
Common Adverse Effects Due to Self-Medication

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Abstract

Background: *There is no device or organ of the body is protected from adverse effect of medications. However, the skin, the liver, the gastrointestinal tract, nervous system and circulatory system are the most vulnerable to adverse effects that are diagnosed. People use medicines for prevention, cure, diagnosis and management of diseases.*

Objective: *This study was carried out to identify the adverse effects of drugs used by the respondents and symptoms as well as the reason of self-medication.*

Materials and Methods: *We conducted a cross-sectional survey in Ajman from March to June 2015. A structured questionnaire was used for data collection. Data was analyzed using of Statistical Package for Social Science (SPSS).*

Results: *Commonly used drugs were analgesic drugs. Common reported illnesses were pain and respiratory symptoms. Saving time and money, previously resolved complains were the top two reported factors for self-medication. The adverse effects reported with self-medication were vomiting, nausea and diarrhea. The majority of students stops taking drugs and consulted the doctor or pharmacist when adverse effect occurred.*

Conclusion: *Medical professionals are required to report all adverse effects related to a specific form of therapy. Without consulting doctor - side effects can worsen when you stop taking the drugs. Little is known about the relation of adverse effects to self-use of medication.*

KEY WORDS: self-medication; medicines; adverse effects

INTRODUCTION

Globally, self-medication has been reported as being on the rise, this is partly due to the fact that people are increasingly taking responsibility for their health. The reason for self-medication included barriers to healthcare access, “lack of time” and difficulties in securing a medical consultation due to administrative delays [1]. Consequently patients with milder symptoms do not need to see a doctor they can turn to the pharmacist for advice and medication for their

ailment [2]. Many studies done on self-medication detection conclude that it is a fairly common practice, especially in economically deprived communities. This self-care has its positive and negative aspects [3].

Drug-related problems are an important cause of morbidity and mortality and a significant burden on healthcare resources. A high rate of adverse drug reactions (ADRs) has been demonstrated in hospitalized patients [4], potentially leading to

death. As patients with severe or acute unexpected symptoms frequently present to emergency departments (EDs), some epidemiological studies of ADRs have been successfully conducted in this setting, showing that approximately 10–17 % of ED visits were related to an ADR [4].

Adverse drugs reaction due to Self-medication among university students in the United Arab Emirates (UAE) has not been previously extensively explored. The study aims to identify the adverse effects of drugs used by the respondents and symptoms as well as the reasons of self-medication.

MATERIALS AND METHODS

Study setting and sample size

A cross-sectional study was conducted. Data collection was done from March 2015 to June 2015.

The chosen sample size was 700, distributed to medical and non-medical students, male and female in Ajman University. The medical colleges consist of pharmacy and dentistry college, while the non-medical colleges consist of engineering, business, media and law colleges.

Method of data collection

A total of 700 sample questionnaires were distributed equally to medical and non-medical students. Data on socio-demographic details (age, gender, specialization and university year). The second part of the questionnaire was designed with the aim to assess the students' behavior regarding the safety of self-medication products. The evaluation was done using 18 items. Behavior

score for each participant was calculated and summed together to give the total behavior score of the study sample. The third part consisted of 4 questions to measure the students view on adverse effects of medicines in the UAE.

Data analysis

All analyses were performed using SPSS version 20. Identification numbers were given for the collected questionnaire for counting and organizing purposes. All questions were coded and then imported to SPSS for analysis.

RESULTS

Majority of students choose self-medication because of saving time and money and obtaining the drugs from community pharmacies. Table 1 shows that vomiting, nausea and diarrhea are the most common adverse effects caused by self-medication, but there is no big different between medical and non-medical students. While, male have vomiting, nausea, diarrhea more than female.

Table 1: Common adverse effects caused by self-medication among study participants.

adverse effect caused by drugs	Male n (%)	Female n (%)	Medical n (%)	Non-medical n(%)	All N=700 n (%)
-Vomiting/Nausea/-Diarrhea	145 (48.3%)	109 (27.3%)	131(36.9%)	130 (37.7%)	261 (37.3%)
-Allergic reactions	61 (20.3%)	65 (16.3%)	80 (22.5%)	51 (14.8%)	131 (18.7%)
-Tiredness or Dizziness	40 (13.3%)	99 (24.8%)	73 (20.6%)	69 (20%)	142 (20.3%)
-Heart beat abnormalities	31 (10.3%)	15 (3.8%)	34 (9.6%)	17 (4.9%)	51 (7.3%)
-Sleep problem	15 (5%)	98 (24.5%)	37 (10.4%)	78 (22.6%)	115 (16.4%)
- Diarrhea+Nausea+Vomiting+Allergic reaction	1 (0.3%)	1 (0.3%)	-	-	-
-All of above	7 (2.3%)	8 (2%)	-	-	-

DISCUSSION

Our study revealed that the most common drugs used for the medical students who had used self-medication over the past six months, were analgesic drugs with a percentage of 76.1%, pain (total 29.9%) and respiratory problem (total

23.1%) are most common illness where self-medication is being used. Comparable results obtained that analgesic drugs the most common used medicine among students [14]. Our study revealed that students (medical 38.6%, non-medical 31.9%) use amoxicillin to treat gastrointestinal symptoms (medical 7.6%, non-

medical 11.3%) and urinary complaint (medical 11.3%, non-medical 13.9%). Comparable results obtained that amoxicillin was the most commonly self-medicated antibiotics [16]. The main factors influencing the choice of antibiotics were previous experience with the same illness and advice from pharmacy staff. Diarrhea, sore throat and common cold were the major reasons for self-medication with antibiotics [17].

Our student's total of 45.3% chooses self-medication due to saving time and money, and resolved complains previously (20.6% total). This finding in parallel to another study, where respondents found self-medication to be time saving, economical, convenient and providing quick relief in common illnesses [20].

Our study revealed that the most adverse effects caused by self-medication, were vomiting, nausea and diarrhea (total 37.3%). Another study found that bleeding was the most frequently adverse effect diagnosed, followed by neurologic and psychiatric adverse effects [24]. In the same study they also found that analgesics drugs were significantly associated with adverse effects related to self-medications. In a study conducted in India, 50% of antibiotics used were associated with development of adverse effects. The adverse effects reported were: vomiting, hyperacidity and gastrointestinal discomfort. Adverse effects reported with analgesics use were: hyperacidity, skin rashes and nausea [20]. Our study shows that (total 48.7%) stop taking drugs when they have

adverse effects related to self-medication, (total 36.4%) consulted doctor or pharmacist, (total 8.4%) switched to another drugs, (total 6.4%) continued to take drugs. In the literature there is no previous study matching this question.

CONCLUSION

The most adverse effects caused by self-medication, were vomiting, nausea and diarrhea. Educating students about responsible self-medication is very important to avoid risks and increase benefits.

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