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A Cross-Sectional Survey To Evaluate Self-Medication Among Medical Students In Karachi, Pakistan

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Abstract

Self-medication with non-prescription (over-the-counter) medications available in pharmacies and retail stores has become more popular in recent years. Self-medication has advantages as well as drawbacks. There are few statistics on the frequency of self-medication among Pakistani medical students. The goal of this study was to assess the extent of self-medication among medical students. A hand-delivered descriptive cross-sectional questionnaire survey was undertaken on 400 medical students, including final-year MBBS, BDS, Pharm-D, and DPT students. Of those, 384 properly completed and examined questionnaires were returned. Data analysis was carried out using the Microsoft Excel. 68.8% of respondents admitted to using self-medication. The practice of taking medications on their own was shared by both male and female medical students. Analgesics (43.8%) and cough syrups (18.8%) were the most frequently used medications for self-medication, followed by antibiotic (12.5%) and antipyretics (6.3%). The most common reason for self-medication was a fever (59.4%) and cough (12.5%). The most frequent excuse for not visiting a doctor was that there was no need to do so because of a simple illness (28.1%), followed by the need for immediate relief (6.3%). For students, pharmacist, or chemist (50%), magazines and the internet accounted for (15.6%) of their informational sources, followed by old prescription (12.5%) and books (6.3%).

Keywords: Self-medication, Self-care, Drug therapy, over-the-counter.

Introduction

Self-medication is the act of obtaining and using medications for monitoring, treatment, or diagnosis without a doctor's prescription (Montastruc et al., 1997). Self-medication using non-prescription (over-the-counter [OTC]) medications available in pharmacies and retail establishments has become more and more popular in recent years (Ali et al., 2012). Self-medication is widespread in underdeveloped nations (Ehigiator et al., 2013). The growth of human infections resistance is a serious issue with self-medication with antibiotics (Awad et al., 2005). OTC drug advertisements are permitted in several nations. In nations where their commercialization is unregulated, antibiotics lead the list of self-administered medications (Volpato et al., 2005). According to reports, the availability of medications without a prescription may make it easier for people to take antibiotics inappropriately (İlhan et al., 20009).

It's crucial to determine how logically they utilize drugs. They are exposed to information regarding diseases and medications, which sets them apart from the general population. There is a considerable likelihood that medical students may engage in self-medication activities due to the existing knowledge of common medications provided and the understanding of pharmacology taught as a subject in different years of MBBS, BDS, Pharm-D, and DPT. So, the inquiry is whether medical students have a practice of self-medicating for common ailments. In Pakistan,

there are few statistics on the prevalence of self-medication among medical students.

Material and Method

Cross-sectional questionnaire research was used in this study. The distribution of questionnaires for the final-year MBBS, BDS, Pharm-D, and DPT classes took place in a classroom environment. The nature and goal of the study were communicated to each student in the classroom. Participation was voluntary and kept anonymous. The questionnaire completing process was properly explained. On the same day, all completed surveys were gathered. 384 students in total submitted the completed questionnaires. 16 additional students weren't involved in this study. A self-designed, pretested questionnaire was used as the recording tool. Two sections made up the questionnaire. Age, gender, and educational background data regarding the study participants were acquired in Section I. The questions in Section II were mostly closed-ended, but each question also contained an alternative choice that could be used to fill in any blanks or additional information. Few questions that could just have a yes or no answer. Microsoft Excel was used to compile and evaluate the data. Response frequencies and percentages were computed.

Results

Out of the total (400), 384 students returned the questionnaires duly filled, giving a response rate of 96%. Charts shows response obtained from the questionnaire. It is seen that almost 68.8% of respondents answered that they take medicines on their own without seeing a doctor. 90.6% of the respondents bought a medicine without a prescription.

Most common reason not to see a doctor was knowing about the medicine what to take (37.5%) and there is no need to see a doctor because of a simple disease (28.1%) followed by physician will prescribe the same medicine (18.8%) (Figure: 1).

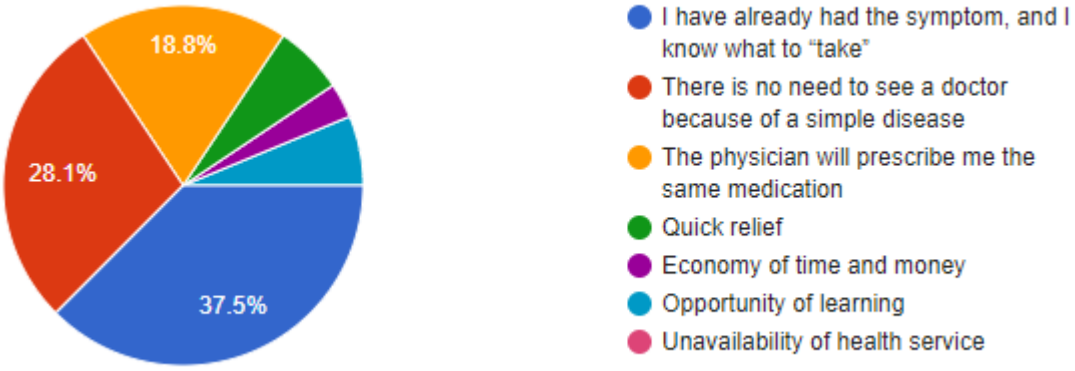

Figure 1: Reason For self-medication.

