ejpmr, 2016,3(1), 31-36

SJIF Impact Factor 2.026

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Research Article
ISSN 3294-3211
EJPMR

NON-PRESCRIPTION MEDICINE USAGE AMONG ADULT FEMALES IN TWO WESTERN CITIES, SAUDI ARABIA

[1]Wedyan S. Almoshaddk and [2*]Afaf M. Alshanqiti

[1]Alzahra Primary Health Care Center, Ministry of Health, Jeddah,
[2]Directorate of Public Health, Directorate General for Health Affairs, Makkah.

***Correspondence for Author: Afaf M. Alshanqiti**

Directorate of Public Health, Directorate General for Health Affairs, Makkah.

Article Received on 01/11/2015 **Article Revised on 23/11/2015** **Article Accepted on 16/12/2015**

ABSTRACT

Background: Several factors have been reported to influence the behavior of using non-prescribed medicines among adult females. **Objectives:** To provide an overview of the use of non-prescribed medications among adult female attending primary health care centers in two cities in Western Saudi Arabia (Jeddah and Makkah). **Subjects and methods:** This is a cross-sectional study conducted at two randomly selected primary health care centers belonging to Ministry of health, one in Jeddah city (Alzahra) and one in Makkah city (Alnaksah), Western Saudi Arabia. Adult female (aged over 18 year and below 60 years) who attended these two centers throughout the study period (October-November, 2015) constituted the target population for the study. A self-administered questionnaire was utilized. It consists of two parts. The first part contained questions on personal information of the respondents. The second part contained 4 questions on core issues of self-medication use such as names and sources of drugs used for self-medication, type of ailment treated through self-medication and factors influencing self-medication practices. **Results:** The study included 304 women More than half of them (55.3%) aged between 18 and 35 years. They were equally distributed between the two cities (Jeddah and Makkah). Most of the respondents 214 (70.4 %) were involved in self-medication practices. Majority of them obtained the non-prescribed drugs from private hospitals (86.9%) whereas 10.3% from friends/family members. Regarding reason of using drugs without prescription, 61.7% believed in their efficacy, 32.7% found their efficacy among friends and relatives whereas 16.8% avoided long waiting times at hospitals. Among those reported using of none-prescribed self-medication, alnalgesics (97.2%) and anti-pyretics (67.3%) were commonly used. Adult women aged over 45 years reported higher rate of using none-prescribed medication compared to younger women (p=0.009). Illiterate women used none-prescribed medications compared to those of higher education (p<0.001). **Conclusion:** Self-medication is an alarming sign for the women Saudi community. This behaviour can be prevented or minimized by increased awareness in our community regarding the misuse of drugs without prescription.

KEYWORDS: non-prescription' Self-medication, Women, Saudi Arabia.

INTRODUCTION

A non-prescription medicine (over-the-counter medicine) is any drug that you can buy without a doctor's prescription. Not all over-the-counter medicines are safe. They can interact with other medicines and can sometimes cause serious health problems.[1, 2]

Several factors have been reported to influence the behavior of using non-prescribed medicines among adults.[3, 4] Understanding these factors will aid in creating awareness among them about the potential risks of using drugs without proper information and consultation.[5]

Use of non-prescribed medicines is one of the common health risk behaviors encountered among adults.[6] Moreover, this habit usually picked up during adolescence[7] and may lead to misuse of the drugs.[8] This has often raised serious concerns by the society.

