



Pharmaceutical Consultation in Hospitals at Northern Border Region, Saudi Arabia

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Author's contribution

The sole author designed, analyzed, interpreted and prepared the manuscript.

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ABSTRACT

Background: Pharmacists' traditional position as drug dispensers has recently developed into a more active role in risk evaluation and management. Dispensing is often handled by pharmacy technicians in Saudi Arabia because pharmacists are so preoccupied with their managerial and administrative responsibilities. Pharmacists' meetings with patients are limited to medication dosage and frequency, as well as rare adverse effects and drug interactions.

Methods: We conducted a quantitative questionnaire study in Saudi Arabia to look into the role of hospital pharmacists in patient counseling, the assessment of pharmacists' patient counseling opinions, and the possible determinants of personal consultation.

Results: The number of patient inquiries was found to be very low, ranging from 5 to 20 per month. The amount of private pharmaceutical consultations was also poor. This finding showed that people trust pharmacists.

Conclusion: Reorganizing the pharmacist's operations will help to enhance pharmaceutical consultations. This will help patients make better decisions about their medications and improve their quality of life.

Keywords: *Consultation Pharmacy; Saudi Arabia; Customer Product Information (CPI); Patient Information Leaflet (PIL); patient counseling.*

1. INTRODUCTION

One of the most significant clinical roles of a licensed pharmacist is patient education, also known as counseling. Counseling is useful to both patients and pharmacists. To prevent drug errors and ensure that patients understand both the expected and unexpected consequences of their drugs, it is important to communicate with them [1].

In recent years, pharmacists' primary focus as traditional drug dispensers has shifted to a more active and participatory position in risk assessment, risk management, and other medication-related consultation activities [2-6].

Pharmacist consulting services have been shown to have a positive effect on a number of outcomes, including patient prescription adherence [7,8], hospital admission, mortality, and total health care costs in previous studies [9,10]. Pharmacists may be paid for providing treatment management to Medicare beneficiaries that are at risk of drug complications such as diabetes, asthma, hypertension, or congestive heart failure, or who have several medications that must be used correctly to improve clinical outcomes and reduce the risk of adverse events, such as medication interactions that are dangerous, as well as the clinical benefits associated with chronic diseases, according to the Medicare Modernization Act [2] (2003) [11-15]. For both pharmacists and patients, patient satisfaction has been shown to affect financial and clinical outcomes [16-19]. Furthermore, a number of medical, medication, family, and economic factors influence medication adherence [20]. Dispensing is mainly done by pharmacy technicians in Saudi Arabia because pharmacists are so preoccupied with administrative and managerial duties [21]. A lot of people in the Middle East are also unaware of pharmacists' importance in health care. They just have confidence in their doctors when it comes to improving their health. A pharmacist is actually someone who dispenses drugs to them. Consequently, we planned to conduct a quantitative questionnaire study to look into: 1) the role of the hospital pharmacist in patient counseling in Saudi Arabia, 2) the pharmacist's opinion on patient counseling, and 3) the factors that influence personal consultation.

2. MATERIALS AND METHODS

A survey of pharmaceutical consultation in hospital pharmacies was conducted for the first

and second objectives, in the Northern Border Region of Saudi Arabia. Around hundred pharmacists participated in this survey [20], males in the age group of 26- 54 years and females in the age group 26- 44 year, with practice experience 3-20 years. Eighty percent are pharmacists in charge, and twenty percent are pharmacists in second charge. For the third goal, 88 patients were polled about the ability of pharmacists in hospital pharmacies to provide advice on various aspects of health care. All questionnaires included demographic information. Three different questionnaires (A, B, and C) were used (one for each objective). The pharmacists were asked about the frequency and nature of personal consultations offered, the number and nature of doctor queries received, and the list of books and references kept in the pharmacy in Question A. Questionnaire B was used to find out what the pharmacist thought about patient counseling and using the Patient Information leaflet (PIL) and Customer Product Information (CPI). It asked twelve questions, with pharmacists responding with agree, disagree, or neither agree nor disagree. For the third goal, patients' feedback on the competency of pharmacists in hospital pharmacies to advise on various aspects of health care, Questionnaire C was used. The PASW 17 statistical program for social science was used to analyze the data.

