# **Pharmaceutical Consultation in UAE Community Pharmacies**

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In recent years, the focus of pharmacists as traditional drug dispensers has shifted to more active and participative role in risk assessment, risk management, and other medication related consultation activities. Pharmacy profession is evolving steadily in the United Arab Emirates (UAE). Pharmacists in UAE are so much occupied in their administrative and managerial duties that dispensing is mostly attended to by pharmacy technicians. Pharmacistled patient counseling is limited to the dosage and frequency of medications and rarely adverse reactions and drug interactions with other medications. Therefore we decided to perform quantitative questionnaires study to explore the role of pharmacist in patient counseling in UAE, the evaluation of pharmacist's opinion on patient counseling and the potential determinants of personal consultation. Results show the frequency and nature of inquiries received by pharmacist. Five to twenty inquires per month are received from patient, most of them related to drug prescription and dose recommendation. Thirty nine percent of pharmacists received inquiries from doctors, most of them related to the dose and mode of action. Ninty two percent of the pharmacists agreed that patient counseling is their professional responsibility. About 82% of pharmacists agreed that counseling will increase their sales and enhance the reputation of their pharmacies. Seventy percent of pharmacists mentioned that they need to undergo training for effective counseling while 46% of pharmacists felt that more staff in the pharmacies would have a positive influence on patient compliance to medication therapies and patient safety. The potential determinants of personal consultation show that 52% of participants trusted pharmacist and 55% considered the pharmacist as a friend. Forty eight percent of participants visited the pharmacy for medical recommendation while 30% for drug compounding, 72% agreed that pharmacist conducts full instruction while 31% agreed about full investigation. In conclusion, reorganization of the pharmacist's activities may improve pharmaceutical consultations. Pharmacists must be exposed to recent trends in drug therapy, dosage forms, dosage, adverse effects and interaction. This will go a long way in providing rational use of drugs to the patients and improve their quality of life.

Key words: Attitudes and behaviors, community pharmacists, patient counseling, patient information leaflets, personal consultation

One of the most important professional roles of a licensed pharmacist is patient education, commonly referred to as counseling. Counseling is beneficial to both patients and pharmacists. Communicating with patients is an important way to avoid medication errors and to help patients understand the intended effects as well as the side effects of their drugs<sup>[1]</sup>.

In recent years, the focus of pharmacists as traditional drug dispensers has shifted to more active and participative role in risk assessment, risk management, and other medication related consultation activities<sup>[2-6]</sup>.

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Previous studies have found generally favorable evidence for pharmacist consultation services on various outcomes such as patient medication adherence<sup>[7,8]</sup> reduction in hospital admission, mortality, overall health care costs<sup>[9,10]</sup>. Medicare Modernization Act<sup>[2]</sup> (2003) implies that pharmacists can be compensated for providing therapy management to medicare beneficiaries who are at risk of potential medication problems such as diabetes, asthma, hypertension, and congestive heart failure or multiple prescriptions that need to be appropriately used to optimize therapeutic outcomes and to reduce the risk of adverse events, including adverse drug interactions, as well as clinical benefits particular in chronic conditions<sup>[11-15]</sup>. It has been stated that patient satisfaction can influence financial and clinical benefits for both pharmacists and patients<sup>[16-19]</sup>. Moreover,

patient's medication adherence depends on complex interactions of medical, medication, personal, and economic factors<sup>[20]</sup>. Pharmacists in UAE are so much occupied in their administrative and managerial duties that dispensing is mostly attended to by pharmacy technicians<sup>[21]</sup>. Many people in gulf area are yet to understand pharmacist's role in health management. They trust only their physicians in health improvement. For them pharmacist is only a person who dispenses the medicines. Therefore we decided to perform quantitative questionnaires study to explore: 1) the role of pharmacist in patient counseling in UAE, 2) the evaluation of pharmacist's opinion on patient counseling and 3) the potential determinants of personal consultation.

