Health Seeking Behavior and Self-Medication Practice among Undergraduate Medical Students in a Selected Private Medical College in Bangladesh

*Khan S¹, Mohiuddin Z², Andalib T³, Akhter H⁴, Mostofa S⁵

Abstract

There is a need to have a formal health program for the medical students, set guidelines for students to follow if they fall ill and provision of rational medication. Students need to be made aware of the dangers of self-treatment and investigation. This cross-sectional study was conducted among the undergraduate medical students of US Bangla Medical College (USBMC), Narayangonj from July to December 2022. The study aims to assess the health seeking behavior and self-medication among the students. Data were collected by interviewing students using a pre-designed questionnaire and twenty Likert items were prepared for data collection. Data were analyzed by using SPSS (Statistical Package for the Social Sciences) version 25. Total 293 students were interviewed, among them male - female ratio was 1.23:1 and the age range of the participants was 17 to 28 years. Most of the (70%) students were belonged to upper-middle class family; where 21% from upper class, 8% from lower middle class, and only 1% from the working class family. Regarding the father's educational status of the students more than two-third (69%) of their fathers completed university degree, 29% completed higher secondary or secondary level of education and few (2%) had informal education. Most of the students (81%) used to take medicine without prescription/ self medication. Among the students around one-fourth of them used to take both paracetamol (26%) and painkiller (24%) as self-medication; where 13% of the students used to take antibiotic. Regarding the opinion of the well established definition of 'Health' that is "Health includes physical, mental and social well-being and not

- 1. *Dr. Sharmin Khan, Assistant Professor, Community Medicine, US-Bangla Medical College, Dhaka, Email: sharminkhan907@gmail.com
- 2. Dr. Zebunnesa Mohiuddin, Associate Professor, Community Medicine, United Medical College, Dhaka
- 3. Dr. Tasnuva Andalib, Associate Professor, Forensic Medicine & Toxicology, United Medical College, Dhaka
- 4. Dr. Hosneara Akhter, Associate Professor, Community Medicine, Shahabuddin Medical College, Dhaka
- 5. Dr. Sharmin Mostofa, Assistant professor, Community Medicine, Ad-din Akij Medical College, Boyra, Khulna
- *For Correspondence

just absence of disease/ infirmity" most of the students (90%) gave positive statement (agree 58% and strongly agree 32%); where 5% of them were neutral and rest 5% were disagreed. Nearly two-third (65%) of the students expressed their opinion positively (agree 49% and strongly agree 16%) on "seek help immediately when they develop some physical symptoms" that is they seek immediate help for their illness; where 14% of them were neutral and rest 21% were disagreed. More than one-third (35%) of the students stated the reason for self-medication related to their too busy schedule to visit physician and 21% stated that the illness was too minor for consultation; other reasons were knowledge about the drug and illness, follow old prescription, over the counter drugs etc. Almost one-third (30%) of the students opined positively that public health care facilities provide standard health care, but more than one-third (36%) did not comment and rest one-third (34%) differed on it. Remarkably used self-medicated drugs were paracetamol (26%), painkiller (24%), 13% and others NSAIDs/ Analgesics, Antacid/ PPI, Vitamins, antitussive, antihistamines. The statistical test revealed that there is a strong relationship of their opinion on attention to mental physical well-being for healthy lively-hood between coping ability, seek the best care from college hospital and seek help for sensitive matters other than own college hospital (at 5% level of significance). To ensure better health seeking behavior and good practice knowledge of medical students was not absolutely satisfactory. Awareness regarding demerits of self-medication like antibiotics resistance and side effect of drugs would be build among the students. This study would facilitate for increase of medical knowledge and promotion of higher health-seeking behavior.

