Original Article

SELF-MEDICATION PRACTICES AND PERCEPTIONS AMONG UNDERGRADUATE MEDICAL STUDENTS OF MULTAN MEDICAL & DENTAL COLLEGE, MULTAN

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Background: Self-medication can be defined as "the drugs which are used to treat self-diagnosed disorders or indications, or the irregular or continued use of a prescribed drug for persistent or recurrent disease or symptoms."

Methods: A descriptive cross sectional study was performed to understand the perceptions and practices about self-medication among students admitted to one of medical colleges in Pakistan located in Multan. A structured Questionnaire was distributed to the consenting students. The data were coded, entered and analyzed by using the Statistical Package for Social Science (SPSS) version 20.0. Out of 95 medical students 47.7% (n=45) were males and 52.3% (n=55) were females.

Results: Among participants, self-medication was found in 98% (n=93) cases. Among self-medication respondents, more than 50% treated themselves only once while 32% twice, 12% thrice and only 2.1 % more than thrice. Self-medication was equally common in 3rd year, fourth year and final year medical students. While 24.2% of respondents perceived as a good practice, 42.1% took it as an acceptable practice while 33.7% were of opinion that it was a totally unacceptable practice. The study revealed different reasons for self medication and found that the most common reason was non-seriousness of disease i.e 43.2%, followed by convenience / time factor 42.1%, Cost saving 13.7% and least one was the non-availability of physician 1.1% . Regarding the use of drugs, antibiotics were the most common class used as self-medication 27.4%, followed by anti allergics 23.2%, vitamins 17.9%, pain killers 16.8% and antacids in 14.7 % cases.

Conclusion: The study results indicate that Self medication was common among medical students from clinical classes and most of students treated themselves at least once.

Key words: Self-medication, practices, perceptions, college students.

Introduction:

Self-medication can be defined as the drugs which are used to treat self-diagnosed disorders or indications,[1] it involves using medicines without a prescription, use of old prescriptions to buy medicines[2]. Self-medication can lead to inappropriate use of drugs, waste of income, increased resistance of pathogens which can lead to serious health problems, possible undesirable and serious drug reactions and prolonged morbidity [3]. In developing countries like Pakistan, where drugs are available without prescription and health service provision is insufficient to meet the needs of the population self-medication is rampant [4]. Self medication can be attributed to various factors i.e., socioeconomic and socio-demographic factors, easy accessibility of drugs, pharmaceutical advertisement, previous medical history and left over medicines at home. Moreover an emerging source is internet in most educated individuals.[5] The World Health

Organization has emphasized that self medication must be correctly taught and controlled.[1] In a survey of West Bengal, India undergraduate medical school students, 57% reported self-medicating. The type of drugs most frequently used for self-medication were antibiotics(31%), analgesics(23%), antipyretics (18%), antiulcerics (9%), cough suppressants (8%), multivitamins (6%), and anthelmintics (4%).[4] Another study indicated that 53% of physicians in Karnataka, India reported self-administration of antibiotics.[6] Another study at An-Najah National University showed that 98% of medical and nonmedical students practiced self-medication [7]. In Bahrain, a study which was conducted among first year medical students, 76.9% of the study population preferred self-medication [8]. The habit of self-medication practice among doctors develops during their undergraduate training as obvious from studies of self-medication among medical students.[9] For medical undergraduates such practice has special

significance as they are exposed to knowledge about diseases and drugs and availability of drugs on pharmacies due to their medical background, especially in Pakistan. This study was performed to understand the practices and perception of self-medication among undergraduate medical students in one of medical colleges in Pakistan, located in Multan.

Methodology: A descriptive cross sectional study was undertaken to be familiar with perceptions and practices of medical students of Multan Medical & Dental College about self-medication. Simple Random Sampling technique was used to identify the potential sample. Sample size was calculated using the below mentioned formula and prevalence of self-medication in Pakistan according to a study done at Karachi.[10][11] i.e. 51%, the calculated sample size is 95. All undergraduate students from clinical side third, fourth and final year were included in study. Students currently on any drug regime for acute or chronic physical or mental illness were excluded from the study. A structured Questionnaire was distributed to the consenting students. The self-administered questionnaire consisted of 26 questions, which collected data regarding demographic, socioeconomic, and lifestyle factors. Students were asked to indicate if they had used any drugs in last 15 days, the duration and pattern of use, which drugs they had used, and whether the drugs had been prescribed by a doctor. The data were coded, entered and analyzed by using the Statistical Package for Social Science (SPSS) version 20.0.

