Mental Disorders in Ethnic Community: A Prevalence Study from Thakali Community of Nepal

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ABSTRACT

Introduction: Mental disorders are common and major source of disability around the world. Though Nepal lacks national data on the prevalence of mental disorders, many studies have been conducted in specific groups of people. The Thakali community is one of the indigenous communities of Nepal. We aim to look at the prevalence of mental disorders in this group. Materials and Methods: This is a cross-sectional study with multiphasic sampling conducted in the Thakali community in six distinct geographical regions of Nepal. The first stage was a household survey done by field researchers using screening questionnaires to detect a probable diagnosis of mental disorders. The second stage was detailed clinical assessment and diagnosis (ICD-10) by two independent psychiatrists. Results: Among the 917 participants, after the first phase, a probable diagnosis (as per the screening questionnaire) was found to be 12.5%. After the psychiatrists’ assessment and addition of already diagnosed cases, the prevalence was 6.1%. In both the cases, prevalence of alcohol use disorder was comparatively higher (34.8% and 31.9%, respectively). Conclusion: Despite many shortcomings, this study has provided an estimate of the prevalence and pattern of mental disorders among an indigenous Nepalese community. We emphasize the need of validation of tools for Nepal and estimation of prevalence at the national level.

Key words: Ethnic community, mental disorders, Nepal

INTRODUCTION

National surveys around the world have found that mental disorders are a major and common source of disability.[1] The Global Burden of Disease Study 2010 (GBD 2010) estimated that mental, neurological, and substance use disorders ranked 5th among the diseases contributing to the global burden.[2] A meta-analysis on prevalence studies of common mental disorders from 1980 to 2013 found a 12-month prevalence of 17.6% and a lifetime prevalence of 29.2%.[3] The prevalence data on mental disorders from the Asian countries are sparse and heterogeneous.[4] When we look at the two neighboring countries of Nepal, the prevalence of mental disorders is found to be comparable.[5] A recent nationwide survey done in India found the lifetime prevalence of mental disorders to be 13.9% and current prevalence to be 10.5%.[6] Similarly, the World Mental...
Health Survey initiative showed the prevalence of mental disorders in China to be 13.2%.\textsuperscript{[7]}

Nepal lacks national level prevalence data on mental disorders. A few studies have been conducted in specific communities and groups of Nepal for generating prevalence data.\textsuperscript{[8-10]} In the similar lines, a prevalence study in one of the indigenous communities, Thakali Community, was planned.\textsuperscript{[11]} Numerically, it is a very small group and “Kendriya Thakali Sewa Samiti,”\textsuperscript{[12]} a representative organization of this community, has a household list of the entire Thakali population. As per the data of National Census 2011, the current population of this community is 13,215.\textsuperscript{[13]} The main aim of current study was to look at the prevalence of mental disorders in this genetically homogenous group of people.

**MATERIALS AND METHODS**

The study was conducted in the Thakali community of Nepal. The majority of this population reside in six geographical regions: central hills, central inner terai, western mountains, western hills, western terai, and mid-western/far-western region. This covers six districts of Nepal. The national household list was categorized based on 4 major clans and further subcategorized based on 39 subclans. Systematic random sampling was done within this list to obtain the specified households. All individuals aged 16 and above from each of the chosen households were included in this study.

Two experienced field interviewers were trained in interview techniques and survey questionnaires. Before starting the field work, interviews were done on the sample population under supervision for quality assurance. Additionally, a member of the Thakali community was assigned as a facilitator to assist field interviewers. The study was conducted in two phases: first, the household screening (door-to-door visit) of sample household was done by field interviewers. Each interview was scheduled for about 20 minutes. Second, detailed clinical interviewing of screen-positive individuals was done by two psychiatrists independently, and a clinical diagnosis (if present) was made on the basis of the ICD-10.\textsuperscript{[14]}

