data can be utilized to build strategies and action plans aimed at cultivating an environment within the community or family that fosters well-being. The achievement of this objective can be attained through a deliberate emphasis on cultivating a conducive environment that fosters patient support. The objectives of these projects involve enhancing private mental health services besides other existing psychiatric services to decrease the huge burden of psychiatric disorders.

Competing interest: Authors have no conflict of interest

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