A positive attitude toward self-care and overconfidence in medication knowledge often act as driving force for using none-prescribed medicines,[2, 9] and misuse of drugs.[10] They use medicines without a prescription, share medicines with friends/relatives, use old prescriptions and use leftover medicines from previous prescriptions/stocks at home.[5, 11] Both non-prescribed and prescription-only medicines could easily be accessed without having necessary information on indications and contraindications, subjecting them to undue risk.[9, 12, 13] Among commonly used non-prescribed medicines are antacids, stool softeners, laxatives, anti-diarrheals, cold and allergy remedies, bulking agents, pain relievers, antipyretics, antibiotics, antispasmodics vitamins

nutritional supplements, cough medicines and stimulants.[8]

The prevalence of use of non-prescribed medicines was higher in females in most countries.[6, 9, 14-16] Young adult females generally reported more self-medicated health complaints [13] and frequent episodes of pain and depression.[17, 18]

A systematic review of articles published recently elaborated that although self-medication has been described as an important facet of health maintenance, it does not empower the adults to consume drugs independently.[8]

The study aimed to provide an overview of the use of non-prescribed medications among adult female attending primary health care centers in two cities in Western Saudi Arabia (Jeddah and Makkah).

Subjects and methods

This is a cross-sectional study conducted at two randomly selected primary health care centers belonging to Ministry of health, one in Jeddah city (Alzahra) and one in Makkah city (Alnaksah). Two cities were located at the Western Saudi Arabia. Adult female (aged over 18 year and below 60 years) who attended these two centers throughout the study period (October-November, 2015) constituted the target population for the study. Estimated number of attendees was 1500 in both centers in one month.

Sample size was computed using Online Roasoft sample size calculator putting into consideration that the expected proportion of outcome is 50% (which will give the highest sample size), the worst accepted proportion is ± 5% and the level of confidence is 95%, sample size was estimated to be 306.

Two primary health care centers were randomly selected one from each city. The sample was equally distributed between the two centers. An average of 25 visits to each primary health care center was reported daily. Every 5th patients was selected, to select 10 patients daily from both centers. Accordingly, approximately one month was needed to collect data. During the study period, the researcher invited the selected clinics attendees to participate in the study while they are waiting in the waiting area. For those who accept to participate in the study, a self-administered Arabic questionnaire was distributed. Any question or clarification was clarified by the researcher who was around all the time. Every one of the two authors collected data from one of the two cities

A self-administered questionnaire was utilized. It consists of two parts. The first part contained questions on personal information of the respondents such as age, education, marital status, occupation, smoking history and history of therapy for chronic illness. The second part contained 4 questions on core issues of self-medication use such as names and sources of drugs used for self-medication, type of ailment treated through self-medication and factors influencing self-medication practices. The questionnaire was self-created from literature review of similar subjects in other countries. The questionnaire was pre-tested for reliability and validity. Thirty volunteer adult females from one of the selected centers were participated in the pilot study. Validity was ascertained by three consultants (two in family medicine and one in community medicine). Test-retest reliability was performed with almost two weeks in between. The pre-tested questionnaire was used to effect minor corrections and modifications where necessary for easy understanding and filling by respondents. Results of the pilot study were not included in the main study.

Necessary ethics considerations were followed. The data were collected and verified by hand then coded before computerized data entry. The statistical Package for Social Sciences (SPSS) software version 22.0 was used for data entry and analysis. Descriptive statistics (e.g. frequency and percentage) and analytic statistics using chi-square test (χ^2) were applied. P-values ≤ 0.05 was considered as statistically significant.

RESULTS

Out of targeted 306 adult female patients, 304 responded by completing the study questionnaire giving a response rate of 99.3 %. Table 1 presents their baseline chacteristics. More than half of them (55.3%) aged between 18 and 35 years whereas 18.7% aged over 45 years. Almost one-third (34.9%) were university or above graduated whereas 28.3% were illiterate. They were equally distributed between the two cities (Jeddah and Makkah). Most of them (75.7%) were married. House wives represent 60.8% of them whereas 20.1% were employees. Prevalence of current smoking among them was 7.2% whereas that of ex-smoking was 13.5%. History of chronic diseases was reported among 22.7% of the participants. Most of the respondents 214 (70.4 %) were involved in self-medication practices as displayed from figure 1. Majority of them obtained the non-prescribed drugs from private hospitals (86.9%) whereas 10.3% from friends/family members as shown in figure 2. Regarding reason of using drugs without prescription, 61.7% believed in their efficacy, 32.7% found their efficacy among friends and relatives whereas 16.8% avoided long waiting times at hospitals. Figure 3.