Keywords: *Health seeking behavior, self-medication, undergraduate medical students*

INTRODUCTION

Health seeking behavior is frequently described as any action made by people who are experiencing a health issue or illness with the intention of finding a suitable treatment.^{1,2} It is preceded by a decision-making process that is also influenced by household and/or individual conduct, social norms and expectations, and provider-related features and behavior.³ It is not homogeneous since sociocultural, economic, and socio-cognitive factors, as well as factors related to cognition or consciousness, all influence it.² During the COVID-19, the healthcare seeking was very challenging among general people including medical students.^{3,5} The interaction of

these variables affects a person's decision-making significantly.⁴ Self-medication and alternative medical treatment are also choices made by people who engage in health care seeking behavior.⁶ The use of medications in this act makes it different from self-care because they have the potential to be beneficial or harmful.⁶ Medical students are more likely to engage in this behavior since they are familiar with both medications and ailments. Different factors, such as individual and/or household behavior, societal norms, and expectations, influence one's health-seeking behavior and decision-making. The irrational use of pharmaceuticals is a topic of concern for both the general population and professionals.⁶ The rates are high all throughout the world, reaching up to 68.0% in European nations significantly higher in underdeveloped nations 6and as high as 92.0% among Kuwaiti adolescents.^{6, 8} The prevalence rates in the surrounding nations are 31.0% in India and 59.0% in Nepal.⁶ There is limited research on self-medication in Pakistan, but those that have been done have found high rates of around 51.0%¹⁰. The fact that prevalence rates are increasing despite efforts to reduce this issue is especially concerning.11

MATERIALS AND METHODS

Study design, duration, and population

This cross-sectional study was done from July December 2022, among the undergraduate medical students to assess their health seeking behavior and attitude towards self-medication. The study took place at Community Medicine Department, US Bangla Medical College Hospital. Using a pre-tested questionnaire, this study finally collected 293 data from the medical students. A questionnaire was developed following an extensive review of the literature. It encompassed inquiries pertaining to the physical, social, and mental aspects of health. This questionnaire consisted of demographic queries and twenty Likert scale items, which were employed in this study to evaluate medical students' knowledge, attitudes, and regarding health-seeking behavior practices and self-medication. Each Likert item from the questionnaire was treated as an ordinal variable, and non-parametric tests were employed for analysis. Instead of grouping the Likert items to generate a single result, each item was examined individually. The data were analyzed using SPSS (Statistical Package for the Social Sciences) version 25. Frequencies were calculated for both independent and dependent variables. Given that the dependent variables were ordinal and the independent variables were categorical, either the Mann-Whitney U test or Kruskal-Wallis H test was selected as appropriate to determine if variations existed in the responses of participants based on different categories of independent variables. In the text, when expressing the

percentage of participants who agreed with a particular question, the frequencies of "Strongly Agree" and "Agree" responses were combined. Similarly, the frequencies of participants who disagreed were combined by adding "Strongly Disagree" and "Disagree" responses. In tables, frequencies were presented using a five-point scale: "Strongly Disagree," "Disagree," "Neutral," "Agree," and "Strongly Agree."

Ethical Permission for data collection

The research has been performed following the Declaration of Department of Community Medicine, US Bangla Medical College Hospital, and the ethical approval was obtained from the Institutional Review Committee of the US Bangla Hospital, Rupgonj, Narayangonj, Bangladesh.

RESULTS

Table I shows the summary statistics of the medical students; total 300 students were address for this study among them 293 were selected as respondents, out of which 156 (53%) were male and 137 (47%) were female. The age of the participants ranged from 17 to 28 years with a mean age of 22.44 ± 1.49 years (Mean \pm SD). Mean height and mean weight of the respondents were 164.06 ± 12.33 and 63.23 ± 10.24 (Mean \pm SD). Mean \pm SD family income was 88001.71 ± 72811.52 taka.

Table- I: Summary statistics of the medical students (n=293)

Variables	Mean	Standard Deviation
Age in years	22.44	1.49
Height in cm	164.06	12.33
Weight in kg	63.23	10.24
Monthly Family Income	88001.71	72811.52

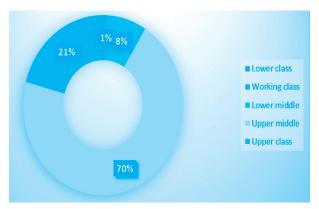


Figure- 1: Distribution of Socio-economic condition of the respondents (n=293)

Figure 1 shows the distribution of socio-economic condition of the respondents; among them 70% (206) students were belongs to upper middle class and 21% (61) were upper class and only few 1% belongs the working-class family.