Results shows that pharmacist, media (magazines and internet) books, and old prescriptions followed by own decisions are the most common source of information about medications (Figure: 2).

Figure 2: Source of information about medications

Figure: 3. shows conditions where respondents take medicines on their own it is seen that most common condition, where self-medication was followed, is fever, allergy, and cough.

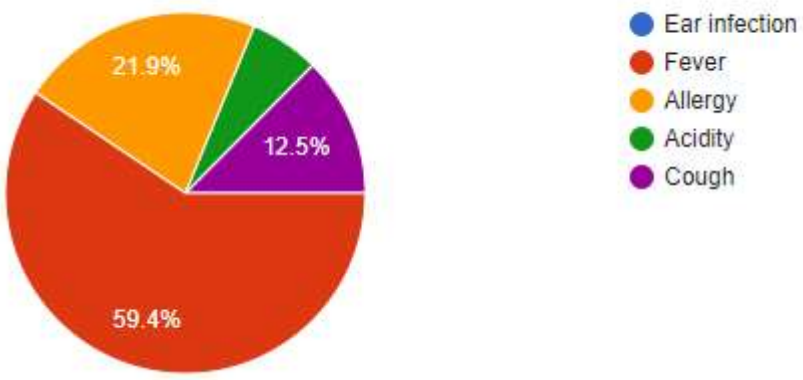

Figure: 3. Disease conditions to take medicines on your own

Figure: 4. shows the kind of medicines frequently used by the respondents. Most frequently used medicine was analgesics (43.8%), followed by cough syrups (18.8%) and antibiotics (12.5%).

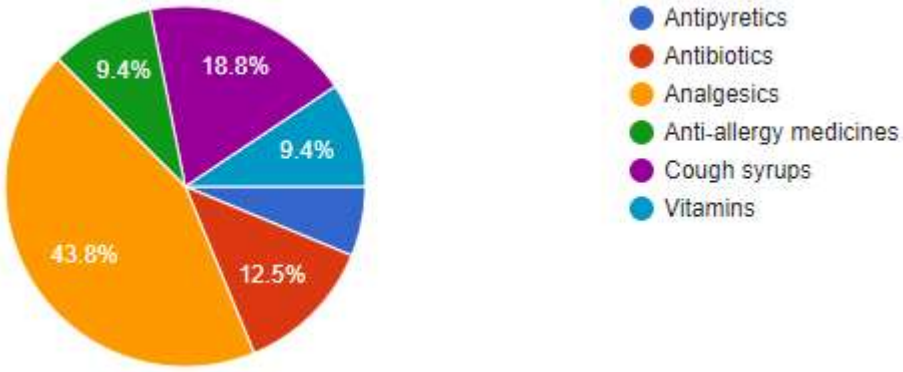

Figure: 4. Type of medicines frequently used by self-medication

Discussion

This study demonstrates that self-medication is common among medical students and accounted for around 68.8% of cases. The study respondents' high levels of education and literacy could be to blame. This is rather low, when compared to surveys conducted around the world, where a higher percentage of self-medication use was observed, with a highest of 98% in Palestine (Sawalha, 2015). Similar findings were made in a study by Shankar et al., where it was discovered that 59% of people self-medicate (Shankar et al., 2002). However, since these studies were conducted among medical students and healthcare workers, a fair comparison of percentages is not feasible. There is a dearth of comparative data from research done among medical students. As a result of numerous local variables, including legal considerations, the dispensing of drugs without legitimate prescriptions, and the accessibility of over-the-counter medications, there has been a wide difference in the extent of self-medication practise. Overall, numerous research has revealed a higher rate of self-medication among students studying medicine, dentistry, pharmacy, and paramedicine.

The most frequent excuse for not visiting a doctor was that there was no need to do so because of a knowing medicine (37.5%), simple illness (28.1%), followed by will prescribe the same medicine (18.8%). The most frequent justification for self-medication, according to earlier studies, is to save money and time (López et al., 2009).

Self-medication must be based on reliable medical information; otherwise, illogical drug use might waste resources, build pathogen resistance, and

pose major health risks like prolonged morbidity and bad drug reactions (Aditya, 2013). Although our study found that few people used the internet or television to learn about medications, it is still important to be stringent about pharmaceutical advertising that targets children and teenagers.

The existence of a home pharmacy is linked to self-medication because having access to free medicine storage and easy product visualisation at home increases the risk of self-medication (Aditya, 2013). 84.4% of the students in this survey kept their medications at home.

According to the findings of this study, the most common reason for self-medication was a fever (59.4%), allergy (21.9%), followed by a cough (12.5%). The most popular self-medicating medications, according to Sallam et al., were those for respiratory and pain relief (Sallam et al., 2009).

Pain, allergies, colds, sore throats, coughs, and diarrhoea are among the most prevalent diseases treated by self-medication, according to the Association of the European Self-Medication Industry (Kalra et al., 2015). Self-medication rates were high for over-the-counter medications including antacids (9.6%) and energy supplements (8.6%), which contain vitamins and minerals. In this study most frequently used medicine was analgesics (43.8%), followed by cough syrups (18.8%) and antibiotics (12.5%).

Conclusion

Despite their lack of understanding of the advantages and risks, the majority of students engaged in self-medication. This method is frequently used to address simple or previously encountered clinical issues.

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