ORIGINAL ARTICLE

CONSUMER PERCEPTION OF THE HEALTH CARE SERVICES IN YEMEN AND ITS IMPACT ON SELF-MEDICATION PRACTICE

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ABSTRACT

Community pharmacists are expected to have the necessary knowledge to give advice on safe and appropriate drug use during self-medication. However, the profession of pharmacist in Yemen has become less trustworthy and less reliable. In addition, quality of medication has been raising a lot of questions among consumers and fake medications have been entering the country without quality control checks. The aim of this study was to determine the consumer perception of health care services provided and its impact on self-medication practice in Sana'a city, Yemen. A self-administered questionnaire containing open-ended and closed-ended questions was developed and distributed among 400 consumers attending 10 community pharmacies in Sana'a City. All data obtained from the questionnaires were coded, entered, and analysed using Chi-square test and multiple logistic regressions. Prevalence of self-medication was found to be 90.7 %. The majority of respondents stated that they do not trust the health care services provided by physician (68.8%), community drug dispensers (78.2%), Ministry of Health (70.5%) or the quality of medicine dispensed by community pharmacies (59.7%). The trust of health care services provided by physicians and community drug dispensers were found to be significant predictors of self-medication practice. Those who did not trust health care services provided by physicians were more likely to use self-medication compared to those who did not (OR= 21.212, CI 95% 2.678-168.001, p= 0.004). Those who did not trust health care services provided by community drug dispensers were more likely to use self-medication compared to those who did not (OR= 2.746, CI 95% 1.048-7.195, p= 0.04). Consumers in Sana'a City have a negative overall perception of the services provided by community drug dispensers, physician and Ministry of Health and the quality of medication. An urgent intervention from health care authorities to adopt and to implement a new national drug policy with necessary laws and regulations is needed.

***Keywords**: Self-medication, Trust, Health Care Providers, Community Pharmacy consumers, Sana'a City, Yemen*

INTRODUCTION

Self-medication is a part of the concept of self-care where people can be responsible for obtaining medicines and treat their symptoms by themselves. However, the level of patient's understanding about their medications is highly variable and the need for professional guidance to select a suitable medicine for each condition has increased[1,2]. In Yemen, many drugs are dispensed without any medical supervision. It is common and easy for patients to obtain a variety of medications including antibiotics and some psychiatric drugs without a prescription[3,4].

Community pharmacists are expected to have the necessary knowledge to give advice on safe and appropriate use of medications and their relationship with patients is based on caring, communication and trust. However, it was stated in the pharmaceutical country profile produced by the Ministry of Public Health and Population (MOPHP) and the World Health Organization (WHO) that the profession of pharmacist in Yemen has become less reliable and less trustworthy[5]. Trust is a key component of the patient-physician relationship as well. Patients are not expected to willingly talk about their medical conditions and follow the recommendations for treatment if they do not trust their physician.

Like other developing countries, the quality of health care services in Yemen was stated to be far from satisfactory[6]. The insufficient and undeveloped health care system may influence the irrational practice of self-medication in Yemen. It is worth mentioning that the inspection frequency on community pharmacies and drug stores was stated to be low[5]. In addition, the quality of medication has been raising a lot of questions among Yemeni people and fake medications have been reported to be entering the market without quality control checks[5].

The objective of this study was to determine the consumer perception of the health care services provided by physicians, community drug dispensers, Ministry of health, and the quality of medication and its impact on self-medication practice in Sana'a City.

METHODOLOGY

A cross-sectional descriptive study was carried out on consumers attending community pharmacies in Sana'a City. A self-administered questionnaire containing open-ended and closed-ended questions was developed and used for this study. The questionnaire was evaluated by five expert reviewers and pre-tested in a pilot study on a sample of 40 participants attending a

community pharmacy in Sana'a City. The questionnaire was developed in English and then a bilingual expert was asked to translate the instrument from English to Arabic language. Permission to carry out this study was obtained from UiTM Research Ethics Committee, the administration of health office and targeted community pharmacies in Sana'a City.

