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An assessment of awareness of mental health conditions and its association with socio-demographic characteristics: a cross-sectional study in a rural district in Bangladesh

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Abstract

Background: To assess the level of awareness, knowledge and help-seeking attitudes and behaviours in relation to mental health conditions (MHCs) and associations with socio-demographic characteristics of a rural district of Bangladesh.

Methods: We recruited 2425 adult samples (18–90 years) from a Cross-sectional study in Narial district of Bangladesh. Data on awareness, knowledge, help-seeking attitudes and practice in relation to six MHCs were collected. The MHCs were classified as common (depression, anxiety and drug addiction), and severe (psychosis, dementia and bipolar disorder). Associations of MHCs with socio-demographic characteristics were assessed using Chi-square tests. Rasch analysis was performed to transform the latent attribute (awareness) of MHCs from ordinal to interval scale. Multiple regression analysis was performed to determine how the socio-demographic characteristics contribute to the combined awareness score of MHCs.

Results: Of 2425 participants, 17 (0.7%) were cognizant of all the awareness construct of MHCs, and 1365 (56.28%) were not aware of any of MHCs. The prevalence of awareness of MHCs such as depression (8.5%), anxiety (6.2%), psychosis (3.5%), and bipolar disorder (3.3%), was found to be very low. Awareness was significantly lower in older adults, and in women. Higher levels of education (β 1.77, 95% confidence interval (CI): 1.58–1.97) associated with common MHCs and (β 0.81, 95% CI: 0.67–0.95) those associated with severe MHCs contributed significantly to increased awareness as opposed to having no or primary level of education. Availability of sufficient funds when applied to common MHCs (β 0.43, 95% CI: 0.26–0.61) and severe MHCs (β 0.25, 95% CI: 0.13–0.38) appeared to be more effective in boosting awareness compared to unstable financial situations. Almost 100% of the participants who were aware of the MHCs demonstrated positive attitudes towards seeking medical or psychological counselling.

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Conclusions: Awareness of MHCs appeared to be very limited. However, knowledgeable participants were found to be very receptive to medical or psychological counselling. For improving awareness of MHCs need to conduct various intervention programs in particular those campaigns that focus on women, older adults, low SES and people up to the primary levels of education.

Keywords: Mental health conditions, Knowledge attitude and practice, Rasch analysis, Rural Bangladesh, Mental health literacy,

Background

Approximately 7.3% of the global burden of disease has been attributed to mental and behavioural disorders. Most of this burden is related to unipolar depressive disorders and other mental health conditions (MHCs) including anxiety, psychosis and substance use [1]. Currently, approximately 450 million people suffer from such conditions, and it is projected that one in four individuals in the world will be affected by MHCs at some point in their lifetimes. MHCs are amongst the leading causes of ill-health and disability worldwide [2]. Globally, approximately 20% of the adults have MHCs, and low and middle-income countries have only one psychiatrist for every 1 to 4 million people [3, 4]. People with MHCs experience disproportionately higher rates of disability and mortality [5]. Individuals with major depressive disorders and schizophrenia had 40 to 60% greater chance of dying prematurely than the general population [6].

Mental health literacy (MHL), defined as "knowledge and attitudes about MHCs which aid their recognition, management and prevention" is low worldwide, but specifically low in developing countries [7]. In such societies, MHCs are believed to be consequences of familial imperfection and evil spirits [8]. Such beliefs have been purported to lead to poor utilisation and negative stigma about mental health services and treatment [9]. Unsurprisingly, poor health literacy is associated with negative disease outcomes, especially in developing countries [10–13].

The importance of health literacy on physical health is widely acknowledged in the world [14]. However, the literacy about MHCs has been neglected in both developed and developing countries [15]. The common myths in developing and developed countries are that the MHCs are not curable, caused by personal weakness, and that people with MHCs are usually violent or unstable [16]. A study from Germany reported that people were more reluctant to discuss MHCs than physical disorders with relatives and friends [17]. In the USA, many public servants did not seek treatments because they feared that MHCs would create the negative impact on their employment [18]. In developing countries, utilising services for MHCs are further blocked by stigma and beliefs about MHCs being due to sorcery or spiritual punishment, possessions by spirits and demons, genetic or family inheritance, social or moral disobediences towards ancestors or wraths of Gods [19]. A study from Nigeria showed that women in the community would be afraid to have a conversation with someone known to have mental disorders [20]. In the United Arab Emirates (UAE), women were ashamed to mention that they had a family member with mental illness, but this attitude was lower in men [21]. Moreover, a study from India reported that women thought that MHCs were family matters and should not be disclosed to other people [22]. However, in developing countries including Bangladesh and India, visiting a traditional healer for emotional problems was more common in women than in men [23]. A study revealed that in Qatar men possessed better knowledge, beliefs, and attitudes towards mental illness than women [21].

