

10-YEAR PATTERN OF ADMISSIONS IN PSYCHIATRIC UNIT AT A TERTIARY CARE HOSPITAL IN PAKISTAN.

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ABSTRACT

OBJECTIVE; To identify the pattern of psychiatric morbidity in hospitalized patients of a tertiary care unit. **Design;** Details of patient's admissions from the case register of psychiatric unit were recorded retrospectively. The study was conducted in Dept. of Psychiatry Jinnah Postgraduate Medical Centre JPMC Karachi and included data of ten years.

RESULTS;- A total of 5527 patients were hospitalized during period of ten years (1995 – 2004). Among them 62.612% (n = 3461) were males and 37.38 (n = 2066) were females. The majority of patients were in the age range of 15 – 44 years. On the basis of ICD classification, mood disorders (F 30 – F 39) (42.42%) were most frequent diagnosis made, followed by schizophrenia, schizotypal and delusional disorders (F20-F29) (26.50%), mental and behavioural disorders due to psychoactive substance use (9.5%). **CONCLUSION;** Pattern of inpatients psychiatric disorders is slightly different from outpatient population and comprised of mostly patients with un-manageable acute psychiatric disorder. This measure of assessment of needs will help in allocation of resources.

KEYWORDS: Surgical outcome, Benign intracranial hypertension, Visual improvement

INTRODUCTION:

Admission to the hospital has an important role in the management of psychiatric patients. There are various reasons for admission to hospital including; severity of illness, diagnostic issues and respite admission¹. For a variety of reasons, the numbers of psychiatric patients are increasing. According to a GBD (Global Burden of Diseases study) commissioned jointly by World Bank, World Health Organization (WHO) and Harvard University², mental illness constitutes 10.5% of GBD, which will increase to 15% in year 2020. Mental illnesses contribute to 28% of total disabilities^{3,4}. The provision of psychiatric services to general hospitals has been going on for a few decades now. With the shifting of psychiatric services from asylums to modern psychiatric units in general hospitals made easy approach in utilizing the psychiatric services. This has resulted in gradual de-stigmatization and increased public awareness regarding psychiatric services on one hand and increase burden on general hospital budget. Though country wide surveys are not available in literature, estimates gauge the prevalence of mental disorder in Pakistan is quite high as compare to other countries⁵. Early identification and intervention has been implicated to improve clinical and social outcomes in most of these disorders⁶. Despite this fact, general hospitals are not taking care of the needs

of psychiatric patients, as reflected by disparity in prevalence of mental illness in community where it is highest and hospital population where it is lowest⁷. The unsatisfactory state of mental health in many countries like Pakistan has been highlighted in WHO's World health report 2001 and Atlas of mental health resources in the world^{8,9}. The aim of this study was to evaluate socio-demographic characteristics and to find out disease pattern based on ICD-10 among patients admitted at tertiary care facility during 10 years period. The data on socio-demographic characteristics and ICD based diagnosis of hospitalized patients would provide information about the functionality and needs of the mental health care facility as well as offer clues for improvement of this facility.

PATIENTS AND METHODS:

This retrospective study was carried out at Department of Psychiatry, Jinnah Postgraduate Medical Centre (JPMC), Karachi, which is one of the largest psychiatric hospitals in Pakistan and a pioneer in transferring psychiatry from asylum to general hospitals¹⁰. The Department of Psychiatry not only provides an inpatient and out-patients service but also provides forensic, Liaison and emergency services round the clock to a large portion of the city. Admissions are made through OPD, Special clinics and Accident and Emergency

Department. Admission requires discretion of senior members of medical team. All patients have an individual registration number and are diagnosed according to ICD-10 system of classification¹¹. The record and data of ICD-10 based diagnosis is maintained and a quarterly report is sent to Ministry of Health Islamabad regularly on a prescribed proforma¹². After permission from authorities all data regarding patients during the period of 10-year was compiled and different variables including age group, sex, marital status and ICD-based diagnosis were investigated.

RESULT

During the ten year period from 1995 to 2004, five thousand three hundred and eighty five patients were admitted to the psychiatry ward of the tertiary care general hospital. Among them, 3366 (62.5%) were males and 2019 (37.5%) were females. Maximum patients reported in year 1997 (n = 638) and 2003 (n = 653) (Table-I).