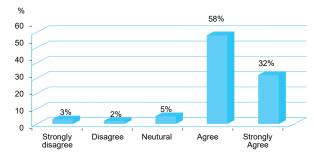


Figure- 2: Statement regarding "I am well aware that health includes physical, mental and social well-being and not just absence of disease/ infirmity".

Figure 2 shows the statement on "I am well aware that health includes physical, mental and social well-being and not just absence of diseasel infirmity"; here, 58% was agree, 32% was strongly agree, 2% was disagree and 3% was strongly disagree. That is 58% medical students were aware about their physical and mental health.

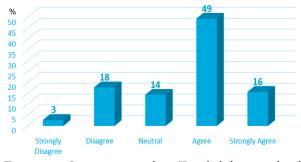


Figure- 3: Statement regarding "I seek help immediately when I develop some physical symptoms".

Figure 3 illustrates that 65% (49+16)% were agreed and strongly agreed upon the statement 'seek immediately when develop some physical symptoms', and 21% (18+3)% were disagreed and strongly disagreed.

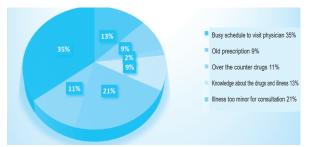


Figure- 4: Pie-chart of reasons for self-medication

Figure 4 shows the distribution of the main reason for self-medication; 35% stated self-medication as for busy schedule to visit physician, 21% told that illness was too minor for consultation and 9% students were self-medicated followed by old prescription.

Table II shows distribution of the students regarding the statement of "I don't think public health care facilities of Bangladesh provide standard care." Here, 36.2% of the students were neutral, 30% were agree + strongly agree with this statement and 34% (25+9) % were disagree and strongly disagree.

Table- II: I do not think public health care facilities		
of Bangladesh provide standard care		

		Frequency	Percent	Valid	Cumulative Percent
Valid	Strongly Disagree	26	8.9	8.9	8.9
	Disagree	74	25.3	25.3	34.1
	Neutral	106	36.2	36.2	70.3
	Agree	79	27.0	27.0	97.3
	Strongly Agree	8	2.7	2.7	100.0
	Total	293	100.0	100.0	

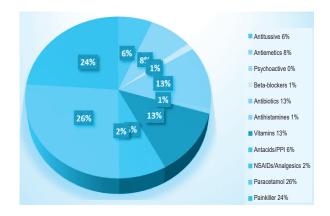


Figure- 5: Name of the self-medicated drug

Figure 5 states that the name of self-medicated drugs; among the students Paracetamol was taken by 26%, painkiller by 24% and 13% of students took antibiotic as self-medicated drug.

DISCUSSION

We fixated on the belief of issues in several aspects of health, temporal arrangement chosen by the patients to travel for a check-up, mode of consultation, seeking the assistance of other medication, and self-medication among the medical students in Bangladesh. This study is totally different from alternative studies as this has explored health-seeking behavior by taking the context of mental and social factors additionally to the physical facet of health, as health is simply not regarding physical well-being or simply mental well-being, not like alternative studies that have targeted on a particular disease/condition. 12, 11

This study conducted among medical students of a teaching hospital in Bangladesh incontestable that ninetieth (19%) of the responders were standard regarding the physical, mental, and social aspects of health. Still, fifty-one (51%) wanted to facilitate only if their physical symptoms got worse, twenty first (21%) of the responders did not think about issues of thoughts, feelings, and header ability with ups and downs of life as issues of health, and twenty seventh (27%) of them didn't understand issues in making/maintaining a purposeful positive relationship with people as issues of health. Despite having an equivalent tutorial background, still, twenty eighth (28%) of responders believed that solely weak and unproductive folks suffer from problems with mental and social well-being. it's to be noted that respondents of this study square measure presently being trained to be health professionals beneath an equivalent info. the sole distinction prevailing among the responders is that the socio-economic variables. And this has brought this inequality among respondents as social, economic, and legal variables have an effect on the approach health and sickness square measure perceived by a private.¹⁴

