Economic Burden of Mental Disorders in Bangladesh: A Systematic Review and Recommendations for Future Research

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ABSTRACT

Mental disorders are highly prevalent in different population groups in Bangladesh. Effective policymaking and evaluation may need economic evidence on complex mental health problems. In this systematic review, we aimed to evaluate the current evidence on the economic burden of mental disorders in Bangladesh. We searched six major databases and additional sources using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. We included studies that were published in English, as peer-reviewed articles, reported any economic burden of any mental disorders, and focused on the Bangladeshi population. Among a total of 1241 citations, no study met our criteria. This scarcity of evidence on the economic burden of mental disorders can be attributable to many factors, including a suboptimal state of research in mental health, lack of institutional and national priorities on mental health economic research, and lack of capacities or resources to improve knowledge. Future efforts should aim at strengthening research capacities, providing resources, prioritizing mental health research, improving collaboration, and effective policymaking and strategic planning to promote mental health economic research in the context of Bangladesh.

Keywords: *Mental Disorders; Mental Health; Economic Burden; Economic Evaluation; Health Policy; Mental Health Policy; Bangladesh*

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Introduction

Mental disorders may create critical challenges for the affected individuals, families, communities, and populations. People living with mental disorders experience deteriorated quality of living, whereas informal caregivers experience a wide range of psychosocial challenges (MdMahbub Hossain & Purohit, 2019; Iseselo, Kajula, & Yahya-Malima, 2016; Souza et al., 2017). These issues are increasingly being recognized in recent years. Global evidence suggests the epidemiological burden of mental disorders is extremely high (Baranne & Falissard, 2018; Charlson et al., 2019; Sagar et al., 2020). However, the economic burden of mental disorders remains a poorly investigated domain (Baingana, Al’Absi, Becker, & Pringle, 2015). Several reasons, including social stigma, lack of awareness, poor reporting, suboptimal diagnosis, and critical gaps in mental health research, may contribute to the scarcity of evidence on the economic burden of mental disorders. This phenomenon is more prevalent in low- and middle-income countries where the overall growth of research, both in mental health sciences and social sciences, are found to be limited in the past (Shah, Murthy, & Suh, 2002). Despite such challenges, the economic burden of mental disorders is necessary for effective policymaking and strategic planning in a given context (MdMahbub Hossain & Purohit, 2019; Jenkins, Baingana, Ahmad, McDaid, & Atun, 2011). A clear understanding of how mental health may impose economic challenges on the affected individuals may inform how prospective interventions can aim to address those challenges, alleviate health and associated socioeconomic disparities, and improve the quality of living among individuals and populations.

Bangladesh is a South Asian country with more than 160 million population, which spends around 2.8% of the Gross Domestic Product (GDP) on health (WHO, 2020). Since its independence, Bangladesh has achieved notable success in improving different population health outcomes

despite its economic constraints, which is often termed as Bangladesh Paradox (Chowdhury et al., 2013; Mahbub Hossain, Sultana, & Munzur-E-Murshid, 2018). However, such achievements are not uniform across different sub-domains within the health sector. Bangladesh has a high burden of different mental disorders (M. D. Hossain, Ahmed, Chowdhury, Niessen, & Alam, 2014; M. M. Hossain et al., 2020), whereas mental health services throughout the country remain inadequate for addressing the growing mental health challenges in the country (M. M. Hossain, Hasan, Sultana, & Faizah, 2019). To address mental health burden in Bangladesh, policy interventions are essential, which would need evidence on the economic burden of mental disorders. To the best of our knowledge, there is no systematic review that may provide such evidence on the economic burden of mental disorders in Bangladesh. This systematic review aimed to address this knowledge gap through synthesizing evidence on the economic burden of mental disorders from the published literature.