Table: - I Total number of cases during 10-year
N=5385

Year	Male		Female		Total
	n	(%)	n	(%)	
1995	336	(66.79)	167	(33.20)	503
1996	289	(57.22)	216	(42.77)	505
1997	365	(57.21)	273	(42.78)	638
1998	250	(58.68)	176	(41.31)	426
1999	373	(62.68)	222	(37.31)	595
2000	339	(63.60)	194	(36.39)	533
2001	323	(64.98)	174	(35.01)	497
2002	305	(62.5)	183	(37.5)	488
2003	417	(63.85)	236	(36.14)	653
2004	369	(67.45)	178	(32.54)	547
Total in 10 years	3366	(62.5)	2019	(37.5)	5385

Table: II Gender & age wise distribution n=5385

	Male & Female	14 year & below	15-44 year	45 year & above	Total	Percent age
F00-F09 Organic, including symptomatic, mental disorders	Male	44	98	47	189	(63.4%)
	Female	35	52	22	109	(36.6%)
F10-F19 Mental & behavioral disorders due to psychoactive substance use.	Male	31	419	29	479	(93.5%)
	Female	11	17	05	33	(6.5%)

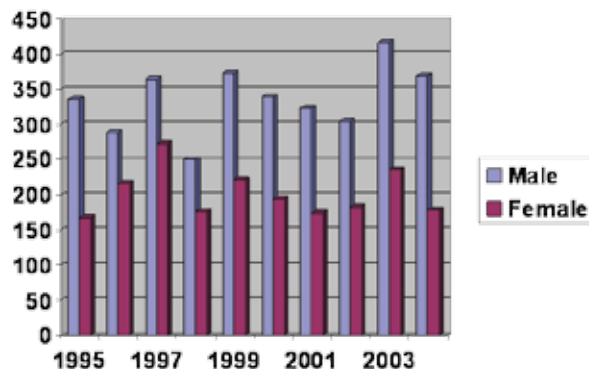


Figure – 1 Gender difference of all patients admitted

More males than females were admitted in each age group (Fig 2).

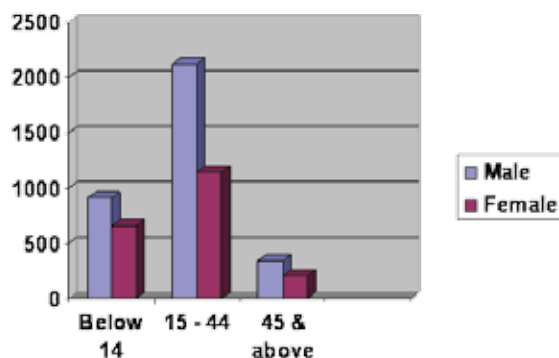


Figure – 2 Age distribution of all patients admitted

The majority of patients in both sexes were in the age range for 15 – 44 years (Table II).

F-20-F29 Schizophrenia, schizotypal and delusional disorders.	Male	257	588	64	909	(63.6%)
	Female	142	325	53	520	(36.4%)
F30-F39 Mood [affective] disorders	Male	429	846	180	1455	(63.6%)
	Female	263	455	113	831	(36.4%)
F40-F48 Neurotic, stress-related & somatoform disorders.	Male	37	55	06	98	(22.8%)
	Female	124	194	13	331	(77.2%)
F50-F59 Behavioural syndromes associated with physiological disturbances and physical factors.	Male	05	09	0	14	(18.6%)
	Female	24	37	0	61	(81.4%)
F60-F69 Disorders of adult personality and behaviour.	Male	06	16	01	23	(53.5%)
	Female	05	15	0	20	(46.5%)
F70-F79 Mental retardation.	Male	59	48	4	111	(65.3%)
	Female	33	26	0	59	(34.7%)
F80-89 Disorders of psychological Development.	Male	06	04	01	11	(45.8%)
	Female	01	12	0	13	(54.1%)
F90-F98 Behavioural and emotional disorders with onset usually occurring in childhood and adolescence.	Male	02	01	0	03	(75.0%)
	Female	0	01	0	01	(25.0%)
F99 Unspecified mental disorders.	Male	32	38	08	78	(67.8%)
	Female	19	14	04	37	(32.2%)
Male Total	908 (58%)	2122 (65%)	340 (62%)	3370	(62.9%)	
Female Total	657 (42%)	1148 (35%)	210 (38%)	1925	(37.1%)	
	1565	3270				

Regarding marital status, we found that most patients were married (51.8%) while 2.15% were separated/divorced (Table III). The majority of hospitalized patients belonged to Karachi (70%), while 30% came from interior Sindh and Balochistan.

On studying the pattern of diagnosis, it was observed that most of cases were mood disorders (F30 – F39)

(42.42%), while schizophrenia, schizotypal and delusional disorders (F20- F29) were diagnosed in 26.50% and patients with mental and behavioural disorders due substance use (F10-F19) constitute 9.6% of sample. Table-II represents diagnostic breakup with gender and age wise distribution based on ICD -10 classifications.