After describing the purpose of this study, a written consent was obtained from each participant. Using a convenience sampling method, a total of 400 self-administered questionnaires were distributed to consumers attending 10 community pharmacies selected to represent all districts at Sana'a City. Only participants, who were 18 years old or older, reported self-medication in the last six months and willing to participate were included in the study. The questionnaire included questions about the socio-demographic characteristics of participants, and their perception about the health care service provided by physician, community drug dispensers and Ministry of health and the quality of medication dispensed by the community pharmacies. All data obtained from the questionnaire were coded, entered, and analysed using SPSS statistical software version 21[7]. Chi-square test and multiple logistic regressions were used.

RESULTS

A total of 400 questionnaires were completed and collected, out of which 231 (57.8%) were males and 169 (42.2%) were females. The mean age ± SD of the respondents was 28.6 ± 7.7 (range 18-65). Table 1 shows the descriptive analysis of the variables. The majority were with a degree and low income. The prevalence of self-medication in the past six months was found to be 90.7 % (94.1% of females and 88.3% of males). Figure 1 shows the opinion of community consumers about the health care in Sana'a City. The majority of respondents stated that they do not trust the health care services provided by physician (68.8%), community drug dispensers (78.2%), Ministry of Health (70.5%) or the quality of medicine dispensed by community pharmacies (59.7%).

The bi-variate analysis was used to identify the risk factors associated with self-medication as shown in table 2. It was found that factors like gender, trust of health care services provided by physician, trust of health care services provided by community drug dispensers, trust of the quality of medication dispensed by community pharmacies and trust health care services provided by Ministry of Health have association with self medication practice. However, only the trust of health care services provided by physicians and community drug dispensers were found to be the most important factors in our study (table 3).

In Multivariate analysis (table 3), the trust of health care services provided by physicians and community drug dispensers were significant predictors of self-medication practice. Those who did not trust health care services provided by physicians were more likely to use self-medication compared to those who did not (OR= 21.701, CI 95% 2.713-173.601, p= 0.004). Those who did not trust health care services provided by community drug dispensers were more likely to use self-medication compared to those who did not (OR= 2.797, CI 95% 1.055-7.417, p= 0.039).

Table 1: Descriptive analysis

Variables	N	%
Age		
18-39	367	91.8
40-59	30	7.5
≥ 60	3	0.8
Gender		
Male	231	57.8
Female	169	42.2
Education Status		
Primary	44	11
Secondary	75	18.7
Diploma	24	6
Degree	257	64.3
Income		
≤ 50,000 R.Y. *	297	74.3
51,000-100,000 R.Y. *	58	14.5
> 100,000 R.Y. *	45	11.2
Self-medication		
Yes	363	90.7
No	37	9.3

