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Abstract

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Keywords

Palestine, counseling, pharmacist, patient

Authors

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Counseling preferences of patients visiting community pharmacies in Palestine: a cross-sectional study

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ABSTRACT

To assess the magnitude of patient counseling in Palestine. a cross-sectional, questionnaire-based, composed of four sections: demographics, information that participants wanted to be counseled about their medications, about their diseases, and reasons why counseling was not done. Results were analyzed using SPSS program.500 participants filled the questionnaire, majority (41.2%) were in the age group of 20-29 years old, about half were females, and had medium income. More than half lived in villages, were mainly healthy, and had a bachelor degree. Most participants wanted to know how to use their medications (93.6%), therapeutic uses (92.6%), whether to be taken before or after meal (91.6%), and routes of administration (91.4%). Regarding their diseases, participants wanted to know if is contagious (84.2%), possible exacerbations (83.2%), and duration (82.6%). The reasons for not doing counseling were the desire to get the information from the physician (60%), or didn't want to listen (55.6), lack of time (31%), or did not trust the pharmacists (22.4%). Significant differences were found in gender and education in the desire for information. Pharmacists-patient counseling is highly required. Modification of the curriculum is highly encouraged to adapt with the up-to-date needs to practice pharmacy

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INTRODUCTION

The practice of pharmacy has evolved over the years to include not only preparation and dispensing of medications, but also to counsel patients through the provision of pharmaceutical care. In community pharmacies, counseling is a relation between the pharmacist and the patient in which the pharmacist is dispensing medications, ensuring patient safety, providing information to the patients about their medication use, side effects, doses, storage, and drug interactions [1-6].

Currently, drug information is available from many sources including the internet, books, advertisements, and health-care personnel. However, such information may be confusing, inaccurate, or not clear for layman [7]. To avoid any lack or misunderstanding, pharmacist-patient counseling is the solution. It has been proven that such counseling can improve therapy outcome, reduce morbidity and mortality, help in medication management, as well as reducing the occurrence of adverse side effects [8-10]. Pharmacists are the drug information providers thus they are able to identify any possible drug-drug or drug-food interactions, and to instruct patients on the correct use of their medications[11, 12]. The role of pharmacist in counseling and providing health information have had a significant impact on patients' satisfaction, quality of care, improving medication knowledge and adherence, can reduce health care costs, and lowers re-hospitalization rates after discharge, particularly when counseling is patient-guided [7, 13-16].

Counseling in the developed world, pharmacist-patient counseling is required by law in USA since the last decade, and research have shown that strict implementation of this law is for the benefit of the patient [17].To further encourage the advancement

in patient counseling, the American Pharmacists Association and the Academy of Student Pharmacists (APhA-ASP) has launched an annual competition called the National Patient Counseling Competition to improve patient education [18].More than ten years ago, the UK governments changed the vision for pharmacy to include patient education [19]. The UK government is now paying close attention to community pharmacists and their responsibilities in managing medication for patients.

Few studies were conducted in the Arab world pertaining to counseling, two were in Qatar regarding public's attitudes towards community pharmacy [20, 21]. Several issues were raised in those studies, such as the insufficient time of contact between the patient and the pharmacist, and the poor understanding of the public to the role of the pharmacist in providing drug information, or in monitoring drug therapy, and that more efforts are needed to promote the pharmacist role. In Saudi Arabia, most customers were comfortable seeking advice and drug information from the pharmacist [22]. In Jordan, people thought highly of the community pharmacists and about two thirds of the customers are willing to seek information from them [23].

Public knowledge and medication-related awareness and understanding is highly variable across the world. Nevertheless, patients should recognize the importance of the medications for their health and wellbeing. Pharmacist-patient counseling may give the needed information to patients to fill that gap in knowledge, and to increase the benefits and decrease the inappropriate and harmful effects of medications. Pharmacists are the last health-care providers whom the patient sees before taking the medications, providing the patients with the needed information from the pharmacist may influence patients' decision making, and decreases medication-errors that results from limited knowledge.

To our knowledge, there were several studies conducted among community pharmacists in Palestine, considering aspects other than pharmacists-patient counseling [24-32]. No studies have been done in Palestine regarding pharmacists-patient counseling and what information do the patients want. In order to provide this information for decision makers and interested agencies, and to advise national pharmacy schools to include courses about communications and patients counseling in its curriculum, this study was conducted. This study will shed light on the patients' perceptive on the importance of counseling, the type of drug or disease-related informationsought, and to assess participants' opinion on the importance of pharmacists as health care providers. Additionally, we aim to identify the reasons and obstacles preventing effective pharmacist-patient counseling.

MATERIALS AND METHODS

Study design

This is a cross-sectional questionnaire-based study designed to gather specific data regarding pharmacist-patient counseling, it was conducted in the period of September to December- 2016. The population of the study were randomly selected customers visiting community pharmacies in the Northern areas of Palestine; which includes 5 governorates: Nablus, Qalqiliah, Jenin, Tubas, and Tulkarem. IRB approval was obtained, and each participant gave verbal consent before filling the questionnaire.

