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Prevalence of psychiatric morbidity at Mobile Health Clinic in an urban community in North India☆,☆☆

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Abstract

Objective: The objective was to estimate the prevalence of psychiatric morbidity amongst patients attending Mobile Health Clinic (MHC) in an urban community in South Delhi.
Methods: Adult subjects were recruited by systematic random sampling at outpatient MHC. Primary Care Evaluation of Mental Disorder Patient Health Questionnaire (PHQ) was used for screening, and Mini International Neuropsychiatric Interview (M.I.N.I.) was used for the confirmation of diagnosis of psychiatric disorder of all PHQ-positive and 20% of PHQ-negative patients. Association of selected sociodemographic factors with psychiatric morbidity was also assessed.
Results: In total, 350 subjects were recruited, out of which 92 (26.3%) [95% confidence interval (CI) 21.7–31.0] were found to be PHQ positive. M.I.N.I. was administered to 141 subjects (92 PHQ positives and 52 PHQ negatives). Total estimated magnitude of psychiatric morbidity by M.I.N.I. was 25.4% (95% CI 20.9–29.9). Depression (15.7%) was observed to be the most common psychiatric disorder followed by generalized anxiety disorder (11.1%) and phobic disorders (10.1%). Suicidal ideation was reported by 37 (10.6%) patients. Literate status [odds ratio (OR)=0.43] and duration of migration >20 years to study area (OR=1.27) were found to be significantly associated with psychiatric morbidity.
Conclusion: In resource-poor country like India, high psychiatric morbidity at MHC justifies the use of MHC for providing outreach mental health services in difficult areas.

Keywords: Psychiatric morbidity; Primary care; Mobile Health Clinic; India

1. Introduction

Globally, psychiatric morbidity contributes to 12% of the disease burden and is projected to increase to 15% by the year 2020 [1]. In India, meta-analysis of epidemiological studies has reported prevalence of psychiatric morbidity from 58.2 [2] to 73 [3] per 1000 people. Prevalence of psychiatry morbidity in the urban region was found to be 3.5% higher compared to that in rural India [4]. Pothen et al. reported that psychiatric disorders contribute to substantial amount of morbidity at primary care setting, and thus, there is need to treat these disorders at the primary care level [5].

Assessment of extent and pattern of disorders at the primary care level is important due to the potential of identifying individuals with disorders and providing needed care at this level itself. Most often, the psychiatric disorders at primary care remain undiagnosed because patients present with physical disorders or somatic complaints [6,7]. Psychiatric disorders commonly presenting at primary care are grouped as common mental disorders [8], including mood disorders and "Neurotic, Stress related and

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Somatoform disorders" as per the *International Classification of Diseases, 10th Revision* (ICD-10) [9]. Two-stage screening procedure, i.e., utilizing a validated screening technique followed by a standardized psychiatric interview, is a useful strategy for detecting psychiatric disorders at primary care [10]. With reference to National Mental Health Programme of India, the 11th Five-Year Plan (2007–2012) also recommends the integration of mental health services in primary care so that these can be easily accessible and affordable to the population [11]. Also, management of psychiatric disorders at primary care with affordable drugs is proven to be a cost-effective strategy [12].

Most of the published studies on psychiatric disorders at the primary care level have been conducted either in rural setting [5,6,8,13–15] or in general hospitals [16–19].

The present study deals with the estimation of magnitude of psychiatric morbidity by using the Primary Care Evaluation of Mental Disorder Patient Health Questionnaire (PRIME-MD PHQ) as a screening tool and the Mini International Neuropsychiatric Interview (M.I.N.I.) as a diagnostic tool at Mobile Health Clinic (MHC). Association of selected sociodemographic factors with psychiatric morbidity was also assessed.

2. Methods

The present study was conducted at MHC in Dr. Ambedkar Nagar, South Delhi. This MHC is part of the Urban Health Programme of Centre for Community Medicine, All India Institute of Medical Sciences, New Delhi. Through MHC, health care services like general health care, immunization and antenatal care are being provided to approximately 40,000 to 50,000 people, with an average daily outpatient attendance ranging from 70 to 100 patients. Sample size of 350 was calculated by taking estimated prevalence of 24% [19] with 4.8% precision, 10% loss to follow-up and 95% confidence interval (CI). In MHC outpatient clinic (OPD), new adult patients (≥18 years) were recruited by systematic random sampling over a period of 6 months. Patients not able to communicate or who refused to participate were excluded from the study.

Study subjects were screened using PRIME-MD PHQ, developed and validated against clinical diagnosis by Spitzer et al. [20,21] for use in primary care settings to diagnose specific psychiatric disorders using *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV) diagnostic criteria. Diagnosis of psychiatric disorders was done by using M.I.N.I. (6.0.0) at household after tracing subject's address. M.I.N.I. is a validated instrument used globally, which gives DSM-IV-Text Revision (TR) and ICD-10 diagnosis [22–25].

English versions of PRIME-MD PHQ and M.I.N.I. were translated into Hindi in two steps. In the first step, English version was translated into Hindi by two nonmedical experts. In the second step, the Hindi-translated version was back translated into English by a medical person not involved in study and compared with the original version. The finalized Hindi version was applied on 10 local Hindi-speaking people. Any difficulty observed was resolved with the help of a psychiatrist (R.S.) before preparing the final Hindi translation. Information about age, sex, residential address and present complaint for which patient attended the OPD was recorded on interview schedule from study subjects.

Any recruited subject fulfilling criteria for diagnosis of any of the psychiatric disorders which are covered under PRIME-MD PHQ like somatoform disorders, severe depression, other depression syndrome, panic disorders, generalized anxiety disorders, alcohol abuse and eating disorders was categorized into PHQ positive, while those who did not fulfil any criteria were categorized as PHQ negative.

M.I.N.I. was administered to all PHQ-positive and 20% randomly selected PHQ-negative subjects. Any subject fulfilling diagnostic criteria of any of the disease module of M.I.N.I. was labeled as M.I.N.I. positive, and those not fulfilling any criteria were labeled as M.I.N.I. negative. All subjects with diagnosed psychiatric morbidity were provided with appropriate counseling and treatment.

2.1. Training and quality assurance

Training of the investigator in M.I.N.I. administration was done by a psychiatrist (R.S.) for a period of 3 months. Quality assurance by the psychiatrist was performed for 5% of M.I.N.I.-positive and the same number of M.I.N.I.-negative subjects in a double-blinded manner. One hundred percent agreement between M.I.N.I. diagnosis and diagnosis by psychiatrist was observed.

2.2. Data analysis

Data were analyzed in SPSS version 13 for Windows. The χ^2 statistical test was used to study association of selected sociodemographic factors with psychiatric morbidity, and it was expressed with odds ratio (OR) and 95% CI. P value <.05 was considered statistically significant. All factors were analyzed by multivariate logistic regression analysis, and adjusted ORs and 95% CIs were calculated.

2.3. Ethical issues

Written informed consent was obtained from the study subject before participation. Ethical clearance for the study was obtained from the Institute's Ethical Committee of All India Institute of Medical Sciences, New Delhi.

3. Results

A total 350 new adult (≥18 years) subjects were recruited at MHC. Profile of the patients recruited for screening by PRIME-MD PHQ is given in Table 1. Most (80%) of the 350 study subjects were younger than 50 years. Most of them were female (84.6%). Health care at MHC was sought most