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Knowledge and Attitudes of Saudi Consumers on Medication Use

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Abstract: ***Objective:*** *To evaluate Saudi consumers' knowledge and attitudes regarding medication use, and the factors that influence their behavior.* ***Method:*** *A cross-sectional study using a structured face-to-face administered questionnaire consisting of 16 questions. Data was collected from a convenience sample of 396 Saudi nationals aged 15 years and older, in public places in Al-Ahsa'a, the eastern province of Saudi Arabia.* ***Results:*** *11.6% of the studied population go immediately to the pharmacy to seek medical help when getting sick. 23.2% did not know that there are two types of medications; prescribed and over-the-counter. 55.3% of the respondents said that they would trust the pharmacist's opinion regarding their medical condition. Only 34.3% cite the package leaflets as a source of information when using a medication and 36.9% did not know that it was illegal in Saudi Arabia to purchase prescription medications, without a prescription.* ***Conclusion:*** *This study demonstrates that general public awareness regarding medication use is deficient. Efforts have to be made by physicians, pharmacists, and policy makers to raise awareness, and promote safe use of medications.*

Keywords: knowledge, attitudes, self-medication, over-the-counter, medication, Saudi Arabia

1. Introduction

People throughout the world suffer from common health issues, and they generally respond in the same way, letting the condition run its course about half the time, turning to non-prescription medications about quarter of the time [1].

Self-medication is defined as obtaining and consuming drugs without the advice of health care professionals either for diagnosis, prescription or surveillance of the treatment [2]. With self-treatment, there is the potential of misuse and abuse of medications, suffering adverse effects, or delaying appropriate medical attention [3].

Despite these risks, self-medication is becoming increasingly important for health care systems. It facilitates better use of resources, may lower the costs of prescription drugs associated with publicly funded health programs, and it moves patients toward greater independence in making decisions about management of minor health problems [4]. Effective and safe self-medication is contingent on individual knowledge and attitudes regarding health.

The aim of this study is to survey Saudi consumers' knowledge, attitudes, and several other factors that are involved in the decision process of self-medication.

2. Methods

This was a cross-sectional survey using a structured face-to-face administered questionnaire, consisting of 16 questions. Data collection took place in Al-Ahsa'a region, the eastern province of Saudi Arabia, at a 3-month period (June, July and August, 2012). The total population of Saudi nationals in the eastern province of Saudi Arabia is about 3,065,883 people [5].

A convenience sample size of 385 individuals was determined using PS power and sample size calculator version 3.0 [6], at a confidence interval of 95% and a margin of error of 5%. Assuming a response rate of 85%, a sample size of 443 was required.

A pilot study was done to ensure content validity. The questions were found to be clear and well-understood. Training on the data collection method was provided to all of the participants in data collection. Interviews were conducted in public places (malls, markets, and mosques), and permissions to conduct interviews in these places were taken, whenever required. Interviewers wore badges identifying them as medical students of the Arabian Gulf University. Subjects were selected using a simple random sampling technique. Non-Saudis and those younger than the age of 15 were excluded.

This study was ethically approved by the research ethics committee of the Arabian Gulf University. Verbal consents were taken from all participants after a brief introduction of the purpose and significance of this study. Subjects were assured that the confidentiality of their data is going to be maintained throughout the study.

The survey consisted of 16 questions, designed to assess certain relevant parameters. The socio-economic level and demographic data were assessed using 5 questions (age, gender, residence, educational level, and possession of medical insurance). Attitudes and personal experience in the pharmacy were assessed by asking 8 questions. And finally, knowledge regarding self-medication was assessed by asking 3 questions. The survey was written and conducted in Arabic, and an experienced translator translated the questions for the purpose of this publication.

Statistical analysis was done using the Statistical Package for Social Sciences (SPSS Inc., Chicago, IL, USA) version 16.0.

Results are displayed as absolute counts and percentages.

3. Results

3.1 Socio-demographic characteristics

A total of 443 individuals were approached to be included in the study, 396 agreed to participate, giving a response rate of 89.3%. Majority of the participants were between 20-49 years of age, 66.7% did not have a medical insurance, and 47.2% were educated at a university level. A more detailed account of the socio-demographic characteristics is described in Table 1.