Results:

Comparison of different diseases and use of self-medication for different diseases are presented in figure-1. A total of 95 medical students were given questionnaire. The response rate was 100%. The mean age of the respondents was 22.22 ± 1.75 . Out of 95 medical students 47.7% (n=45) were males and 52.3% (n=55). Among participants, self-medication was found in 98% (n=93) cases. More than 50% of the positive respondents treated themselves only once, while 32% self medicated themselves twice during the last six months, while only 2.1 % of the positive subjects went for self medication more than three times during last six month. Self-medication was equally common in 3rd year, fourth year and final year medical students. All (n=95) respondents knew about self-medication. 24.2 % of the respondent perceived self-medication as a good practice while for 42.1% it was an acceptable practice and 33.7% took it as totally unacceptable practice. The study revealed different reasons for self medication and found that 43.2 % of the people practiced it assuming the non-seriousness of the disease. While 42.1% practiced it for their convenience and time saving, 13.7% choose it to save cost, while only 1.1% had issue of non-availability of physicians as the study population was

already spending more than six hours in a teaching hospital (table-1).

Figure 1: Bar graph shows comparison of Self-Medication practice for different diseases

Table 1: Frequency distribution according to Source of information regarding Self-medication

Source of information	Frequency	Percentage (%)
Previous Doctor Prescription	28	29.5
Opinion of family members / friends	25	26.3
The advertisement /Media/Net	22	23.2
Recommendations by Pharmacist	20	21.1

Discussion:

Self-care, including self-medication, has been a feature of healthcare for many years and people have always been keen to accept more personal responsibility for their health status [12]. Self-medication by itself has both pros and cons that depend on who and what one chooses to self-medicate [13]. Several studies have reported the practice of self-medication in medical and non-medical students. The present study showed that self-medication was widely practiced by the medical students of the institute. The prevalence of self-medication in our study was found to be 97.8%. While in other studies, the prevalence of self-medication among the medical students was shown to be ranging between 57.1% and 92% [14-16]. The students from non-medical background showed a prevalence of 80.1% in Tamil Nadu [17] and 87% in Uttar Pradesh [18]. In studies conducted in developing countries, the prevalence of self-medication was shown to be 25.4% and 43.2% in Ethiopia [19,20], 51% in Slovenia [21], 55% in Egypt [22], 56.9% in Nigeria [23] and 80.9% in Malaysia [24]. Similarly, a nine-year follow-up study of

a nationwide sample from Norway has reported a self-prescribing behavior among young doctors [25]. The results of our study show high prevalence than other developing countries. In our study, antibiotics were most commonly used as self-medication (27.4%), followed by anti-allergics (23.2%), vitamins (17.9%), pain killers (16.8%) and antacids (14.7%). The results of our study were correlated with the study by Sohail E Ali et al [26] which revealed that analgesics & antipyretics (30.2%), ear, nose & throat drugs (10.8%), vitamins & minerals (10.8%), GIT drugs (8.5%), anti-infectives (7.3%) and herbal medicines (3.5%) were commonly self-medicated and similar were the findings of Patel MM et al [27] which showed that 43.03% of pain-relievers, 21.51% cough remedies, 7.27% of Antimicrobials were self-medicated commonly. In the present study, different reasons for self-medication were found. Most common being the disease not serious (43.2%) followed by convenience / time factor (42.1%), Cost saving (13.7%) and least one was the non-availability of physician (1.1%). The results compared with the study by Ansam F. Sawalha et al [28] also reported that the most commonly reported reason for self-medication practices was simplicity of the illness encountered. Analgesics, decongestants, herbal medicines and antibiotics were the most common classes reported in self-medication. According to the Economic Survey of Pakistan (2006-2007) [29], there was one doctor available for 1254 people whereas a WHO criterion for developing countries is minimum one doctor for 1000 population (Economic survey of Pakistan, 2006-2007). In Pakistan, almost every pharmacy sells drugs without a prescription; a phenomenon seen in many developing countries (Kiyingi and Lauwo, 1993) [30]. The relative low cost is important factor for resorting to self-medication and undesirable health seeking behavior.

Conclusion

The study results indicate that Self medication is common among medical students from clinical classes and most of students treated themselves at least once.

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