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EVALUATION OF PSYCHIATRIC MORBIDITY IN THE COMMUNITY THROUGH APPLICATION OF SCHEDULE FOR CLINICAL ASSESSMENT IN NEUROPSYCHIATRY (SCAN)

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ABSTRACT

Background: Hospital based reports do not reflect prevalence of psychiatric morbidity in the community. Even the lack of knowledge and stigma associated with mental disorders cause hindrance to avail hospital services. Community based survey in a well defined sample is the right and appropriate approach for proper estimation of prevalence of such illnesses.

Aims: To estimate the prevalence of psychiatric illnesses in the community and to study the socio demographic co-relates of the positive cases.

Methods: 10% of participants from the pool of three thousand (3,000) respondents recruited for World Mental Health (WMH) Survey were selected, by using systemic random sampling method and psychopathology was tested by using the translated Assamese version of Schedule for Clinical Assessment in Neuropsychiatry (SCAN).

Results: The prevalence of psychiatric morbidity in the community was found to be 13.18%, with Alcohol Use Disorder being the most common psychiatric morbidity.

Conclusion: Alcohol Use Disorders are the commonest psychiatric morbidity (4.39%) in the study population followed by Depression (3.38%), Anxiety (1.69%) and Psychosis (1.69%). The figures reflect only the point prevalence of the diseases.

Key Words: Psychiatric morbidity, Clinical assessment, Composite international diagnostic interview

INTRODUCTION

Psychiatric conditions are a growing public health concern, – they are responsible for little more than 1% of deaths and accounts for about 11% of disease burden[1].

Though psychiatric conditions are well known to impose a great burden to the sufferer, family and also to the society, mental health is still the most neglected portion of the spectrum of health[2]. May be due to lack of awareness and associated social stigma, patients even if they are suffering for a longer period hesitate to present to psychiatrists[3]. Therefore, what we see in the clinical setup is probably the tip of the iceberg; the actual problem may be much more greater than one can anticipate. So, proper evaluation of psychiatric morbidity is a necessity for any intervention to be taken.

Although there are various instruments designed to study the epidemiology of mental illness in the community, like Diagnostic Interview Schedule (DIS) (1981) and Composite International Diagnostic Interview (CIDI) (1993), which can be used by trained non-mental health professionals, the results obtained by application of such instruments may not also be able to identify the actual magnitude of the illness. However, the diagnosis made by application of another sophisticated instrument called Schedule for Clinical Assessment in Neuropsychiatry (SCAN) adopted by WHO requires trained mental health professionals and is recognized as a valid and reliable instrument.

Therefore the current study attempts to estimate the prevalence of psychiatric illnesses in the community through application of this instrument. This instrument was applied in its translated Assamese version to see its applicability and any technical problem in the administration in a small-defined population.

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AIMS AND OBJECTIVES

The aims and objectives of the study are

1. To estimate the prevalence of mental disorders in the community.
2. To study the socio-demographic correlates of the positive cases.

METHODOLOGY

Sample Selection:

The samples for the study were drawn from a predetermined sample for another study – The World Mental Health (WMH) Survey, conducted by the WHO. The WMH study was completed in the Department of Psychiatry, Assam Medical College and Hospital, Dibrugarh in the month of October 2004. This study has the advantage of having a meticulously worked out sample of 3000 households, which was made on the basis of sample proportion to size. From this pool of 3000 households the sample for our study was drawn by using systematic random sampling method (every 10th sample). The investigators were blind about the diagnostic status of the sample, which has already been evaluated by the WMH – CIDI in the study mentioned above.

Size of the Sample:

We have selected a sample of Three hundred respondents by using the method mentioned above.

