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# Poor mental health condition in early life linked to later life dementia, are in the Bangladeshi people more vulnerable?

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**Abstract.** Early-life mental health problems are increasingly associated with dementia, an illness that results in a loss in cognitive functions. Mental health issues are common in Bangladesh while 2019 national survey found that 18.7% of adults and 20.2% of those 60 and over had mental health issues predicting 3.4 million cases of dementia by 2051. Despite this, mental health receives only 0.44% of the government's health budget, which leaves a sizable treatment gap where only 7.7% of patients receive the care they need. Programs for mental health must be given top priority because early intervention can dramatically lower the prevalence of dementia. Bangladesh can safeguard its populace and reduce the impact of dementia in the future by prioritizing mental health now.

**Keywords:** Mental Health, Dementia, Bangladesh.



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The loss of cognitive abilities, such as thinking, remembering, and reasoning, to the point where it interferes with day-to-day activities, is known as dementia and primarily said to be caused due to poor mental health condition. There were about 57.6 million dementia sufferers globally as of 2023, and an estimated 10 million new cases are reported annually, translating to someone developing the illness every three seconds (WHO, 2020). A worrying correlation has been shown in recent research between early-life mental health issues and the eventual onset of dementia. This correlation begs important issues regarding Bangladeshi people's susceptibility to this crippling illness. However, while the global dementia prevalence is projected to be 139 million by 2050, evidence shows Bangladesh may have 3.4 million cases in 2051 (including 0.8 million cases in males and 2.7 million cases in females) with the current prevalence rate 8% (Naheed et al., 2023).

While a systematic review on children of Bangladesh (1998-2004) reported estimated prevalence of mental health disorders from 13.4 to 22.9%, the first national survey in Bangladesh (2003-2005) reported the prevalence of all mental health disorders among adults 16.1% and subsequently the most recent national wide survey (2019) reported the overall prevalence 18.7% among adults and highest among people 60 years and above 20.2%. In addition, 55.9% of university students (male: 52.6% and female: 62.8%) and 26.2% medical students exhibited poor mental health status (Hasan et al., 2021). It's interesting to note that research indicates Bangladeshi women are the most susceptible to early mental health conditions and dementia in later life. These findings apply to the entire world population. Research on the gender aspects of living with dementia is scarce, both nationally and internationally, and in any situation where women are involved.

Reliability for dementia in Bangladesh is called into question by statistics showing a worrisome association between early-life mental health problems and dementia. Long-term and recurrent depression can raise the risk of dementia by two to four times. This is probably because of variables such as inflammation,  $\beta$ -amyloid buildup, hippocampal shrinkage, hormonal abnormalities, and deficiencies in nerve growth factors. Thus, increasing pattern of mental health abnormality among Bangladeshi young generation can lead to significant burden of dementia in near future leading to increase disease burden in terms of mortality as well as morbidity. Furthermore, the government of Bangladesh is spending 0.44% on mental healthcare which is of total health budget (Alam et al., 2021) whereas the annual cost of caring for individuals with dementia is USD\$321 million, or USD\$697 per person (Schaper et al., 2015). Moreover, a 2018-2019 door-to-door survey in Bangladesh revealed that 18.7% of adults and 12.6% of children met the criteria for mental disorders, with a significant treatment gap of 92.3% among adults, meaning only 7.7% receive mental health care,

and there is a lack of systematic documentation for specific disorder treatment coverage (Alam et al., 2015).

The obstacles to receiving mental healthcare in Bangladesh include a dearth of public mental health facilities, a shortage of qualified mental health experts, unequal distribution of financial resources, and stigma. Macroeconomic factors that worsen the issue include inadequate research, weak advocacy, and the Bangladeshi government's lack of investment in healthcare. In Bangladeshi society, mental health issues are stigmatized, and the majority of those who suffer from them typically do not seek medical attention which is applicable both for the cases of early life ignorance in mental health issues and later life ignorance for senior citizens where mental health problems (i.e depression, anxiety, stress) and dementia are not regarded as serious health issues to be treated.

Understanding and acting upon this burden and advancement in research can help in developing strategies to protect the mental health of our younger generations and reduce the risk of dementia later in life. However, mitigating mental illnesses in early life may lower the risk of subsequent dementia and younger dementia onset, according to a large population-based administrative register research of 1.7 million New Zealand individuals studied for three decades (Richmond et al., 2022). Thus, the authors urge policymakers, healthcare professionals, and community leaders to prioritize mental health initiatives to safeguard the future well-being of the Bangladeshi people.

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None.

**Authors' contributions**

MR conceptualized and drafted the correspondence. CZ reviewed and gave technical input. All authors read and approved the final version.

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