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Research article

**SELF-MEDICATION AMONG MEDICAL STUDENTS OF  
DIFFERENT MEDICAL COLLEGES**Umama<sup>1</sup>, Barzah Durrani<sup>2</sup>, Muhammad Mehtab<sup>3</sup><sup>1</sup> Lahore General Hospital, Lahore, <sup>2</sup> Shaikh Zayed Hospital, Rahim Yar Khan, <sup>3</sup> Quaid-E -Azam Medical College, Bahawalpur.

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**Abstract:**

*Self-medication is among the most common socio-economic health issue all over the globe and is increasing day by day.*

*Objective: To see the prevalence of self-medication among medical students of different medical colleges.*

*Material and Methods: This cross-sectional study was conducted on 156 medical students. Out of 156, one hundred and forty three returned the proforma. A predesigned questionnaire was served.*

*Results: There were 78 (54.54%) female students and 65 (45.45%) male students. Mean age was 22.98±2.01 years with an age range of 21 to 25 years. Out of one hundred and forty three, only 13 students (9.09%) including 5 female and 8 male students responded that they never had self-medication. One hundred and thirty students (90.09%) experienced self-medication once or on regular basis due to different reasons.*

*Conclusion: According to this study prevalence of self-medication was higher in female students than male students and there is a need to implement some educational programs among the students for increasing the awareness about self-medication.*

**Keywords:** *Self-medication, medical students, prevalence.*

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**INTRODUCTION:**

The concept of self-medication is increasing globally and is considered as routine socio-economic issue due to certain reasons. The collection and consumption of medicine without the advice of any registered healthcare practitioner is considered as self-medication. Self-medication can be done either for preventive, treatment or diagnostic purposes[1]. It includes the usage of medicines which have been prescribed earlier for a similar kind of diseases or symptoms. It also includes sharing medicines with friends or relatives or keeping additional medicines at home [2].

Globally the prevalence of self-medication is at much higher rate. According to the studies, in Europe it was found to be around 68% [3], in Kuwait around 92% [4], in India around 31% [5] and in Nepal around 59% [6]. Pakistan also has a prevalence rate of 51% in self-medication<sup>7</sup>. This higher rate of self-medication imposes serious concerns regarding irrational medication usage. Higher rate of this prevalence may be associated with low socio-economic status, elder patients because they suffer more from illness and patients who experience chronic illness [7]. In the United States, 13% of the elder patients were admitted due to hazards after self-medication leading to deaths approximately 106000 deaths imposing a great burden on the health system [8].

With the passage of time, self-medication is also increasing among the young generation. The main reasons of this increase may be media campaigns or advertisement of pharmaceutical products and companies. According to a survey majority of the young students have experienced one or more medications themselves advertised in particular media campaigns without consulting with a registered health professional [9].

Despite adequate knowledge, medical students are also involved in self-medication and are vulnerable to this serious issue. This study was conducted on

medical students to see the prevalence of self-medication among them and to find out the main reason leading to the self-medication. This study will help us in formulating new policies in order to prevent or minimize this issue.

**MATERIAL AND METHODS:**

This cross-sectional study was conducted in different medical colleges and total of 156 medical students from different classes and those residing in the hostels were included through non-probability convenience sampling method. A predesigned questionnaire was given to the students after explaining the purpose of the study and taking informed consent. Data were analyzed in SPSS 23.0. Number and percentages were given for categorical variables and mean were used for quantitative variables.

**RESULTS:**

Total of 156 students participated in the study. Out of 156, one hundred and forty three returned the proforma. The response rate was recorded to be 91.66%. There were 78 (54.54%) female students and 65 (45.45%) male students. Mean age was 22.98±2.01 years with an age range of 21 to 25 years. Out of one hundred and forty three, only 13 students (9.09%) including 5 female and 8 male students responded that they never had self-medication. One hundred and thirty students (90.09%) experienced self-medication once or on regular basis due to different reasons (Table-I).

Different questions regarding diseases and symptoms were asked. Thirty nine (27.27%) students responded that they prefer self-medication in case of insomnia, 33 (23.07%) acid peptic disease, 28 (19.58%) diarrhea, 25 (17.48%) headache and fever and 24 (16.78%) responded menstrual pain. Regarding the frequency of self-medication 89 (62.23%) responded that they do it frequently. When asked about the adverse effects of self-medication 99 (69.23%) students never experienced any side effects after self-medication.

**Table-I: Reasons for self-medication among medical students**

Reason	Percentage
Previous Experience	16.1%
Little Problem	14.3%
No Trust on Doctors	13.7%
Urgent Issue	13.7%
Advice from friend	12.4%
Save Money	11.8%
Transport Problem	9.01%
<b>Subtotal</b>	<b>90.91%</b>
Never done self-medication	9.09%
<b>Total</b>	<b>100%</b>

**DISCUSSION:**

In our study, 90.91% of the medical students responded that they had experienced self-medication in their routine life. In a study conducted at Agha Khan, the ratio of self-medication among the medical students was found to be 76% [7] among the students of different universities in Karachi. Another study by Jafri et al. 83.1% [10] of the population experienced self-medication. According to a few studies rates of self-medication in Nepal was reported to be 59%<sup>6</sup> and in Europe, it was reported to be 68% [3]. In our study, female students were predominantly involved in self-medication. This is in accordance with the study by Olivveira et al.,<sup>11</sup> and Sarahroodi et al., [12] which also state higher rates of self-medication among the female population. Reason to this might be the fact that female students usually encounter more medical problems than male students, for example, menstrual pain. In menstrual pain, most of the female students take medicines on their own due to previous experience or shyness to go to the doctor.

Among the common reasons of self-medication previous experience of the disease, little problem or symptoms and no trust on doctors or urgent issue have higher prevalence. This is in accordance with Karimy et al.,<sup>13</sup> and Jafri et al.,<sup>10</sup> who also described these reasons for self-medication among the patients. Among the common diseases for which they self-medicated were insomnia, acid peptic disease, diarrhea, headache/fever and menstrual pain. These are the most common problems which a student living in hostel experiences due to life far away from home, stress and improper diet. Most of the students think that it may be harmful to self-medicate but 99 (69.23%) students never experienced any side effect or adverse event. This needs to be questioned and needs more research.

**LIMITATIONS:**

We included the students living in the hostels. This factor may be a reason for self-medication for insomnia, headaches and acid peptic diseases due to stress, homesickness or improper meals at hostels. Another limitation is that we didn't enquire about most commonly self-medicated drugs. This may give extra knowledge about the reasons of self-medication and needs to be questioned.

**CONCLUSION:**

This study suggests that the prevalence of self-medication was higher in female students than male students. Among the most common reasons for self-medication previous experience, little problem and no trust in doctors were highest. According to these

results, it is necessary to implement some educational programs among the students for increasing the awareness about self-medication.

**Contribution of authors:**

Umama: Data Collection, writing limitations and conclusion section

Barzah Durrani: Writing the introduction and Methodology section

Muhammad Mehtab: Writing the results and discussion section

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