Inclusion Criteria:

1. Age: 18 years and above
2. Sex: Both sexes.

Exclusion Criteria:

1. Age: Below 18 years.
2. Respondents with chronic debilitating illness.

Instruments Used:

Schedule for Clinical Assessment in Neuropsychiatry (SCAN): It is an instrument for assessing, measuring and classifying major psychiatric illnesses, It was developed in the framework of the World Health Organization and the National Institute of Health joint project on Diagnosis and Classification of Mental Disorders, Alcohol and Drug related problems. It consists of four parts:

1. The Tenth Edition of Present State Examination (PSE10)
2. The Glossary of Differential Definitions.
3. The Item Group Checklist (IGC)
4. Clinical History Schedule (CHS)

PSE 10 itself has two parts, Part I covers Somatoform, Dissociative, Anxiety, Depressive and bipolar disorders and problems associated with basic bodily functions and use of Alcohol and other Substance use, while Part II contains Psychotic and Cognitive disorders and observed abnormalities of speech, affect and behaviour. The instrument was translated into Assamese and adopted after testing the inter-rater reliability which was found to be of higher order.

Place of Study:

The study was conducted in the rural and urban areas of Dibrugarh District having a total population of 2,08,548 households according to the 2001 census.

Procedure:

The Study was undertaken after receiving ethical clearance of Institutional ethical committee of Assam Medical College and Hospital, Dibrugarh

For the purpose of the study, a SCAN trainer who had been trained in New Delhi trained five PG students from the Department of Psychiatry, Assam Medical College and Hospital Dibrugarh.

Informed consent was obtained from each respondent before evaluation. Those respondents suffering from debilitating systemic illness were excluded from the study.

The diagnosis was obtained by using the diagnostic algorithm of SCAN.

RESULTS

Though our original sample size was 300, 4 respondents were excluded from the study due to their debilitating physical illnesses as per the criteria. Therefore effective sample size reduced to (300 – 4) = 296.

181 male & 115 female respondents participated in the study and their age wise distribution is shown in table 1:

Table 1: Distribution of samples according to age and sex.

Age group	Male	Female
< 20	1	4
20 - <30	37	28
30 - <40	45	36
40 - <50	36	26
50 - <60	34	11
60 and above	28	10
Total	181	115

The study was conducted in both urban & rural areas of Dibrugarh District. As many as 255 (86.15%) respondents hailed from rural areas and only 41 (13.85%) were from urban area. This is depicted in table 2:

Table 2: Distribution of study group according to locality.

Locality	Male	Female	Total
Urban	25	16	41
Rural	156	99	255
Total	181	115	296

Table 3 shows marital status of the respondents participating in the study:

Table 3: Distribution of study group according to marital status.

Status	Male	Female	Total
Married	152	86	238
Unmarried	28	20	48
Widow	Nil	09	09
Divorced	01	Nil	01
Total	181	115	296

The educational status was measured in terms of years of formal education and the distribution of the samples according to this variable is shown in table 4:

Table 4: Distribution of study group according to educational status:

Educational status: (rs of formal education)	Male	Female	ToTAL
0	21	25	46
1 – 4	23	07	30
5 – 7	20	10	30
8 – 10	70	52	122
10 +	47	21	68

Our study shows 13.18% prevalence on psychiatric illnesses including mental and behavioural disorders due to use of alcohol. Alcohol related mental problems alone have the prevalence on 4.38% and this accounts for about 33.33% of the total psychiatric morbidity.

Table 5: Prevalence of Psychiatric illness in the community.

Variable		Total Sample	No of positive cases	%
Overall		296	39	13.18
Gender	Male	181	24	13.26
	Female	115	15	13.04
Age	<20	05	Nil	Nil
	20 - <30	65	07	10.77
	30 - <40	81	11	13.58
	40 - <50	62	11	17.74
	50 - <60	45	07	15.56
	60 and above	38	03	7.89
Locality	Urban	41	05	12.20
	Rural	255	34	13.33
Yrs of formal education	00	46	07	15.22
	1 – 4	30	05	16.67
	5 – 7	30	06	20
	8 – 10	122	14	11.48
	10 +	68	07	10.29

Distribution of positive cases according to various diagnostic groups is shown in table 6:

Table 6: Distribution of positive cases by diagnostic groups:

| Diagnosis	Male		Female		Total	%
Alcohol Use Disorder	13	7.18%	Nil	Nil	13	4.39
Anxiety Disorders	02	1.10%	03	2.61%	05	1.69
Depression	03	1.66%	07	6.09%	10	3.38
Mixed Anxiety and Depression	Nil	Nil	03	2.61%	03	1.01
Dementia	Nil	Nil	01	0.87%	01	0.34
Psychosis	04	2.21%	01	0.87%	05	1.69
Obsession	01	0.55%	01	0.87%	02	0.68
Total	24	13.26%	15	13.04%	39	13.18

