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Prevalence of Self Medication Practice among Nursing Students in Jazan University, Kingdom Of Saudi Arabia

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Abstract:
Introduction: *Self-care is a behavioral response of individuals to promote or restore health. Self medication is easier than accessing health care services located far from where the patient resides and is common among poor communities. It is one of the most important issues in health care because of its favorable and unfavorable consequences.*
Objective: *The primary aim of this study is to survey the prevalence including sources of information and cases when self medication is practiced among nursing students at Jazan University College of Nursing and Health Sciences in the Kingdom of Saudi Arabia during the First Semester of Academic Year 2015-2016 (1436-1437 H).*
Methodology: *This is a quantitative study using the descriptive cross-sectional method. Responses were provided by 200 nursing students taken from third to eight levels where their average age is 20.59 years old and mostly unmarried females. A questionnaire using a 3-point Likert scale was used to gather data which were statistically treated through the percentage technique, Weighted Mean, and Chi-Square. The null hypothesis that the responses of the students do not differ was tested at 0.05α.*
Results: *The prevalence of self medication was 43%. About 46% showed positive responses on sources of information influencing the practice of self medication particularly on pharmacist (WM=2.52), family influence (Wm=2.38) and past experience (Wm=2.34). Generally, the students showed a positive response on cases when self medication is practiced especially with fever (Wm=2.78), headache (Wm=2.78), flu/cough/cold (2.54), and pain (Wm=2.52). The responses of the students differ. The computed X^2 values were all higher than the critical value based on a 2 degree of freedom and at 0.05α.*
Conclusion: *Although specific items were found to show positive responses of the students on indicators leading to practice self medication and sources of information influencing the practice of self medication, yet generally, these two were found that the students were uncertain. It was on cases when self medication is practiced that they generally had a positive response. The responses of the students differ in all the aspects of self medication sought from them. It is, therefore, necessary that awareness and education regarding effects of self medication to health, making health care services more accessible and revision of procedures about pharmaceutical advertisements be made.*
Keywords: *Prevalence, Self Medication, Nursing Students*

I. Introduction

Self-care is a behavioral response of individuals to promote or restore health. Self-medication which is one form of self-care is an important initial response to illness [1]. According to the World Health Organization (WHO), self- medication is defined as "the selection and use of medicines by individuals to treat self – recognized illness or symptoms" [2]. Self-medication is also explained as one involving the act of acquiring medication without a prescription, resubmitting an old prescription to procure medication, sharing medications with others or utilizing a medication that is already available in the residence [3].

There are some factors why individuals practice self-medication. These are geographical difficulties in accessing health care centers and unavailability of qualified medical doctors. Self-medication is easier than accessing health care services located far from where the patient resides and is common among poor communities.[4] Thus, social, financial and health related factors drive the use of medications [5].

The growing number of OTC drugs and the abuse of medications have been cited as major obstacles to the effective and safe use of medicines. Several studies have shown both beneficial and harmful effects of self-care practices [6]. Self-medication is one of the most important issues in health care and has been debated a lot because of its both favorable and unfavorable consequences .Those who are against self-medication believe that it does more harm than good and leads to wastage of resources, microbial illness and drug dependence [7]. On the other hand, WHO has pointed that an appropriate self –medication can be beneficial in treating acute ailments that don't require medical consultation, can save time spent in visiting a physician and provide a cheaper alternative for treating a common diseases [8].

Self –medication is a problem that exists world-wide. About 47.6% prevalence of self-medication has been reported in 2011 WHO survey. The prevalence rate of self -medication among university students is quite high. Previous studies have reported prevalence rate of about 76% in Karachi, Pakistan [11]; 94% in Hong Kong [12]; 87% in India [13]; 43.2% in Ethiopia [14]; 86% in Brazil [15]; 98% in Palestine [16]; and 55% in Egypt [17]. Broader studies revealed that self-medication is commonly practiced by students especially those in the medical related courses. Nursing students, on the other hand, will be expected to handle several types of medications as well as have easy access to drugs in their future practice. This can favor self prescription and self-medication [18].Practice of self medicate is also reported to be influenced by educational level, age and socioeconomic status [18]. The most commonly used drug for self medication includes analgesic, antibiotics, cough syrup etc. [19] among nursing students.

