ORIGINAL ARTICLE

Pattern of psychiatric disorders in patients seeking treatment in a secondary health care institution

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Abstract : *Indian literature is conspicuous by its paucity regarding pattern of psychiatric disorders in patients visiting secondary health care services. In the present study, the pattern of new patients visits in outpatient psychiatric services of a district hospital are reported and examined in relation to various months of a year. New psychiatric patients with psychiatric disorders seeking treatment from the psychiatric unit of district hospital Muktsar(Punjab) from July 2007 to June 2008 (12 months) were included in the study. Patients data were generated from DMHP registers, hospital records and patients case sheets. 1629 new patients (22.2% of the general OPD of the hospital) of seven major psychiatric diagnostic disorders visited the psychiatry unit of district hospital in the study period. Maximum number of patients was diagnosed to have mood disorders (57.4%). The second largest group of new patients had epilepsy (9.7%). Neurotic, anxiety and somatoform disorders were found in least percentage of patients (3.9%). Patients monthly and seasonal data did not reveal any significant association with any month or season. This was a preliminary attempt to study the pattern of different psychiatric disorders in a secondary health care setting and provides some definite information. In conclusion, it was seen that psychiatric morbidity is high and large number of psychiatric patients were seeking help in secondary health care. Thus more such psychiatry units are required for all secondary care institutions of Punjab and other parts of north India.*

Key words: *District hospital, secondary health care institution, District mental health programme*

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INTRODUCTION

In 1909, Adolf Meyer advocated management of mentally ill patients outside the mental hospitals and proposed a comprehensive community mental health approach. in which psychiatrists, would work together with other resources to organize primary, secondary and tertiary preventive measures in the community.

The community programme in the real sense is a people's programme. The Mudaliar committee in 1962 envisaged that within the next 10 years psychiatric units would be set up in all the secondary health care institution of the country. Even now, majority of the districts except in Kerala, Karnataka and Tamil Nadu, do not have such units. Such a unit in the secondary health care institution would have an advantage over the mental hospitals because they would be easily accessible, approachable without stigma and would facilitate outpatient treatment for mental health problems. Psychiatric disorders are the leading causes of disease and disability throughout the world. The WHO report on Global Burden Diseases has projected mental illness to be the fourth major cause of morbidity.[1] Depressive

disorders are already established as an important cause of the global disease burden; they are expected to rank second by 2020, behind Ischaemic heart disease.[2]

In India, some landmark epidemiological studies indicated high prevalence rate of mental disorders in the community (58.2 per thousand).[3,4] Only 10% to 20% of population in developing countries have access to health services of any kind.[5] 20% patients visiting any curative services such as dispensaries, health centres, hospitals or clinics for any reason, have significant psychiatric disorders.[6] These high prevalence figures are a matter of concern for mental health professionals and health planners.

Mental health care in India over the last two decades has shown tremendous growth. National Mental Health Programme was started in 1982 for providing community based mental health care using the existing public health infrastructure.[7] National mental health programme provided a new direction to mental health care. The District Mental Health Programme is a centrally sponsored scheme launched in 1996 and involves extending psychiatric services at the community level. The District Mental Health Programme is currently under implementation in 102 districts throughout the country. In 2002, The National Health Policy clearly spells out the place of mental health in the overall planning of health care.[8]