** Yemeni Riyal*

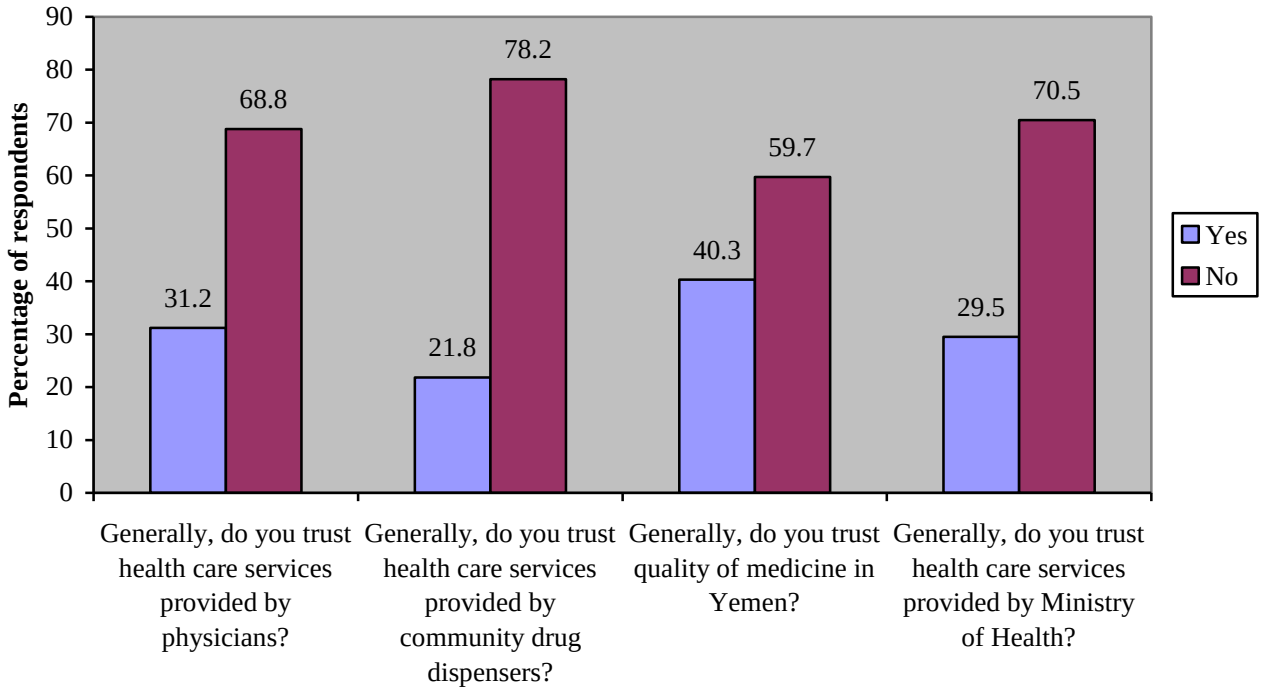

Figure 1: Consumer's perception of health care services provided in Sana'a City.

DISCUSSION

The trust of health care services provided by physicians and community drug dispensers was significantly associated with self-medication. It was found out that those who did not trust health care services provided by community drug dispensers and physicians were more likely to be involved in self-medication practice compared to those who did not. Such results were expected as consumers were taking more active role in their healthcare instead of visiting a health care provider that they do not trust. Although community drug dispensers are responsible for dispensing the right medication and advising during self-medication practice, other sources of information were reported in several studies[8,9]. This may explain the patient's dependence on various sources for information instead of asking the pharmacist.

At the same time, patient satisfaction can be used to measure the quality of health services provided by community pharmacists[10]. Pharmacists are considered as one of the most trusted professions in different countries[11,12]. Several studies showed positive perception of the community pharmacist and the services provided in community pharmacies[13,14] and various studies showed moderate[15] and high satisfaction[16,17] among patients. In addition, consumers were found to have a great trust in pharmacists in another study[18]. In this study, different findings were found. When consumers were asked whether they trust the services provided by community drug dispensers, the majority stated that they do not trust them. Similar findings were stated in the pharmaceutical country profile produced by the Ministry of public health and population in Yemen and the World Health Organization (WHO)[5].

Trust is a key component of the patient-physician relationship as well. It was found to be a crucial element in health care because it can influence a variety of health behaviours and outcomes[19]. It was reported that patients with lower level of trust in their physician were more likely to complain about the needed services[20]. Different study stated that higher continuity of care is associated with a higher level of trust between a patient and a physician[21]. Moreover, trust was found to be associated with patient satisfaction[22]. It is the lack of trust and patient dissatisfaction that may encourage the patient to be more reluctant to visit and consult the doctor.

Table 2: Bi-variate analysis (Chi square test)

