PATTERN OF SELF-MEDICATION AMONG MBBS STUDENTS OF SHEIKH ZAYED MEDICAL COLLEGE, RAHIM YAR KHAN

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Abstract

Background & Objective: Self-medication among medical students, particularly MBBS students, is a global concern due to its potential impact on future healthcare practices. The aim of this study was to evaluate the patterns of self-medication among MBBS students.

Methods: A cross-sectional study at Sheikh Zayed Medical College, Rahim Yar Khan, investigated the pattern of self-medication among MBBS students. All MBBS students participated in the data collection period, which ran from August 15 to September 15, 2023. A WhatsApp group was used to deliver an online questionnaire, which was completed by 130 individuals who met the inclusion criteria. The survey examined demographics, self-medication habits, motivations and sources of medicine. Statistical analysis was performed using SPSS version 25.

Results: Of the 130 participants, a considerable proportion 67 (51%) admitted to self-medicate for more than 2 symptoms with convenience cited as the main reason by the participants (46.15%). Headaches were the most frequently self-medicated condition (51.54%), while skin wounds had the lowest percentage of self-medication (10%). Moreover, a significant percentage of individuals (36.15%) reported modifying their prescription dose.

Conclusion: The high rate of self-medication among MBBS students highlights the importance of targeted measures to encourage future healthcare workers to use medications responsibly and to prioritize patient safety.

Keywords: Self-Medication, MBBS Students, Patterns, Symptoms

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Self-medication, or taking prescription drugs without a doctor's advice or supervision, is a common practice observed globally.[1] Given their special place in the field of medicine, the pattern among medical students especially those pursuing Bachelor of Medicine and Bachelor of Surgery (MBBS) degrees is particularly concerning.[2] MBBS students have access to medical resources and a certain amount of information as they prepare to become healthcare professionals, which may impact their views and behaviors towards self-medication.[3,4]

It is important to comprehend different pattern of self-medication among MBBS students.[5] First, it clarifies the degree to which aspiring medical professionals engage in this activity, which may affect their future interactions with patients and prescribing practices.[6] Second, it sheds light on the factors influencing self-medication practices among those with medical knowledge, such as attitudes towards seeking professional medical assistance, accessibility to pharmaceuticals, and perceived effectiveness of self-treatment.[7] Furthermore, studying different patterns of self-medi-

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cation among MBBS students can help shape educational programs aimed at promoting safe drug administration and self-care behaviors in medical curricula.[8,9]

Medical students, particularly those in their early training, have received little attention in most studies on self-medication among healthcare professionals, which have focused on practicing doctors, pharmacists, and nurses.[10] However, since they are currently acquiring the theoretical knowledge and practical skills necessary for their future roles as doctors, MBBS students represent a distinct group within the healthcare sector. Therefore, examining patterns of self-medication among this specific group can provide important insights into the evolving perspectives and practices regarding self-care in the medical community.[11,12]

Thus, by analyzing the patterns of self-medication among MBBS students, this study seeks to fill this gap in the literature. This research aims to improve future healthcare professionals' understanding of medication-related activities by clarifying different patterns and associated factors of self-medication within this community.

The aim of this research was to determine pattern of self-medication among MBBS students of Sheikh Zayed Medical College, Rahim Yar Khan.

METHODS

Data was collected for the research during a one-month period from August 15, 2023, to September 15, 2023, including all MBBS students from the first year to the final year. A cross-sectional research design provided a snapshot of MBBS students' self-medication behaviors over this period, offering important insights into the patterns and contributing factors of self-medication in this group.

The research included 130 MBBS students ranging from first to final year, chosen by convenience sampling to ensure efficient and practical participant selection.

All MBBS students registered at Sheikh Zayed Medical College, Rahim Yar Khan, who had self-medicated in the previous year and who willingly and freely consented to participate were included in the study. Students who could not or would not provide informed consent, had cognitive impairments that would prevent accurate self-reporting, or refused to answer questions about self-medication were excluded. The primary tool for gathering data was an online questionnaire. MBBS students were asked to complete a brief self-structured questionnaire via WhatsApp groups to provide information on their self-medication habits from the previous year. The survey included a wide range of topics, including socio-demographic factors such as age, gender, place of residence, and educational program. It also covered self-medication behaviors, frequency of self-medication, justifications for self-prescription, guidance sources, ailments or complaints for which self-medication was used, and any negative consequences encountered.

Once the sample size was determined to be suitable for deriving significant findings, the information gathered from the completed questionnaire was input and examined using the Statistical Program for Social Science (SPSS) version 25, yielding tabular, graphical, and textual information. In general, percentages were used for result analysis and interpretation. Prior to the start of the study, ethical permission was acquired from the Institutional Review Board, Ref. No. 91/IRB/SZMC/SZH to ensure respect for participant confidentiality and ethical norms.

