

A Preliminary Study on the Prevalence of Depression in an Adult Urban Population of Gangtok

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ABSTRACT

Background: Psychiatric disorders accounts for 5 of the 10 leading cause of disability, as measured by disability adjusted life years. Despite these alarming trends there have been no systematic epidemiological studies on the prevalence and socio-demographic correlates of depression in the community. The principle aim of this study was to assess the prevalence of depression in adults in an urban population of the city of Gangtok, Sikkim.

Materials & Methods: The community based cross sectional study was conducted on an urban community sample in Tadong municipal ward in the capital city of Gangtok, Sikkim which is 500 meters from Sikkim Manipal Institute of Medical Sciences. The present study was conducted on approximately 7500 population with an electoral registry of 3798 people.

Results: Our study showed that the majority of case were seen in younger age group and mostly female subjects. Middle class married couple was more depressed in our study. The prevalence of depression was 17.25%.

Conclusion: We concluded that the present study diagnosed

depression using a clinical interview and mental status examination. No scales were used to screen patients unlike previous studies, as the investigator believed that all screening scales have sensitivity and specificity issues.

Keywords: Psychiatric Disorders, Depression, Prevalence, Community.

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INTRODUCTION

Psychiatric disorders accounts for 5 of the 10 leading cause of disability, as measured by disability adjusted life years (DALY).¹ The overall DALYs burden for neuropsychiatric disorder is projected to increase to 15% by year 2020.¹ At the International level, mental health is receiving increasing importance as reflected by the WHO focus on mental health as theme for the World Mental Health Day 2000. Currently India is implementing a National level programme of integrating mental health with primary health care, the largest such effort in developing world. However, a lot of work remains to be done.²

Resources and services for mental and behavioural disorders are disproportionately low compared to burden caused by these disorders. In most developing countries like India, care programmes for individuals with mental health problems have a low priority. Provision of care is limited to a small number of

institutes which are usually overcrowded and understaffed.³ There was hardly any research data available on the epidemiological pattern of mental health at the time of independence. Sir Joseph Bhore in 1946 and Dr. A. L. Mudaliar in 1959 made observations about the non-availability of data on psychiatric morbidity in India. Indian Council of Medical Research (ICMR) has initiated projects for mental health research significantly since the 1960s. Since then a series of epidemiological studies on psychiatric disorders were undertaken in different parts of the country. However such studies have concentrated on few centres in metropolitan cities of the Northern and Southern parts of India. There have been no national level ICMR projects on the prevalence and trends of psychiatric illness in North Eastern states.⁴

Sikkim is the least populous state in India and the second-smallest state after Goa. Sikkim has 4 administrative districts - North,

South, East and West, with the Eastern district having more political and administrative importance. Apart from administrative and economic constraints to provide optimal mental health services in our country, the state of Sikkim is additionally challenged by its mountainous terrain and frequent landslides. Despite these alarming trends there have been no systematic epidemiological studies on the prevalence and socio-demographic correlates of depression in the community.

Such comprehensive studies with standardized psychiatric assessment instruments and well planned methodology will provide the impetus for policy makers to take note and formulate optimal decisions that will benefit the mental health of the citizens. The principle aim of this study was to assess the prevalence of depression in adults in an urban population of the city of Gangtok, Sikkim.

MATERIALS & METHODS

The community based cross sectional study was conducted on an urban community sample in Tadong municipal ward in the capital city of Gangtok, Sikkim which is 500 meters from Sikkim Manipal Institute of Medical Sciences. The present study was conducted on approximately 7500 population with an electoral registry of 3798 people.⁵

Inclusion Criteria

- All adults aged above 18 years in the Tadong ward of Gangtok during the study period from May 2013 to August 2014.

Exclusion Criteria

- Subject not willing to participate in the study.
- Subject not present in the household during the study.

Hence it was decided after allowing a 50% non-participation rate, sample size of 400 would be sufficient for statistical analysis. The study protocol was submitted to Institutional Ethical committee of Sikkim Manipal Institute of Medical Sciences for clearance, before commencement of the study and was cleared on May 2013.

Study Instruments

The study questionnaire consisted of following parts.

Part A: A semi structured data collection tool (see enclosures) to assess socio demographic data like

1. Age
2. Gender
3. Marital status - results were categorized as single, married, widowed, divorced, in relationship (unmarried).
4. Socio-demographic status was assessed using Prasad B.G. Modified Socioeconomic Status Scale⁶ that classified SES into 5 classes from Class 1 (highest) to Class V (lowest) in that order based on per capita income calculation.