Table 1: Socio-demographic characteristics of 396 Saudi consumers in Al-Ahsa'a

Variables		*Frequency (%)*
Gender	Male	236 (59.6)
	Female	160 (40.4)
Age	< 20 years	91 (23.0)
	20-49 years	276 (69.7)
	> 49 years	29 (7.3)
Residence	City	221 (55.8)
	Village	175 (44.2)
Educational level	Uneducated	10 (2.5)
	Primary/intermediate school	71 (17.9)
	Secondary school	128 (32.3)
	University	187 (47.2)
Possession of medical insurance	Yes	132 (33.3)
	No	264 (66.7)

3.2 Attitudes and personal experience regarding self-medication

A high percentage of the participants (71%) reported buying a medication at least once monthly. 11.6% of the studied sample admitted that they go directly to the pharmacy when they, or one of their family members, get sick. Only 33.8% said that they "always" use a medical prescription when getting a medication. Other findings, including those pertaining to the pharmacist's role are described in detail in Table 2.

3.3 Knowledge and awareness regarding self-medication

Items pertaining to knowledge about the types of medications, legality of buying a prescription medication without providing a prescription, and sources of information about medications are presented in Table 3. Only 23.2% of the participants did not know that there are two types of medications; prescribed and over-the-counter. Majority of the studied sample cited "the doctor/pharmacists" as their main source of information about medications. Only 34.3% cited the package leaflets as their main source.

3.4 Correlation of socio-demographic characteristics with attitudes and knowledge items

Gender, age, residence, educational level, and possession of medical insurance did not show significant differences in responses to questions about attitudes and knowledge. Findings of the statistical analysis are not reported here.

Table 2: Attitudes and personal experience at the pharmacy of 396 Saudi consumers in Al-Ahsa'a

Attitude items		*Frequency (%)*
Approximately, how many times do you visit the pharmacy to buy medications?	< 1 time per month	115 (29.0)
	1 time per month	194 (49.0)
	≥ 2 times per month	87 (22.0)
Most of the time, when you or any of your family members get sick, where do you go to?	Governmental hospital	115 (29.0)
	Private hospital / clinic	154 (38.9)
	Primary care health centre (governmental)	81 (20.5)
	Pharmacy	46 (11.6)
What factors may prompt you to go directly to the pharmacy when you get sick? (respondents can pick more than one option)	If it's a simple illness	157 (39.6)
	Quick service	126 (31.8)
	If I already know the drug that I need	109 (27.5)
	Low cost	32 (8.1)
	Other reasons	39 (9.8)
Most of the time, do you use medical prescriptions to get medications?	Always	134 (33.8)
	Sometimes	205 (51.8)
	Never	57 (14.4)
Most of the time, does the pharmacist ask you for a medical prescription?	Yes	140 (35.4)
	No	256 (64.6)
Would you trust the pharmacist's opinion on your medical condition?	Yes	219 (55.3)
	No	177 (44.7)
Have you ever suffered a complication because of a diagnosis made by a pharmacist?	Yes	24 (6.0)
	No	372 (94)
What is the most important factor that you consider when buying a medication?	Price	54 (13.6)
	Side effects	105 (26.5)
	Efficacy	191 (48.2)
	Route of administration	46 (11.6)

Table 3: Knowledge and awareness of 396 Saudi consumers in Al-Ahsa'a

Knowledge items		*Frequency (%)*
Did you know that there are two types of medications: prescribed and over-the-counter?	Yes	304 (76.8)
	No	92 (23.2)
Did you know that buying a prescription medication without a prescription is illegal in Saudi Arabia?	Yes	250 (63.1)
	No	146 (36.9)
What is your main source of information about medications?	Medication package leaflets	136 (34.3)
	The doctor / pharmacist	161 (40.7)
	The internet	26 (6.6)
	Friends / family with previous experience with the drug	47 (11.9)
	I don't search for information	26 (6.6)