II. Objectives

This paper primarily aims to survey the prevalence of self medication among nursing students at Jazan University College of Nursing and Health Sciences in the Kingdom of Saudi Arabia. To realize this, the following specific objectives were considered:

A. To determine the prevalence rate of self medication practice among the nursing students.
B. To find out the sources of information influencing them to practice self medication.
C. To find out the cases when they commonly practice self medication.
D. To determine whether or not the responses of the students differ.

III. Methodology

This is a quantitative study using the descriptive cross-sectional method. Responses were provided by 200 nursing students at Jazan University College of Nursing and Allied Health Sciences during the first semester of Academic Year 2015-2016. These students were taken from third to eight levels where their average age is 20.59 years old and mostly unmarried females.

A questionnaire approved by the Dean of the college was used to gather relevant information from the students. Responses to the items in the questionnaire were indicated using a 3-point Likert scale where 1 is Disagree, 2 is Uncertain and 3 is Agree. It was pilot tested among students in the same college. However, the students used in the pilot testing were no longer used in the final administration of the tool. Data collected from them were statistically treated through the percentage technique, Weighted Mean, and Chi-Square. The null hypothesis that the responses of the students do not differ was tested at 0.05α.

IV. Results

To facilitate analysis and discussion, the data were placed in tabular forms. The manner by which the data were presented followed the way the objectives were shown.

A. Prevalence of Self Medication Practice

The prevalence of self medication was measured using indicators as shown in Table 1.

Table 1. Indicators Leading to Practice Self Medication

No.	Indicators	Agree	Uncertain	Disagree	Wm	Interpretation
1	Minor illness	139	37	24	2.57	**Agree**
2	Seeking quick relief	122	31	47	2.37	**Agree**
3	Personal convenience	69	59	72	1.98	Uncertain
4	Avoidance of long waiting in clinic	77	65	58	2.09	Uncertain
5	High cost of medical consultation	55	82	63	1.96	Uncertain
6	Suggestion of relative/friend	87	66	47	2.00	Uncertain
7	Sufficient pharmacological knowledge	89	72	39	2.25	Uncertain
8	Emergency use	104	62	34	2.35	**Agree**
9	Lack of time to consult a doctor	71	78	51	2.11	Uncertain
10	Doctor tend to prescribe the same drug	86	73	41	2.22	Uncertain
11	Ashamed of revealing symptoms	56	80	64	1.96	Uncertain
Total		955	705	540	23.86	
Mean		87	64	49	2.18	Uncertain
Percent		43%	32%	25%	100%	

Legend: n=200; 1.00-1.66=Disagree; 1.67-2.33=Uncertain; 2.34-3.00=Agree

It can be noted from the table that the samples were in agreement with three indicators leading to practice self medication. In their descending order, these are: minor illness (Wm=2.57); seeking quick relief (Wm=2.37) and having sufficient pharmacological knowledge (Wm=2.35). As a whole, the samples were "Uncertain" whether or not the indicators presented leading to practice self medication is true to them.

When the percentage was determined, it turned out that an average of 87 or 43% among the students out of 200 indicated to "Agree" with the indicators presented. Furthermore, an average of 64 or 32% showed there were "Uncertain" while an average of 49 or 25% disagreed. There were more students who agreed to the indicators leading to practice self medication compared to those who were uncertain and those who disagreed. The 25% who disagreed does not necessarily imply that they consult a physician whenever they get sick. It could be that they are basically healthy, hence there is no need of seeking medical attention.

B. Sources of Information Influencing the Practice of Self Medication

Knowledge about drugs and medication is very important. If used properly, they can treat the sick and promote health. The sources of information influencing the practice of self medication are shown in Table2.