Among those reported using of none-prescribed self-medication, alnalgesics (97.2%) and anti-pyretics (67.3%) were commonly used, followed by vitamins/nutrients (35.5%), cold/influenza preparations (29.9%) and antacids (28%). Table 2.

Table 3 shows the association between self-medication and respondents characteristics. Adult women aged over 45 years reported higher rate of using none-prescribed medication compared to younger women (p=0.009). Illiterate women used none-prescribed medications

compared to those of higher education (p<0.001). Residence, marital status, occupation, smoking history and chronic disease therapy were not significantly associated with using none-prescribed medications.

Table 1: Baseline characteristics of the participants (n=304)

	Frequency	Percentage
Age in years		
18-35	168	55.3
36-45	79	26.0
>45	57	18.7
Educational level		
Illiterate	86	28.3
≤ secondary school	112	36.8
University/above	106	34.9
Residence		
Jeddah	151	49.7
Makkah	153	50.3
Marital status		
Single	62	30.4
Married	230	75.7
Divorced/widowed	12	3.9
Occupation		
House wife	185	60.8
Students	42	13.8
Employee	61	20.1
Others	16	5.3
Smoking history		
Current smoker	22	7.2
Ex-smoker	41	13.5
Never smoke	241	79.3
Chronic diseases therapy		
Yes	69	22.7
No	235	77.3

Table 2: Types of non-prescribed medicine used by the participants (n=214)

	Frequency	Percentage
Analgesics/pain killers	208	97.2
Antipyretics	144	67.3
Antiallergics	42	19.6
Local dermatological preparations	40	18.7
Antacids	60	28.0
Cold/influenza	64	29.9
Antispasmodics	10	4.7
Herbal therapy	22	10.3
Vitamines/nutrients	76	35.5
Others	4	1.9

Table 3: Association of adult females` characteristics and self medication

	Self medication		χ^2 (p-value)
	Yes N=216	No N=88	
Age in years			
18-35 (n=168)	113 (67.3)	55 (32.7)	
36-45 (n=79)	53 (67.1)	26 (32.9)	
>45 (n=57)	50 (87.7)	7 (12.3)	9.48 (0.009)
Educational level			
Illiterate (n=86)	78 (90.7)	8 (9.3)	
< secondary school (n=112)	93 (83.0)	19 (17.0)	
University/above (n=106)	45 (42.5)	61 (57.5)	66.1 (<0.001)
Residence			

Jeddah (151)	104 (68.9)	47 (31.1)	
Makkah (153)	112 (73.2)	41 (26.8)	0.69 (0.405)
Marital status			
Single (n=62)	39 (62.9)	23 (37.1)	
Married (n=230)	170 (73.9)	60 (26.1)	
Divorced/Widowed (n=12)	7 (58.3)	5 (41.7)	3.86 (0.145)
Occupation			
House wife (n=185)	141 (76.2)	44 (23.8)	
Students (n=42)	29 (69.0)	13 (31.0)	
Employee (n=61)	36 (59.0)	25 (41.0)	
Others (n=16)	10 (62.5)	6 (37.5)	7.35 (0.062)
Smoking history			
Current smoker (n=22)	15 (68.2)	7 (31.8)	
Ex-smoker (n=41)	30 (73.2)	11 (26.8)	
Never smoke (n=241)	171 (71.0)	70 (29.0)	0.18 (0.915)
Chronic diseases therapy			
Yes (n=69)	42 (60.9)	27 (39.1)	
No (n=235)	174 (74.0)	61 (26.0)	4.50 (0.034)