Part B: Questionnaire to assess clinical data and associated variables like

1. Family history of psychiatric illness
2. Past history of psychiatric illness
3. Current substance abuse (harmful use) and dependence
4. Chronic somatic pain symptoms.

Part C: A diagnosis of depression was made clinically by the investigator after the psychiatric interview and mental status examination in accordance with ICD-10 criteria⁷ with depressive episode.

Data Analysis

Data analysis was performed using SPSS (statistical package for social science version 16), continuous variable like age and HAM-D scores were converted into categorical variables. To test for association of depression with various socio- demographic and clinical variables, Chi square test was used.

Table 1: Table illustrating the socio demographic distribution of the sample population. (n=400)

Socio Demographic Variables	Categories	Sample
Age In Years	18-27	143 (35.75%)
	28-37	105 (26.25%)
	38-47	76 (19%)
	48-57	44 (11%)
	58-67	24 (6%)
	68-77	7 (1.75%)
	78-87	1 (0.25%)
Gender	Male	181 (45.25%)
	Female	219 (54.75%)
Marital Status	Single	107 (26.75%)
	Married	231 (57.75%)
	Divorced	08 (2%)
	Widowed	12 (3%)
	In relationship not married	42 (10.5%)
Socio Economic Status	Class I	40 (10%)
	Class II	89 (22.25%)
	Class III	194 (48.5%)
	Class IV	62 (15.5%)
	Class V	15 (3.75%)

Table 2: The table illustrates the distribution of all the Clinical variables in the sample population

Clinical Variables		Sample
Past psychiatric illness	Present	63 (15.75%)
	Absent	337 (84.25%)
Substance Abuse	Present	195 (48.75%)
	Absent	205 (51.25%)
Somatic Complaints	Present	216 (54%)
	Absent	184 (46%)
Family history of Psychiatric illness	Present	79 (19.75%)
	Absent	321 (80.25%)

RESULTS

Our study showed that the majority of case were seen in younger age group and mostly female subjects. Middle class married couple was more depressed in our study. The prevalence of depression was 17.25%.

Figure 1: Pie chart depicting the proportion of the sample suffering from depression.