Variables	Yes (%)	No (%)	Chi-Square	Odds Ratio	C.I 95%		Sig.
					Lower	Upper	
Age							
18-39	331 (90.2)	36 (9.8)	1.69				0.429
40-59	29 (96.7)	1 (3.3)					
≥ 60	3 (100.0)	0 (0.0)					
Gender							
Male	204 (88.3)	27 (11.7)	3.87	0.475	0.223	1.011	0.049
Female	159 (94.1)	10 (5.9)					
Educational status							
Primary	40 (90.9)	4 (9.1)	2.94				0.401
Secondary	71 (94.7)	4 (5.3)					
Diploma	23 (95.8)	1 (4.2)					
Degree	229 (89.1)	28 (10.9)					
Monthly income							
≤ 50,000 R.Y. *	268 (90.2)	29 (9.8)	3.29				0.193
51,000 – 100,000 R.Y. *	51 (87.9)	7 (12.1)					
> 100,000 R.Y. *	44 (97.8)	1 (2.2)					
Physicians trust							
Yes	89 (71.2)	36 (28.8)	82.783	0.009	0.001	0.067	0.001
No	274 (99.6)	1 (0.4)					
Pharmacists trust							
Yes	63 (72.4)	24 (27.6)	44.531	0.114	0.055	0.235	0.001
No	300 (95.8)	13 (4.2)					
Ministry of health trust							
Yes	81 (68.6)	37 (31.4)	97.437				0.001
No	282 (100.0)	0 (0.0)					
Quality of medicine trust							
Yes	128 (79.5)	33 (20.5)	40.604	0.066	0.023	0.191	0.001
No	235 (98.3)	4 (1.7)					

** Yemeni Riyal*

Although the results showed no significant association with self-medication practice, most respondents stated that they do not trust the services provided by the Ministry of Health or the quality of medications. This may be due to the inadequate quality of health care in public and private sectors in Yemen[23], lack of resources and health infrastructures[24] and poor satisfaction toward such health care service among Yemeni people[25] which made hundreds of thousands of patients to travel overseas every year for medical treatment[26]. In addition, the quality of medications in Yemen was questioned as well and fake medications have been stated to be entering the market without quality control checks. It was mentioned that there are no comprehensive laws and regulations governing medicines to provide a basis for dealing with offences. Moreover, the inspectorate was reported to lack adequate trained staff, budget, and standard operating procedures to carry out systematic post-marketing surveillance[27].

Self-medication in Yemen is highly prevalent and the use of medications without prescription is significantly influenced by the lack of trust of consumers toward the health care services provided by community drug dispensers and doctors in Yemen. The majority of consumers participated in this study showed a negative perception toward health care providers including the ministry of health in Yemen. Therefore, it is the responsibility of health authorities to urgently take some measures to prevent the inappropriate use of medications and strictly assure that only over the counter medications can be dispensed without prescription. In addition, it is the duty of all health care providers to raise awareness among Yemeni people toward the rational use of medications. Moreover, health care providers, especially doctors and pharmacists should be encouraged to participate more in scientific conferences and training programs to keep up with the latest changes in pharmacy and medicine which may help changing the negative perception of consumers eventually.

Table 3: Multi-variate analysis (Multiple logistic regression model)

Variables	B	S.E.	Wald	Sig.	Exp(B)	95% C.I for EXP(B) Lower	Upper
Gender	0.461	0.523	0.776	0.378	1.585	0.569	4.415
Physicians trust	3.077	1.061	8.414	0.004	21.701	2.713	173.601
Pharmacists trust	1.029	0.497	4.275	0.039	2.797	1.055	7.417
Quality of medicine trust	-1.269	0.648	3.838	0.055	0.281	0.079	1.001
Ministry of health trust	-18.682	2121.160	0.000	0.993	0.000	0.000	
Constant	16.120	2121.161	0.000	0.994	101920.09		

CONCLUSIONS

Self-medication was found to be very high among consumers in Sana'a City. The trust of health care services provided by physicians and community drug dispensers was significantly associated with self-medication. Many respondents stated that they do not trust the health care services provided by physician and community drug dispensers. Consumers in Sana'a City have a negative overall perception of the services provided by the community drug dispensers, physician and Ministry of Health and the quality of medication. An urgent intervention from health care authorities in Yemen to adopt and implement a new national drug policy with necessary laws and regulations is needed.

ACKNOWLEDGMENT

Special thanks to my supervisor and co-supervisors for their guidance and unlimited support. I would like to thank Prof. Sami Al-Dubai and Dr. Al-abed Ali for their valuable help in data analysis.

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