Talking regarding the sick state of social health of the scholars, this could be connected to the character of their study and therefore the time demanded by their course that restricts their social life. Since medical education may be a long and demanding course, medical students square measure liable to get distressed which might cause bated psychological feature functioning and depression.¹⁵ Medical students square measure prone to of these compared to others of an equivalent age bracket.¹⁶ Our study known that twenty seventh of the scholars felt that they neglect their social well-being, while 16.8% of the respondents were unaware that the issues in making/maintaining a purposeful positive relationship

with people square measure issues of health. About 42.8% of the respondents World Health Organization wanted to facilitate for sensitive matters and taboo associated diseases selected alternative hospitals/clinics than their own college's hospital. this means their concern towards confidentiality and stigma. A previous study distinguished that the scholars square measure involved that seeking psychological state care would raise queries among colleagues and schools concerning their stability and appropriateness that's demanded by the medical fraternity.¹⁷

Besides this, medical students face totally different barriers whereas seeking attention. The worry of stigma, problems with confidentiality, confusion on seeking facilitate, worry of unwanted intervention whereas seeking mental health care, and barriers like financial problems, lack of your time, and worry of facet effects whereas seeking physical health care square measure such known barriers.¹⁸ Renee et al. have additionally mentioned in their study that medical centers outside the university supply students' decent distance for them to feel assured of their confidentiality.¹⁹

All these findings simply show an equivalent issue, despite what this tutorial qualifications, training, and level of awareness square measure, there will be socio-cultural determinants that have an effect on the state of health. folks tend to mix within the ideas of health, disease, and healthcare-seeking behavior in keeping with their lifestyles and their several demographic circumstances, such that, data of medication alone cannot guarantee higher healthcare-seeking behavior.²⁰

The findings of our study square measure in line with this. Health-seeking behavior may be a terribly complicated matter as what is outlined as health or health facility varies with cultures, life experiences, socio-economic variables, and legal variables.^{14,21} health care seeking behavior differs from person to person because it may be a terribly personal matter²² and health care involves interaction with alternative people.²³

CONCLUSIONS

Health-seeking behavior may be an advanced and extremely personal matter of a private that is generally determined by their demographic circumstances. The information of bioscience has not satisfactorily ensured higher health-seeking behavior and sensible practices. The high prevalence of observe of self-medication adds another burden. There is a requirement for timely and evidence-based teaching-learning techniques; thought of individual and/or unit behavior, community norms, and expectations for holistic approach; and capital punishment legislation to scale back the barriers and upgrade the health seeking behavior of medical students.

REFERENCES

- Ward H, Mertens TE, Thomas C. Health seeking behaviour and the control of sexually transmitted disease. Health Policy Plan. 1997;12(1):19-28. doi:10.1093/heapol/12.1.19
- Noman AA, Joarder T, Islam MS, Hossain S, Sadaf S, Al Noman MA, Sakib N, Efte Ekra J, Islam MS, Meem RI, Rahman MM. Assessment of home health care seeking behaviors and socio-demographic impact on the recovery time of COVID-19 patients: A cross-sectional study in Bangladesh. SEAJPH [Internet]. 2023 Jun. 5 [cited 2023 Aug. 28];11(2):1-13. Available from: https://seajph-phfbd.org/index.php/seajph/article/vie w/1
- Rahman MM, Marzo RR, Chowdhury S, et al. Knowledge, Attitude and Practices Toward Coronavirus Disease (COVID- 19) in Southeast and South Asia: A Mixed Study Design Approach. Front Public Health. 2022;10:875727. Published 2022 Jun 21. doi:10.3389/fpubh.2022.875727
- Rahman MM, Noman AA, Islam AS, Farhana N. Bangladesh striving against double burden: Dengue outbreak surges amid COVID-19 pandemic. Journal of Global Health Economics and Policy. 2021;1:e2021015. doi:10.52872/001c.29657
- Haque MF, Rahman MM, Alif SM, Akter E, Barua S, Paul GK, et al.. Estimation and prediction of doubling time for COVID-19 epidemic in Bangladesh: a study of first 14 month's daily confirmed new cases and deaths. Global Biosecurity. 2021;3(1):null. DOI: https://doi.org/10.31646/gbio.91
- Badiger S, Kundapur R, Jain A, et al. Self-medication patterns among medical students in South India. Australas Med J. 2012;5(4):217-220. doi:10.4066/AMJ.2012.1007
- James H, Handu SS, Al Khaja KA, Otoom S, Sequeira RP. Evaluation of the knowledge, attitude and practice of self-medication among first-year medical students. Med Princ Pract. 2006;15(4):270-275. doi:10.1159/000092989