Positive cases found in the psychotic group which includes- Acute and Transient Psychosis, Schizophrenia and Bipolar Affective Disorder in the following order:
Acute and Transient Psychosis = 01
Schizophrenia = 03
Bipolar Affective Disorder = 01

Table 7: Distribution of patients in the psychotic group

Type of Psychosis	Male	Female	Total
Acute and Transient Psychosis	Nil	01	01
Schizophrenia	03	00	03
Bipolar Affective Disorders	01	Nil	01
	04	00	05

Alcohol related mental and behavioural problems accounts for about 33.33% of all the psychiatric morbidity followed by Depression, which accounts for about 25.64%, Anxiety and Psychosis each contributes to 12.82% of all psychiatric morbidity.
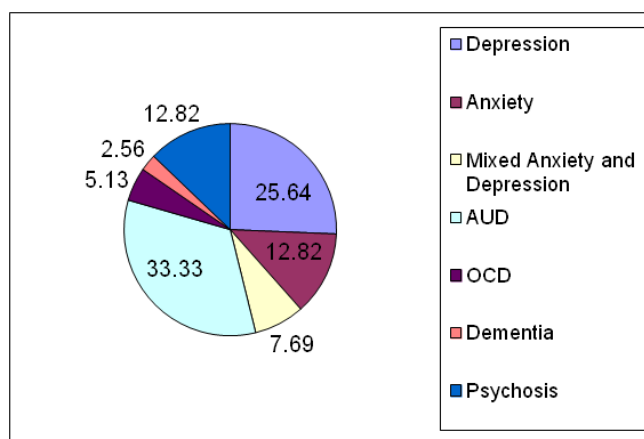
Figure 1: Distribution of Positive Cases as per diagnostic groups (Pie Diagram)

Distributions of positive cases are shown according to various sociodemographic variables in table 8 to table 11:

Table 8: Age wise distribution of patients in various diagnostic groups:

Age group	Depression	Anxiety	Mixed Anxiety & Depression	Alcohol use Disorders	Psychosis	Obsession	Dementia
<20	Nil	Nil	Nil	Nil	Nil	Nil	Nil
20 to <30	Nil	03	Nil	01	03	Nil	Nil
30 to <40	04	02	01	01	02	01	Nil
40 to <50	03	Nil	02	05	Nil	01	Nil
50 to <60	03	Nil	Nil	04	Nil	Nil	Nil
60 and above	Nil	Nil	Nil	02	Nil	Nil	01

Table 9: Distribution of positive cases according to literacy:

Years of formal education	Depression	Anxiety	Mixed Anxiety & Depression	Alcohol use Disorders	Psychosis	Obsession	Dementia
0	04	Nil	01	01	Nil	Nil	01
1 –4	Nil	Nil	Nil	03	02	Nil	Nil
5 – 7	01	01	Nil	02	01	01	Nil
8 – 10	02	03	01	06	01	01	Nil
10 +	02	01	01	01	01	Nil	Nil

Table 10: Distribution of positive cases according to locality:

Locality	Depression	Anxiety	Mixed Anxiety & Depression	Alcohol use Disorder	Psychosis	Obsession	Dementia
RURAL	08	03	03	11	05	02	01
URBAN	01	02	Nil	02	Nil	Nil	Nil

Table 11: Distribution of positive cases according to marital status:

Status	Depression	Anxiety	Mixed Anxiety & Depression	Alcohol use Disorder	Psychosis	Obsession	Dementia
Married	06	03	03	10	04	02	Nil
Unmarr-ied	02	02	Nil	02	01	Nil	Nil
widow	02	Nil	Nil	Nil	Nil	Nil	01
Divorced	Nil	Nil	Nil	01	Nil	Nil	Nil

Data analysis:

I. Analysis based on age wise distribution

According to the statistical analysis based on age wise distribution of the positive cases the following results were obtained –

Table 12 a: Correlation of Psychiatric illnesses with age and education

Diagnosis	Age		Years of Formation	
	r	Sig (2 tailed)	r	Sig (2 tailed)
Depression	0.230	0.662	0.000	1.000
Anxiety	-.0442	0.382	0.700	0.188
Mixed Anxiety Disorder	0.064	0.904	0.293	0.633
Alcohol Use Disorder	0.633	0.177	0.277	0.652
Psychosis	0.193	0.704	0.195	0.753
OCD	0.000	1.000	0.363	0.548
Dementia	0.655	0.158	-0.705	0.184

According to the statistical analysis co- relation between age and depression was found to be 0.230, which indicates that as the age increases the occurrence of Depression also increases and it its percentage of increment is 23%. Such type of positive co-relations were also found with Mixed Anxiety Depression, Alcohol Use Disorder, Psychosis and Dementia:

- o Co-relation between Age and Mixed Anxiety Depression = 0.064
- o Co-relation between Age and Alcohol Use Disorder = 0.633
- o Co-relation between Age and Psychosis = 0.193
- o Co-relation between Age and Dementia = 0.655

This indicates these disorders are related to age and they increase as the age progresses.

However, a negative co-relation (-0.442) was found between Age and Anxiety indicating that as the Age increases prevalence of Anxiety decreases and its percentage of decrease is 44.2%, in other words Anxiety is more common in early adult ages. However, statistical analysis shows no linear co-relation between Age and Obsession.

Positive co-relation was found between Years of Formal Education and Anxiety, the co-relation coefficient being 0.700. A negative co-relation of –0.705 was found between Years of Formal Education and Dementia. Obsession, Psychosis, Mixed Anxiety Depression and Alcohol Use Disorder also show a positive co-relation with literacy.

- o Co-relation between Years of Formal Education and Obsession = 0.363
- o Co-relation between Years of Formal Education and Mixed Anxiety Depression = 0.293
- o Co-relation between Years of Formal Education and Alcohol Use Disorder = 0.277
- o Co-relation between Years of Formal Education and Psychosis = 0.195

However, no co-relation was shown to occur between Years of Formal Education and Depression.

DISCUSSION

Our study shows point prevalence of 13.18% psychiatric illnesses including Alcohol Use Disorders, which is in keeping with the study- NIMH – Epidemiological Catchment Area (ECA) Programme (1984) conducted in USA, which showed 1-month prevalence of psychiatric illnesses being 15.14%[4].

Alcohol Abuse and Dependence were found to be the most common psychiatric condition in this part of the country accounting for about 33.33% of all psychiatric illnesses. This is most common in males and incidentally we have not found any female alcoholic during our study, this was probably because we were handicapped with a small sample size. Depression was the second common psychiatric morbidity in the community and majority of the sufferers were the females. Though the sample size was small the detection of the cases with the help of SCAN was very meticulous and the results were in accordance with the other standard literature[5,6,7].

Though our study samples were drawn from the pool of respondents recruited for the WMH (World Mental Health) Survey which was done by using another instrument (CIDI) which was completed in the Department of Psychiatry, Assam Medical College, Dibrugarh during 2002 – 2004 with support from WHO and Ministry of Health, Government of India. The two results could not be compared as the data of the WMH Survey are under process of analysis at WHO headquarters, and results are yet to be published. Hopefully the two results may be compared once the WMH results are published.

Limitation:

1. Sample size was too small for a community-based study.
2. Burden of disease was not assessed.
3. Utilization of health services for various mental illnesses was not studied.
4. The study does not reflect the course of illness, as it was a cross-sectional study.

Conclusion

Epidemiological studies involving this type of sophisticated instrument are quite a few in the world and ours is one of its kinds in this part of the country. Although the sample size was small the case detection with the help of SCAN was very meticulous and the results were in accordance with the standard literature. The translated Assamese version of SCAN was found to be very useful and no technical problems during its application was met with. This study is expected to be a guide in the field of Community Based Study and inspire the future generation for a more comprehensive study in the field of Mental Health Disorders.

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