3. RESULTS

The pharmacists were questioned about the question types they get asked from patients and doctors, as well as the number of monthly questions. The majority of participants received 5-20 patient inquiries each month, the majority of which were about medication prescriptions and dosage recommendations.

The highest priority is given to patients' concerns about drug prescribing and dispensing for a particular situation, as well as dose confirmation, as shown in Table 1. Doctors have enquired about pharmacists, according to 38% of those who took part in the survey. Doctors forwarded different kinds of inquiries.

Table 2 shows the distribution of such inquiries. Drug dosage, mode of action, ingredients, and drug interaction all have the highest scores.

As shown in Table 3, 76 percent of pharmacists use BNF and 68 percent use MIMS to respond to such inquiries.

Table 1. Type and frequencies of patient inquiries

Pharmaceutical Consultation	Percentage
Prescription and dispensing of drug for specific condition	72
Adverse reaction complaining and prescription of antidote	11
Recommendation of doses	55
Diet plans associated with specific diseases	12
Drug-drug interaction avoidance	11
Contraception	4
Immunization of children	5
Cosmetics and beauty products	15
Medical equipment usage guidance	9

Table 2. Type and frequencies of doctor inquiries

Pharmaceutical consultation	Percentage
Dose	52.9
Mode of action of drug	27.6
Adverse/harmful effects	19
Drug-drug interaction	24.7
Available dosage forms	13.2
Price	16

Table 3. Reference books consulted by pharmacists

Reference book types	Percentage
British National Formulary (BNF)	76
Monthly Index of Medical Specialities (MIMS)	68
Martindale	29
Pharmacopoeia	27
Newsletters	7
Periodical	4

Table 4. Opinion of pharmacist on the use of Customer Product Information (CPI), Patient Information Leaflet (PIL) and patient counseling

	Agreement response (%)	
	Male	Female
My responsibilities include CPI/PIL distribution and patient counseling.	92.2	93.5
CPIs and PILs would make my job as a counselor much easier.	87.6	93.8
The financial burden would be reduced by including CPI and patient counseling.	28.9	37.2
I think I should be rewarded more for delivering PILs and therapy.	29.2	32.6
In my job, information leaflets and counseling have no place.	13.4	19.7
Counseling would increase my dispensing workload, so I'll need more staff.	47.0	64.6
It is the doctor's duty to provide CPI/PIL and patient counseling.	27.8	16.5
Patients will experience drug side effects when I administer CPI.	66.4	58.1
The reputation and of pharmacy will be improved by Patient counseling	85.6	82.4
I need training for effective patient counseling	69.0	28.8
PIL or therapy may not pique the patients' attention.	22.4	30.6
Patient counseling and information leaflets contain information that often contradicts doctor information.	42.9	44.7

92.2 percent of male pharmacists and 93.5 percent of female pharmacists agreed that patient therapy is their professional duty, as

shown in Table 4. The use of CPI or PIL will make therapy simpler for 87.6% of male participants and 93.8 percent of female

Table 5. Patient feedback regarding the pharmacists' competency in community pharmacies

	Response(%)		
	Yes	No	No Answer
Do you seek advice from a pharmacist on which medications to take when you're sick?	69.1	21.4	9.5
Is pharmacist's choice of medicine trustworthy?	51.5	15	33.5
Does the pharmacist conduct a thorough investigation of the case?	33	54	13
Can the pharmacist have a thorough overview of how to use the medication?	71	16	13
Does the pharmacist recommend you specific medical specialty to help solve your problem?	52	41	7
Do you visit the pharmacist to get an antibiotic?	61	27	12
Do you go to the pharmacist for regular checks such as blood pressure readings?	26	66	8
Do you think of the pharmacist as a helpful person who can help you with your specific health issues?	51	19	30
Does the pharmacist compound you some specific preparation?	22	37	41