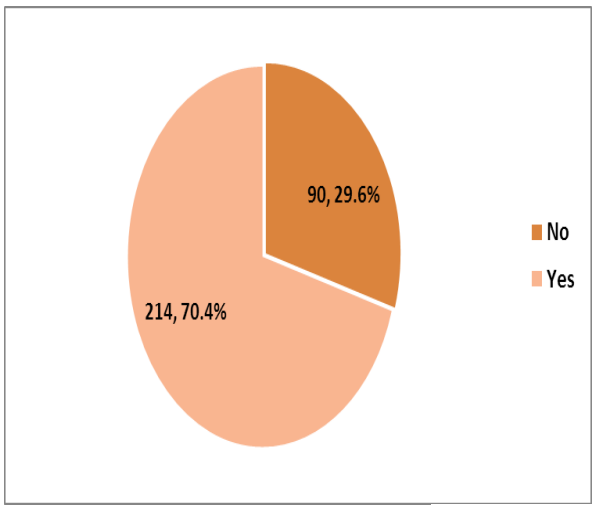

Figure 1: Prevalence of using non-prescribed medications among adult female attending primary health care centers, Western Saudi Arabia.

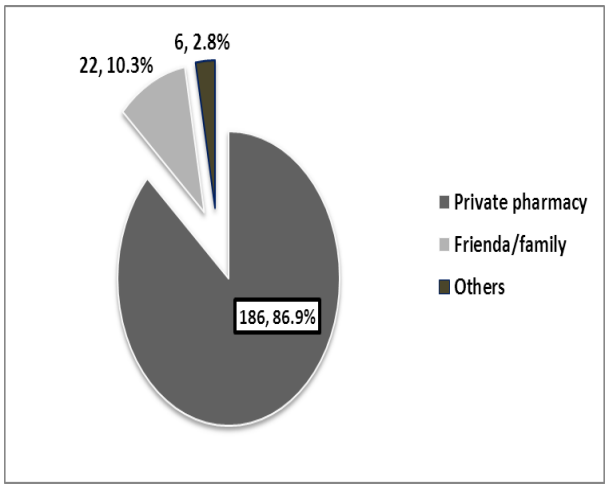

Figure 2: Main source of obtaining drugs without prescription among participants

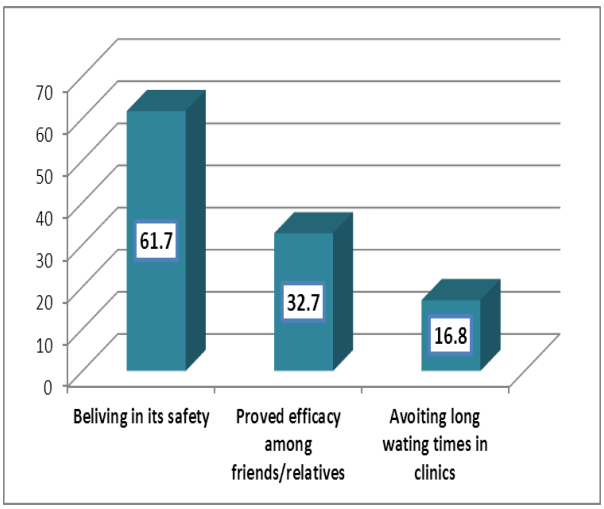

Figure 3: Reasons for using non-prescribed self-medications among participants

DISCUSSION

The findings revealed from the current study suggest that the practice of using non-prescribed self-medication is a common practice among 70.4% adult women in Urban Saudi Arabia. These drugs are prone to misuse because they are readily available. This finding in accordance with many developing countries.[19] This rate is higher than those reported in urban Indian population (37%) [20] and in rural women in Bangladesh (19%).[21] Overall, the rate varied between 12.7% and 95% in developing countries.[22] Prevalence of non-prescribed self-medication could not be compared across different studies due to their varying nature of definitions of non-prescription used, recall duration considered for definition, region studied and methodology adopted.