### MATERIALS AND METHODS

For the first and second objective a survey of pharmaceutical consultation was carried out in 80 community pharmacies, of which 40 pharmacies were located in Ajman and the rest in Sharjah. Hundred pharmacists participated in this survey (the total number of pharmacists in UAE is 1200 according to 2002 estimate[20], 59 males in the age group of 27-55 years and 41 females in the age group 25-42 year, with practice experience 2-20 years. Ninty five percent of the participants have B. Pharm degree and 5% have M. Pharm. Eighty percent of them are pharmacists in charge and 20% second in charge pharmacists. For the third objective seventy eight patients were asked for their feedback on the competency of pharmacists in community pharmacies to advise on different aspects of health care. Demographic data were collected for all questionnaires. Three different questionnaires A, B, C (one for each objective) were used. In questionnaire A the pharmacists were asked about the frequency and nature of personal consultation offered, the number and nature of inquiries received from doctors and the list of books and references kept in pharmacy. Questionnaire B was used to inquire about pharmacist's opinion towards patient counseling and the use of Customer Product Information (CPI) and Patient Information leaflet (PIL) during counseling. It contained twelve questions and pharmacists' feedback were recorded as agree, disagree or neither agree nor disagree. Questionnaire C was used for the third objective that is patients' feedback on the competency of pharmacists in community pharmacies to advise on different aspects of health care. Data analysis was done by using PASW 17 statistical program for social science.

## **RESULTS**

The pharmacists were asked about the type of inquiries from patients and doctors, and also the number of such inquiries per month. 5-20 inquiries per month were received by most of the participants from patients, most of them related to drug prescription and dose recommendation.

As shown in Table 1, patients' inquiries regarding drug prescribing and dispensing for a particular case and the dose confirmation record the highest value. Thirty nine percent of participating pharmacists mentioned that they receive inquiries from doctors. Different types of inquiries were forwarded by doctors. Table 2 shows the distribution of such inquiries. Drug dose, mode of action and ingredients and drug interaction record the highest values. For answering such inquiries 74% of the pharmacists use BNF, 67% use MIMS as shown in Table 3. Table 4 shows that 92% male and 94% female pharmacists agreed that patient counseling

TABLE 1: TYPES AND FREQUENCY OF PATIENTS' INQUIRIES

Pharmaceutical consultation	Percentage
Drug prescribing and dispensing for particular case	70.0
Complaining of adverse reaction and antidote prescribing	10.0
Dose recommendation	50.0
Diets to be taken with certain diseases	10.0
Avoidance of drug/drug interaction	10.0
Contraception	5.00
Child immunization	5.00
Cosmetics	10.0
Instructions for using medical equipment	8.00

TABLE 2: TYPES AND FREQUENCY OF DOCTORS' INQUIRIES

Pharmaceutical consultation	Percentage
Dose	51.3
Drug mode of action	28.2
Adverse effects	18.0
Drug/drug interaction	25.6
The dosage form in which the drug is available	12.8
Price	15.0

TABLE 3: REFERENCE BOOKS USED BY PHARMACISTS

Type of reference book	Percentage
BNF (British National Formulary)	74.0
MIMS	67.0
Martindale	28.0
Pharmacopoeias	26.0
Newsletter	6.0
Periodicals	3.0

is their professional responsibility. Eighty eight percent male and 94% female participants agreed that the use of CPI or PIL would ease their counseling task. Sixty percent male and 56% female participants agreed that the patients would psychologically experience medication side effects when given CPI. However, 68% male and 56% female pharmacists felt that they need to undergo training for effective counseling. Forty five percent male pharmacists while 63% female pharmacists agreed that they need more staff for effective counseling. Seventy eight percent male and 67% female pharmacists disagreed that patients do not show any interest towards counseling. Both male and female pharmacists think that patient counseling and information leaflet contain information that contradicts with doctor's information. Surprisingly, only 30% of the pharmacists agreed that they should be paid for counseling. As far as the pharmacist feedback

TABLE 4: PHARMACISTS' OPINION ON PATIENT COUNSELING AND THE USE OF CPI AND PIL DURING COUNSELING

	% Agreement response		
	Male	Female	
Patient counseling and giving out CPI/PIL is my professional responsibility	91.7	93.7	
PIL and CPIs will ease my counseling task	88.3	93.7	
Patient counseling and giving out CPI to customers will enhance my financial costs	29.2	37.5	
I should get paid for counseling and giving out PILs	29.0	31.3	
Counseling and information leaflets have no role in my practice	12.5	19.0	
Counseling will increase my dispensing work load thus I need extra staff	45.0	62.5	
Patient counseling and giving out CPI/PIL is the responsibility of the Doctor	29.2	12.5	
Customers will experience medication side effects when I give out the CPI	60.5	56.3	
Patient counseling will improve my sales and reputation of my pharmacy.	83.3	81.3	
For effective counseling act, I need training	68.0	56.3	
Customers do not show any interest towards counseling or PIL	20.8	31.3	
Patient counseling and information leaflets contain more information which contradicts with doctor's information	41.7	43.8	

towards remuneration from counseling is concerned 83% male and 81% female pharmacists agreed that counseling would improve their sales. Table 5 shows that 48% of patient participants have reported that pharmacists do recommend a medical specialty for their health problems and 31% visit a pharmacy for drug compounding. When participants were asked whether the pharmacist conducts full investigation or gives full instructions for their health problems, 72% agreed about full instructions while 31% agreed about full investigation. Twenty four percent of participants visited the pharmacist for blood pressure checking as pharmacist is a health professional. Fifty two percent of participants trust pharmacist for his choice of medicines and 55% treat the pharmacist as a friend for health management.