Sample size

Convenience sampling method was used to randomly select participants from the community pharmacies. The sample size was calculated using Raosoft sample size calculator (http://www.raosoft.com/samplesize.html) by allowing 5% margin of error at 95% confidence interval. The minimum effective sample size was 374 participants. In order to minimize erroneous results and increase the study reliability, the target sample size was increased to 500 participants.

The tool of the study

A semi-structured self-administered questionnaire was developed for the purpose of this study. It was pilot-tested and modified. The questionnaire consisted of both closed-ended and open-ended questions. The questionnaire is composed of four categories: (1) TheSocio-demographic section, (2) The drug-related information that the participants wanted to know, (3) Disease-related information that participants were interested in knowing, and (4) The reasons why the infor-

mation needed (or counseling) were not obtained.

The drug-related information section included questions about the side-effects of the medications, medication storage, cost considerations, therapeutic uses, how to use the medication, possible drug-drug and drug-food interactions, routes of administrations, duration of use, and whether written or verbal drug information is preferred. Disease-related information section included the time frame of the disease, possible exacerbations, whether the disease is contagious, and the port of transmission. The section pertaining to why the information sought (or counseling) were not given, the options included: the participants did not have enough time to listen, the participants did not want to listen for whatever reason(s), the participants have doubts regarding the pharmacists' knowledge, and were not sure pharmacists could be trusted, and finally, the participants thought it's better to obtain the information they need from the treating physicians.

STATISTICAL ANALYSIS

All data was entered into the computer and analyzed via Statistical Package for Social Science (SPSS) version 20. Frequencies and percentages were calculated for categorical variables, while mean ± standard deviation (SD) were computed for continuous data. A p value of less than 0.05 was considered statistically significant.

RESULTS AND DISCUSSION

Socio-demographic characteristics

A total sample of 500 customers were included in the study; mean age was 31.3 ± 15.5 years, females were a bit more than half (55.6% of participants). Regarding income, most participants (48.4%) had an average income (based on local standards; between 2000-5000 New Israeli Sheikel (NIS)) (equivalent to 553-1383$) and 38%of them were below average while 13.6% were above average income. The majority of the participants (58.2%) were from villages, and 39.8%were from cities. The majority (69.4%) had a Bachelor degree. Most participants claimed to be healthy (82.6%), while the rest (17.4%) had one or more chronic disease (Table 1).

Table(1): Socio-demographic characteristics of participants

Parameter		Frequency	Percentage %
Gender	Male	222	44.4
	Female	278	55.6
Income (NIS)*	Less than 2000	190	38
	2000-5000	242	48.4
	More than 5000	68	13.6
Place of living	City	199	39.8
	Village	291	58.2
	Refugee camp	10	2
Educational level	High school	132	26.4
	BA	347	69.4
	Higher education	21	4.2

*NIS: New Israeli Shekel. Drug-related information sought by the study population.

Almost all participants (456; 91.2%) expressed that they would like to receive drug-related information from the pharmacist. The information they wanted to have pertained to the therapeutic uses of their medications (93.6%), whether the medication should be taken before or after meals (91.6%), the routes of administrations (91.4%), the duration of use (90%), the potential side effects(89.2%), any possible drug-drug interactions or drug–food interactions (83.8% and 87.2%, respectively), cost considerations (66%), storage conditions (78.4%),and wanted to have written drug information as well (72.6%) (Table 2). A study conducted in Ethiopia and in other places have revealed that patients also requested similar information to what we found in our study [7, 33-35]. This indicates that patients are interested in knowing more

about their medications, and that pharmacist-patient counseling will be very welcomed. In our study we found that (89.2%) of participants were in need of information about the side effects, while a study conducted in Malaysia found that only (8.1%) of participants chose side effects as the most common question they wanted answer to [36]. This may be due to some type of concern that participants in our study had toward medications, which directs them toward seeking knowledge about the side effects.

The majority of participants (92.6%) wanted to get more information about the therapeutic use of their medications. This is an agreement with a previous study in Saudi Arabia, where pharmacists reported that they provide information about drug dose in 71.1% of cases, medication use in 63.1%, 60.8% about use with food or empty stomach, 46.8% about duration of treatment, in addition to purpose of medication, storage condition, drug-drug and drug-food interaction [37]. There is a difference between the study in Saudi Arabia since it was based on what pharmacists provide, while ours is mostly what patients wanted to know. Yet it is a good study to support that patients want and will listen to information about their medications.

Table(2): Type of drug-related information sought by participants

Drug-related information participants sought	Yes (%)	No (%)
Side effects	89.2	10.8
Therapeutic uses	92.6	7.4
Routes of administrations	91.4	8.6
How to use the medication	93.6	6.2
Duration of use	90	10
Whether to be taken before or after meals	91.6	8.4
Storage conditions	78.4	21.6
Cost considerations	66	34
Drug-drug interaction	83.8	16.2
Drug-food interaction	87.2	12.8
Whether they like to receive written drug information	72.6	27.4

Disease-related information sought by participants

Regarding disease-related information, most (88%) of the participants would like to receive information about the disease they may have, in particular, the normal duration of the disease (82.6%), possible exacerbations (83.2%), whether the disease is contagious (84.2%), and the route of transmission (76%) (Table 3).