**Tools used**

**Modified Mini Screen**

22-item scale that uses a set of “gateway” questions which relate to signs of distress that may be attributed to a diagnosable psychiatric disorder. The questions are based on threshold criteria found in the Diagnostic and Statistical Manual IV, the Structured Clinical Interview for Diagnosis, and the Mini International Neuropsychiatric Interview.\textsuperscript{[15]}

**CAGE Adapted to Include Drugs**

Four-item screening instrument that is a modified CAGE screening questionnaire for other drugs in addition to alcohol. CAGE questionnaire, the name of which is the acronym of four questions, is described as follows:\textsuperscript{[16]}

1. Have you ever felt you needed to cut down on your drinking?
2. Have people annoyed you by criticizing your drinking?
3. Have you ever felt guilty about drinking?
4. Have you ever felt you needed a drink first thing in the morning (eye-opener) to steady your nerves or to get rid of a hangover?

**Patient Health Questionnaire-15**

Somatic symptom severity scale used to screen for somatic symptoms, which are strongly correlated with somatoform disorders, depression, and anxiety disorders.\textsuperscript{[17]}

**Functional Activities Questionnaire**

Screening instrument used for the detection of cognitive impairment in older adults. This questionnaire was administered only to those participants above 50 years of age.\textsuperscript{[18]}

The abovementioned tools were translated into Nepali language using WHO method of tools translation.\textsuperscript{[19]} Written informed consent was taken from each participant and the identity of the subjects was kept confidential. Ethical clearance was obtained from the Nepal Health Research Council, Reg. No. 39/2013.

**RESULTS**

A total of 917 participants were enrolled during the screening phase. Sociodemographic profile of the participants is shown in Table 1. The maximum age was 95 and the minimum was 16 years, with a mean age of 45.37 ± 18.48 years. The male-to-female ratio was almost one. Maximum numbers of respondents were married (69.9%), and the rates of divorce and separation were very low (0.5% and 0.9%, respectively). The majority of participants had a primary (22.2%) and secondary level (46.5%) of education and 31.8% of participants had their own business. Among the 455 female participants, 30.76% were housewives.

A total of 115 participants were screen positive and were subjected to the second phase of the study where two independent psychiatrists did the detailed clinical evaluation. As seen in Table 2, the most prevalent disorders at the time of screening were alcohol-dependence syndrome and depression, followed
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Table 1: Sociodemographic profile of participants

| Variables                  | n (%) |
|----------------------------|-------|
| Sex                        |       |
| Male                       | 462 (49.6) |
| Female                     | 455 (50.4) |
| Residence                  |       |
| Urban                      | 663 (72.3) |
| Rural                      | 254 (27.7) |
| Marital status             |       |
| Unmarried                  | 203 (22.1) |
| Married                    | 641 (69.9) |
| Divorced/Separated/Widowed | 73 (7.9) |
| Education                  |       |
| Illiterate                 | 99 (10.8) |
| Just literate              | 107 (11.7) |
| Primary                    | 204 (22.2) |
| Secondary                  | 426 (46.5) |
| Graduation and above       | 81 (8.8) |
| Occupation                 |       |
| Agriculture                | 123 (13.4) |
| Housewife                  | 140 (15.3) |
| Service                    | 86 (9.4) |
| Business                   | 292 (31.8) |
| Student                    | 94 (10.3) |
| Others                     | 182 (19.8) |

Table 2: Screening and final diagnosis

| Disorders                      | Probable diagnosis n (%) | Final diagnosis n (%) |
|--------------------------------|--------------------------|-----------------------|
| Anxiety disorder               | 23 (20.0)                | 12 (25.5)             |
| Depression                     | 31 (27.0)                | 11 (23.4)             |
| Psychosis                      | 0                        | 1 (2.1)               |
| Alcohol-dependence syndrome    | 40 (34.8)                | 15 (31.9)             |
| Dementia                       | 21 (18.3)                | 8 (17.0)              |
| Total                          | 115                      | 47                    |

by anxiety disorder. It is interesting to see that dementia had a prevalence of 18.3%. After the second phase, the number of respondents with mental disorders was 47 as compared to screening positive number of 115. However, the ratio of the percentages of individual mental disorders did not change significantly. Among all the respondents (918), 9 individuals were already diagnosed with some kind of mental illness. Hence, the prevalence rate of mental disorders was calculated to be 6.1%.