But literature with respect to pattern of psychiatric morbidity at secondary health care institution centre is lacking in north India. Even though certain limited information about some individual units have been documented and has given variable figures of different psychiatric disorders.[9-11] In comparison research in mental health delivery through mental hospitals and general hospital psychiatry units is well established.[12-13] Thus this is a grey area in the future success of this programme. Success of operations in DMHP conditions at the ground level needs to be documented further. Further, little efforts have been made to study monthly pattern in relation to different psychiatric illnesses in secondary health care in Punjab. The need for research in secondary care health services has increased because of the growth in the size of the number of districts under DMHP in India in 11th five year plan. Punjab Govt. conveyed its willingness to participate in DMHP in 1997 and selected district Muktsar of Punjab for the implementation of this programme under the supervision of psychiatry department, Medical College Amritsar. As no systematic information was available under this programme, hence this initial attempt is being done to study the pattern of psychiatric morbidity in patients attending psychiatric unit in a district hospital of Punjab. Our study had the following objectives: a) documenting the pattern of psychiatric illnesses among patients utilizing secondary care health services, b) study the monthly variations in the number of new patients' visits with specified psychiatric diagnosis, c) compare the pattern of psychiatric morbidity with other published literature.

Material and Methods

Setting:

This study was conducted in the out patient department of Psychiatry, district hospital, Muktsar. This is a secondary care health institution. Muktsar district is located in South Western Zone of Punjab. It is bounded by States of Rajasthan and Haryana in the South, district Faridkot in North, Firozpur in West and Bathinda in the East. In 2002-03, psychiatry outdoor and 10 bedded indoor services under DMHP commenced at District Hospital, Muktsar.

According to census of 2001, Muktsar has total population of 7, 77,493. The percentage of rural population to the total population is 74.46%. Muktsar has population density of 297 persons per sq. Km compared to 484 persons per sq km

of the Punjab, which is the lowest in Punjab. This region of Punjab has two sub divisional hospitals at Malout and Gidderbaha; there are four community health centres, four rural hospitals, 13 Mini PHC,46 Dispensaries and 102 Sub centres at rural level. Training programmes for medical officers and paramedical staff is a regular event at district hospital, Muktsar as per Distt. Mental health Programme guidelines.

Sample:

All new patients of psychiatric disorders who reported to the department from July 2007 to June 2008(12 months) formed the study population for the present study. Seven diagnostic groups consisting of 1629 new psychiatric patients who had been diagnosed and treated in the psychiatry unit of district hospital, Muktsar (Punjab) were included in this evaluation. The inclusion and exclusion criteria were as follows:

Inclusion criteria: were any age group, seeking treatment for psychiatric disorder, either sex, subjects should have a psychiatric diagnosis as per ICD-10 criteria.[14] , chart analysis and case record of the patient should be complete.

Exclusion criteria: Individuals suffering from comorbid mental or physical disorder, nil psychiatric illness, incomplete record and not fulfilling criteria of ICD-10 were excluded from the study.

Design:

The study design was a retrospective detailed chart review of all cases records. Data were collected from July 2007 to June 2008. Data sources were DMHP case registers, hospital records and case sheets of the new patients.

Procedure:

On first contact, patients were examined by a psychiatrist and a psychiatric diagnosis made as per criteria of ICD-10 and treatment prescribed in the psychiatry unit of district hospital Muktsar. After detailed evaluation patient was given a psychiatry number for future follow up. All medications were given free of cost to the patients. In this psychiatry unit, monthly meetings are held with senior health authorities where a summary of all cases seen in a month is discussed. For the purpose of this study, additional variables were included in the monthly review of medical records. General OPD data of new patients attending the hospital was examined with the data of new psychiatric outpatients.

Statistical analysis:

Data was collected and analyzed using different required statistical tests. Central tendency measure used was mean and variability measure as standard deviation was calculated. New patients with different psychiatric disorders were analyzed month wise using Kolomogrov-Smirnov test. The Kolmogorov-Smirnov test (KS-test) was employed to determine if two datasets differ significantly. The KS-test has the advantage of making no assumption about the distribution of data. Monthly and seasonal indices were calculated using time series analysis.

Results:

Between July 2007 and June 2008, 1629 new patients of seven major diagnostic disorders (Mood disorders; Neurotic stress- related and somatoform disorders; Schizophrenia, schizotypal and delusional disorders; Mental and behavioral disorders due to psychoactive substance use, mental retardation and migraine and other headache syndromes) visited the psychiatry unit of district hospital, Muktsar. 135.7 new cases per month were registered in psychiatry unit in the study period. 22.2 % (n=1629) of the new patients out of the total general new OPD patients (n=7364) utilized psychiatry outpatients services.