- Alam N, Saffoon N, Uddin R. Self-medication among medical and pharmacy students in Bangladesh. BMC Res Notes. 2015;8:763. Published 2015 Dec 9. doi:10.1186/s13104-015-1737-0
- Biswas M, Roy MN, Manik MI, et al. Self medicated antibiotics in Bangladesh: a cross-sectional health survey conducted in the Rajshahi City. BMC Public Health. 2014;14:847. Published 2014 Aug 14. doi:10.1186/1471-2458-14-847
- Chowdhury N, Haque A, Aysha F. Investigation into self-medication of drugs for primary and adjunct therapy in psychiatric diseases among students in chittagong city of bangladesh: a comparison between medical and nonmedical students. Indian J Psychol Med. 2012;34(4):313-317. doi:10.4103/0253-7176.108195
- 11. Ali SE, Ibrahim MI, Palaian S. Medication storage and self-medication behaviour amongst female students in Malaysia. Pharm Pract (Granada).
 2 0 1 0 ; 8 (4) : 2 2 6 - 2 3 2 . doi:10.4321/s1886-36552010000400004
- O'Mahony M, Hegarty J. Help seeking for cancer symptoms: a review of the literature. Oncol Nurs Forum. 2009;36(4):E178-E184. doi:10.1188/09.ONF.E178-E184
- Scott SE, Grunfeld EA, McGurk M. Patient's delay in oral cancer: A systematic review. Community Dent Oral Epidemiol. 2006;34(5):337-343. doi:10.1111/j.1600-0528.2006.00290.x
- McMurray A Clendon J. Community Health and Wellness : Primary Health Care in Practice. 5th ed. Sydney: Churchill Livingstone/Elsevier; 2014. https://www.worldcat.org/title/Community-health-a nd-wellness-:-primary-health-care-in-practice/oclc/90 3245791. Accessed August 28 2023.
- Jamali A, Tofangchiha S, Jamali R, et al. Medical students' health-related quality of life: roles of social and behavioural factors. Med Educ. 2013;47(10):1001-1012. doi:10.1111/medu.12247
- Dyrbye LN, Thomas MR, Shanafelt TD. Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. Acad Med. 2006;81(4):354-373. doi:10.1097/00001888-200604000-00009
- 17. Dearing, R. L., Maddux, J. E., & Tangney, J. P. Predictors of Psychological Help Seeking in Clinical and Counseling Psychology Graduate Students.

Professional Psychology: Research and Practice. 2005, 36(3), 323–329. https://doi.org/10.1037/0735-7028. 36.3.323

- Menon V, Sarkar S, Kumar S. Barriers to healthcare seeking among medical students: a cross sectional study from South India. Postgrad Med J. 2015;91(1079):477-482. doi:10.1136/postgradmedj -2015-133233
- Brimstone R, Thistlethwaite JE, Quirk F. Behaviour of medical students in seeking mental and physical health care: exploration and comparison with psychology students. Med Educ. 2007;41(1):74-83. doi:10.1111/j.1365-2929.2006.02649.x
- 20. Shaikh BT. Understanding social determinants of health seeking behaviours, providing a rational

framework for health policy and systems development. J Pak Med Assoc. 2008;58(1):33-36.

- Viner RM, Ozer EM, Denny S, et al. Adolescence and the social determinants of health. Lancet. 2012;379(9826):1641-1652. doi:10.1016/ S0140-6736(12)60149-4
- 22. Yurkovich EE, Hopkins Lattergrass I, Rieke S. Health-seeking behaviors of Native American Indians with persistent mental illness: completing the circle. Arch Psychiatr Nurs. 2012;26(2):e1-e11. doi:10.1016/j.apnu.2011.11.002
- 23. Igun UA. Stages in health-seeking: a descriptive model. Soc Sci Med (1967). 1979;13A(4):445-456.