

**PERCEPTION, INTEREST, AND BARRIERS TOWARD CONTINUING PHARMACY DEVELOPMENT PROGRAM AT WOMAN'S HOSPITAL IN QATAR**

\*Doua AlSaad<sup>1</sup>, Samah ElSalem<sup>1</sup>, Palli Abdulrouf<sup>2</sup>, Afif Ahmed Ali<sup>3</sup>, Moza AlHail<sup>4</sup>

<sup>1</sup>PharmD, Clinical Pharmacist, Women's Hospital, Doha, Qatar

<sup>2</sup>MSc (Clinical pharmacology), Assistant Director, Women's Hospital, Doha, Qatar

<sup>3</sup>MSc (Clinical pharmacy), Clinical Pharmacy Specialist, Women's Hospital, Doha, Qatar

<sup>4</sup>DSML, Visiting Professor, Executive Director of Pharmacy, Hamad Medical Corporation, Doha, Qatar

**\*Corresponding author e-mail:** [alsaad.doua@gmail.com](mailto:alsaad.doua@gmail.com)

**ABSTRACT**

The aim of this study is to assess perception, interest, and barriers toward continuing pharmacy development (CPD) at Women's Hospital (WH) in Qatar. A web-based anonymous survey was conducted. Pharmacists and pharmacy technicians were included. Survey questions were divided into four sections: socio-demographics, perception about CPD program, interest toward CPD topics, and barriers to attend CPD program. Perception of participants revealed that > 90% agreed the sessions are valuable, and help develop in daily practice and achieve their CPD goals. The highest rated reason to attend CPD sessions was the topic is interesting, and helps in practice (85%), while patient education was the highest rated topic participants interested in (73%). The main barrier to attend CPD sessions was lack of time and busyness of pharmacy (76%). Pharmacy staff at WH has good perception and interest toward CPD sessions. CPD program planners shall work on resolving identified barriers to maximize program benefits.

**Keywords:** Continuing pharmacy development, continuing education, hospital pharmacists, Qatar

**INTRODUCTION**

Patient care is becoming increasingly complicated due to the continuous expansion in the number of medications and other medical interventions. Pharmacist is the drug expert among all healthcare providers and he/ she has unique skills and expertise with regards to medication use.<sup>[1]</sup> In hospital settings, the pharmacist is the primary provider of drug therapy to the multi-disciplinary team and patients.<sup>[2]</sup> In addition, the pharmacist takes an active role in optimizing patient outcomes through preventing, identifying, and resolving drug therapy problems.<sup>[2]</sup> Moreover, the pharmacist is the last healthcare provider to encounter patients before medication use and is the accessible individual to patients during routine physician visits and when their medication refill is due.<sup>[2]</sup> Overall, hospital pharmacists have an important opportunity to reduce drug-related

morbidity and achieve desired clinical outcomes.<sup>[2]</sup> Such an opportunity will be missed if hospital pharmacists are not competent enough in their practice.

As per the National Association of Pharmacy Regulatory Authorities (NAPRA), pharmacist professional competencies are categorized into seven basic components: 1. patient care, 2. professional, collaboration, and team work, 3. ethical, legal, and professional responsibilities, 4. drug, therapeutic, and practice information, 5. communication and education, 6. drug distribution, and 7. understanding management principles.<sup>[3]</sup> In Qatar, the seven NAPRA competencies have been endorsed by the Supreme Council of Health in 2011 as the pharmacist entry to practice competencies in the country.<sup>[4,5]</sup> Continuing education (CE) is an essential element for pharmacists to maintain and enhance their

professional knowledge and skills, assure ongoing competence to practice pharmacy, and, ultimately, ensure high standard patient care.<sup>[6,7]</sup> The Accreditation Council for Pharmacy Education (ACPE) defines CE for the profession of pharmacy as “a structured educational activity designed or intended to support the continuing development of pharmacists and/or pharmacy technicians to maintain and enhance their competence and CE should promote problem-solving and critical thinking and be applicable to the practice of pharmacy”.<sup>[8]</sup>