### DISCUSSION

From the above study we found that the number of inquiries received from patients is very small, only 5-20 per month which means 0.1-0.66 consultations per day most of them related to drug prescription and dose recommendation. This is due to the fact that many people in the gulf area do not understand pharmacist's role in health management. They trust only their physicians in health improvement. For them pharmacist is only a person who dispenses the medicines. On the other hand the nature of inquiries

TABLE 5: PATIENTS' FEEDBACK ON THE COMPETENCY OF PHARMACISTS IN COMMUNITY PHARMACIES

	Response %		
	Yes	No	No
			answer
When you are complaining from an ailment, do you seek the advice of the pharmacist of what medicine to use?	69.0	20.0	11.0
Do you trust the pharmacist with his choice of medicine?	52	14.0	34.0
Does the pharmacist carry out a full investigation of the case?	31	52.0	17.0
Does the pharmacist give full instructions and explanation of how to use the medicine?	72.0	14.0	14.0
Does the pharmacist recommend for you a certain medical specialty to deal with your problem?	48.0	35.0	17.0
Do you go to the pharmacist for an antibiotic?	56.0	25.0	19.0
Do you go to the pharmacist for blood pressure measurements and other simple tests?	24.0	73.0	3.00
Do you consider the pharmacist as a friend and ask his advice in solving certain health problems?	55.0	17.0	28.0
Does the pharmacist compound certain preparation for you?	30.0	48.0	22.0

related to adverse effect and drug interaction is very low 10%. The pharmacists in UAE should take a positive action in patient counseling which is in agreement with the finding of other researchers<sup>[21]</sup>.

The frequency of pharmaceutical consultations in private is low, but may be improved by reorganization of the pharmacist's activities. Research revealed that some patients were not satisfied with pharmacists' explanations on dispensing, and hence there was a need for consultation services at pharmacies. Many of the reasons why patients did not ask for consultation are attributable to pharmacies and the survey results suggested a need for improvement in their services<sup>[22]</sup>. Patient-guided counseling (PGC) in community pharmacies fosters patient participation in medication counseling<sup>[23]</sup>.

The potential determinants of personal consultation show that 52% of participants trust pharmacist and 55% consider pharmacist as a friend. This result gives us an indication that people have a good relation with the pharmacist but we feel that pharmacist should take a positive role towards patient counseling and move closer to the patient as people perceive pharmacists as 'drugs experts' rather than experts on health and illness.

The role of pharmacist as a drug professional in UAE must be improved by pharmacist education towards counseling. Community pharmacist should act more as a personal advisor. The patient will best be served when pharmacists and physicians collaborate together, recognizing each other's role, to ensure that medicines are used safely and appropriately to achieve the best health outcome. Our study shows a new perspective on patient-pharmacist contacts and recommends that community pharmacist should act more as a personal advisor. We must seriously think of equipping pharmacists with the recent trends in drug therapy, the dosage forms, dosage, adverse effects and interaction. The health authorities must seriously think of setting up a drug information center either alone or in collaboration with other teaching institution/ universities with a free access to all the registered pharmacists and pharmacy students. Most of the pharmacies in the UAE have only one pharmacist who has to fill the prescription as well as do the financial job. Hence he/she cannot devote much time for consultation. So we feel that every pharmacy must have a pharmacy technician to assist the registered pharmacist in filling of the prescription so that the

time saved could be utilized for patient counseling. Moreover two pharmacists must be available in each pharmacy and specific area should be arranged to improve patient counseling.

Several limitations of our study should be noted. First, the lower number of pharmacies, Second the use of a narrow definition of pharmaceutical consultations, so for future work we need to consider pharmaceutical consultation in broader definition without excluding several types of contacts in the community pharmacy. Thirdly, the data obtained cannot be generalized and extended to other emirates like Dubai, Ras-Al Khaimah, Al-Fujairah and Abu-Dhabi, unless wider studies are undertaken.