The largest number (57.4%) of the new patients were suffering from Mood disorders (F 30-39;

Table 1

Diagnostic breakup of the new psychiatric patients (n=1629)

Month	F10-19	F20-29	F30-39	F40-48	F70	G 40	G 43	Total
July 2007	13	14	86	5	3	9	9	139
Aug 2007	10	14	88	6	6	16	10	150
Sept 2007	8	9	84	3	20	10	12	146
Oct 2007	9	11	72	7	19	7	2	127
Nov. 2007	10	14	62	2	13	13	6	120
Dec 2007	10	6	48	2	5	11	0	82
Jan 2008	6	13	77	6	10	10	4	126
Feb 2008	10	12	41	3	10	19	6	101
March 2008	14	17	95	8	6	21	4	165
April 2008	20	20	102	6	4	15	11	178
May 2008	13	13	93	6	4	21	3	153
June 2008	8	14	87	10	8	7	8	142
Total	131	157	935	64	108	159	75	1629
Percentages	8.1	9.6	57.4	3.9	6.7	9.7	4.6	100
Mean	10.9	13.0	77.92	5.33	9.0	13.2	6.25	
S.D.	3.67	3.55	18.9	2.4	5.72	5.10	3.79	
P. Value	0.368*	0.541*	0.668*	.779*	0.723*	0.877*	.972*	

*Not Significant(NS)

N=935). Patients with Schizophrenia, schizotypal and delusional disorders (F20-29) constituted 9.6 % (N=157) of the total sample. 9.7 %(N=159) of patients received the diagnosis of epilepsy which was followed by new patients with the diagnosis of mental and behavioural disorders due to psychoactive substance use(8.04%). The least number of new patients(3.9%) were from the category of neurotic, stress related and somatoform disorders.

Data was further analyzed comparing the recording of new cases in different months of the year. Peak incidence of patients with Mood disorders was observed in the month of April followed by March. The monthly indices were found to be highest in April and March but there was no significant difference in these indices in different months, (p>0.05) using Kolomogrov Smirnov test. The pattern of different psychiatric disorders in these patients do not show significant variabilities in different months(p>0.05). (Table 1)

New patients with depressive episode constituted 45% of the total sample of mood disorders followed by recurrent disorder(36%). Bipolar affective disorder patients comprised 19% of the total new mood disorder patients. Maximum patients of these depressive episode and recurrent depressive episode were found in April, May and June months.

Discussion:

This study was undertaken to analyze the pattern of psychiatric disorder found in psychiatry patients visiting a secondary health care institution. Data available was reliable because majority of the records had complete and adequate information. The important finding was that 22.12% of the new patients out of the total general new OPD patients utilized psychiatry outpatients services. Similar findings have been reported from OPD setting of a rural hospital of Madras city(21.6%).[15] Bagadia[16] and Srinivasan[15] also reported pure psychiatric

morbidity figures of the range of 20-24%. The differences in the present studies with other study were in selection of sample and design of the study. But this high psychiatric morbidity information is crucial baseline data and demands for an effective mental health care policy in Punjab so that the psychiatry units are established in all 20 districts of Punjab.

In the present study, new patients were found to have mood disorder in large numbers (57.4%). This finding is comparable with other studies done in India and abroad.[17-21]

Studies from diverse settings ranging from primary health care, secondary health care, rural areas, slum areas reveals prevalence figures of depression exceeding 30%.[20] Approximately 50% in primary care samples were found to have depressive episode. In contrast, some studies [10,11] found lesser number of mood disorder patients than the current study. In our study high rate of new patients with recurrent depressive disorder were diagnosed among sub-diagnostic category of mood disorder. 50% of people who experience a single depressive episode will have another episode and 80-90% of those who have second episode will go on to have third episode. Higher rates of depression have been reported in north India than in South India in previous Indian studies.[21] Our study also endorses these findings of the previous studies.

