

Monthly pattern of psychiatric morbidity and duration of stay among the patients admitted in Mental Hospital, a central level tertiary care hospital

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ABSTRACT

Psychiatric morbidity is a major public health problem in the world across developed and developing countries. There is a paucity of Nepalese studies on psychiatric morbidity. All the patients who were admitted in mental hospital, Lagankhel from 17th July 2009 to 16th July 2010 were included in this study. Information on their Socio-demographic profiles and hospital diagnosis was extracted from their clinical notes. Eight hundred and fifty two patients were included in this study. Fifty eight percent were males. More than sixty percent of the patients were aged between 21 and 40 years. Sixty patients were married. In terms of ICD 10 diagnosis, the most common diagnoses were Schizophrenia in 427 (50.1%), mood disorders in 286 (33.5%) and substance use disorder in 80 (9.3%). In terms of length of stay, majority of them (56.4%) had stayed for 0-14 days. Thus, there is a need to increase the awareness in the general public regarding the impact of mental illness and the need for timely treatment.

Keywords: Mental Hospital, Psychiatric Morbidity, ICD-10.

INTRODUCTION

Most of us will experience a mental health problem at some time in our lives. Mental illness is a general term that refers to a group of illness in the same way that heart disease refers to a group of illnesses affecting the heart.

A mental illness is a health problem that significantly affects how a person feels, thinks, behaves and interacts with other people. It is diagnosed according to standard criteria. Mental illness causes a great deal of suffering to those experiencing them, as well as their families and friends. It has been estimated that as many as 500 million people may be suffering from some kind of mental disorders or impairment worldwide.¹ They are universal affecting people of all countries and societies, individuals of all ages, women and men, the rich and poor, from rural and urban environments. Around 20% of all patients seen by primary health care professionals have one or more mental disorders.² Most mental disorders have multiple and interacting causes with biological, psychological and sociocultural components.

Mental illnesses are of different types and degrees of severity. Some of the major types are depression, anxiety, schizophrenia and personality disorders. Less common are other mental illnesses that may involve psychosis. These include bipolar mood disorders and other forms of psychosis. People experiencing episodes of psychosis lose touch with reality and their insight is lost.

Most mental illness can be effectively treated. Effective treatments can include medications, psychological therapies, psycho-social support, rehabilitation etc.

Among the treatment options for psychiatric patients, inpatient treatment is a method employed particularly in such situations where the patient behaves in a disorganized way and gross psychotic features are present or when life at home becomes difficult.³ The number of beds available for patients with mental disorders is limited. However, some of these patients do require prolonged stay at the hospital. Hence the psychiatric clinics/ units of private medical colleges and hospitals are trying to meet this important defect. In this study, we aim to evaluate socio-demographic characteristics, monthly pattern of psychiatric morbidity and monthly pattern of length of stay among all hospitalized patients over the last one year.

Table-1: Age group distribution

Age group	Male	Female	Total	
	N	N	N	%
11-20	78	78	156	18.3
21-30	195	109	302	35.4
31-40	134	99	233	27.3
41-50	56	39	95	11.2
51-60	17	17	34	4.0
60+	17	15	32	3.8
Total	497	355	852	100

Table-2: Distribution of patient by marital status

Marital Status	Male	Female	Total	
	N	N	N	%
Married	281	233	514	60.3
Unmarried	206	108	314	36.9
Separated	10	14	24	2.8
Total	497	355	852	100

P value=0.00000001503, hence $p < 0.05$, statistically significant (Married versus unmarried and separated)

METHODS

This study was conducted in a central level government Mental Hospital in Lagankhel, Lalitpur. It is a 50 bedded hospital. All the information about the patients including their thorough histories was recorded in files. Admission and discharge notes were recorded in the inpatient register. Patients were diagnosed by consultant psychiatrist according to ICD-10.⁴ Eight hundred and fifty two patients were admitted here throughout the year of July/August 2009 to June/July 2010. The study design was a retrospective detailed review of all cases records. Data were collected and analyzed using SPSS version 11.5.

RESULTS

Out of 26,182 patients who attended the OPD of mental hospital, 852 (3.25%) were admitted in a central level Mental hospital, Lalitpur, Nepal during the period of 17th July 2009 to 16th July 2010 were included in the study. Out of the 852 patients, 497 (58.3%) were males and 355 (41.7%) were females.

Table-1 shows age wise distribution of patients admitted in hospital. Among them majority of patient were in age group 21-30 (N=302, 35.4%) followed by 31-40 year (N=233, 27.3%). More than 60% of patients comprised of 21-40 age group (N=535, 62.7%).