4. Discussion

The study has identified several tendencies and attitudes of the Saudi consumers at Al-Ahsa'a. A total of 71% of the 396

participants reported visiting the pharmacy to buy a medication at least once per month. A study in Hungary reported similar findings [7]. Generally, most participants showed good knowledge and positive attitudes regarding medication use. However, inadequate knowledge and negative attitudes were also observed. Majority of the participants respond to illness by seeking medical help from a doctor at governmental or private health institutions. Only 11.6% go to the pharmacy directly. This is consistent with the findings of a world-wide review of consumer surveys conducted by the World Self-Medication Industry, which showed that about only a quarter of the people turn to over-the-counter medicines to treat their sicknesses [1]. The most common reasons for going to the pharmacy directly were time saving, involvement of a simple illness, and prior knowledge of the required medication. Similar findings were reported in a study on self-medication conducted in another Saudi city, Riyadh [8].

When asked about the use of a medical prescription, responses were "always" for 33.8% of the participants, "sometimes" for 51.8%, and only 14.4% reported that they "never" use a medical prescription when they go to the pharmacy. In another study that was done on female students in Al-Khobar city, the eastern province of Saudi Arabia, it was found that 38% of the students have used over-the-counter medications, and only 11.5% of the students used medications under medical supervision [9]. Several other studies conducted in the region, showed that self-medication and buying prescription drugs without prescriptions is a common practice [8], [10] and [11].

In our study, we found that almost 3 quarters of the participants knew that there are two types of medications: prescribed and over-the-counter. However, only 63.1% knew that it was illegal in Saudi Arabia to buy a prescription medication without a prescription, even though laws that regulate drug dispensing have been passed few decades ago [10].

These tendencies of self-treatment may not only be enhanced by poor knowledge, but also by the consumers' perception of the role of the pharmacists. In a study that was done in the United Kingdom, it was found that patients expressed negative attitudes toward pharmacists making generic substitutions and were even more hostile to the idea that pharmacists should make therapeutic substitutions [12]. In another study conducted in Hong Kong, less than half of the participants agreed that pharmacists could play a leading role in self care. Uncertainty over the role of pharmacists was among the most common reasons against pharmacist consultation on self-medication [13]. Pharmacists are often viewed as shopkeepers. This may be due to their limited involvement in patients' care in hospitals and primary care settings. In our study, we found that less than half of the participants would trust the pharmacist's opinion regarding their medical condition. About 64% reported that the pharmacist didn't ask for a medical prescription, and only 6% reported suffering a complication due to a diagnosis made at the pharmacy. An understating of the role of the pharmacist, and adherence to the laws, are essential components of safe self-medication. The World Health Organization lists several functions of the pharmacist, among which helping the patient undertake appropriate and responsible self-medication [14].
Other factors that our participants considered important in the decision process of self-medication were side effects and efficacy of medications, and to a lesser extent, price and route of administration. In line with other studies [15] and [16], majority of our sample cited the doctor or the pharmacist as their main source of information about medications. Only 34.3% cited the leaflet packages, and a minority searched for information over the internet, or relied on friends or family members who have previous experience with the drug. The role of the media in influencing the general public decisions of self-treatment should also be emphasized. A study that was conducted in the western region of Saudi Arabia demonstrated that advertisements on television and the internet have the highest influence on their study sample [17].

In summary, the practice of safe self-medication requires the presence of several factors: consumers' understanding of proper use of medications, the active role of physicians and pharmacist in educating the patients about their illnesses and promoting informed independent decision making, and adherence to the laws regulating medication use.

There were several limitations to our study. We could not ascertain the type of drugs (prescription or over-the-counter) that the consumers received without prescription, or when pharmacists did not ask for one. This is because we could not tell if the consumers knew what medications were considered over-the-counter, and what medications required a prescription. Therefore, the results should not be over-interpreted. We also did not find any correlation between socio-demographic characteristics and any of the parameters that we studied. This may be due to selection bias. Although we used a simple random sampling technique, many of the participants were highly educated. This may have favored positive results.

5. Conclusion

Self-treatment is a common practice. Knowledge and awareness of the general public are deficient. Efforts have to be made by physicians, pharmacists, and policy makers to promote safe self-treatment and raise awareness.

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