High number of depressive patients in this Malwa belt of Punjab are alarming for health planners. In many studies it is being documented that depression is the strongest risk factor predicting suicide attempt. Malwa belt in Punjab is known for farmer's suicide. Unfortunately, no work has been done in this part of Punjab to counter this problem. Due to different reasons, this problem is being covered up with different non professional steps by different Government departments. The extent of suicide clustering has not been explored.

Maximum patients of these depressive disorders were found in April, May and June month. Further analysis could not show significant monthly and seasonal variations in new patients with different psychiatric disorders. Trend values cannot be commented on, due to availability of only one year data. Long term studies are required for further in-depth analysis in order to attain valid conclusions regarding these monthly and seasonal aspects of the psychiatric disorders.

Epilepsy is the second frequent diagnostic group seeking treatment in our setting (9.77%). This finding is different from another study conducted in Manimajra[11] but less than that reported from study from Sakalwara[9] and Raipur Rani block of Ambala[10].The high figures reported may be due to poverty in this belt, poor nutrition and poor antenatal health care facilities. Epilepsy has long been considered a priority mental health condition in India. Our country requires community mental health programme for epileptic patients. Previous experiences from south India demonstrated the feasibility of treatment of epileptic patients by mental health professionals at different health care levels using a simple medication regimen.[22]

The variable attendance of patients with schizophrenia is reported in different Indian studies at different setting(range 6.8-13.76%).[9-11] Issac et al[9] reported that in Sakalwara in a three year period 13.76% patients of Schizophrenia were seen while at Raipur Rani the corresponding figure was 11%.[10] 6.8% were diagnosed as suffering from schizophrenia, schizotypal and delusional disorders at civil hospital Manimajra which is less as compared to the present study (9.6%).[11]

New patients with substance use disorder constituted 8.04% of the total sample which is less than reported by Waraich et al.[11] Waraich et al[11] reported that the high proportion of these patients was attributed to the presence of a motor vehicle repair market in the vicinity of ManiMajra where the incidence of opioid and alcohol abuse is high.

The general notion is that the number of substance users who reach the secondary health institution are only a small fraction of the substance users in the general population. This group is getting marginalized and remains underground and undiagnosed and refuse to come into contact with treatment services. In our study the proportion of patients with opioid dependents were more than alcohol dependents. Some previous community based surveys had been done 50 kilometers from Muktsar in Faridkot district of Punjab.[23] Sachdeva et[23] al found that certain disturbing and rising trends of psychoactive substance use have been observed in these areas. 1.5 % of the studied population was using substances and majority of the drug abuse was using alcohol(25%) and opium(23.2%). Our study suggests that more efforts at community level are needed in this part of Punjab to reach to them.

In the present study, large number of subjects with mental retardation were diagnosed which is higher than reported from other study done in North India. In district Muktsar, senior health authorities have fixed two day in a week for disability certification for the disabled persons. In community, regular awareness camps are organized with the help of other Government agencies. There may be more people with mild and moderate mental retardation in the community and more efforts is needed for the benefit of this group.

Neurotic, anxiety and somatoform disorders were least diagnosed in the present study. Other studies done in India revealed higher figures than our study. [9-10] The people of the Muktsar area are steeped up in their today' s problems and have no concern for their tomorrow. Low levels of aspirations, low competitive society as compared to the areas of other studies(Manimajra, Sakalwara and Raipur Rani) may be the reasons behind these different figures.[9-11] The superego conflict is a constant feature of life pattern in a complex society. Non existence of neurotic disorder in community setting has also been documented by some authors from different parts of India.[24]

Migraine and other headache syndromes were found in 4.6% of the study subjects. Headache is a universal phenomenon and is most commonly seen in patients in secondary health care.[25-26] More than 80% of these subjects indulge in self medication.[26] Early diagnosis and management by trained professionals can help in solving this problem. Recent characteristics of psychopathology and headache have implicated shared neuropathologic mechanism between migraine and depressive disorders.[27] Freud categorically associated the concepts of psychopathology with migraine. Other studies done in India assessing psychiatric morbidity have not commented on this problem. This aspect needs consideration in training curriculum manual for paramedical workers so that more patients can be benefited in future. Our study has brought this common type of clinical entity in light which is usually misdiagnosed or undertreated.