TABLE:-III MARITAL STATUS n=5385

	Percentage	Gender	Unmarried	Married	Divorce / Separated
F00-F09 Organic, including symptomatic, mental disorders.	298 (5.5%)	Male	86	103	0
		Female	53	54	02
F10-F19 Mental and behavioural disorders due to psychoactive substance use.	512 (9.5%)	Male	201	276	02
		Female	08	22	03
F20-F29 Schizophrenia, schizotypal and delusional disorders.	1429 (26.5%)	Male	453	431	25
		Female	256	246	18
F30-F39 Mood [affective] disorders.	2286 (42.4%)	Male	631	803	21
		Female	307	485	39
F40-F48 Neurotic, stress-related and somatoform disorders.	429 (8%)	Male	56	41	01
		Female	185	143	03
F50-F59 Behavioural syndromes associated with physiological disturbances and physical factors.	75 (1.4%)	Male	04	10	00
		Female	10	51	00
F60- F69 Disorders of adult personality &behaviour.	43 (0.8%)	Male	14	09	00
		Female	05	15	00
F70-F79 Mental retardation.	170 (3.1%)	Male	74	36	01
		Female	45	13	01
F80-89 Disorders of psychological Development.	24 (0.4%)	Male	9	02	00
		Female	10	03	00
F90-F98 Behavioural& emotional disorders with onset usually occurring in childhood & adolescence.	04 (0.07%)	Male	03	00	00
		Female	01	00	00
F99 Unspecified mental disorders.	115 (2.1%)	Male	43	34	01
		Female	17	20	00
	5385 (100%)	Total male 3461 (64.2%)	1574	1745	51
		Total female 2066 (38.3%)	897	1052	66
			2471(46 %)	2797(52 %)	117(2%)

Discussion:

In this study demographic profiles and ICD-10 based diagnostic categories have been presented. This data was derived from the record sent to The Ministry of Health quarterly on a prescribed Proforma. This record includes; data of ICD-10 based diagnosis and other demographic variables including age group, sex, and marital status. The present data set has the largest number of patients described previously¹³. Admissions are made through OPD, Special clinics and Accident and Emergency Dept. Admission requires the discretion of senior members of medical team. All patients have an individual registration number and are diagnosed according to ICD-10 system of classification. Patients were admitted to the psychiatric facility for many reasons including diagnostic problems, un-manageability issues and respite for family. Beside these reasons, admissions to the psychiatric setting are determined by social circumstance and the stigma attached to admission to a psychiatric hospital¹³. This is reflected in the results of our study, as for different reasons mentioned above, more admissions were for illnesses of psychotic nature including affective disorder (F30-F39) 42.4% and schizophrenia (F20-F29) 26.4%. Similar findings were reported in earlier studies^{14,15}. Such admissions are due to the inability of caregivers to manage psychotic patients at home. This study shows a higher number of male than female patients admitted each year during the ten year period. The admission rate of females was only half (36%) that of males (65%). Females were only more likely to be admitted for neurotic disorders, stress related and somatoform disorders (F40-48) and behavioral syndrome associated with physiological disturbances (F50-59). The overall higher rate of male admissions has been reported by most national and international studies (Minhas¹³, Malik¹⁴ and Thompson¹⁶). Such findings are in contrast to the community findings which show a higher prevalence of psychiatric illnesses among women. This may be due to cultural reasons, that in Pakistan home treatment is preferred for women. This can also explain the higher rate of admissions of male patients for schizophrenia (64% vs. 36%) & mood disorders (64% vs. 36%) than females, while the community prevalence of these disorders is equal¹⁷. More than half of the sample fell in the age range of 15-44. This representation is similar to an earlier report¹⁵. The over representation of psychiatric admissions in this age group may be due to many reasons. First, the data is taken from a unit of adult psychiatry. Second, this age group is likely to be more exposed to stressors such as educational, occupational, marital and social pressures. Third, most

psychiatric disorders present in this age group. The number of single patients in our sample is quite high (46%) but we are not able to comment on this because we do not have similar data from the general population. Though in our opinion, this could be that psychiatric illnesses are more common in younger age groups and being psychiatrically ill may be an obstacle to getting married. On other hand, more than half of patients in the sample (52%) are married. This high number of married psychiatric patients may be because of cultural reasons, as marriage is believed to be one of the treatments of the psychiatric illnesses. Once individuals get married, the family act as a strong social institution in preventing the breakup of marriage, as reflected in our study that only 2% of patients were divorced. This paper provides a good measure of assessment of needs and can assist in allocation of resources.

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Author's contribution:

Raza ur Rahman: Study concept and design, protocol writing, data collection, data analysis, manuscript writing, manuscript review

Abdul Ghani Khan: data collection, data analysis, manuscript writing, manuscript review

Naila Naeem Shahbaz; Study concept and design, data analysis, manuscript writing, manuscript review