For decades, the way for ensuring ongoing pharmacists' competency has not changed, and pharmacists still demonstrate evidence of their CE through providing the authorized party with a documentation of their completed educational hours.<sup>[7]</sup> It has been demonstrated that CE can improve the practice and learning outcomes if the CE activities are of the interest of the involved practitioner or pharmacist.<sup>[6,7]</sup> For CE program to be a success and achieve its objectives, the needs, interests, and perception of the target audience of pharmacists regarding CE activities must be assessed and evaluated.<sup>[6,7]</sup> A growing body of evidence suggests that adult learners (e.g. pharmacists) might benefit more if they are interested in the provided materials and motivated.<sup>[9]</sup> Assessing and evaluating pharmacists perception and needs help the CE program providers design a CE program that is of more interest to be attended by its audience.<sup>[6,7,9]</sup>

Some neighborhood Gulf Cooperation Council (GCC) countries as Saudi Arabia and United Arab Emirate showed efforts in finding the most effective methods in delivering CE activities.<sup>[10,11]</sup> In both countries, the pharmacists' needs and preference for these activities were investigated with the aim of helping CE planners develop effective CE programs.<sup>[10,11]</sup> In Qatar, a study was conducted to determine the Qatar pharmacists CE needs, preferences, and attitudes.<sup>[12]</sup> The study included pharmacists from different working environments such as community and hospital settings. Pharmacists demonstrated support for enhanced CE opportunities. However, the study did not focus on the type of CE topics that attract pharmacists and whether the interest differs according to practice environment e.g. specialty hospital.<sup>[12]</sup>

To our knowledge, there are no published data investigating the interest of Women's Hospital pharmacists toward CE and Continuing Pharmacy Development (CPD) program in Qatar. It is desired to have an assessment for current pharmacists' status regarding CE to be able to improve and build a

structured CPD program that matches the needs of pharmacists. The aim of this study is to investigate Women's Hospital pharmacists' perception, interest, and barriers toward CE.

## METHODS

**Study design:** The study design was descriptive using an anonymous opinion survey. It was conducted in the pharmacy department at Women's Hospital in Qatar. Women's Hospital has 334 beds for antenatal, postnatal, and gynecology cases, as well as, 80 beds for Neonatal Intensive Care Units (NICU).

**Participants:** Pharmacists and pharmacy technicians working in the pharmacy department were eligible to participate. On the other hand, pharmacy students and trainees were excluded from this study.

**Assessment tool:** The survey instrument was a web-based using the online survey monkey. The use of this instrument has been selected as it is a user-friendly and inexpensive tool, provides anonymous data and analysis, and can be accessible by all participants at Women's Hospital.<sup>[13,14]</sup> The survey questions were developed after a comprehensive literature review of the existing publications and validated surveys. The survey was designed in English language. It contained 11 closed-ended questions. A 5-point Likert scale was used to assess the level of agreement with statements within the relevant section. In addition, participants were provided with the chance to write their opinion and recommendations to further enrich the data collection process. The survey was divided into four sections: 1. socio-demographics, 2. perception about CPD program, 3. interest towards CPD topics, 4. barriers to CPD program. The content of the Interest towards CPD topics' section was based on the seven Qatar Pharmacist Professional Competencies, which are retrieved from the NAPRA. The survey was piloted on 3 of the eligible participants for validation of questions' clarity, understandability, and time needed to complete the survey. The survey was completed within 10 minutes.

**Survey implementation:** The survey was available online for the participants for a duration of 2 weeks from January 1, 2013 until January 14, 2013. The participants were invited to participate through email. A reminder email was sent after one week, and a second reminder email was sent 3 days prior to the closure of the survey.

**Ethical considerations:** The ethical approval was obtained from the Hamad Medical Research Center-

Institutional Review Board (IRB), and a waiver of signed informed consent was obtained. The online survey provided anonymous data which insured confidentiality for participants and minimized the potential bias that could arise from un-blinded survey filling.

#### **Main outcome measures**

- Perception: to determine the level of agreement for a set of statements about the perception of the CPD sessions based on a 5-point likert scale (strongly agree, agree, neutral, disagree, strongly disagree)
- Interest: to decide on topics participants most interested in
- Barriers: to know the most common obstacles that affect participation in CPD sessions

**Data analysis:** Data analysis was descriptive. For simplicity, degree of agreement with statements was aggregated into three categories (agree, neutral, disagree). The online survey data were transferred into an Excel spreadsheet for descriptive analysis. Incomplete surveys were included in the analysis, provided that at least one question was answered. Consequently, the denominator (ie, number of respondents) for each response may vary. A response rate of 30% or higher is considered an acceptable rate for this online survey.<sup>[15]</sup>

## **RESULTS**

Thirty-three participants (56%) of target population responded to the online survey during the 2-week survey collection period. Not all participants provided a response to all survey questions.