A suitable method is set forth in this study for describing high frequency monthly variations which may occur in some sets of time series in the healthcare setting. The results obtained indicated that the most frequent visits by psychiatric patients took place in April and March of the study period. Mondays are the days on which the greatest demand occurs and the early morning hours of the day showing the minimum demands.

The observations of the present study can have a number of implications. Firstly the findings reflect that in planning more manpower is made available during the months, when number of patients is at its peak. Successful training programme of the various categories of the health staff have created awareness in the community and decreased the stigma of psychiatric disorders and thus a large

number of psychiatric patients are seeking help from psychiatry unit of district hospital, Muktsar. The Muktsar model of DMHP should spread to all districts of Punjab so that stigma is further minimized.

The strength of the study includes large sample and inclusion of different psychiatric disorders. In this study ICD-10 criteria were followed and diagnosis was confirmed by a psychiatrist. This is the first such study in district hospital of Muktsar and contributes important findings to the limited literature available in North India regarding utilization of services in secondary health care

Our study had some limitations. The results reported should be considered preliminary one as the design of the study was of a retrospective nature and the sample was restricted to district hospital setting. No standardized diagnostic scales were used and treatment outcome was not studied.

Conclusions

Among all new outpatients in a district hospital 22.2% were seeking help from psychiatry unit of this secondary health care institution. Majority of the new patients were diagnosed to have mood disorders which were followed by epilepsy and schizophrenia, schizotypal and persistent delusional disorders. Neurotic, stress related and somatoform disorders were found in least number of patients. The distribution of the new patients with different psychiatric disorders had not revealed any significant variations in different months of the study period. Monthly indices of new psychiatric patients were high in March and April month of the year. Replication of study using more sociodemographic and clinical details of patients with different psychiatric disorders is suggested from other districts of north India. In formulating any intervention it would be necessary to consider the findings of this study.

References:

1. Murry JL, and Lopez AD. The global burden of disease: a comprehensive assessment of mortality and disability from diseases, injuries and risk factors in 1990 and projected in 2020, Boston: Harvard School of Public Health, World Health Organization, 1996.
2. World Health Report 2001. Mental health: New understanding, New hope. Geneva: World Health Organization; 2001.
3. Reddy MV, Chandrashekar CR. Prevalence of mental and behavioural disorders in India: a metaanalysis. *Indian J Psychiatry* 1998; 40: 149-57.
4. Ganguli HC. Epidemilogical findings on prevalence of mental disorders in India. . *Indian J Psychiatry* 2000; 42: 14-20.
5. Morley David. Practising Health for ALL. Oxford: Oxford University Press, 1984; 450-457.
6. Shah A.V. Integration of mental health. *Indian J Psychiatry* 1982;24:3-7.
7. The National Mental Health Programme for India. New Delhi. Director General of Health Services, Government of India. 1982.
8. National Health Policy. New Delhi: Ministry of Health and Family Welfare, Government of India; 2002.
9. Isaac MK, Kapur RL, Chandrashekhran CR, et al. Mental health delivery through rural primary health care developments. *Indian J Psychiatry* 1982; 24: 131-38.
10. Wig NN, Murthy RS, Harding TW. A model for rural psychiatric services- Raipur Rani experience. *Indian J Psychiatry* 1981 ; 23 : 275-90.
11. Waraich BK, Lok Raj, Chavan BS, et al. Decentralization of mental health services under DMHP. *Indian J Psychiatry* 2003; 45: 161-165.
12. Reddy MV, Kaliaperumal VG, Channabasavanna SM. Mental health delivery system in general hospitals attached to medical colleges. *Indian J Psychiatry* 1995; 37: 176-78.
13. Khanna BC, Wig NN, Varma VK. General hospital psychiatric clinic- an epidemiological study. *Indian J Psychiatry* 1974; 16: 211-220.
14. World Health Organisation (1992). The ICD-10 Classification of Mental and Behavioural Disorders: Clinical descriptions and diagnostic guidelines. Geneva.
15. Srinivasan TN, Suresh TR. Non specific symptoms and screening of non-psychotic morbidity in primary care. *Indian J Psychiatry* 1990; 32:77-82.