In contrast to what has been reported by others, who reported that the practice of self-medication is more common among educated population,[23, 24] the present study revealed that it is more common among less educated women. This finding agrees with what has been reported by similar study conducted in Palastine.[25]

Therefore, this finding encourage conducting further researches to explore the extent and depth of knowledge regarding self-medication in our community on larger-scale.

Older women used self-medication more common compared to younger women in the current study. The same has been reported by others.[26, 27] However, the reverse has been reported in another study.[28]

Analgesics and antipyretics were the most commonly used drugs without prescription in the present study, which is found to be similar to studies carried out by Keshari et al[21] and Arrais et al.[29]

In the present study, private pharmacy was the main source of self-medication. In a study conducted in Bangladesh, previous doctor's prescription was the major source of self-medications.[21]

In the current survey, the main reason for using non-prescribed medications was believing in their safety and being approved for efficacy by other friends or relatives. In addition, avoiding long waiting time was mentioned as a reason by a considerable percentage of women (16.8%). These are consistent with the earlier reports.[30-32] However, in a study carried out by Keshari in Bangladesh,[21] time saving (45.2%) was the most common reason for using self-medications.

Conclusively, self-medication is an alarming sign for the women Saudi community. This behaviour can be prevented or minimized by increased awareness in our community regarding the misuse of drugs without prescription.

REFERENCES

1. World Health Organization. WHO guidelines for the regulatory assessment of medicinal products for use in SM. Available at: http://apps.who. int/medicinedocs/en/d/Js2218e/1.html. Accessed March 31, 2014.
2. World Health Organization. The role of the pharmacist in self-care and self medication. Report of the 4th WHO Consultative Group on the Role of the Pharmacist. The Hague, The Netherlands: World Health Organization. Available at: http://apps.who.int/iris/bitstream/10665/65860/ 1/WHO_DAP_98.13.pdf; 1998. Accessed March 31, 2014.
3. da Silva C, Giugliani ER. Consumption of medicines among adolescent students: A concern. J Pediatr (Rio J)., 2004; 80: 326-32.
4. Du Y, Knopf H. Self-medication among children and adolescents in Germany: Results of the National Health Survey for Children and Adolescents (KiGGS). Br J Clin Pharmacol., 2009; 68: 599-608.
5. Shehnaz SI, Agarwal AK, Khan N. A systematic review of self-medication practices among adolescents. J Adolesc Health., 2014 Oct; 55(4): 467-83.
6. Andersen A, Holstein BE, Hansen EH. Is medicine use in adolescence risk behaviour? Cross-sectional survey of school-aged children from 11 to 15. J Adolesc Health., 2006; 39: 362-6.
7. Andersen A, Holstein BE, Due P, Hansen EH. Medicine use for headache in adolescence predicts medicine use for headache in young adulthood. Pharmacoepidemiol Drug Saf., 2009; 18: 619-23.
8. Daniel KL, Honein MA, Moore CA. Sharing prescription medication among teenage girls: Potential danger to unplanned/undiagnosed pregnancies. Pediatrics., 2003; 111: 1167-70.
9. Stoelben S, Krappweis J, Rössler G, Kirch W. Adolescents' drug use and drug knowledge. Eur J Pediatr., 2000; 159: 608-14.
10. Hughes CM, McElnay JC, Fleming GF. Benefits and risks of self medication. Drug Saf., 2001; 24: 1027-37.
11. Goldsworthy RC, Mayhorn CB. Prescription medication sharing among adolescents: Prevalence, risks, and outcomes. J Adolesc Health., 2009; 45: 634-7.
12. Darmanin Ellul R, Cordina M, Buhagiar A, Fenech A, Mifsud J. Knowledge and sources of information about medicines among adolescents in Malta. Pharm Pract (Granada)., 2008; 6: 178-86.
13. Shehnaz SI, Khan N, Sreedharan J, Issa KJ, Arifulla M. Self-medication and related health complaints among expatriate high school students: A cross-sectional survey in the United Arab Emirates. Pharm Pract (Granada)., 2013; 11: 211-8.
14. Furu K, Skurtveit S, Rosvold EO. Self-reported medical drug use among 15-16 year-old adolescents in Norway. Tidsskr Nor Laegeforen., 2005; 125: 2759-61
15. McCabe SE, Boyd CJ, Young A. Medical and nonmedical use of prescription drugs among secondary school students. J Adolesc Health., 2007; 40: 76-83
16. Hansen EH, Holstein BE, Due P, Currie CE. International survey of self-reported medicine use among adolescents. Ann Pharmacother., 2003; 37: 361-6.
17. Lagerløv P, Holager T, Helseth S, Rosvold EO. Self-medication with over the-counter analgesics among 15-16 year-old teenagers. Tidsskr Nor Laegeforen., 2009; 129: 1447-50.
18. Holager T, Lagerløv P, Helseth S, Rosvold EO. Attitudes to over-the-counter analgesics among 15-16 year-old teenagers. Tidsskr Nor Laegeforen., 2009; 129: 1451-4
19. Phalke VD, Phalke DB, Durgawale PM. Self-medication practices in rural Maharashtra. Indian J Commun Med., 2006;31(1):34-5.
20. Dineshkumar B, Raghuram TC, Radhaiah G, Krishnaswamy K. Profile of drug use in urban and rural India. Pharmacoeconomics., 1995; 7(4): 332-46.