participants. Patients will psychologically experience drug side effects when given CPI, according to 66.4 percent of male participants and 58.1 percent of female participants. However, 69 percent of male pharmacists and 28.8% of female pharmacists claim that they need to be qualified in order to provide successful therapy. More staff is required for successful therapy, according to 47 percent of male pharmacists and 64.6 percent of female pharmacists. According to 22.4 percent of male pharmacists and 30.6 percent of female pharmacists, patients are uninterested in therapy. According to both male and female pharmacists, patient counseling and knowledge leaflets contain information that contradicts doctor's information. Surprisingly, approximately 30% of pharmacists accepted that therapy should be reimbursed.

According to Table 5, 52 percent of patient participants said pharmacists recommended a medical specialty for their health problems, and 22% said they went to a pharmacy for drug compounding. When asked whether their pharmacist performs a full investigation or simply gives them full instructions for their health problems, 71% said full instructions and 33% said full investigation. Since a pharmacist is a wellness professional, 26% of participants had their blood pressure tested at the pharmacy. In terms of health management, 52% of participants trust the pharmacist's medication selection, and 51% regard the pharmacist as a buddy.

4. DISCUSSION

The number of patient inquiries is very low, according to the results of the above report,

ranging from 5 to 20 per month, or 0.1-0.66 consultations per day, with the majority of them relating to drug prescription and dose recommendation. This is due to the fact that many people in the north are unaware of the pharmacist's role in health care. They just have confidence in their doctors when it comes to improving their health. A pharmacist is simply a person who dispenses drugs to them. Adverse effects and drug interactions, on the other hand, account for just 10% of all inquiries. Pharmacists in Saudi Arabia should take a pragmatic approach to patient counseling, according to other researchers' findings [21].

The amount of private pharmaceutical consultations is poor, but by reorganizing the pharmacist's operations, this could be increased. Some patients were disappointed with pharmacists' dispensing explanations, according to studies, necessitating the use of pharmacy consulting services. Many of the reasons why patients did not seek consultation can be traced back to pharmacies, and the survey found that their facilities could be enhanced [22]. Patient-guided therapy (PGC) in pharmacies allows patients to take part in opioid counseling. [23].

Approximately half of the participants trust pharmacists, whereas the other half consider pharmacists as mates, according to the possible determinants of personal consultation. This finding shows that people like pharmacists, but we agree that pharmacists should be more involved in patient counseling and step closer to patients, as pharmacists are seen as "drugs

experts" rather than "health and disease experts."

To improve the pharmacist's position as a drug specialist in Saudi Arabia, pharmacist education in the area of counseling is required. More than anything else, a hospital pharmacist can act as a personal advisor. Pharmacists and physicians working together to ensure that medications are used safely and effectively to achieve the best possible health result would help the patient the most. Our findings shed new light on patient-pharmacist relationships, implying that hospital pharmacists are more like personal counselors. Pharmacists should be educated on existing drug treatment patterns, medication types, dose, adverse effects, and interactions. Health officials should strongly consider creating a drug knowledge center, either on their own or in conjunction with other teaching institutions/universities, to which all licensed pharmacists and pharmacy students have free access. There is usually only one pharmacist in charge of filling prescriptions in Saudi Arabian pharmacies. As a result, he or she is unable to devote as much time to consulting as he or she would like. As a consequence, we agree that any pharmacy should hire a pharmacy technician to assist the registered pharmacist in filling prescriptions, enabling the registered pharmacist to spend more time counseling patients. In addition, each pharmacy should have at least two pharmacists on staff, as well as a dedicated area for patient counseling.

5. CONCLUSION

Our analysis has a few limitations that should be noted. Since there are fewer hospital pharmacies and pharmaceutical consultations are specified broadly, future studies should consider pharmaceutical consultations in a broader context, without removing a variety of hospital pharmacy contacts. Third, the data collected cannot be generalized and applied to other regions such as the Eastern, Western, or Southern unless larger studies are performed.

CONSENT

As per international standard or university standard, Participants' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Author has declared that no competing interests exist.

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