Table 2. Sources of Information Influencing the Practice of Self Medication

No.	Sources of Information	Agree	Uncertain	Disagree	Wm	Interpretation
1	School education	96	68	36	2.30	Uncertain
2	Past experience	110	49	41	2.34	**Agree**
3	Friends	77	72	51	2.13	Uncertain
4	Pharmacist	135	34	31	2.52	**Agree**
5	Family practice	105	62	33	2.38	**Agree**
6	Drug advertisement/media publication	80	79	41	2.19	Uncertain
7	Health workers	102	61	37	2.32	Uncertain
8	Textbook	49	98	53	1.98	Uncertain
9	Relatives	62	85	53	2.04	Uncertain
Total		816	608	376	20.20	
Mean		91	67	42	2.24	Uncertain
Percent		46%	33%	21%	100	

Legend: n=200 1.00-1.66=Disagree; 1.67-2.33=Uncertain; 2.34-3.00=Agree

The table shows that there are three sources of information which influence the students to practice self medication. These are: the pharmacist (Wm=2.52); family practice (Wm=2.38) and past experience (Wm=2.34). the overall mean, however, shows that the students were "Uncertain" as to whether or not those sources of information influence them to practice self medication as evidenced by a weighted mean value of 2.24.

When their responses were subjected to a mean and percentage technique, it was found out that about 91 or 46% of the students indicated to "Agree" that those sources of information influence them to practice self medication. A lower value was obtained for those who were uncertain or disagreed.

C. Cases causing Students to Practice Self Medication

People experience different illnesses. Some of these can be slight, moderate or severe. Some can be just case of OPD while others may require admission to a health care facility. The cases where the students tend to practice self medication are shown in Table 3.

Table 3. Cases when Students Practice Self Medication

No.	Cases	Agree	Uncertain	Disagree	Wm	Interpretation
1	Fever	167	22	11	2.78	**Agree**
2	Headache	169	18	13	2.78	**Agree**
3	Flu/cough/colds	143	22	35	2.54	**Agree**
4	Pain	141	22	37	2.53	**Agree**
5	Sore throat	90	57	53	2.18	Uncertain
6	Vomiting/nausea	90	71	39	2.25	Uncertain
7	Diarrhea	97	73	30	2.33	Uncertain
8	Rashes/allergy	83	81	36	2.23	Uncertain
9	Constipation	65	98	37	2.12	Uncertain
Total		1,045	464	291	21.74	
Mean		116	52	32	2.42	**Agree**
Percent		58%	26%	16%	100	

Legend: n=200 1.00-1.66=Disagree; 1.67-2.33=Uncertain; 2.34-3.00=Agree

The table shows that there are four cases when students practice self medication. These cases are fever (Wm=2.78); headache (Wm=2.78); flu/cough/colds (Wm=2.54) and pain (Wm=2.53). Although there were students who responded to "Disagree" on the cases presented, yet the weighted mean value obtained in some cases showed they were "Uncertain".

When the same frequencies were treated through the mean and percentage technique, it was found out that an average of 116 or 58% of the students indicated to "Agree" on practicing self medication on the cases mentioned where fever, headache, flu/cough/cold and pain were the most prevalent. About 52 or 26% and 32 or

16% were found uncertain and disagreed respectively that they practice self medication on those cases presented to them. This implies that the students who were uncertain or disagreed on these were the same students who responded to be uncertain and disagreed that they practice self medication. When the overall mean was calculated, it turned out that, generally, the students "Agree" to practice self medication on the cases presented as evidenced by a weighted mean value of 2.42.

D. Correlation of Responses of the Students

In order to determine whether or not a correlation exists in the responses of the students, the same data were treated using Chi-Square for a one-sample case. This tool also tested the null hypothesis that the responses of the students do not differ which was tested at 0.05α. The result of calculation appears in Table 4.

Table 4. Summary Table Showing the Correlation of the Responses of the Students

Source of Data/Responses	No. of Columns	Critical value (0.05α at 2 df)	Computed X^2 value	Interpretation
Table 1. Indicators Leading to Practice Self Medication	3	5.991	10.99	Ho is rejected. Ha is accepted.
Table 2. Sources of Information Influencing the Practice of Self medication	3	5.991	19.66	Ho is rejected. Ha is accepted.
Table 3. Cases when Students Practice Self Medication	3	5.991	57.76	Ho is rejected. Ha is accepted.