**Participant demographics:** Participants' demographics are summarized in table 1. Twenty (69%) participants were younger than 35 years of age. Twenty-four (86%) participants had more than 5 years of experience in the practice. The majority of participants were holders of Baccalaureate degree (66%) followed by Master degree (17%).

**Perception about CPD program:** More than 90% of participants agreed that the CPD sessions are valuable, help them achieve their continuing education goals, and help them develop in their daily pharmacy practice. Only one participant (3%) reported that the CPD sessions are time consuming (table 2).

**Interest towards education topics:** Participants' interests towards CPD sessions were measured using three questions as summarized in table 3. The

following statements were rated the highest reasons for attending CPD sessions: the topic presented, is very appealing and interesting, and helps me in my daily practice (85%) and the presenter of the session is knowledgeable with excellent presentation skills (61%). The most professional competencies participants were interested in were patient care (82%), drug, therapeutic, and practice information (76%), and communication and education (64%). The highest rated topics participants wish to include were patient education and counseling (73%), drug related problems and solutions to prevent or reduce their impact on patients' outcomes (67%), common acute and chronic disease states encountered in women and neonatal population (64%), and pharmacotherapeutic case presentations (61%).

**Barriers to CPD program:** Lack of time and busyness (76%) and unsuitable time for sessions (58%) were identified to be the main barriers to attend CPD sessions. Other barriers included work shifts potential (33%), and feeling guilty about burdening colleagues with work (30%). Table 4 represents barriers to CPD program.

## **DISCUSSION**

This study represents a unique assessment of the perception, interest, and barriers towards CPD program for pharmacy staff working at Women's Hospital. Compared to other studies, this study aimed to focus on pharmacy staff working in a women and neonatal specialty hospital to help match their CPD needs. The response rate of the participants was satisfactory (56%) as documented in literature.<sup>[15]</sup>

The majority of pharmacy staff population was young and this might present a factor for the high rate of their interest and enthusiasm towards continuing education. The perception of the participants was highly positive (>90%) regarding the value, benefit, and practice outcomes of CPD session. This finding is similar to that reported in a nearby GCC country and in Malaysia.<sup>[16,17]</sup> Participants identified a variety of reasons to attend CPD sessions and they were interested mostly in focusing on patient care competency. Participants were mostly interested in topics related to patient education and counseling. As expected, the participants were interested more in women and neonatal related topics as compared to other general topics. Lack of time and work shift potentials were ranked as the highest obstacle for attending CPD sessions by Women's Hospital pharmacy staff which was in accordance with that reported by community pharmacists in Saudi Arabia.<sup>[18]</sup>

This study showed that pharmacy staff at Women's Hospital has good perception and interest toward continuing educational sessions. Nevertheless; the study had some limitations. Despite the high response rate (56%), results miss the data of non-respondents who might did not participate due to lack of interest toward the CPD program. Furthermore; the study lacks the stratification of perception, interest, and barriers toward CPD program according to participants' job nature (e.g. pharmacy technician, pharmacist, and clinical pharmacist), where such an information needs to be taken into consideration while developing the CPD program in the pharmacy department.

CPD program planners should take into consideration the identified barriers while planning the program to insure providing pharmacy staff with the full opportunity to attend the sessions, and to minimize barriers that could prevent them from attending. Suggestions to overcome barriers include: flexibility

of the session timing, repeating the sessions as needed, and providing opportunity of e-learning if lack of time remains a major obstacle for attending.

## CONCLUSION

Pharmacy staff at Women's Hospital has good perception and interest toward CPD sessions. CPD program planners shall work on resolving the identified barriers to maximize pharmacy staff benefits from the CPD program. Future research shall focus on the preference of pharmacy staff of learning style.