Materials and Methods

We used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines in this review (Moher, Liberati, Tetzlaff, & Altman, 2009). We searched MEDLINE, American Psychological Association (APA) PsycInfo, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Academic Search Ultimate, Health Policy Reference Center, and Econlit databases with specific keywords as provided in Table 1. All databases were searched within titles, abstracts, and subject headings using those keywords since the inception of respective databases until April 17, 2020. Moreover, additional sources like references of selected articles, hand searching, and citations referred by experts upon communication were reviewed. After

searching the databases and additional sources, citations were retrieved and screened using the following criteria:

- 1) Peer-reviewed journal article published in English
- 2) Reported any data or estimation on the economic burden (direct or indirect cost, expense, or any other measures of economic burden)
- 3) The economic burden was evaluated for a mental disorder that is classified in any versions of the International Classification of Diseases or Diagnostic and Statistical Manual of Mental Disorders
- 4) The study population were from Bangladesh only

Table 1: Search Strategy

Search query	Search terms (titles, abstracts, and subject headings)
1	“mental disorders” OR “mental illness” OR “common mental disorders” OR “mental health” OR “mental health services” OR “psychological” OR “psychiatric” OR “psychosocial” OR “psychosomatic” OR “emotional” OR “psychiatric disorders” OR “psychiatric illness” OR “obsessive compulsive” OR “dementia” OR “depression” OR “depressive disorders” OR “suicide” OR “suicidal behavior” OR “self-harm” OR “schizophrenia” OR “bipolar disorder” OR “mood disorder” OR “affective disorders” OR “anxiety” OR “substance abuse” OR “substance use” OR “alcohol” OR “addiction” OR “addictive disorders” OR “panic” OR “posttraumatic” OR “post-traumatic” OR “PTSD” OR “dissociative disorders” OR “personality disorders” OR “Neurodevelopmental disorders” OR “intellectual disabilities” OR “communication disorders” OR “autism spectrum disorder” OR “attention deficit hyperactivity disorder” OR Schizophrenia OR “psychotic disorders” OR “Motor disorders” OR Catatonia OR “somatic symptom” OR “somatic disorders” OR “eating disorders” OR “sleep-wake disorders” OR parasomnia OR “sexual dysfunction” OR “gender dysphoria” OR “conduct disorders” OR “neurocognitive disorders” OR “paraphilic disorders” OR “unspecified mental disorders” OR “Alzheimer’s”
2	Cost OR “cost-effectiveness” OR “cost-benefit” OR “benefit-cost” OR “cost- utility” OR economic OR financial OR “economic burden” OR expense OR expenditure
3	Bangladesh OR Bangladeshi
Final Search query	1 AND 2 AND 3

Articles that did not meet at least one of the above-mentioned criteria were excluded from this review. Two authors independently reviewed the literature, and a third author was contacted in case of any discrepancies. The titles of the articles were screened first, followed by the abstract and full texts. A narrative synthesis without any assessment of quality of the studies was planned considering a low number of citations and the broader scope of the review, which aimed to include any economic study on the burden of any mental disorders in Bangladesh.

Results

We found 1204 citations through searching databases and 37 additional citations from additional sources, totaling 1241 citations. After excluding 379 duplicate citations, 862 non-duplicate entries were evaluated using the criteria for this review. The review process is depicted in Figure 1. At the end of the primary screening, 11 full texts were evaluated. No study was found that reported the economic burden of mental disorders in Bangladesh. Therefore, no further synthesis was conducted in the absence of any eligible study.

Figure 1: Flow diagram of the literature search process

Discussion

This systematic review evaluated the current literature within the scope of its method to identify the evidence on the economic burden of mental disorders in Bangladesh. However, despite adopting a systematic approach, this review could not find any study that may have met the criteria

of this review. This absence of evidence can be revisited using the traditional aphorism "absence of evidence is not evidence of absence." (Wendt, 2016) Mental disorders are highly prevalent in different population groups in Bangladesh, which are likely to create an economic burden on individuals, populations, and health systems. The findings of this review, which is "no eligible study were found within the scope of this review," rather than "no economic burden of mental disorder exists," should be evaluated critically to understand the current scarcity of economic evidence in the context of the mental health system in Bangladesh. Several issues should be considered in this regard, which may help in drawing insights informing future research and practice.