The test of the null hypothesis was done by using the frequencies of their responses in every table. These were treated individually using the Chi-Square (X^2) test for a one-sample case. It turned out that the computed value of X^2 for indicators leading to practice of self medication was 10.99; sources of information influencing the practice of self medication was 19.66; and cases when students practice self medication was 57.76. It can be noticed that all of the computed values are higher than the critical value based on a 2 degree of Freedom (df) and at 0.05α. With this, it shows that the null hypothesis (Ho) was rejected and therefore, the alternative hypothesis (Ha) is accepted. Hence, the responses of the students differ.

V. Discussion

The results showing that prevalence of self medication among the nursing students at Jazan University is critical owing to the fact that it is almost half (43%) of the samples. The same thing was noticed on the number of students who gave positive responses (46%) regarding their sources of information influencing them to practice self medication. This data are lower than those reported by Sawalha [20] which is 98% of the medical and non-medical students in Palestine. The same observation was noticed from the study by Pandaya, et al [21] where they reported that 82.3% of the medical students from first year to internship practiced self medication. In the study by Sagunro [22] he also revealed that there is a widespread incidence of self-diagnosis and self medication among Nigerian university students. The difference in prevalence can be attributable to the group of samples used, in that the previous studies cited were medical students who are assumed to have broader knowledge of diagnosing illness and the corresponding drug for such illness. Although nursing students also study pharmacology and are trained to make diagnosis, it is limited only on nursing diagnosis. Hence, their knowledge about appropriate drug to use is also limited. This explains the lower rate obtained in this study compared to the results of other studies on the same subject. However, there can still be a danger of practicing self medication like drug overdose.

As to factors influencing the practice of self medication, the study found that it was on their past experience, pharmacist, and family practice which came out to be positive. This is supported by the study of Onohwosafe and Olaseha [23] that one of the reasons influencing self medication among students of Abadina College in Ibadan, Nigeria was also due to past experience. If past prescription is similar with past experience, then the study by Biduki [24] is also in agreement with the findings of the present work. He found out that 98.25% of his samples considered past prescription as the greatest influence for people in a municipality in Ghana to engage in self medication. Influence of the pharmacist and family practice was also reported by de Loyola, et al [25] to the practice of self medication. However, in the study by Alofabi [26], it was literacy and public education which were considered major factors influencing self medication among adult population in Nigeria. In the present work, school education which is similar to literacy showed "uncertain" response among the nursing students.

As to cases where self medication is practiced, the present work revealed that self medication is practiced on minor illnesses like flu/cough/colds; headache; and fever and when signs and symptoms of certain illnesses appear. This is similar to the findings in the study by Jasim, Fadhil and Taher [27]. They revealed that flu or common cold was the most common indication identified for self medication followed by headache, back or muscle pain, dyspepsia, diarrhea and others. The similarity of cases in the two studies indicates the universality of illnesses as well as signs and symptoms of illnesses. Universality connotes the fact that many

illnesses are similar in many places and races. In other words, the cases noted in the studies where self medication is practiced are not endemic.

The differences in the responses of the students can be attributable to the nature of the group used as samples being cross-sectional. Even in the study by Alghanim [28] show that about 35.4% of the respondents who were patients attending primary health care centers in Riyadh, Saudi Arabia practiced self medication. However, it does not necessarily mean that the rest always consult the services of a doctor or a health care worker. The conclusion made by Aljadhey, et al [29] pointed out that irresponsible self medication is common in Saudi Arabia. This is the reason why majority of the students (70.5%) surveyed in tertiary schools in Taif City, KSA as revealed in the study by Eldalo, Yousif and Abdallah [30] were interested in learning more about medicines. Hence, improving the consumers' awareness of self medication and the proper use of medicines was recommended by Aljadhey, et al [29] in their study.

VI. Conclusion

Although specific items were found to show positive responses of the students on indicators leading to practice self medication and sources of information influencing the practice of self medication, yet generally, these two were found that the students were uncertain. It was on cases when self medication is practiced that they generally had a positive response. The responses of the students differ in all the aspects of self medication sought from them. It is, therefore, necessary that awareness and education regarding effects of self medication to health, making health care services more accessible and revision of procedures about pharmaceutical advertisements be made.

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