Self-Medication among Female Undergraduate Students at College Of Medicine in King Faisal University

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Abstract: Background: The use of self-medication is highly prevalent in the community more so amongst the medical students. Self-medication is defined as the treatment of common health problems with medicines that are taken on patient’s own initiative or on advice of a pharmacist, without professional supervision.

Aim: To study the practice of self-medication among the undergraduate female medical students at college of medicine in King Faisal University.

Methodology: A descriptive cross-sectional study was conducted on a sample of 233 female medical students (First year 75, Second year 73 and Fourth year 85) attending King Faisal University from October to December 2013. The data was collected using questionnaire to get the relevant information to study variables. The survey was descriptive and data analyzed by using SPSS version 22. The Chi square test was applied for correlation and statistical difference considered significant with p value < 0.05.

Results: Out of 233 female students, 128 responded. Out of these, 92 students practiced self medication. The most common symptoms that led to self-medication were headache (21.9%) and body pain (16.4%). The most frequent reasons for self-medication was "no need to visit the doctor for minor illness (48.4%). Analgesics (43%) were found to be the most used while sedatives (0.8%) the lowest. There was a strong relation between residency and self medication with student living in hostels practice self-medication more (once a week) than those living with their families.

Conclusion: In the present study practice of self medication was common among undergraduate students. The attitude changes after attending the medical college regarding self medication.

1. Introduction

Self-medication is defined as the treatment of common health problems with medicines that are taken on patient’s own initiative or on advice of a pharmacist, without professional supervision. Self-medication is defined as the use of medications by the patient own initiative or by taken Pharmacist advice without the consultation of a professional Physician to manage common medical symptoms [1]. Those medications are commonly called Non-Prescription or Over the Counter (OTC) medication that can be available through pharmacies and can be used without prescription.

Nowadays the act of self-medication is becoming more common in many countries and that could be either due to feasibility to get those OTC drugs and their wide availabilities in the market, or due to the lack of health care access or insurance [2]. Studies showed that the increase in self-medication was related to several reasons, including socioeconomic factors, lifestyle, feasible access the increased potential to manage symptoms through self-care[3]. Most commonly OTC used without consultations is analgesics or pain killers for headache, menstrual cramps and others minor painful conditions [4]. Another commonly use drugs are Antibiotics to treat infectious diseases like beta-lactam antibiotics (penicillins and cephalosporins)[5]. NSAIDs are used primarily to treat inflammation, mild to moderate pain, and fever. Specific uses include the treatment of headaches, arthritis, sports injuries, and menstrual cramps. Ketorolac (Toradol) is only used for short-term treatment of moderately severe acute pain that otherwise would be treated with Opioids. Aspirin (also an NSAID) is used to inhibit the clotting of blood and prevent strokes and heart attack in individuals at high risk [6]. Central
nervous system depressant (sedatives and tranquilizers) that act by slowing the brain activity are widely used for sleep disturbance and anxiety. Most commonly prescribed in this drug category is benzodiazepines, and it is not prescribed for long-term due to the risk of dependence, tolerance, and addiction [7]. Self-medication was found to be a common practice among groups of health related workers including midwifery, nursing and dental students in a study conducted in Nigeria [13]. Self-medication was considerably high among undergraduate medical students and increased with medical knowledge in a study conducted at AIIMS in India [11]. The present study was hence, conducted to assess the prevalence of self-medication among the undergraduate students of college of medicine at King Faisal University in Al Ahsa, Kingdom of Saudi Arabia and also to assess some self-medication risk factors.

2. Material and Method

The research is descriptive cross-sectional study conducted on a population of 233 female students (1st year 75, 2nd year 73 and 4th year 85) in College of Medicine at King Faisal University. Our sample size was n= 128 because not all have participated. The data was collected using a pre-designed, semi-structured questionnaire to get the relevant information to the study variables (Appendix I). The questionnaire consisted of questions regarding age, year of class of participating students, practice of self-medication, whether increased or decreased after joining the medical college. The questionnaires were assessed for their completeness and only completed questionnaires were selected for data analysis. The data was analyzed using SPSS version 22. The results obtained were summarized as percentages. The Chi-Square Tests used to find the correlation and difference was statistically significant if “P” value was <0.05.

2.2. Ethical Consideration: A briefing was given about the nature of the study to the students, and the procedure of completing the questionnaire was explained. We assured the students, that their responses would remain anonymous (Appendix I). Consent was taken by the participants to complete the questionnaire in the classroom.

3. Results

3.1: Self Medication before and after attending Medical College:

Practice of self-medication among female students prior to attending medical school was 53.1% (68) of the sample, while 46.9% (60) of the students were not practicing self-medication (see Table 1). It was observed that 46.1% continued the same attitude (Yes 29.7%, No 16.4%) towards the practice of self-medication even after attending medical school. Attitude towards practicing self-medication after attending medical school has increased 38.3%, while 15.6% of sample attitude has decreased (see Table 1). When comparison was done for the practice of self-medication before and after attending medical college among female students, statistical difference was found significant as P= 0.022 (see Table 1).

