Self medication Among Medical University Staff at Taibah University, Al-Madinah. 2012

Najla S. AL-Johani , Isra'a Eid Alsubhi , Sarah muhesen, Enas M Alsubhi, Samah A. Al-Johani,, Nada M Al-Radadi, Intessar Sultan.

Faculty of medicine, Taibah university, Almadinah Almunawarah , Saudi Arabia

ABSTRACT

Objectives: *this study was conducted to estimate the prevalence of self-medication among medical university staff at Taibah University and to explore the underlying causes and concerns of their self-medication.*

Methods: *This cross sectional study was performed using self reporting pre-coded questionnaire by 107 teaching stuff aged 44.6 ± 7.66 years. They were selected through simple randomization from colleges of medicine and allied medicine at Taibah University during the period from September to December 2012. The questionnaire included questions about frequency, characteristics, and reasons of self-diagnosis.*

Results: *The prevalence rate of self-medication by teaching staff was high (81.3%) and was performed commonly (33.6%), outside the clinics (75.7%), outside their specialties (54.2%), and by phone (59.8%). It was considered not risky by 24.3%. It was performed for common symptoms e.g, flu and headache (83.2%), musculoskeletal pains (38.3 %) , abdominal pain and change in bowel habits (21.5 %). Antibiotics and Antipyretics were the most commonly prescribed medications (57%). The main reasons for self medication included mild symptoms (47.7%), lack of time (27.1%) and self-confidence (14%). Self medication was avoided by 62.6% for multiple concerns and by 21.5% for crtaein people. Teaching staff who practiced self –medication had increased probability to be from college of medicine (5.03 odds, 95% CI of 1.80 - 13.99, p= 0.001).*

Conclusion: *Self-medication of drugs for common symptoms was prevalent among teaching staff of medicine with some restrictions. The results of the present study supported the impact of medical practice on self-medication; however there are some concerns about the safety of such practice.*

I. INTRODUCTION

Self-medication is defined as consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment (1). This includes using drugs that have not been prescribed, recommended or controlled by a licensed healthcare specialist.

This definition is very wide as it also includes taking non prescribed drugs, using old prescriptions, sharing medicines with relatives or friends or using medicines available at home or using drugs without consulting physicians. Self-medication may be supported by medical books, internet sites, personal or family experience of certain diseases with their medications (2). Self-medication deserves public concern because of possibility of incorrect diagnosis, toxic drug side effects or drug-drug interaction, and possibility of missing proper treatment given by professionals (3).

Over the world, the prevalence rates of self-medication are high especially in developing countries (4, 5) with no available laws controlling selling drugs without a prescription by pharmacist . In developing countries, people are not only using over the counter drugs but also prescription drugs, as self-medication products, without supervision (6). The highest rate of self-diagnosis (92%) was reported among adolescents in a study in the Kuwait (7). It is expected that self medication practices are more common among personnel in the medical field. The attitude of the university staff who teaches different aspects of medicine might be important

as it may be reflected on their students. Therfore this study was conducted to estimate the prevalence of self-medication among medical university staff at Taibah University and to explore the underlying reasons and concerns of their self-medication.

II.   METHODS

This c*ross sectional* study was performed using self reporting pre-coded questionnaire by 107 teaching stuff selected randomly from colleges of medicine and allied medicine at Taibah University during the period from September to December 2012. A sample size of 113 participants was selected as a sample from 160 staff with confidence level of 95% and interval of 5%. After distributing the questionnaire, 107 of the staff answered the questionnaires with response rate of 94.7%. All participants gave verbal consent to participate in this study.

This study was performed according to the principles of the Declaration of Helsinki. Ethical approval of this study was provided by the "Department Of Community And Family Medicine" as part of the course of research methodology. The age, gender, college, specialty, years of experiences, clinical activity and chronic diseases were reported. The frequency of self-medications was recorded. The common symptoms for which self-medication was performed, commonly used medications, reasons for self-medications and conditions where it was avoided were collected. Their attitude toward self-medication was also recorded.

Statistical analysis:

Data entry were performed by each researcher using excel files. These files were extracted to the SPSS software for windows (Statistical Package for Social Sciences Version 17, USA) to perform statistical evaluation of data. data was presented as means and standard deviations; qualitative data was performed as proportions. Self-medication odds ratio, confidence intervals and significance were calculated using contingency table and Chi square test. All tests were two-tailed and were considered to be significant at $p < 0.05$.