RESULTS

The frequency of self-medication behaviors among MBBS students at Sheikh Zayed Medical College, Rahim Yar Khan, with particular attention paid to age demographics, is shown in Figures 1. Of the 130 participants, 88 (67.69%) were female and 42 (32.31%) were male. The most common age of the students was 23 years, 29 (22.3%) followed by 20,21, and 22 years as shown in figure 1.

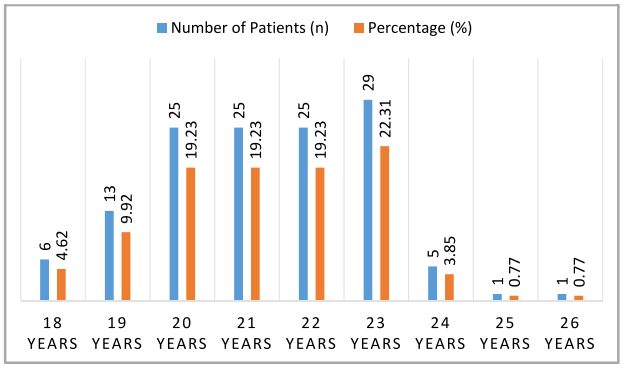

Figure 1: *Age Distribution in Self-Medication among MBBS Students*

Figure 2 shows that 67 (51.5%) have history of self medication for more than 2 symptoms. Among the patients surveyed, 67 individuals, constituting 51% of the total, reported engaging in self-medication practices for more than 2 symptoms, while 63 patients cons-

tituting 49% stated that they self-medicated for less than 2 symptoms.

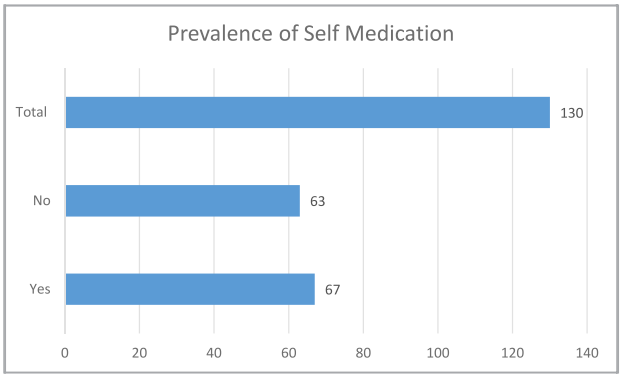

Figure 2: *Prevalence of Self Medication among Medical Students*

The self-medication trends for common symptoms among MBBS students are shown in Table 1, which also shows the proportion of students who answered "Yes" or "No" to self-medicating for different illnesses. Headache was the most common complaint among them, with 67 patients (51.54%) choosing to self-medicate. Sore throat came in second with 64 patients (49.23%). On the other hand, the lowest percentage of patients 13 (10%) chose to self-treat for skin wounds. With 103 patients (79.23%) for each symptom, symptoms like vomiting and diarrhea showed more "No" replies, suggesting less self-medication. Additionally, the majority of respondents chose not to self-medicate for other symptoms; the range of "No" answers for this category was 80.77% to 96.92.

Table 1: *Self-Medication Pattern for Common Symptoms Among MBBS Students*

Variables	Yes		No	
	N	%	N	%
Runny Nose	56	43.08	74	56.92
Headache	67	51.54	63	48.46
Cough	46	35.38	84	64.62
Sore throat	64	49.23	66	50.77
Fever	63	48.46	67	51.54
Pain	56	43.08	74	56.92
Vomiting	27	20.77	103	79.23
Diarrhea	27	20.77	103	79.23
Skin wounds	13	10.00	117	90.00
Nasal Congestion	25	19.23	105	80.77
Other	4	3.08	126	96.92

Of the total respondents, 60 patients (46.15%) said that their main motivation was convenience, 59 (45.4%) individuals gave alternative explanations for their self-medication. Furthermore, a smaller percentage of patients 4 (3.1%) cited cost-saving as their justification, while 7 (5.3%) said they didn't trust doctor prescriptions. (Table 2)

Table 3 lists the self-medication habits of the 130 respondents in the sample. When it came to choosing a medication, most people relied on their own experience 56 (43%) and the recommendations of their prior doctors 35 (26.9%). Less weight was given to the views of elders 10 (7.69%) and commercials 2(1.54%), with friends' opinions 12 (9.23%) being the preference. In terms of where the medication came from, a significant percentage came from general practitioners 17 (13%) and leftover prescriptions 36 (27.7%), but a smaller percentage came from medical supply shops 3 (2.31%) and online pharmacies 15 (11.54%).