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<b>Table 1. Participant sociodemographic and practice characteristics</b>	
<b>Characteristics</b>	<b>N* (%)</b>
<b>Gender</b>	
Male	18 (62)
Female	11 (38)
<b>Age</b>	
20 – 24	0
25 – 29	9 (31)
30 – 34	11 (38)
35 – 39	3 (10)
40 – 44	4 (14)
45 – 49	2 (7)
50 – 55	0
>55	0
<b>Highest pharmacy degree **</b>	
Diploma	3 (10)
Baccalaureate	19 (66)
Master	5 (17)
Doctor of pharmacy	1 (3)
Doctorate (PhD)	1(3)
Others	0
<b>Country of highest pharmacy degree **</b>	
Egypt	8 (28)
India	6 (21)
Jordan	5 (17)
Lebanon	1 (3)
Pakistan	1 (3)
Philippines	0

Qatar	1 (3)
Sudan	3 (10)
Syria	2 (7)
Others ***	2 (7)
<b>Length of experience in practice in years **</b>	
<5	5 (17)
5 – 10	14 (48)
11 – 20	7 (24)
>20	3 (10)
<b>Current practice position</b>	
Pharmacy technicians	4 (14)
Pharmacists/ clinical pharmacists	25 (86)
* Number may not add up to 33 (total number of respondents) due to missing data	
** The sum of the percentage is 99% due to rounding off	
*** United Kingdom	

**Table 2. Perception about continuing pharmacy development**

	Agree N (%)	Neutral N (%)	Disagree N (%)
<b>As a healthcare professional, what is your perception about continuing pharmacy development and education? I think that continuing pharmacy development and education:</b>			
Valuable	30 (93)	2 (6)	0
Help me achieve my own continuing educational goals	31 (94)	2 (6)	0
Help me develop in my daily pharmacy practice	30 (94)	2 (6)	0
Improve my work performance	29 (88)	3 (9)	1 (3)
Is time consuming and not needed	1 (3)	3 (9)	29 (88)

**Table 3. Interest towards continuing education topics**

	N (%)*
<b>What are the reasons for you to attend any continuing pharmacy educational session? (Choose all that apply). I attend a continuing pharmacy educational session because ....</b>	
The topic presented, is very appealing and interesting, and helps me in my daily practice	28 (85)
The presenter of the session is knowledgeable with excellent presentation skills	20 (61)
The timing of the session suits my working schedule	13 (39)
The location of the presented session is near my working place	14 (42)
I want to obtain the required yearly continuing educational points	16 (48)
I do not attend these sessions	0
Others (please specify) **	1 (3)
<b>What are the pharmacist professional competencies that you desire to focus on in the continuing pharmacy development program (choose all that apply)</b>	
Patient care	27 (82)
Professional, collaboration, and team work	18 (55)
Ethical, legal, and professional responsibilities	16 (48)
Drug, therapeutic, and practice information	25 (76)
Communication and education	21 (64)
Drug distribution	33 (33)
Understanding management principles	16 (48)
<b>What are the topics that you wish to include in continuing pharmacy development sessions (choose all that apply)</b>	
Common acute and chronic disease states encountered in women and neonatal population	21 (64)
Common acute and chronic disease states in general	15 (45)
Drug related problems and solutions to prevent or reduce their impact on patients' outcomes	22 (67)
Health promotion and disease prevention	13 (39)
Patient education and counseling	24 (73)
Concept and application of pharmaceutical care	19 (58)
Critical appraisal skills and journal clubs	13 (39)
Pharmacotherapeutic case presentations	20 (61)
Pharmacoeconomic principles and cost-effectiveness of therapeutic alternatives	10 (30)
Management principles	13 (39)
Others (please specify)***	1 (3)
* Percentages are based on the total number of participants (N = 33)	
** Difficulty attending due to busyness	
*** Communication skills	

**Table 4. Barriers to continuing pharmacy development program**

	N (%)*
<b>What barriers prevent you from attending any continuing pharmacy educational session (choose all that apply):</b>	
Lack of time and busyness of the pharmacy during the working hours	25 (76)
Unsuitable time for sessions (during pharmacy rush hours)	19 (58)
The long duration of the presented sessions	4 (12)
If I go, I feel guilty about burdening my colleagues (other pharmacy staff) with the work I should be doing	10 (30)
The presented topics are not interesting	9 (27)
The presented topics are not useful because they are not related to women and neonatal population	4 (12)
After years of experience as a pharmacy professional, I do not feel that I need continuing educational sessions	0
Difficulty in obtaining permission to attend	7 (21)
The location of the presentation is far away from my working area	7 (21)
Work shifts potential (sessions are usually conducted in the morning shift)	11 (33)
Vacation potential (sessions are presented during my annual leave)	5 (15)
Others (please specify)**	1 (3)
* Percentages are based on the total number of participants (N = 33)	
** Due to busyness of out-patient pharmacy	

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