16. Bagadia VN, Ayyar KS, Lakdawala PD, et al. Psychiatric morbidity among patients attending medical outpatients department. *Indian J Psychiatry* 1986; 28: 139-144.

17. Sethi BB, Sharma N. Depressive disorders in the developing world. *Social psychiatry* 1985; 31: 217-222.

18. Kapoor R, Singh G. An epidemiological study of prevalence of depressive illness in rural Punjab. *Indian J Psychiatry* 1983; 25:110-114.

19. Nandi DN, Ajmany S, Ganguly H, et al. Psychiatric disorders in a rural community in West Bengal: an epidemiological study. *Indian J Psychiatry* 1975 17: 87-92.

20. Araya R, Robert W, Richard L, Lewis G. Psychiatric morbidity in primary health care setting in Santiago chile preliminary findings. *Br J Psychiatry* 1994; 165:530-532.

21. Shamasunder C, Krishna Murthy S, Parkash O, et al. Psychiatry morbidity in a general practice in an Indian city. *Br Med J* 1986; 292: 1713-5.

22. Moily KVS, Kumar K, Uday Kumar GS et al. Epilepsy in primary care: 1. Inception of a programme and patient characteristics. *NIMHANS J* 1990, 8:127-132.

23. Sachdev JS, Yakhmi RS, Sharma A. Changing pattern of drug abuse among patients attending de addiction centre at Faridkot. *Indian J Psychiatry* 2002; 44:353-355.

24. Nandi DN, Mukherjee SP, Boral GS, et al. Prevalence of psychiatric morbidity in two tribal communities in certain villages of West Bengal: a cross -cultural study. *Indian J Psychiatry* 1977; 19:2-12.

25. Evans RW. Diagnosis of headache. In : Evans RW, Mather NT(eds). Handbook of headache. New York: Lippincott, William and Wilkins; 2000.

26. Sharma H, Shah S. Psychiatric comorbidity of headache in a medical relief camp in arural area. *Indian J Psychiatry* 2006; 48: 185-188.

27. Alvin E. Lake III, Jeanetta C. Rains, Donald B. Penzien, Gay L. Lipchik . Headache and psychiatric comorbidity: Historical context, clinical implication and research evidence. Headache: *J Head Face pain* 2005; 45: 493-506.355.

24. Nandi DN, Mukherjee SP, Boral GS, et al. Prevalence of psychiatric morbidity in two tribal communities in certain villages of West Bengal: a cross -cultural study. *Indian J Psychiatry* 1977; 19:2-12.

25. Evans RW. Diagnosis of headache. In : Evans RW, Mather NT(eds). Handbook of headache. New York: Lippincott, William and Wilkins; 2000.

26. Sharma H, Shah S. Psychiatric comorbidity of headache in a medical relief camp in arural area. *Indian J Psychiatry* 2006; 48: 185-188.

27. Alvin E, Lake III, Jeanetta CR . Headache and psychiatric comorbidity: Historical context, clinical implication and research evidence. Headache: *J Head Face pain* 2005; 45: 493-506.

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