III.   RESULTS

Table 1 shows the demographic data for the participating teaching staff. The participants' mean age was 44.6 ± 7.66 years; they were 51 males (47.7%) and 56 females (52.3%), from college of medicine (70.1%) and college of allied medicine (29.9%) with 63.6% from basic medicine departments and 36.4% from different clinical medicine departments (Table 1). They had long experience in the field of medicine with 75.7% practicing medicine for more than 10 years but only 46.7% had clinical activity. Slightly more than the third (35.5%) had the attitude of seeking regular check up and nearly a quarter (24.3%) was suffering from chronic illnesses most commonly diabetes mellitus (9.35 %) and dyslipidemia (5.61 %) and 9.35 % were on multiple medications. However, not all participants with chronic illness had regular follow up as (8.41%) did not or rarely follow up their chronic diseases.

Table 1: The demographic data for the participating teaching staff at Taibah University.

	N (%)
Age (mean ± SD): years	44.6 ± 7.66
Gender	
• Males	• 51 (47.7%)
• Females	• 56 (52.3%)
College	

• College of medicine	• 75 (70.1%)
• College of allied medicine	• 32 (29.9%)
Specialty	
• Basic medicine	• 68 (63.6%)
• Clinical medicine	• 39 (36.4%)
Experience	
• Less than or equals to 10 year	• 25 (23.4%)
• More than 10 years	• 81 (75.7%)
Clinical activity	50 (46.7%)
Regular check up	38 (35.5%)
Chronic disease	26 (24.3%)
• Diabetes	• 10 (9.35 %)
• Dyslipidemia	• 6 (5.61 %)
• Follow up	• 17 (15.89 %)
• Poor follow up	• 9 (8.41 %)
• Multiple medications (>2 drugs)	• 10 (9.35 %)

Table 2 shows the frequency of self-medication by the teaching staff. The prevalence rates of self-medication was high (81.3%) with about one third (33.6%) of the participating staff performed self-medication often or usually. Self-medication outside the clinic was performed by 75.7% of the staff and outside their specialty by 54.2% medical advice to relatives and friends by phone was also high (59.8%) and self-diagnosis was not considered risky by 24.3%.

Table 2: The frequency of self-medication by the participating teaching staff at Taibah University.

	N (%)
Frequency of self-medication	
☐ Rarely /occasionally	☐ 71 (66.4%)
☐ often/usually	☐ 36 (33.6%)
Self-medication to selves, relatives and/or friends	87 (81.3%)
Self-medication outside the clinic	81 (75.7%)
Self-medication outside specialty	58 (54.2%)
Self-medication by phone	64 (59.8%)

Table 3 shows the characteristics of self-medication by the teaching staff. The most common symptoms for which the teaching staff usually performed self-medication were flu and headache (83.2%), musculoskeletal pains (38.3 %) and abdominal pain and change in bowel habits (21.5 %). Antibiotics and Antipyretics were the most commonly prescribed medications (57%).

Table 3: The characteristics of self-medication by the teaching staff at Taibah University.

	N (%)
Common symptoms of self-medication:	
• Flu and headache	• 89 (83.2%)
• Musculoskeletal pains	• 41 (38.3 %)
• Abdominal pain and change in bowel habits.	• 23 (21.5 %)
Common medications of self-medication	
• Antibiotics and Antipyretics	• 61 (57%)
• Antibiotics	• 12 (11.2 %)
• Pain killers	• 8 (7.5 %)
• Antipyretics	• 13 (12.1 %)
• Nose or Eye drops	• 4 (3.7%)
• Antihistaminic drugs	• 2 (1.9%)
Reasons for self-medication:	
• Fear of major diseases	• 4 (3.7%)
• Neglect	• 3 (2.8%)
• Self confidence	• 15 (14%)
• Lack of time	• 29 (27.1%)
• Mild symptoms	• 51 (47.7%)

Table 4 includes the situations that prohibit self-medication by the teaching staff. Self-medication was avoided by a substantial percentage of the staff (62.6%) for multiple concerns as bleeding, tumors, severe pains and skin disorders. Also self-medication was avoided for certain people (21.5%) including infants, children, pregnant women, old people and patients with chronic illnesses. The main reasons behind self-medication were mild symptoms (47.7%), being busy with no available time for consultation (27.1%), self confidence as workers in the medical field (14%), fear of discovering a major disease through consultation (3.7%), and health neglect (2.8%).

Table 4: The conditions that prohibit self-medication by the teaching staff at Taibah University.

