ABSTRACT:

OBJECTIVES:
To determine the illness seeking behavior and self-medication among the students of private medical colleges in Peshawar.

METHODOLOGY:
This study was a cross sectional descriptive study. It was conducted from September to December 2018. Study setting was a private medical college of Peshawar. A total of 250 students were recruited after taking well informed consent. Sampling technique was stratified sampling, from every academic year proportional number of students were selected for the study. Pilot study to check feasibility of questionnaire was done on 10% sample size. Data was collected from students by face-to-face interviews through the tested questionnaire. Data was entered and analyzed in SPSS version 21.

RESULTS:
The study data regarding illness-seeking behaviors among medical students showed that 162 (64.8%) out of 250 practiced self-medication. The common illness was fever, headache and sore throat. Students used pain-killers and antibiotics without getting consultation.

CONCLUSION:
Self-medication is common among medical students of all five professional years in medical college of Gandhara University Peshawar. Regarding illness seeking behaviors most of the students preferred self-medication as most of the time medicines are available without prescription in the medical stores. However, still some percentage of students prefers to consult doctors or pharmacist before taking any medicine for their illness.

KEYWORDS: Illness, Behavior, Self-Medication, Medical Students, Headache

How to cite this article:

INTRODUCTION:
Health care seeking behavior has been clearly defined as “any action or inaction taken by individuals, who perceive that they have a health problem or to be ill, for the purpose of finding an appropriate remedy”¹. Self-medication is defined as "obtaining and consuming drugs without the guidance of physician either for diagnosis or treatment"². Very few studies regarding self-medication and illness seeking behaviors among learners have been conducted in Pakistan, which have also confirmed frequency rate of 51%. Study done on students of Karachi University showed 76% students participated self-medication³, in Islamabad it was 42% self-medication among medical students⁴. Students studying medicine are upcoming medical experts and also have knowledge about different available
drugs; therefore, it is important to analyze the illness seeking behaviors and practice of self-medication among them. Different studies revealed that the purpose of self-medication was mild illness, to save time and cost effective⁶. Illness seeking behaviors and self-medication forms vary among diverse populations and are influenced by numerous factors such as age, gender, income and expenditure, self-care orientation, educational level, medical knowledge, satisfaction, and no seriousness of illnesses⁷. One of the most important factors for self-medication is that the shops selling medicines are mostly the first point of contact with the purchaser or who need health care⁸. It has been seen getting medicines without doctor’s prescription is more common in developing countries as compared to developed countries⁹.

METHODOLOGY:
It was a cross sectional descriptive study conducted on medical students of Gandhara University Peshawar. Ethical approval was taken from Ethical committee of Gandhara University. A total of 250 students were recruited after taking well informed consent. This study was conducted from September to December 2018. Stratified sampling technique was used; from every year proportional number of students were selected for the study. Pilot study was done on 10% of total sample size. Data collection technique was face-to-face interviews. Data was entered in MS Excel. It was checked and edited and after that data was imported into SPSS, where further analysis was done. Results were presented in form of graph and tables.

RESULTS:
The study results regarding illness-seeking behaviors showed that 64.8% of the medical students were practicing self-medication, 20% were seeking advice of a doctor, 12.5% through Internet and 7% via pharmacist (Table 1). Data showed that mostly the 3rd and 4th year students are practicing self-medication however the 1st, 2nd and final year students were also practicing self-medication. The common health problems in every professional year were fever, headache and sore throat followed by cough and vomiting (Table 2). The drugs commonly used by students were painkillers, antibiotics and fever relievers (Table 3).

| Table 1: Illness Seeking Behavior of Medical Students of Gandhara University Peshawar |
|---------------------------------------------|-------|-------|-------|-------|-------|-------|
| Medical Students                          |       |       |       |       |       |       |
| 1st Year                                  |       |       |       |       |       |       |
| Doctor                                    | 28 (56%) | 26 (52%) | 35 (70%) | 40 (80%) | 33 (66%) | 162 (64.8%) |
| Pharmacist                                | 04 (08%) | 05 (10%) | 02 (04%) | 04 (08%) | 02 (04%) | 17 (7%) |
| Internet                                  | 10 (20%) | 09 (18%) | 03 (06%) | 08 (16%) | 01 (02%) | 31 (12.4%) |
| Total                                     | 50      | 50      | 50      | 50      | 50      | 250      |

| Table 2: Common Health Problem for which Self-Medication is Practice by KMC Students |
|---------------------------------------------|-------|-------|-------|-------|-------|-------|
| Common Health Problems                      |       |       |       |       |       |       |
| 1st Year                                   |       |       |       |       |       |       |
| Fever                                      | 12 (19.35%) | 17 (27.41%) | 12 (19.35%) | 6 (9.67%) | 15 (24.19%) | 62 |
| Headache                                   | 13 (13.5%) | 30 (31.25%) | 21 (21.87%) | 6 (6.33%) | 24 (25%) | 96 |
| Cough                                      | 3 (7.31%) | 16 (39.02%) | 7 (17.07%) | 2 (4.87%) | 13 (31.7%) | 41 |
| Sore throat                                | 2 (4.16%) | 14 (29.16%) | 7 (14.58%) | 3 (6.25%) | 22 (45.83%) | 48 |
| Vomiting                                   | 0 (0%) | 9 (31%) | 6 (20.68%) | 3 (10.34%) | 11 (37.93%) | 29 |
DISCUSSION:
The main purpose of this study was to assess illness seeking behaviors and self-medication practice among medical students of Gandhara University Peshawar. Worldwide, prevalence of self-medication is relatively high but differs from places and institute or studying environment. A study done in Gulf medical university in 2013 showed that 65% of students were using self-medication. This study finding is almost similar to what we have found in our study. Our study data showed that 64.8% students of medical college of Gandhara University Peshawar practice self-medication. Another study done on self-medication among students in Egypt showed 55% students reported self-medication. A study done in Sharjah University showed relatively high rates of self-medication (95.8%), which is high as compared to our study. Analysis of results showed that self-medication was more common among 4th year students, followed by 3rd year, final year. It was seen that self-medication was also common among 1st and 2nd year students however percentage was lower than the result of academic years. A study done in Nagpur India on medical students showed that self-medication frequency increased with the academic year. Our study data showed that most commonly used drugs for self-medication were pain-killers, antibiotics and fever relievers. Similar findings were found in a study conducted in Ain Shams University of Egypt, were mostly students used antibiotics and analgesics along with vitamins and sedatives without consulting doctor or any health care provider. Similarly, another study done in Nepal shows same findings, pain-killers, antimicrobials, skin ointment, antipyretics and anti-allergic were used by students. A study done in different university students in Iraq, Saudi Arabia, Iran showed similar results, where the most common drugs, being used by the students, were antipyretics and antibiotics. The common health problems identified were headache, fever, cough and sore throat. Similar findings were shown by another study conducted in Pakistan on university students. According to that research headache was the most common disease for which self-medication was done. Another study done in India showed almost same problems like fever, headache, cough and pain for self-medication.

CONCLUSION:
The study results showed that practice of self-medication existed among the students of Medical College of Gandhara University. Data showed that practicing self-medication was more for headache and fever. Most commonly drugs used were analgesics and antibiotic. It is a common practice that these drugs are available in medical stores without prescription and easy availability leads to self-medication practice not only for the medical students but also for general community.

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**CONTRIBUTORS**

1. **Nighat Musa** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval

2. **Yasir Mehmood** - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Drafting Manuscript; Critical Revision; Supervision; Final Approval

3. **Asghar Khan** - Data Analysis/Interpretation; Drafting Manuscript