Table-2 shows the marital status of patients. Among them 514 (60.3%) patients were married, 314 (36.9%) patients were unmarried and 24 (2.8%) patients were separated.

Table-3 shows the distribution according to residence. Majority of patients were from central region (N=554, 63.8%) where the hospital is situated; followed by eastern region (N=148, 17.4%).

Table-4 shows the monthly distribution of morbidity pattern of admitted patient which shows that majority of them were suffering from Schizophrenia, Schizotypal and delusional disorders (N=427, 50.1%) followed by mood disorders (N=226, 33.5%). Psychoactive substance use disorders was seen in 9.38% (N=80) of the inpatients.

Table-5 shows the monthly length of stay in admitted hospital which shows that majority of them (N=481, 56.45%) had stayed for 0-14 days. Only 6.69% (N=57) had stayed for more than 43 days.

Table-3: Distribution of patient by Residence (region wise)

Address	Male	Female	Total	
	N	N	N	%
Eastern	85	63	148	17.4
Central	321	223	554	63.8
Western	58	36	94	11.0
Mid Western	26	29	55	6.5
Far Western	7	4	11	13.0
Total	497	355	852	100

P value=0.00000000641, hence $P < 0.5$, statistically significant (central region versus rest of other region).

DISCUSSION

This is the hospital based, retrospective study conducted with the aim to ascertain the prevalence and pattern of psychiatric morbidity among mental hospital admitted patients. Hospitalizing patient is known as the third line of healthcare services and inpatient treatment for psychiatric patients plays an important role in psychiatric therapy approaches. Studies regarding psychiatric morbidity are scarce in Nepal. Present study showed that out of 852 admitted, a slight male preponderance (58.3%) was noted which is consistent with the findings of Taj *et al.*⁵ The study done by Hacaoglu³ showed that out of total of 600 patients 306 male (51%) were hospitalized to receive therapy. Ndetal *et al.*⁶ showed that 63% of patients admitted at Mathari psychiatric hospital, Nairobi were males. A slight male preponderance noted in this study may reflect upon the gender bias in psychiatric help seeking behavior being more pronounced for the bread earning male member of family.

Maximum patients were in the age group of 21-30 years (35.4%) followed by the age group of 31-40 years (27.3%). Most of the patients were in the age range of 21 and 40. More than three quarters (78%) of the patients were aged between 21 and 45 years.⁶ Previous studies has consistently demonstrated that most of the patients seeking psychiatric services were younger, more than half of the patients were in the age group of 21-40.^{7,8} This may be due to fact that initial signs of psychiatric disorders occur mainly in this age group and that psychosocial stressors become relatively dominant in this age group.

Most of the admitted inpatients were married (60.3%) followed by unmarried (36.9%) and separated (2.8%). This result is statistically significant in between married versus unmarried and separated. (P value = 0.00000001503, $p < 0.05$). This may indicate a better family support and help seeking behavior among those who are married.

Majority of the patients were from the central region (63.8 %) where the hospital is situated followed by

Table-4: Diagnostic distribution

Month	F0-9	F10-19	F20-29	F30-39	F40-49	F50-59	F70-79	G40	Total
July/Aug 2009	0	6	41	23	2	1	2	0	75
Aug/Sep 2009	0	5	41	22	2	1	0	1	72
Sep/Oct 2009	0	7	28	12	1	2	0	0	50
Oct/Nov 2009	1	9	29	21	1	3	0	2	66
Nov/Dec 2010	1	9	38	27	3	0	0	0	78
Dec/Jan 2010	1	7	31	23	0	0	0	1	63
Jan/Feb 2010	1	2	37	26	1	0	0	0	67
Feb/Mar 2010	1	4	31	29	3	2	0	1	71
Mar/Apr 2010	0	10	43	29	1	4	0	2	89
Apr/May 2010	1	4	24	22	0	1	1	3	56
May/June 2010	3	8	38	23	4	0	2	0	78
Jun/Jul 2010	1	9	46	29	2	0	0	0	87
Total	10	80	427	286	20	14	5	10	852
Percentage	1.17	9.38	50.11	33.56	2.34	1.64	0.58	1.17	
Mean	0.83	6.66	35.58	23.83	1.50	1.16	0.41	0.83	
S.D	0.835	2.49	6.82	4.78	1.31	1.32	0.79	1.02	

Abbreviation:

F 0-9 = Organic including symptomatic mental disorder
 F 20-29 = Schizophrenia, Schizotypal and delusional disorders
 F 40-49 = Neurotic, Stress related and Somatoform disorders

F 10-19 = Mental & behavioral disorders due to psychoactive substance use.