Table(3): Disease-related information participants would like to know

Disease-related information participants would like to know	Yes(%)	No(%)
Disease duration	82.6	17.4
Possible exacerbations of the disease	83.2	16.8
Whether the disease is contagious	84.2	15.8
Port of transmission	76	24

Reasons for not obtaining the sought information from the pharmacist, or for not performing counseling

While about one third (31%) of the participants did not have enough time to listen, more than half of the study population (155; 55.6%) did not want to listen for reasons they did not declare. About one fourth (112; 22.4%) of the participants had doubts regarding the pharmacists' knowledge and were not sure they could trust what the pharmacist tells them. Finally, more than half (300; 60%) of participants thought it's better to obtain the information they need from the treating physicians (Table 4). Furthermore, a study conducted in Malaysia about pharmacist-patient counseling showed that one third of the respondents felt that the lack of time was the major barrier faced while counseling patients, followed by lack of patients' interest, and lack of knowledge by the pharmacist [36].

A study conducted in Egypt reported similar barriers that prevented the pharmacists from conducting professional and adequate counseling [38]. In Denmark, it was found that the keys to good patient-pharmacist counseling were the knowledge of the pharmacist and the dialogue between the pharmacist and the customers [39]. Estonian customers wanted counseling by the pharmacist

that ensures favored privacy, discretion and confidentiality [40].

Other studies have also found gaps and deficiencies exist in the counseling provided by pharmacists in content and delivery method [41]. A study from Saudi Arabia found that the main reason for not providing counseling was that the pharmacist was too busy [37].The practice of counseling in India is currently insignificant and lagging behind [42]. However, the pharmacist-patient counseling in many countries in general, and Palestine in particular, should develop to meet the changing needs of the modern society.

Table(4): Reasons for not obtaining the information from pharmacists

Reasons for not obtaining the sought information	Yes %	No %
The participants did not have enough time to listen.	31.0	69.0
The participants did not want to listen for whatever reason(s) they had.	55.6	44.4
The participants have doubts regarding the pharmacists' knowledge, and were not sure they could be trusted.	22.4	77.6
The participants thought it's better to obtain the information they need about drugs or diseases from the treating physicians	60.0	40.0

Analysis of the results suggest that the level of income did not have a significant effect on participants' desire to obtain information, indicating that all participants would like to have more information about their medications or diseases regardless of their income.

Among the participants, village residents had more interests in getting drug-related information compared to city or camp residents (p value= 0.005). Additionally, they were significantly more interested in getting written drug information (p value= 0.018). villagers also were more interested in getting disease-related information (51.2% of participants), however the difference was not significant. In particular, they sought information about their disease being contagious or not (p value= 0.041).

Female participants were more interested in getting more drug-related information than male participant with a high percent (92.4%) of them (p value= 0.00). and the dose (p value= 0.047). There were gender-related differences in responses to other questions, but none were significant.

As for education, it was found that participants with bachelor degrees had more interest in getting drug-related information specially the dose (p value= 0.027), drug-drug interaction (p value= 0.027), and mood of disease transmission (p value= 0.009).

There is continuous need to improve the currently performed counseling worldwide since it represents the professional mission of the pharmacists [43]. It is important to keep in mind that in order to have a successful patient counseling session, it should to be personalized, since studies have shown that such settings result in better outcomes and better customer satisfaction[44].

In order to provide up-to-date information for patients, pharmacists need continuing education programs, especially for pharmacists who are working in close or daily contact with patients. It is also of great importance to add communication skill courses to pharmacy curriculum at the Palestinian schools of pharmacy, such courses are not less important than academic courses.

Increased patients' awareness nowadays has created the need for special consultation areas in the pharmacy to enable the patient and the pharmacist to feel comfortable discussing personal medical issues. Application of this type of medical privacy is available in some developed countries and we recommend to apply it everywhere to maintain patients' privacy and comfort while receiving medical care.

Our study has limitations, for example we did not take the pharmacists' opinions of counseling into account, another limitation is that the information was collected via a self-administered questionnaire, thus the responses may have contained some inaccurate data resulting from poor or misunderstanding of the questions. Recall bias and having li-

mited time to answer the questionnaire may be another limitation. We recommend the implementation of pharmacist-patient counseling, and to address patients' questions and give them the needed information about their medications and diseases, in order to improve the therapeutic outcome. Additionally, awareness and knowledge should be established among pharmacists about the importance of counseling and to have it as courses that can be given during college years, or through continuing educations.

CONCLUSIONS

The results of the current study indicated that pharmacist counseling is highly needed and desired by the patients. This was obvious from their responses, since they indicated that it was important for them to get essential instructions and information about their medications and diseases. Patient counseling is very important but was not effectively fulfilled by most Palestinian pharmacists. This is due to many reasons that has to do with the patients and the pharmacists.

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CONFLICT OF INTEREST

there are no conflicts of interest

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