



**PREVALENCE OF SELF-MEDICATION AMONG MEDICAL AND NON-MEDICAL
STUDENTS AT AJMAN UNIVERSITY**

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ABSTRACT

Background: Self-medication is the use of medicines by the people on their own inventiveness or on the suggestion of a friend, family member or other persons without consulting a qualified health care professional. People use medicines for prevention, cure, diagnosis and management of diseases. **Objective:** This study was carried out to estimate the prevalence of self-medication behavior among Ajman University of Science and Technology students. **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 by using Statistical Package for Social Science (SPSS). Chi square test was used to analyze the proper questions. **Results:** Total of 700 students, 594 reported self-medication use, medical students use self-medication more than non-medical students. Most drugs for self-medication were obtained from the community pharmacy or previous prescriptions and the most 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. Reading materials (inserted package) were the top reported source of drugs information. The adverse effects reported with self-medication were vomiting, nausea and diarrhea. The majority of student stops taking drugs and consulted the doctor or pharmacist when adverse effect occurred. **Conclusion:** Self-medication is common in Ajman University students. Health professionals need to educate students on the benefits and risks of self-medication to encourage responsible self-medication.

KEYWORDS: self-medication, Health professionals, medicines, adverse effects.

INTRODUCTION

Globally, self-medication has been reported as being on the rise. The reason for self-medication included barriers to healthcare access, "lack of time" and difficulties in securing a medical consultation due to administrative delays, other reason that have been found in international studies including economic factors.^[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]

The prevalence of self-medication is highest in Pakistani^[4], followed by Bahraini students.^[5] It is worth noting that prevalence rates can be as low as 26.2% in Portugal^[6], whereas higher rates (92%) were observed in Kuwait.^[7] Another similar study from Hong Kong showed high prevalence rate of 94%.^[8] The main source for obtaining medicines was the pharmacy and only a few respondents obtained their medications from other

sources including street market, herbal stores and relatives or friends. This is in accordance with results of earlier studies^[1, 5, 8], this showed the extent to which people trust others with no medical knowledge and their own experience with drugs, a phenomena that is common to countries with low and high incomes.

Self-medication among university students in the United Arab Emirates (UAE) has not been previously extensively explored. The present study was undertaken to estimate the prevalence of self-medication behavior with medications among students at AUST. It was conducted to determine the difference between gender and specializations as regarding self-medication, and furthermore, to identify the adverse effects of drugs used by the respondents and symptoms as well as the reason of self-medication.

MATERIALS AND METHODS

Study setting and sample size

A cross-sectional study was conducted as the method of data collection to study the prevalence of self-medication among Ajman University students, and then comparing

the outcome between medical and non-medical students. Data collection was done from March 2015 to June 2015.

Method of data collection

A total of 700 sample questionnaires were distributed equally to medical and non-medical students in the period from March 2015 to June 2015.

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. All variables categories were coded with numbers (for example, gender: male as 1 and female as 2). Descriptive statistics were used to compute the demographic data and it included: mean, standard deviation and frequency. Chi square test was used to analyze the proper questions.

RESULTS

Results of each of the question related to prevalence of self-medication among gender (male and female), as well as specialization (medical and non-medical). The result shows that medical students use self-medication more than non-medical. Majority of students choose self-medication because of saving time and money and obtaining the drugs from community pharmacies.

Table 1: Prevalence of self-medication behavior among university students.