First, a critical lack of evidence on the economic burden of mental disorders in Bangladesh highlights the need for primary studies evaluating different economic aspects of mental disorders, including but not limited into the direct and indirect cost of care, cost of unemployment caused by the diseases, missed economic opportunities to the affected individuals and their informal caregivers, psychosocial stressors and other issues limiting the socioeconomic activities and wellbeing that can be attributable to mental disorders, immediate and prolonged effects of mental disorders among individuals and communities, stigma and associated social factors that may affect the economic wellbeing of someone with mental disorders, and so on. These issues alongside classical economic analyses may enrich our understanding on the economics of mental health, or disorders, in the context of Bangladesh.

Second, a lack of economic evidence can be attributable to the overall poor state of research in the realm of mental health in Bangladesh. Limited evidence suggests a high burden of mental disorders among population groups; however, mental health is not a policy priority in Bangladesh, which is reflected in the existing provisions of care, poor infrastructure, lack of human and other resources,

and a suboptimal state of mental health service across the nation. Therefore, improving economic research on mental disorders would need mainstreaming mental health research, which would need a collegial effort by the policymakers and scholars interested in promoting mental health and wellbeing in the nation.

Third, research in a context is often driven by the demand of knowledge by decision-makers at different levels in that context. Without a continued demand or a culture of using context-specific knowledge about a problem of interest, it may be difficult to create and sustain a culture of research. Moreover, without an enabling environment, which includes economic support and a sense of shared responsibility across the research community to serve the population through evidence, or research findings, it would be extremely challenging to conduct high-quality research. In resource-constrained contexts, research activities are often driven by interests like promotions in the academic or institutional settings, rather than the intellectual development of individuals and institutions. Such trends may critically affect the quantity and quality of research. However, the relevance of these issues is yet to be explored in the context of Bangladesh, which may inform critical gaps and underlying reasons behind the current state of research in mental health and associated economic evaluations.

Fourth, economic research on mental health would need collaborations between economists, psychiatrists, psychologists, mental health workers, public health experts, social scientists, and other scholarly communities who may help each other through offering valuable contextual and methodological insights. The scope of such collaborations among scholars irrespective of their institutional affiliations can enrich mental health research in Bangladesh.

Fifth, economic evaluations and research on mental health issues would need specific competence among the researchers. The findings of this review suggest that it is essential to evaluate the

preparedness of Bangladeshi scholars and institutions to undertake economic research on mental health. Such capacities should be strengthened through education and research initiatives. If needed, key stakeholders may initiate local, regional, and global collaborations for mental health research focusing on strengthening national research capacities on mental health as well as health economics.

Sixth, economic burden of mental disorders in Bangladesh may not be uniform for different population groups with different socioeconomic status and different levels of access to health. In the pluralistic health system in Bangladesh where different providers exist without ensuring continuum of care, the real estimation of economic burden can be challenging. Another issue is stigma to mental disorders, which may affect the reporting of mental disorders and associated economic burden. Such issues should be explored in future research in this domain.

Lastly, Bangladesh needs a mental health policy with specific provisions for periodic assessment of epidemiological and economic research on mental health. Without such policy-level commitments, it will be challenging to improve mental health research in Bangladesh. Consequently, future decision-making on mental health will continue to remain suboptimal as they would not have strong evidence-base supporting policy alternatives or projected outcomes. In addition, without economic data on mental health, it would be challenging to measure the impacts of ongoing efforts for improving mental health. Therefore, this review suggests a policy-level initiative for strengthening mental health research, including economic evaluations in the future.

Limitations of this review

This review has several limitations. First, the choice of databases and keywords may have affected the inclusiveness of the search strategy. Second, we recruited peer-reviewed studies, which may not provide insights that are available in grey literature or unpublished theses. Third, we did not contact the local institutions and check if they have any reports or studies on economic evaluations on mental disorders. These challenges should be addressed in future efforts on evidence synthesis to inform knowledge and practice in this domain better.

Conclusion

This systematic review evaluated the current literature to identify the economic burden of mental disorders and found no eligible study. However, a high epidemiological burden of mental disorders informs that the economic burden of mental disorders is likely to be high. It is essential to conduct primary studies focusing on how different population groups are affected by different mental disorders that may have different levels of economic burden. Such findings may help the decision-makers to devise prospective strategies addressing mental disorders and associated economic burden in Bangladesh.

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