Despite the association between MHL and diseases outcomes, levels of MHL in rural regions of Bangladesh are unknown. Studies are needed to understand the level of MHL in the population and to develop targeted programs to address such levels. In the last decade, several studies have reported the prevalence of and contributing factors for depression and anxiety both in urban and rural areas in Bangladesh [24–32]. However, no study has assessed awareness, knowledge, and attitudes of seeking medical treatment regarding MHCs in Bangladesh. Rural areas in Bangladesh are characterised by traditional healing practices and an absence of mental health facilities and care. Therefore, studies on MHL are imperative to gauge and increase the level of awareness of MHCs in rural populations in Bangladesh.

The current study had two aims. First, it aimed to estimate the level of MHL in a typical rural district of Bangladesh. Second, it aimed to identify socio-demographic characteristics associated with MHL in order to identify the factors that affect rural communities and therefore inform potential interventions for improving MHL.

Methods

Study sample

Bangladesh is a country of 163 million people divided into 64 districts. Participants were recruited from the

Narail district, which is located approximately 200 km south-west of Dhaka, the capital city of Bangladesh. The population of Narail district is 272,872, with approximately 40% of residents aged between 18 and 59 years and 19,000 (about 7%) of residents aged between 60 and 90 years. The study location was selected as it was reflective of typical rural demography in Bangladesh. The Narail district with an estimated population density of 722 people was comparable to the national rural population density of 873 people per square kilometre. Narail is not at the extremity of remote locations nor is it a catchment of a metropolis such as Dhaka [33]. The area of Narail is 381.76 km2, located in between 23°02′ and 23°17′ north latitudes and in between 89°23'and 89°37′ east longitudes. The district is surrounded by Lohagara and Salikha upazilas on the north, Kalia and Abhaynagar upazilas on the south, Lohagara upazila on the east, and Bagherpara and Jessore Sadar upazilas on the west. The ratio of male to female (48.5 to 51.5) resembled quite well with that of Bangladesh (48.9 to 51.1) [34]. 72.3% of sample data attained primary education or above as opposed to 72.9% [35] of the national population, while 27.7% of it had no education, which was comparable to the national 27.1% [35]. In the make-up of the population with respect to marital status, the Married group of Narial sample data (79.9%) was fairly proximate to the national level (80.01%) [36]. With respect to the availability of funds, a determinant for socio-economic condition, the sample population having insufficient funds some / most of the time accounted for 32.2 and 23.2% [37] in Bangladesh. In summary, the socio-demographic make-up of the Narail district delineated well the typical characteristics of a rural district of Bangladesh. Moreover, researchers carried out studies [32, 38, 39] in Narail district earlier and motived to advance further studies based on the population of Narail district.

Sample size and statistical power

The sample comprised 2425 participants, aged between 18 to 90 years from the Narail district. The sample including 1147 older adults and 1278 adults. Prior data indicate that the prevalence of severe depression was 21% in older adults aged 60 years or above, and 6.5% in adults aged between 18 and 60 years [40]. We assumed a margin of error of 5% in prevalence rates for older adults, and of 3% for adults when estimating the true prevalence of severe depression for each cohort in this rural area [40]. Using a significance level of 0.05 and statistical power above 80%, a required sample size of 1128 was needed for the older adult cohort and 1283 for the adult group.

The sample size of 2425 was sufficiently large enough to detect a minimum 5% difference in proportion of attaining awareness or knowledge of MHCs related items between men and women; no schooling and primary or secondary level of education; have sufficient funds most of the time and insufficient funds some of the time (statistical power 90%, $p = 0.05$).

Sampling frame

A multi-stage cluster random sampling technique was used for this study. Three unions from a total of 13 and one ward from a total of 9 wards of Narail upazilla were randomly selected at level 1. Two to three villages or mohalla from each selected union or ward were randomly selected at the level 2. About 120 older adults and 150 adults were interviewed from each of the villages. Recruitment strategy and quality assurance in data collection were described in details previously [38]. In brief, all team members participated in an intensive 2-day training programme in Narail before the commencement of the survey. The purpose of the training was to outline the rationale of the study, and the procedures and potential difficulties associated with data collection. The interviewers were instructed to visit every household within the randomly selected villages and to interview one household member of an older adult first. If none were available in this subgroup, the interviewers were approached an adult person of that household. If there was more than one male or female adult in the same household, one individual was selected, based on who was born closer to January. However, to maintain an approximately equal number of males and female participants, one female was interviewed immediately after a male participant. The recruitment started from a corner of a village and continued until the recruitment of a maximum of 250 participants was reached for a large village where the number of eligible participants were greater than 250. In case of fewer than 250 households in a village, the requirement continued to the adjacent village to reach the number to 250.

MHCs measures

Given the relative lack of validated MHL data, the specific items measuring MHL were sourced from the National Survey of Mental Health Literacy and Stigma in Australia [41]. A questionnaire comprising these items assessed participants' awareness of six MHCs (depression, bipolar disorder, anxiety, psychosis, dementia, and drug addiction) by asking if they had ever heard of these conditions with a possible response of "yes" or "no". Based on their responses, they were asked to list at least one symptom of these conditions, this provided insight into the level of knowledge they possessed. Attitudes towards the use of treatment was assessed by asking the question "do they or their relatives need treatment?" with a possible response of "yes" or "no". Participants were also asked if they or their relatives had ever