Questions	Male n (%)	Female n (%)	Medical n (%)	Non- medical n (%)	All N=700 n (%)
Have you treated yourself with SM					
Yes	278 (92.7%)	(79%)316	%92.4)(328	266(77.1%)	594 (84.9%)
No	22 (7.3%)	84(%21)	27(%7.6)	79 (22.9%)	106 (15.1%)
Do you remember how long medicine used					
Yes	209 (69.7%)	302 (75.5%)	315 (88.7%)	196 (56.8%)	511 (73%)
No	91 (30.3%)	98 (24.5%)	40 (11.3%)	149 (43.2%)	189 (27%)
Do you remember dosage of medicine used					
Yes	203 (67.7%)	297 (74.3%)	310 (87.3%)	190 (55.1%)	500 (71.4%)
No	97 (32.3%)	103 (25.8%)	45 (12.7%)	155 (44.9%)	200 (28.6%)
Do you remember cost of medicine used					
Yes	218 (72.7%)	231 (57.8%)	299 (84.2%)	150 (43.5%)	449 (64.1%)
No	82 (27.3%)	169 (42.3%)	56 (15.8%)	195 (56.5%)	251 (35.9%)
Why did you choose self-medications					
-Save time and money	123 (41%)	88 (25.5%)	229 (64.5%)	88(25.5%)	317 (45.3%)
-To avoid hassle of going to doctor	59(19.7%)	65(18.8%)	36(10.1%)	65 (18.8%)	101 (14.4%)
-Resolved my complains previously	51 (17%)	135(39.1%)	9(2.5%)	135 (39.1%)	144 (20.6%)
-Left over medicine	67 (22.3%)	57(16.5%)	81 (22.8%)	57 (16.5%)	138 (19.7%)
Your selection based on					
-Community pharmacist	83 (27.7%)	81 (20.6%)	105 (29.6%)	59 (17.4%)	164 (23.6%)
-Suggest of friends or family	61 (20.3%)	70 (17.8%)	54 (15.2%)	77 (22.7%)	131 (18.9%)
-Own experience	62 (20.7%)	96 (24.4%)	90 (25.4%)	68 (20.1%)	158 (22.8%)
-Previous prescription	57 (19%)	88 (22.3%)	71 (20%)	74 (21.8%)	145 (20.9%)
-Media	37 (12.3%)	55 (14%)	31 (8.7%)	61 (18%)	92 (13.3%)
Consider on selecting medicine					
-Type of medicine	92 (30.7%)	120 (30%)	85 (23.9%)	127 (36.8%)	212 (30.3%)
-Price of medicine	71 (23.7%)	62 (15.5%)	26 (7.3%)	113 (32.8%)	139 (19.9%)
-Indication of medicine	137 (45.7%)	212 (53%)	244 (68.7%)	105 (30.4%)	349 (49.9%)
Where did you obtain your SM					
-Community pharmacies	189 (63%)	276 (69%)	308 (86.8%)	157 (45.5%)	465 (66.4%)

-Traditional practitioners	19 (6.3%)	30 (7.5%)	17 (4.8%)	32 (9.3%)	49 (7%)
- Previous prescriptions	83 (27.7%)	63 (15.8%)	26 (7.3%)	120 (34.8%)	146 (20.9%)
-Online shopping	9 (3%)	31 (7.8%)	4 (1.1%)	36 (10.4%)	40 (5.7%)
What extent of understand leaflet instructions					
-Fully understood	123 (41%)	192 (48%)	225 (63.4%)	90 (26.1%)	315 (45%)
-Partly understood	127 (42.3%)	171 (42.8%)	124 (34.9%)	174 (50.4%)	298 (42.6%)
-Did not understand	50 (16.7%)	33 (8.3%)	2 (0.6%)	81 (23.5%)	83 (11.9%)
How you know the dosage of SM					
-Package insert	108 (36%)	172 (43%)	176 (49.6%)	104 (30.1%)	280 (40%)
-Doctor or pharmacy	71 (23.7%)	103 (25.8%)	103 (29%)	71 (20.6%)	174 (24.9%)
family/-Friends	70 (23.3%)	82 (20.5%)	31 (8.7%)	121 (35.1)	152 (21.7%)
-Previous experience	40 (13.3%)	36 (9%)	40 (11.3%)	36 (10.4%)	76 (10.9%)
-Guessing by myself	11 (3.7%)	7 (1.8%)	5 (1.4%)	13 (3.8%)	18 (2.6%)

DISCUSSION

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 is parallel to another study, where respondents found self-medication to be time saving, economical, convenient and providing quick relief in common illnesses [20]. Another study in Pakistan showed that students choose self-medication because of lack of times (24%) and self-medication as a cheaper source of treatment (14.7%).^[12]

Regarding the source of self-medication, a total of 66.4% of students obtain their own medicine from community pharmacies, a total of 20.9% obtain the drugs known from previous prescriptions. This finding is similar to a study in King Saud University, where pharmacy students showed a positive attitude regarding the trustworthiness of a pharmacist to give a consultation, while nearly all other health science students showed a negative attitude about dispensing and consultation.^[19] Our study revealed, that 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%, followed by antipyretics drugs with a percentage of 47.3. These results are similar to the study conducted by Mumtaz where analgesic drugs achieve the highest percentage (65.70%), 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.

CONCLUSION

Students with a medical background prefer self-medication more than non-medical students, because medical knowledge is the core of their study requirement. Our students chose self-medication due to saving time and money.

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