	N (%)
Self-medication is avoided in certain conditions:	
• Bleeding	• 7 (6.5%)
• Fever	• 5 (4.7%)
• Mass / tumors	• 19 (17.8%)
• Severe pain	• 3 (2.8%)
• Skin disorders	• 5 (4.7%)
• Multiple concerns	• 67 (62.6%)
Self-medication is avoided in certain people:	
• Children	• 21 (19.6%)
• Old people	• 3 (2.8%)
• Infants	• 3 (2.8%)
• People with chronic disease	• 1 (.9%)
• Pregnant women	• 9 (8.4%)
• All	• 23 (21.5%)
• 2 options	• 47 (43.9%)
Self-medication is considered risky:	
• Yes/possible	• 81 (75.7%)
• No	• 26 (24.3%)

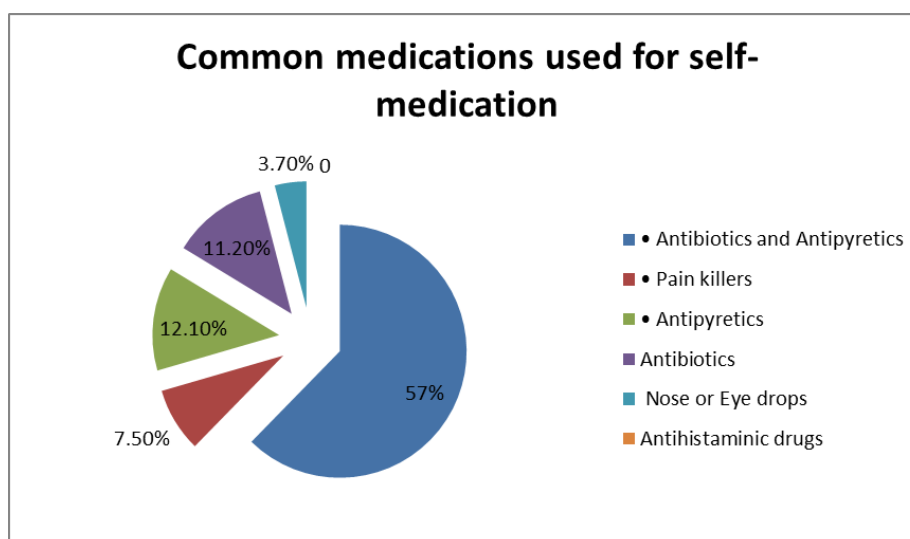**Figure 1: common medications used for self-medication .**

Table 5 shows the odds ratio for Self-medication to selves, friends and relatives. Teaching staff who perform self –medication had increased probability to be from the college of medicine (5.03 odds, 95% CI of 1.80 - 13.99, p= 0.001).

Table 5: The odds ratio for Self-medication to selves, friends and relatives.

	Odds ratio	95% Confidence Interval		P
		Lower	Upper	
Gender	0.54	0.20	1.46	0.221
College	5.03	1.80	13.99	0.001
Specialty	1.20	0.45	3.26	0.714
Clinical activity	0.71	0.27	1.92	0.504
Routine checkup	1.03	0.37	2.85	0.958
Had Chronic disease	1.36	0.41	4.48	0.619

IV.   DISCUSSION

The prevalence rate of self-medication by teaching staff was high (81.3%) and was performed commonly (33.6%), outside the clinics (75.7%), outside their specialties (54.2%), and by phone (59.8%). On the other hand, a large number of them used to avoid self-medication for multiple concerns (62.6%) and for certain people (21.5%). This attitude of the teaching staff towards self-medications could be explained by the nature of their work and their long years of experiences; but considering self-medication is not risky by 24.3% of them seems to be of concern as it could be reflected on their students' attitude who are the future medical and paramedical personnel.

In this study, self-medication was performed for common symptoms like flu and headache (83.2%), muscloskeletal pains (38.3 %) and abdominal pain and change in bowel habits (21.5 %). These results are in agreement with a study performed among medical, pharmacy, and health science students (8).

In this study, the most common reported reasons for self-medication were mild symptoms (47.7%), lack of time (27.1%) and self confidence (14%). In contrast the low severity of symptoms of illness and financial inaccessibility are frequently reported in previous studies (9, 10). These differences are probably because of our unique population with medical experience.

Antibiotics and Antipyretics were the most commonly prescribed medications (57%) in this study. In most developed countries, antibiotics are dispensed mostly by prescription and are not considered over the counter. However in developing countries many prescribed drugs could be obtained without prescription (11). The main limitation of this study was the cross sectional type of the study and the self-reported questionnaires that limit establishment of the risky outcome of self-medications.

V.   CONCLUSION

Self-medication with common drugs for common symptoms was prevalent among teaching staff of medicine with some reasonable restrictions. The result of the present study supported the impact of medical

practice on self-medication. However still there are some concerns about the safety of such practice among medical teaching staff especially because some believes in the safety of self-medication. It is recommended to establish a national public health awareness programs about self-medication hazards and establish strict regulation for drug prescription and handling among the public.

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