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CHARACTERISTICS OF MENTAL MORBIDITY IN A RURAL PRIMARY HEATH CENTRE OF HARYANA.

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Summary : The prevalence of mental morbidity including comorbidity with physical illnesses in a rural primary health centre is very high. Most common entitites in the diagnostic group according to DSM-III-R were mood disorders (28%), somatoform disorders (27%), and anxiety disorders (17.6%). Majority of them presented with somatic symptoms. There were significant differences in rates for mental disorders when age (particularly 35-44 years), marital status, types of family, and females operated for tubectomy were analysed. The study emphasises the need for effective mental health care to the rural community through primary health centres.

Keywords : Mental morbidity, primary health centre.

INTRODUCTION

Great emphasis has been given to the prevention and treatment of communicable diseases at primary health centres but there is growing evidence that burden from noncommunicable diseases is sharply increasing in developing countries. The world Bank report (1993) revealed that the Disability Adjusted Life Years (DALY) Loss due to neuropsychiatric disorders is much higher than diarrhea, malaria, worm infestations and tuberculosis if taken individually. Mental morbidity has been reported very high (8-53%) in primary health care unit in developing countries including India (Chowdhury et al. 1975, Nikapota et al. 1981, Srinivasan & Suresh 1990, Shivagautham et al. 1980, SriRam et al. 1987, Shamasunder et al. 1986, Sen & William 1987) where there is no special provision to tackle such morbidity.

In a country like India where around 75% of the population is living in rural areas where health delivery is mainly through primary health centres, no extensive search has been carried out to detect mental morbidity at rural primary health centres. But knowing the prevalence of mental morbidity among other health problems at the PHC will define the priority of mental health services and welfare programmes. This will also indicate priority among the mental health problems. This study was conducted to determine the prevalence and characteristics of mental disorders and its association with demographic and socio economic factors of patients attending a rural primary health centre.

MATERIAL AND METHODS

The primary health centre (PHC) Chhainsa at which the study was conducted is functioning under Comprehensive Rural Health Service Project (CRHSP-Ballabgarh) of All India Institute of Medical Sciences (AIIMS), New Delhi. Among 1788 adult patients attneding the PHC from 15th January 1992 to 14th July 1992, a representative sample of 218 adults were selected for study purpose keeping following criteria of inclusion : a) only new adult patients (18-60 yrs.) taken so that repetition could be avoided; b) patients belonging to village Chhainsa so that home visit could be carried out for detailed evaluation and follow up of cases. The antenatal, intranatal, postnatal clinic patients and seriously ill (e.g., coma, severe cognitive impaired) patients were excluded. The study sample was fairly representative of Chhainsa population also (Table-I)

A two step procedure was applied to all 218 patients. In step 1, a screening instrument modified Self Reporting Questionnaire (SRQ-26 items Hindi Version) was applied independently after receiving the informed oral consent from each patient and socioeconomic status was scored on Uday Parikh Scale (1966). the male female ratio in the study group was 1:1.3, The literacy rate was 50% whereas only 20% of the females

were literate in the study sample. Majority of subjects were married (78%), and belonged to nuclear families (Table 1).

Comparison of study sample with the PHC attenders and general population of the Village Chhainsa.

	Study Sample (n=218) %	PHC Attenders (n=1788) %	Census * Population (n=5700) %
SEX			
Male	48	42	55
Female	52	58	45
AGE IN YRS.			
18 - 24	35	31	30
25 - 34	28	32	31
35 - 44	19	15	21
45 - 54	12	12	13
55 - 60	6	10	5
MARITAL STATUS			
Unmarried	17		20
Married	78		76
Widowed / Separated	5		4
FAMILY			
Nuclear	54		51
Joint / extended	46		49
EDUCATION			
Illiterate	50		52
Upto 5 class	22		22
Upto 8 class	14		16
Upto 12 class	12		9
Graduate / above	2		1

* Census report (1993) CRHSP - Ballabgarh, AIIMS, New Delhi-29

In step 2 all patients were evaluated in detail clinically with the help of the Diagnositc and Statistical Manual of Psychiatric Disorders III Revised (DSM-III-R, 1987) at the PHC itself. The modified SRQ-26 items Hindi version was found to be a suitable screening instrument in our rural setting. The best cut off score was ≥ 6, the sensitivity was 88% and specificity was 71%. As the cut off values increased the sensitivity of the SRQ decreased but the specificity increased. To produce the clinical diagnosis with the help of DSM-III-R criteria, a resident of Community Medicine got two months reorientation training in the Department of Psychiatry of All India Institute of Medical Sciences, New Delhi. Each mental diagnosis was discussed with Psychiatrist and 5% patients were independently examined by Psychiatrist and diagnoses were cross checked. Majority of the statistical analysis carried out were nonparametric and significance was set at the conventional of 5% level.