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#### REFERENCES

- Duncan-Poitier J, Mokhiber LH. Important information regarding medication error prevention and patient counseling, Practice Alerts and Guideline, November 30, 2004. available at http://www.op.nysed.gov/ prof/pharm/pharmcounseling.htm [Last accessed on 2011 July 06].
- Medicare Prescription Drug, Improvement and Modernization Act of 2003, Public Law 108–173-DEC. 8.
- 3. McCombs JS, Cody M, Besinque K, Borok G, Ershoff D, Groshen S, *et al.* Measuring the impact of patient counseling in the outpatient pharmacy setting, the research design of the Kaiser Permanente/USC patient consultation study. Clin Ther 1995;17:1188-206.
- Worley MM, Schommer JC, Brown LM, Hadsall RS, Ranelli PL, Stratton TP, et al. Pharmacists and patients roles in the pharmacistpatient relationship: Are pharmacists and patients reading from the same relationship script. Res Soc Admin Pharm 2007;3:47-69.
- Lonie JM. From counting and pouring to caring: The empathic developmental process of community pharmacists. Res Soc Admin Pharm 2006;2:439-57.
- Schommer JC, Pedersen CA, Worley MM, Brown LM, Hadsall RS, Ranelli PL, et al. Provision of risk management and risk assessment information: The role of the pharmacist. Res Soc Admin Pharm. 2006;2:458-78.
- Lee JK, Grace KA, Taylor AJ. Effect of a pharmacy care program on medication adherence and persistence, blood pressure, and lowdensity lipoprotein cholesterol: A randomized controlled trial. JAMA 2006;296:2563-71.
- William RD, Matthew JW, Alkhateeb F, Karen BF, Julie MU. pharmacist-provided medication therapy management (part 1): Provider perspectives in 2007. J Am Pharm Assoc 2007;47:758-62.
- McCombs JS, Liu G, Shi J, Feng W, Cody M, Parker JP, et al. Permanente/USC patient consultation study: Change in use and cost of health care services. Am J Health-Syst Pharm 1998;55:485-99.
- Yuan Y, Hay J, McCombs J. Mortality and hospitalization impacts of pharmacy consultation in ambulatory care. Am J Manag Care 2003;9:101-12.

- Paulos CP, Nygren CE, Celedon C, Carcamo C. Impact of pharmaceutical care program in a community pharmacy on patients with dyslipidemia. Ann Pharmacother 2005;39:939-43.
- Tsuyuki RT, Johnson JA, Teo KK, Simpson SH, Ackman ML, Biggs RS, et al. For the Study of Cardiovascular Risk Intervention by Pharmacists (SCRIP) Investigators. A randomized trial of the effect of community pharmacist intervention of cholesterol risk management. Arch Intern Med 2002;162:1149-55.
- Gerber RA, Liu G, McCombs JS. Impact of pharmacist consultations provided to patients with diabetes on healthcare costs in a health maintenance organization. Am J Manag Care 1998;4:991-1000.
- McLennan DN, Dooley MJ, Brien JE. Beneficial clinical outcomes resulting from pharmacist interventions. J Oncol Pharm Pract 1999;5:184-9.
- Jaber LA, Halapy H, Fernet M, Tummalapalli S, Diwakaran H. Evaluation of a pharmaceutical model in diabetes management. Ann Pharmacother 1996;30:294-5.
- Renberg T, Lindblad AK, Tully MP. Exploring subjective outcomes perceived by patients receiving a pharmaceutical care service. Res Soc Admin Pharm 2006;2:212-31.
- Oparah AC, Kikanme LC. Consumer satisfaction with community pharmacies in Warri, Nigeria. Res Soc Admin Pharm 2006;2:499-511.

- Guirguis LM, Chewning BA. Role theory. literature review and implications for patient-pharmacist interactions. Res Soc Admin Pharm 2005;1:483-507.
- MacKinnon KJ, Swanson LS, editors. Striving beyond patient satisfaction a road map for pharmacists. Inet Continuing Education 2005; 9: www.InetCE.com [Last accessed on 2008 Mar 26].
- Ownby RL. Medication adherence and cognition medical, personal and economic factors influence level of adherence in older adults. Psychiatr Consult 2006;61:30-5.
- Dameh M. Pharmacy in the United Arab Emirates. South Med Rev 2009:2:15-8.
- Fumihiro S, Hiroki T, Megumi I, Makoto S. Patient needs for consultation with pharmacists, Yakugaku Zasshi 2009;129:1137-40.
- Candace WB, Diane N, Andrea M. Patient-Guided counseling in the community pharmacy setting. J Am Pharm Assoc 2000;40:765-72.

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