21. Keshari SS, Kesarwani P, Mishra M. Prevalence and pattern of self-medication practices in rural area of Barabanki. Indian Journal of Clinical Practice., 2014 Dec; 25(7): 636-639
22. Shankar PR, Partha P, Shenoy N. Self-medication and nondoctor prescription practices in Pokhara valley, Western Nepal: a questionnaire-based study. BMC Fam Pract., 2002; 3: 17.
23. Lam CL, Catarivas MG, Munro C, Lauder IJ. Self-medication among Hong Kong Chinese. Soc Sci Med., 1994; 39(12): 1641-7.
24. Sanghani S, Zaveri HG, Patel VJ. Self medication: Prevalence and pattern in urban community. J Pharmacovigilance Drug Safety., 2008; 5: 95-8.
25. Sawalha A. Consumption of Prescription and non-Prescription Medications by Pregnant Women: A cross sectional study in Palestine. The Islamic University Journal., 2015; 15(2): 41-57.
26. Figueiras A, Caamaño F, Gestal-Otero JJ. Sociodemographic factors related to self-medication in Spain. Eur J Epidemiol., 2000; 16(1): 19-26.
27. Habeeb GE Jr, Gearhart JG. Common patient symptoms: patterns of self-treatment and prevention. J Miss State Med Assoc., 1993; 34(6): 179-81.
28. Sanghani S, Zaveri HG, Patel VJ. Self medication: Prevalence and pattern in urban community. J Pharmacovigilance Drug Safety., 2008; 5: 95-8.
29. Arrais PS, Coelho HL, Batista Mdo C, Carvalho ML, Righi RE, Arnau JM. Profile of self-medication in Brazil. Rev Saude Publica., 1997; 31(1): 71-7.
30. Sharma R, Verma U, Sharma C L, Kapoor B. Self-medication among urban population of Jammu city. Indian J Pharmacol., 2005; 37(1): 40-3.
31. Lefterova A, Getov I. Study on consumers' preferences and habits for over-the-counter analgesics use. Cent Eur J Public Health., 2004; 12(1): 43-5.
32. Krishnan HS, Schaefer M. Evaluation of the impact of pharmacist's advice giving on the outcomes of self-medication in patients suffering from dyspepsia. Pharm World Sci., 2000; 22(3): 102-8.