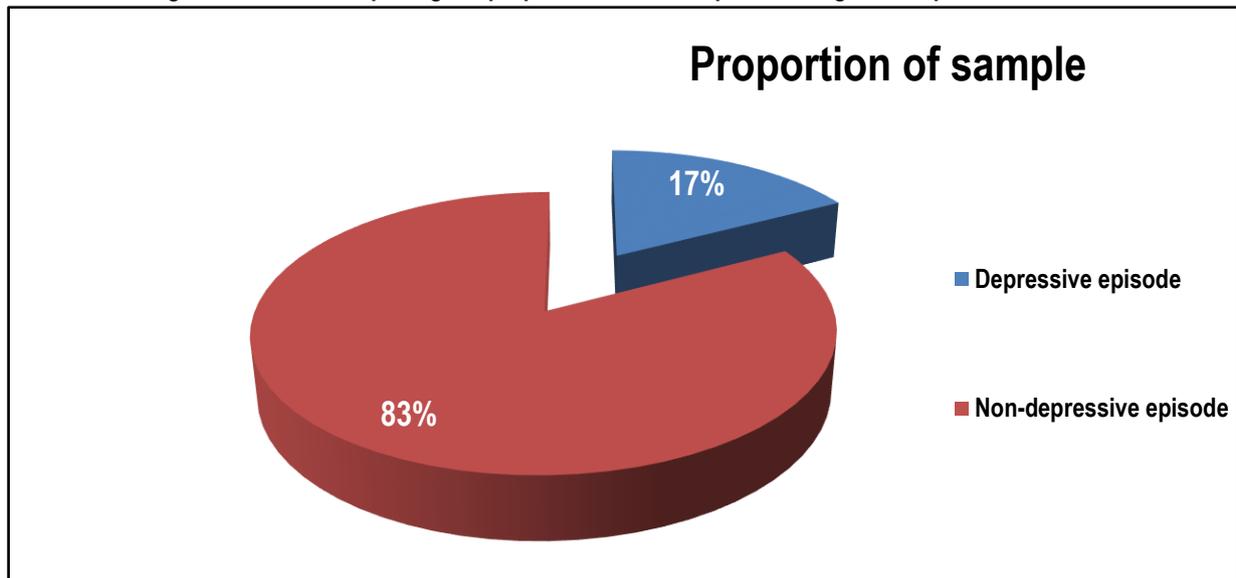
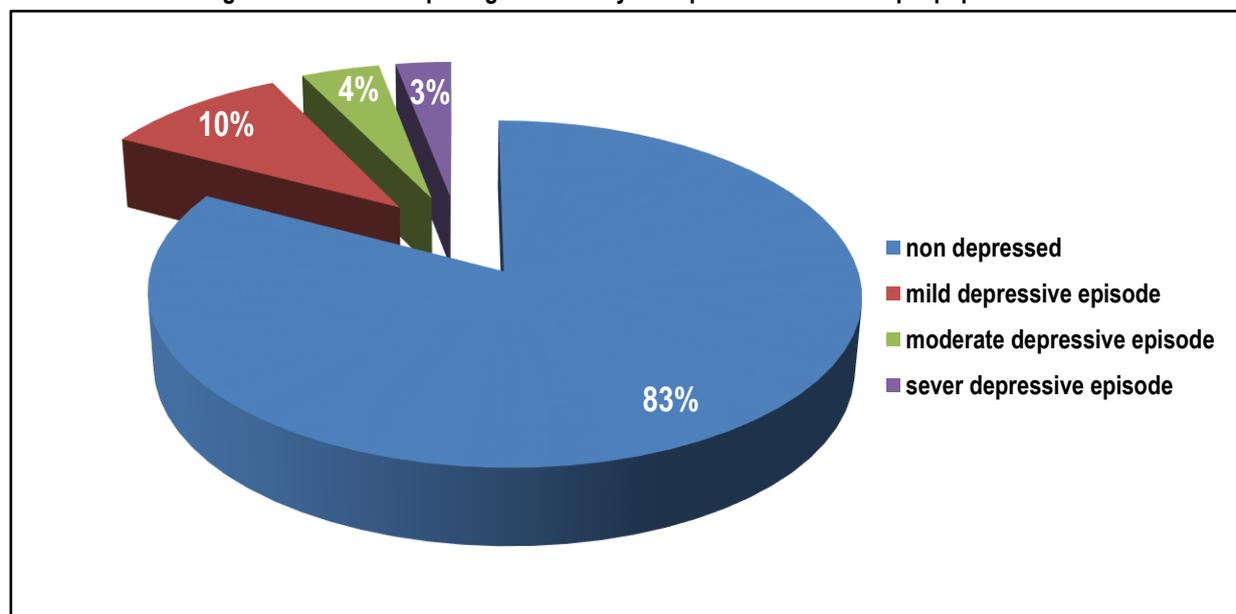


Figure 2: Pie chart depicting the Severity of Depression in the sample population.



DISCUSSION

The primary aim of the present study was to assess the prevalence of depression among adults in the community. This study estimated the prevalence of depression in sample population to be 17.25%.

Cross sectional epidemiological studies conducted by the WHO have reported a prevalence ranging from 1.6% to 18% across various centres.⁸ This wide variation has been attributable to difference in methodological designs, interviewer experience (lay vs. professional), structured vs non-structured vs. semi-structured assessment instruments for depression, and inclusion of dysthymia and depressive disorder NOS categories. The above artifacts might explain the observed variation in prevalence of depression between the studies. It is imperative thus, to design studies that minimize the impact of such artifacts, to understand the true prevalence of depression in community.

Most of the studies in India on the prevalence of depression have used samples from psychiatric tertiary care centers, psychiatric

clinics, primary care centers and general hospital settings. The data obtained from these studies cannot be assumed to reflect the true prevalence of depression in the community.⁹ Hence this discussion will be limited to prevalence of depression that has been assessed in community based epidemiological surveys. Many Indian studies have estimated the prevalence of depression in community samples and the prevalence rates have varied from 1.7 to 74 per thousand population.¹⁰

Reddy and Chandrashekar¹¹ found low prevalence rate of depression. A recent large population-based study from South India¹² reported that overall prevalence of depression to be 15.1%. The prevalence of depression of 17.25% in our study is on the higher side than most epidemiological surveys conducted in India and abroad. The possible explanation of such a high prevalence rate can be due to the urban sample that was used. Studies have shown that prevalence of depression in urban samples is almost one and half times that of the rural population.¹³⁻¹⁷

CONCLUSION

We concluded that the present study diagnosed depression using a clinical interview and mental status examination. No scales were used to screen patients unlike previous studies, as the investigator believed that all screening scales have sensitivity and specificity issues.

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