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COMMON HEALTH COMPLAINT REPORTED BY STUDENTS ACCORDING TO SPECIALIZATION AND GENDER REGARDING SELF-MEDICATION AT AJMAN UNIVERSITY

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ABSTRACT

Background: Self-medication is the selection and use of non-prescription medicines by individuals' own initiatives to treat self-recognized illnesses or symptoms. It is practiced Significantly worldwide even though its type, extent and reasons for its practice may vary. *Objective:* This study was carried out to determine the difference between gender and specializations (medical and non-medical students) regarding 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). Chi square test was used to analyze the proper questions. *Results:* 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:** drug regulatory and health authorities have to dedicate some resources used to raise awareness of the students and the general public on the pros and cons of responsible self-medications to eventually improve their attitudes towards the practices of self-medication.

KEYWORDS: *spinal anesthesia*, *patient satisfaction*, *caesarean section*.

INTRODUCTION

Globally, self-medication has been reported as being on the rise.[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 Pakistaini[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] Furthermore it shows 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. This might happen as a way of overcoming obstacles to receive medical care or as result of dissatisfaction with it. Headache or mild pain, eye and ear symptoms, gastric problems, cold, fever and allergy were the most common symptoms for self-medication.[9] Also a study in Gondor University in Ethiopia found that common reported illnesses were fever and headache followed by cough and common cold, the most commonly used drugs for self-medication, i.e. analgesics and non-steroidal anti-inflammatory drugs (NSAIDs). This happens because analgesics/antipyretics constitute the first line of medical intervention in many communities.[4]

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-mediation behavior with medications among students at AUST. It was conducted to determine the difference between gender and specializations as regards to 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 was done from March 2015 to June 2015. The chosen sample size was 700, distributed to medical and non-medical for both male and female at Ajman University, medical colleges consisting of pharmacy and dentistry college, non-medical consisting of engineering, business, media, law colleges.

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. Students willing to participate in the study were given the questionnaire to be filled.

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
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: Demographic characteristics of the participants

Characteristics	Frequency	Percentage %
Age **Range** **Mean (SD)**	(17-25) 8 20.8 (1.78)	100 %
Gender: -Male -Female	300 400	42.9 % 57.1 %
Specialization Medical Non-medical	355 345	50.7 % 49.3 %

Table 1 shows the socio-demographic characteristics of students who reported self-medication, 17-25 years were the mean age for the study participants. Female more

participate in the study than male. Little differences between medical and non-medical.

Table 2: Common health complaint reported by students according to specialization

Health Complaints	All n(%)	Medical n(%)	Non-medical n(%)	X^2	P Value
-Respiratory symptom	162 (23.1%)	100 (28.2%)	62 (18%)	10.230	**0.001**
-Gastrointestinal symptom	66 (9.4%)	27 (7.6%)	39 (11.3%)	2.803	**0.094**
-Urinary complaint	88 (12.6%)	40 (11.3%)	48 (13.9%)	1.114	**0.291**
-Sleep problem	54 (7.7%)	18 (5.1%)	36 (10.4%)	7.072	**0.008**
-Fever	59 (8.4%)	16 (4.5%)	43 (12.5%)	14.352	**0.000**
-Pain	209 (29.9%)	121 (34.1%)	88 (25.5%)	6.146	**0.013**
-Allergy	62 (8.9%)	33 (9.3%)	29 (8.4%)	0.172	**0.679**

*P<0.05; #Significance; x^2= Chi square test; n (%) = Frequency (Percentage).

Table 2 shows common health complaints reported by students according to specialization. Medical students complained about respiratory symptoms, pain, allergy more than non-medical students *(P= 0.001)*, however,

non-medical students complained about gastrointestinal symptoms, urinary complaint, sleep problem, fever more than medical students *(P=0.000).*

Table 3: Common health complaint reported by student according to gender

Health Complaints	All n(%)	Female n(%)	Male n(%)	X^2	P value
-Respiratory symptom	162 (23.1%)	68 (17%)	94 (31.3%)	19.80	**0.000**
-Gastrointestinal symptom	66 (9.4%)	60 (15%)	6 (2%)	33.926	**0.000**
-Urinary complaint	88 (12.6)%	30 (7.5%)	58 (19.3%)	21.840	**0.000**
-Sleep problem	54 (7.7%)	40 (10%)	14 (4.7%)	6.849	**0.009**
-Fever	59 (8.4%)	28 (7%)	31 (10.3%)	2.468	**0.116**
-Pain	209 (29.9%)	147 (36.8%)	62 (20.7%)	21.174	**0.000**
-Allergy	62 (8.9%)	27 (6.8%)	35 (11.7%)	5.133	**0.023**

*$P<0.05$; #Significance; x^2= Chi square test; n (%) = Frequency (Percentage).

Table 3 shows common health complaints reported by students according to gender. Male students complained about respiratory symptoms, urinary complaint, allergy more than female students *(P=0.000).* Female students complained about gastrointestinal symptoms, sleep problem and pain more than male students.

DISCUSSION
Our study revealed that the students (medical 63.4%, non-medical 26.1%) depend and fully understand the written information on the leaflets of the medicine. Also, a high number of the students (medical 34.9%, non-medical 50.4%) expressed, that they only partly understand the written information on the leaflets. There are comparable studies where half of the respondents either did not understand or misinterpreted the written information.[13] Here we proved that non-medical students have higher percentage of only partly understanding (50.4%), or even not understanding (23.5%) the written information on the leaflets. Unfortunately, the next question (Q17) revealed, that again the majority of the students (female 43%, medical 49.6%, total 40%) depend first on the written information of the package insert to extract the needed dosage of the medication instead of depending on doctor or pharmacy (female 25.8%, medical 29%, total 24.9%). This is followed by advice of family and friends (total 21.7%) and finally on previous experience (total 10.9%). 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 were obtained showing that analgesic drugs are the most common used medicine among students.[14] These drugs were even stocked for emergency purposes, for treating respiratory disease. Another study from Sharjah University, states that the most common type of self-medication used by participants are analgesic drugs (70%),[15] 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 were amoxicillin was the most commonly self-medicated antibiotics.[16]

Our study proved that vitamins and supplements are used more by female students (44.8%) than male students (34.7%). As a result, female students in AUST are using vitamins and supplements, because they are interested to enhance general health. Similar results were achieved by a study conducted in Sharjah University.[15] Female students in Malaysia store vitamins and minerals (10.8%) as a source of energy especially in the exam period.[18]

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] 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 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.[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

Therefore, the majority of Ajman University students depend on the indication and quality of the drug instead of the price when selecting a drug for self-medication. 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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