DISCUSSION

We conducted this study in Thakali community, which is one of the indigenous groups of people living in Nepal with an estimated population of less than 15,000. We took a sample size of 917, and the sex ratio was 101.54 compared to the national sex ratio of 94.2. The number of participants living in the urban area was more as compared to rural area in our study. This finding is significantly different from the finding of national population from 2011 Census of Nepal that shows the population residing is rural area to be much higher than urban area.[13] Only 10% of the participants were illiterate and maximum number of individuals were involved in business, indicating the better social status of this community as compared to other indigenous communities of Nepal.

The screening done using the questionnaires gave a probable diagnosis of the mental disorders. The overall prevalence of probable mental disorders was 12.5%, and the prevalence of the disorders was in the descending order: alcohol-dependence syndrome, depression, anxiety disorder, and dementia. These prevalence rates are low as compared to other surveys conducted in different countries.[3] However, it is comparable to the recent mental health survey of India, where the cross-sectional prevalence was 10.5%.[6] The point to note here is that cognitive impairment was not included in the survey of India.

When the second phase was completed, the prevalence was way lower (6.1%) than expected. Compared to the 12-month prevalence rate of 30% reported in National Co-morbidity Survey,[20] the prevalence is very low, in both the phases, in this community. The prevalence is also low compared to that reported in countries like Chile,[21] China,[22] and Bangladesh.[23] One of the reasons for this lower prevalence could be under-reporting of problems as a result of stigma associated with mental illness in lower income countries like Nepal.[24-26] Similarly, it might also be possible that people of the Thakali ethnic group suffer from much less number of mental disorders as compared to other communities, due to some underlying genetic factors. One important aspect to note in our study is the decrease in prevalence during the time of the psychiatrists’ assessments when compared to the questionnaire-based first phase. Most of the prevalence studies conducted throughout the world are done on the basis of questionnaires administered by trained individuals. One aspect that cannot be ruled out while discussing this disparity is the validity of the questionnaires for this study population and the method of application of questionnaires by the trained data collectors.

The major strength of our study is the use of a two-stage procedure, that is, the screening and further assessment by psychiatrists to confirm the diagnosis. The homogenous nature of the sample is another strength. This is the only study that has been conducted in the Thakali community to assess the prevalence of mental disorders, and this might lead the way for further studies in this genetically homogenous group.
There are some limitations of the study as well. First, the data are cross-sectional and we did not measure the longitudinal mental health status of the sample. Second, the sample population was limited to one specific ethnic group. Hence, the findings may not be generalized to the entire population of the country, without similar studies in other ethnicities. Third, in the second phase, we interviewed only the screen-positive cases for confirmation of final diagnosis. Hence, the total number of false negatives in the sample population could not be ascertained. Thus, it was not possible to assess the sensitivity of the screening questionnaires, making it difficult to conclude whether they can be used or not for a national level mental health survey. Finally, the screening instruments appear to be very poor in detecting cases with psychosis, as none of the probable diagnoses after the screening phase included psychoses. But after the second phase, a case of schizophrenia was confirmed among the screened population which had gone undetected earlier.

CONCLUSION

Despite many shortcomings, in the current scenario of a dearth of any scientific baseline data regarding mental disorders in our country, this study has provided an estimate of the prevalence and pattern of mental disorders among an indigenous Nepalese community. The prevalence of mental illness in the Thakali is less as compared to the prevalence studies done throughout the world. We believe that this study will serve as a guide for further large-scale studies regarding mental health in Nepal. We recommend the validation of the tools in the local language and further large-scale studies with a stronger methodology to determine the exact prevalence at the national level.

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Conflicts of interest

There are no conflicts of interest.

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