Table 2: *Reasons for Self-Medication Among Surveyed Participants*

Reason for Self-Medication	Frequency	Percentage (%)
Cost saving	4	3.08
Convenience	60	46.15
Lack of trust in doctor's prescription	7	5.38
Others	59	45.4

DISCUSSION

The findings of this research demonstrate how

Table 3: *Self-Medication Practices and Sources Among MBBS students*

Variable		Yes		No	
		N	%	N	%
Basis of Selection of Medicine for Self-Medication	Opinion of seniors	10	7.69	120	92.30
	Opinion of friends	12	9.23	118	90.77
	My own experience	56	43.07	74	57.92
	Advertisement	2	1.54	128	98.46
	Previous Doctor's Prescription	35	26.9	95	73.9
Source of Medicine for Self-Medication	Medical Store	3	2.30	127	97.6
	General Practitioners	17	13.07	113	86.92
	Leftover from previous prescription	36	27.7	94	72.3
	E-Pharmacies	15	11.53	115	88.46

common self-medication is among MBBS students, which emphasizes how important it is to understand and treat this phenomenon within the context of medical education. The results show that self-medication practices are rather common among MBBS students, with 67 respondents or 51% of the overall sample admitting to have used self-medication for more than 2 symptoms This number is consistent with other studies showing that medical students self-medicate at high rates.[13] Additionally, the respondents' demographic distribution, which shows a greater percentage of females (88 respondents, 67.69%) than males (42 respondents, 32.31%), is consistent with results from previous re-search.[14] More research is necessary to determine the possible causes of these gender differences in the incidence of self-medication, including social impacts and healthcare-seeking habits.

The research goes on to identify the precise illnesses and symptoms that MBBS students take care of themselves, and headaches, sore throats, and fevers are shown to be among the most prevalent causes of self-medication.[15] Of the 130 participants, 67 individuals (51.54%) chose to self-medicate for headaches, 64 for sore throats (49.23%), and 63 for fevers (48.46%). These results support previous research that highlights medical students' tendency to self-medicate mild illnesses.[16] Remarkably, students' comparatively low rates of self-medication for symptoms like diarrhea and vomiting suggest that they are aware of the limits of self-care in addressing specific diseases, which is consistent with the ideas of responsible medicine use.[17]

There are a variety of factors that influence MBBS students' self-medication habits, but convenience is the main driver for most of the respondents. This is consistent with other studies that found convenience to be a major factor affecting healthcare workers' self-medication practices.[18] Furthermore, the significance of resolving communication gaps and cultivating confidence in healthcare practitioners is highlighted by the minority of respondents' reported lack of faith in doctor prescriptions.[19]

MBBS students who self-medicate have a tendency to rely on a variety of sources for their medicine, such as general practitioners and leftover prescriptions. Of the patients who responded, 36 (27.7%) got their meds via leftover prescriptions, and 17 (13.08%) from general practitioners. Notably, the frequency with which leftover prescriptions are obtained for pharmaceuticals draws attention to the possible hazards of using drugs without supervision and the need of actions to support safe medication disposal practices.[20]

The research also provides insight into attitudes and actions related to self-medication over several academic years, with differences noted in the frequency and patterns of self-medication.[21] The distribution of responders by academic year reveals different patterns of self-medication. In the fourth year, 43 students (33.08%) admitted to self-medicating, which was the greatest proportion of self-medication methods. First year (35 students, 26.92%), third year (29 students, 22.31%), second year (11 students, 8.46%), and last year (12 students, 9.23%) came next. These differences show how self-medication behaviors are dynamic and emphasize the need for therapies that are specifically designed to meet the changing needs and experiences of medical students as they go through their training. Furthermore, 75 students (57.69%) thought that self-medication was a legitimate practice out of the 130 people that participated in it.[22] Promoting patient safety and cultivating an evidence-based practice culture within the medical community require addressing the causes and effects of self-medication among aspiring medical professionals.

This study was a single center study which may not be a true representative of all the medical students of the country. So studies with larger sample size and multicenter may be conducted.

CONCLUSION

This study showed that almost more than half of the medical students have shown practices of the self-medication for more than 2 symptoms among MBBS students of Sheikh Zayed Medical College, Rahim Yar Khan. The research identifies a number of variables that influence self-medication habits, such as accessi-

bility to drugs from many sources, convenience, and mistrust of medical prescriptions.

Ethical Approval:

The ethical Approval was obtained from Sheikh Zayed Medical College, Rahim Yar Khan. (Ref. No. 91/IRB/SZMC/SZH)

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