RESULTS :

The study sample was represnetative of total adult PHC attneders during that period and of population of Chhainsa (Table 1. Out of 218 adult patients, 47 (21.5%) were pure mentally ill patients according to clincial assessment based on DSM-III-R criteria. Comorbidity with physical illness was 22.2% so the total mental morbidity in the study sample was 41.7%. Most of the morbidity was mild in nature, so many diagnoses were grouped into broad categories. Mood disorders (28.6%) and somatoform disorders (27.4% were the most common mental disorders among mentally illpatients. All nonpsychotic illnesses contributed to 83.5% of the total mental morbidity.

Distribution of mental morbidity according to sex

Diagnoses of Mental disorders	Male n=38	Female n=53	Total n=91	%
Substance Use Disorders *	05	00	05	5.5
Schizophrenia/ Delusional disorder	01	01	03	3.3
Mood Disorders	11	15	26	28.6
Anxiety Disorders	10	06	16	17.6
Adjustment Disorders	02	04	06	6.6
dissociative Disorders	00	03	03	3.3
Somatoform Disorders**	02	23	25	27.4
Sexual Disorders	02	00	02	2.2
Personality Disorders	02	00	02	2.2
Mental Retardation	03	00	03	3.3

* Fisher exact (p=0.01)

** x^2=14.15, df=1, p=0.0001

Distribution of mental disorders by age and sex is presented in Table 3.

Age and sex distribution of mental morbidity

Age in Years	Mental Morbity			Total		
	Male n=38 %		Female n=53%	Total n=91	Male n=105	Female n=113
18 - 24	17	(34.0)	5 (19.2)	22	50	26
25 - 34	12	(43.0)	18 (54.0)	30	28	34
35 - 44	6	(46.0)	20 (71.0)	26	13	28
45 - 54	2	(25.0)	6 (33.0)	8	8	18
55 - 60	1	(17.0)	4 (57.0)	5	6	7

X^2= 15.49, df=4, p=0.003.

More females (46.9%) were mentally ill in all age groups except in the 18-22 year groups. About 5.5% of the patients (all males) were suffering from substance use disorders (mainly bhang, ganja and alcohol). No intravenous drug abusers were found in the study sample. Somatoform disorders were significantly more in female patients (x^2=14.15, df=1, p=0.0001). Age is found to be a significant factor for mental illness. In the age group 35-44 years 63% were mentally ill. (X^2=15.09, df=4, P=0.004).

Though an inverse relationship was observed, socioeconomic status was not significantly associated with mental illness as a whole. However when lower class was separately compared with other classes as a group, the mental illness was significantly high in the lower class (X^2=5.18, df=1, P=0.02,)

Occupational status of the patients was not a statistically significant factor for mental illness.

Caste of a person was not a significant factor for mental illness in the study though within artisan caste group there was a 60% mental morbidity.

Unmarried group had 29% of mental disorders whereas married had 44% and widow/widower/separated had 50% of mental morbidity. However the difference was not statistically significant.

Socioeconomic Status and types of family distribution of Mental Morbidity

	Mental Morbidity n=91	(%)	Non- Mental n=127	(%)	Total n=218
Socioeconomic class					
Lower Class	11	69	5	31	16
Lower Middle Class	38	39	59	61	97
Middle Class	34	41	49	59	83
Uppermiddle class	8	38	13	62	21
Upper Class	0	0	1	100	1
Types of Family # s,					
Nuclear	58	49	60	51	118
Joint	18	37	30	63	48
Extended	15	29	37	71	51

* Lower class vs other Socioeconomic class

X^2= 5.18,df=1, p=0.02

X^2=6.58,df=2, p=0.03

$ Nuclear Vs Joint /Extended X^2=5.81,df=1 p=0.01

Distribution of the mental morbidity according to types of family is given in Table 4. There was significantly more mental morbidity in nuclear families than in joint and extended combined group (X^2=5.81, df=1, P=0.01). The joint/extended Family seems to have protective effect for mental illness.

Around 36% were tobacco smokers in the study sample. Among them 64.4% were males and 35.5% were females smokers. 49% of the smokers were found mentally ill as compared to 37% of the non smokers. High proportions of those with mood disorders (53.8%) and drug abusers (100%) were tobacco smokers compared to those with anxiety disorders (12.5%).

The higher rate of mental illness was found with dysmenorrhea, menorrhagia and polymenorrhea though the numbers in each disease category were too small. 53% (17/32) of the menstrually disturbed patients were mentally ill (Table 5). Of the 19 (17%) female patients who had undergone tubectomy operation, 14 (73.6%) were mentally ill.

Distribution of Mental Morbidity in Females according to their menstrual histories.

Menstrual History	Mental Morbidity n=53	(%)	Non- Mental n=60	(%)	Total n=113
Regular Cycle	25	52	23	48	48
Dysmenorrhea	14	64	8	36	22
Menopause	7	29	17	71	24
Lactational					
Amenorrhea	2	22	7	78	9
Pregnancy	2	28	5	72	7
Menorrhagia	1	100	0	00	1
Polymenorrhea	2	100	0	00	2

(X^2=12.56, df=6, p=0.05)

Majority of mental disorders presented to the doctor at the PHC with somatic symptoms like "ghabrahat" (Similar to term used for the anxious state in other regions), weakness, headache, bodyache and indigestion as a physical illness (Table 6).