<table>
<thead>
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<th>Before &amp; After</th>
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<th>Total</th>
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<tr>
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<td>29.7%</td>
<td>18.8%</td>
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<tr>
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<td>10.9%</td>
<td>16.4%</td>
<td>19.5%</td>
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<tr>
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<td>15.6%</td>
<td>46.1%</td>
<td>38.3%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi-Square = 7.649* P= 0.022

3.2: Self medication and Residency:

Results showed that 89.8% of the samples live with their families while 10.2% live on their own. It also showed that 25.8% of those living with their families have never practiced self medication, while only 2.3% of the ones living in hostels never practiced it. Among the students living with their families and practiced self medication once a week, more than once a week, 1-2 times a month and 1-4 times a year were 1.6%, 3.1%, 33.6% and 25.8% respectively. While those living in hostels and practiced self medication once a week, more than once a week, 1-2 times a month and 1-4 times a year were 2.3%, 0.0%, 3.9% and 1.6% respectively. When comparison was done between residency and practicing self medication, statistical difference found significant as P= 0.005.

3.3: Self-medication and reasons:

The most common reasons for self medication were: no need to visit doctors for a minor illness 48.4%, academic knowledge 12.5%, to save time 9.4% and to avoid expenses 2.3% while 27.3% did not practice...
3.4: The main symptoms for self-medication:

The main symptoms of illness for self-medication among female medical students were headache 21.9% (28), body pain 16.4% (21), dysmenorrhea 9.4% (12), fever 8.6% (11), sore throat 3.9% and allergy in 3.9% (5) (see Figure 2).

3.5: The most common drug used during self-medication:

The drugs used for self-medication were analgesics 43%, antibiotics 14.8%, NSAIDS 6.3%, anti-histamin 3.9%, antitussive 2.3%, multi-vitamins 1.6% and sedatives 0.8% (see Figure 3).

4. Discussion

The present study was conducted to assess the practice of self-medication among the female undergraduate medical students regarding reasons for self-medication, common symptoms that led to self-medication and the drugs used for this practice. Also, the attitude toward self-medication before and after attending medical college and the influence of residency at home with family or at a hostel was studied. This study showed that students who did practice self-medication before attending college of medicine (29.7%) continued the same attitude after attending college, while there were students who did not practice self-medication even after attending college of medicine (16.4%). Comparing self-medication practice before attending college of medicine (18.8%) with after attending college, non-practicing of self-medication was increased (19.5%). A similar study was conducted by Bashir et al. [9] for second and third year students. Our results were conflicting with their study; it might be due to awareness after attending college of medicine regarding the use of medicine only after prescription by a doctor. The present study showed many students lived with their families (89.8%) while a few lived on their own (10.2%). A similar study conducted by N.F.A. EL EZZ and H. S. EZ-ELARAB [12] for self-medication by students of urban and rural areas and students from different provinces respectively. Significant results were seen when compared the self-medication practice once a week among home (1.6%) and hostel (2.3%) residents in our study. Living away from the family could be a reason for frequent use of medication. In the present study, the most common reason of self-medication was: no need to visit a doctor for a minor illness.
need to visit doctors for minor illnesses (48.4%). In a study done at Bahrain [10] time saving (45.5%), economical (14.9%) and providing quick (11.9%), easy and convenient relief (7.5%) were the common reasons similar to our results. While in Coastal South India, a study observed the most common reason among the students was that the illnesses were too trivial (70.5%) [11]. The main symptoms of illness for self medication among female medical students in our study were headache (21.9%), body pain (16.4%), dysmenorrhea (9.4%), fever (8.6%), sore throat (3.9%) and allergy (3.9%). Henry et al. [10] conducted a similar study evaluating the attitude and practice of self medication among first year medical students. They described headache (70.9%), cough and sore throat (53.7% respectively) as the main symptoms for self medication. In another study conducted in Southwest Nigeria headache, backache and muscle cramps (13% each) were the main symptoms for self medication among medical students [8]. Analgesics (43%) were the most commonly used group of drugs found in our study. Similar results (77%) were seen in a study conducted by Claudio et al. [14] in a Brazilian university among the students of dentistry and nursing and in a study among first year medical students (81.3%) conducted at Arabian Gulf University, Manama, Kingdom of Bahrain [10]. Non-steroidal anti-inflammatory drugs were found to be less (6.3%) used by the students due to the fact that the drug has to be obtained with a prescription. The same results were found in a study at Ain Shams University, Egypt [12]. Similar results were observed by the study conducted by James H. et al. [10]. Analgesics were used for headache, pain, dysmenorrhea, fever and sore throat in our study while Bashir et al. [9] reported that the students consumed drugs as self-medication for management of fever, common cold and body ache. The respondents who reported the use of antibiotics in present study were fewer (14.8%) than those who used antibiotics (41%) in a study conducted in Egypt [12]. A study in south India [11] also observed higher results (39.3%) than the present study. This difference may be due to availability of antibiotics in our country mostly by prescription only. The use of sedatives was very limited (0.8%) in this study. Similar results (12%) were reported in Egypt [12] used sedatives without medical prescription. Population using sedatives without prescription represented the lowest drug usage in the list in the present study, that may be due to the fact that the Saudi Arabian government has strict regulatory policies for sedative prescription and over-the-counter selling.

4. Conclusion and recommendations

4.1: Conclusion: Self-medication is frequent among undergraduate female medical students. The attitude changes with advancement of knowledge obtained in medical school. The practice of self medication is more common among students residing in hostels. Analgesics are frequently used for headache and body pain rather than visiting the doctor for minor illnesses.

4.2: Recommendations: The limitation of this study was that the sample size was not fairly large to generalize the result. The questionnaire was self reported and this could have led to under or over reporting of self medication practices. More results could be gained by interviewing the students. We recommend awareness and education regarding the implications of self medication. More factors (parents, friends or stress) influencing self-medication could be studied.

6. References