F 30-39 = Mood Disorders

F 50-59 = Behavioral Syndromes associated with physiological disturbances and physical factors.

F 70-79 = Mental retardation

G40= Epilepsy

Eastern region which is statistically significant in between central and rest of other region (p value = 0.000000000641, p<0.5). In previous studies done by Regmi *et al*⁹ also majority of the patients were from the central region (73.3%) which is also similar to the

findings in the studies of Nepal *et al* (1986)⁷ and Shrestha⁸ which were conducted in Kathmandu Valley. Thus, the local and nearby population seem to have benefitted the most. The central region has high population density and a higher rate of literacy. The lower

Table-5: Monthly pattern of length of stay in admitted patients

Month	Number of days				Total
	0-14	15-28	29-42	43+	
July/Aug 2009 Shrawan	38	27	6	4	75
Aug/Sep 2009 Bhadra	35	22	10	5	72
Sep/Oct 2009 Asoj	36	8	3	3	50
Oct/Nov 2009 Kartik	40	22	0	4	66
Nov/Dec 2010 Mangsir	45	26	3	4	78
Dec/Jan 2010 Poush	36	15	7	5	63
Jan/Feb 2010 Magh	35	16	6	10	67
Feb/Mar 2010 Falgun	40	18	7	6	71
Mar/Apr 2010 Chaitra	51	23	10	5	89
Apr/May 2010 Baisakh	29	20	4	3	56
May/June 2010 Jestha	38	28	8	4	78
Jun/Jul 2010 Ashad	58	17	8	4	87
Total	481	242	72	57	852
Percentage	56.45	28.40	8.45	6.69	
Mean	40.08	20.16	6.0	4.75	
S.D.	7.86	5.74	3.01	1.86	

numbers of patient from mid western and far western regions does not mean that these areas have low prevalence of mental illnesses.

Most of the admitted patients in this study were psychotic namely schizophrenia, schizotypal and delusional disorders (N=427, 50.1%) followed by mood disorders (N = 286, 33.5%). Schizophrenia and psychotic disorders were the commonest psychiatric disorders requiring admission (39.4 %) in hospital.¹⁰ Flammigan *et al*¹¹ have reported that psychosis accounted for around half of all admissions in both London districts, affective and neurotic disorders accounted for around 40% and substance misuse for only 3%. Similarly, study of Fitzpatrick *et al*¹² examined patient characteristics in London between 1988 and 1998, found a higher rate for psychosis (around 50%) with depression, neurosis and substance misuse each accounting for a much smaller percentage of admission between 4% and 13%. The increased numbers of psychotic patients may be due to referral from various general hospitals and primary health care workers throughout the kingdom of Nepal as it is the sole only one mental hospital is Nepal.

The study done by Ndetei *et al*⁶ showed that Schizophrenia, bipolar I disorders, substance use disorders and schizoaffective disorders were the most common hospital diagnoses. In terms of DSM-IV-R diagnosis of the patients, the most common diagnoses were mood disorders (33%), psychotic disorders (25.6%) and anxiety disorder (19%). Among the psychotic disorders 53.2% were schizophrenia and 18.7% were suffering from schizophreniform disorder.³ This study showed that next to mood disorders were psychoactive substance use disorders (N=80, 9.38%).

Peak incidence of patient with Schizophrenia was observed in the month of *Asar* (Jun/July) followed by *Chaitra* (Mar/Apr). As the number of patients in this study is low, the significance of this difference has to be verified by larger studies in future.

In this study 84.8% of patient stayed for less than four weeks in the hospital. 56.4% of patients stayed for less than 2 week. Magsood *et al*¹³ in his study showed that mean stay of patients in ward was 10-14 days. While a study from Turkey reported the mean duration of stay of the patient was 31.9 ± 27.3 days.³ Fifteen point one percent of the patient who stayed for more than four weeks may be due to severe mental illness with poor symptom control, substance dependence and abandonment by the patient relatives. The minimum numbers of patients were admitted in *Asoj* (Sep/Oct), among them 72% of patients was discharged in less than 2 weeks. This may be due to the occurrence of national festival of *Badadashain* in this month.

Most of the mentally ill patients who needed inpatient treatment were adolescent and young adult males and were mostly suffering from psychotic illnesses. Thus, this has a significant impact on the personal and family lives of an individual. Being affected by a serious mental illness definitely leads to unproductivity and a great financial burden among the sufferers. Thus, there is a need to increase the awareness in the general public regarding the impact of mental illness and the need for timely treatment.

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