Prevalence of different physical symptoms.

Physical symptoms	Mental Morbidity n=91	(%)	Non- Mental n=127	(%)
Weakness	67	73.6	87	68.5
Headache	67	73.6	73	57.4
"Ghabrahat" (Uneasiness)	71	78.0	86	67.7
Easily tired	61	67.0	76	59.8
Decrease appetite	57	62.6	74	58.2
Sleep disturbances	38	41.7	38	29.9
Discomfort abdomen	37	39.0	48	37.7
Indigestion	24	26.3	33	25.9
Bodyache / Backache	19	21.0	17	13.3
Respiratory symptoms	11	12.0	30	23.9
Tingling sensation	9	9.8	7	5.5
Diizziness	7	7.6	6	4.7
Pruritus	4	4.3	6	4.7
Burning micturation	4	4.3	7	5.5
Menstrual symptoms	3	3.2	3	2.3

DISCUSSION

A large proportion of the adult patients (41.7%) coming to the rural PHC were diagnosed mentally ill. High prevalence of mental morbidity was also reported by Srinivasan in general OPD of rural hospital of Madras city (53%), and Krishnamurthy in general OPD population (36%), Agarwal in gynaecological OPD (49.9%) and Shukla in dental OPD (44%). Pure mental morbidity (excluding comorbidity with physical illness) was also high (21.6%). Similar high pure mental morbidity (24% and 20%) was also reported by Bagadia (1986) and Srinivasan (1990) repectively, whereas Harding etal (1980) has reported low (17.7%) mental morbidity for northern India in a WHO Collaborative multicentric study and Sriram (1987) reported 10.4% psychological problems among general OPD patients of a hospital in south India. The difference in prevalence rates in present study and other studies could be explained on the basis of diagnostic criteria for mental illness, selection sample, inclusion and exclusion criteria or regional concept of abnormality and presentation of illness

Large proportion of females (71%) were having mental disorders in age groups of 35-44 and 55-60 years. Srinivasan et al. (1990) and Nikapota et al. (1981) have observed high minor mental morbidity in 30-40 years.

Similar to Srinivasan et al's. (1990) finding mental morbidity was more in people of lower socioeconomic status in our study sample. Agarwal et al. (1990) observed significantly high mental morbidity in women of low socioeconomic status.

More mental morbidity was found in widow/ separated group but didn't reach statistical significance. Nikapota et al. (1981), and Agarwal et al. (1990) also observed high morbidity in this group. SriRam et al. 91986) found higher mental case rates among women who were divorced, separated or widowed, while Bebbington (1981) reported no such association whereas Byrne (1984) found that the risk of mental disorders was higher among women without children or

those with history of being divorced, separated or widowed. It has been accepted that separation, divorce, and bereavement are risk factors for mental disorders (WHO, 1981).

Among females 25 (22%) were having menstrual disturbances. Of these menstrually disturbed females 17 (68%) were mentally ill.Similar higher rates of mental disorders in menstrually disturbed were reported by Indira et al. (1980).

Post tubectomy patients had significantly higher proportion of mental illness (73%) in our study. Khorana and Vyas (197) reported some degree of mental moridity in 83% of the tubectomised women but in other studies (Wig, 1977; WHO, 1985) the observations were different. The reasons for higher mental rates in post tubectomy females may be due to poor pre and post tubectomy counseling. To establish a causal association between mental illness and tubectomy operation a more detailed study is required.

Substances for example alcohol, ganja, hashish, and bhang use disorders were mainly in male patients in our sample. Similarly the personality disorders were confined to male group only. Similar observation was made by Regier et al. (1988). We have observed a significantly high proportion of somatoform disorders in female patients. Somatisation is more common in female patients as was described by Regier et al. (1988) and Kirmayer (1984).

Mood disorders were more common in females (58%) in the age group of 35-44 yrs. Similar finding was observed by Regier et al. (1988), Agarwal et al. (1990), and Srinivasan and Suresh (1990). It is well recognized that depression is costly and causes a considerable social burden on the family, community and the nation (Klerman et al. 1992). Whereas high prevalence of depressive syptoms (24%) does not meet DSM-III criteria due to insufficient symptom duration (Horwath et al. 1992) It still adds to undetected and unaccounted burden in the community.

Majorty of patients with mood, anxiety, conversion, adjustment and somatoform disorders presented with somatic symptoms. Similar observation was made by Chaddha & Bhatia (1990), and Srinivasan et al. (1990). The findings of the study confirmed the complexity of mental illness in its presentation at the health care settings throughout the world. We can safely state that there's a very large "hidden mental morbidity" which is difficult to be recognised by a doctor in a busy rural PHC.

The study highlighted the need for a detailed study to understand the cause and effect association of age, marital status, types of family, socioeconomic class, menstrual history and tubectomy in females and tobacco smoking with mental morbidity. High mental morbidity and its economic implication require an effective mental health care policy and implementation of mental health program in rural primary health centres of the country.

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