

## Perceptions and Satisfaction of Pharmacy Staff towards the Orientation Program at the Specialized Hospitals in Qatar: A Cross-Sectional Study

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### Abstract

**Background:** Quality health personnel are an important asset to the healthcare institution which will benefit the patients and the society.

**Objective:** To study pharmacists' and pharmacy technicians' perceptions and satisfaction towards the structured pharmacy orientation program at two specialized hospitals.

**Methods:** A cross-sectional, observational study was conducted from January 2010 till April 2013 using an online validated and piloted questionnaire. The questionnaire consisted of 3 parts: Pharmacy staff socio-demographic and practice characteristics, perceptions and satisfaction. There were 8 perception statements related to the orientation's site, 11 perception statements related to the mentors, and an overall satisfaction question. A five points Likert type scale was used in the questionnaire. The self-administered survey was distributed to 64 newly pharmacy staff upon the completion of their orientation program using Survey Monkey<sup>®</sup>. Data was analysed using descriptive statistics.

**Results:** A total of 64 pharmacy staff completed the survey; 42 (66%) were pharmacists and 22 (34%) were pharmacy technicians. The overall pharmacy staff satisfaction towards the orientation program was 94%. Fifty six (88%) of respondents agreed that the orientation at the site was adequate, 60 (94%) of pharmacy staff agreed that the mentor provided constructive criticism on interpersonal skills with staff and patients whenever needed, 59 (92%) of pharmacy staff agreed that the mentor displayed professional attitude and motivation.

**Conclusion:** The newly developed orientation system was successful in achieving high satisfaction level among pharmacy staffs in different aspects. This study helped in assessing and improving the orientation system in our institution and could improve work quality at workplace. The experience and findings could be shared and the orientation could be done in other hospitals.

**Keywords:** Health personnel; Orientation; Perception; Pharmacist; Pharmacy technician; Satisfaction

### Introduction

The state of Qatar is a sovereign and independent state in the Middle East, occupying a peninsula that juts into the Arabian Gulf. Approximately 2 million people are living in Qatar [1].

Hamad Medical Corporation (HMC) is the principal non-profit healthcare organization in Qatar. It was established in 1979 and currently operates eight hospitals: Hamad General Hospital, Rumailah Hospital, Women's Hospital, National Center for Cancer Care & Research (NCCCR), Al Khor Hospital, Heart Hospital (HH), Al Wakra Hospital and the Cuban Hospital. "HMC is the first and only hospital corporation in the world to achieve simultaneous accreditation and reaccreditation of all its facilities by the Joint Commission International (JCI), and Qatar is the only country outside of the United

States to achieve such accreditation for all its public hospitals" [2]. The NCCCR was opened in 2004 and is JCI accredited since 2006 with 64 bed capacity. The heart hospital was opened in 2011 was JCI accredited in 2014 with 120-bed capacity.

The pharmacy departments in the NCCCR and HH provide outpatient, in-patient, and clinical pharmacy services. Among the inpatient service there is the unit dose and the sterile compounding section. The sterile compounding section includes the intravenous admixture, total parenteral nutrition preparation, and chemotherapy preparation. Many technology systems have been implemented in both hospitals' pharmacy departments like the automated dispensing cabinets, and the automated repacking machine. Orientation and staff development in the hospital are important in-service programs for its personnel. Qatar is a small country with limited pool of staff. Thus, the country is demanding quality health staff. We need staff who could provide safe and professional service to patients and at the same time is satisfied with the job environment. It is more economical if this in-

service programs i.e. staff orientation and development can be done in-house. The orientation period is the most crucial period of staff's employment.

The lack of standardized and structured orientation system for newly hired pharmacy staff contributed to dissatisfaction and disengagement early in the employee's experience at the hospital and this is reflected by some random verbal feedback received from pharmacy staff that passed through the old orientation system. Prior to the new initiative, the new staff was assigned to train with the section in-charge but with the lack of follow up on their progress. The new staff and their trainers didn't have clear objectives to follow and lacked an orientation manual to standardize the orientation process. No competency assessment was done at the end of the probation period, after the completion of the first three months. Consequently, the lack of a comprehensive orientation was a chief complaint of pharmacy staff for number of years. At the end of the orientation period, the new staff did not have the opportunity to reflect their feedback and level of satisfaction out of the orientation system. The training and orientation was fragmented, inconsistent, and frequently curtailed due to the workload. The new staffs were very dependent on their trainers which made it a burden on the trainers. The trainers used to evaluate the new staffs' performance without receiving feedback on the way the deliver training; therefore lacking opportunities for improvement.

HMC as the main public healthcare system is primarily staffed by pharmacists and pharmacy technicians trained and worked outside of Qatar. Hospitals started to recruit staff locally after the college of pharmacy at Qatar University produced its first graduates in 2011, and the College of North Atlantic in Qatar produced its first pharmacy technician graduates in 2008. Since a significant number of newly hired pharmacy staffs are joining HMC from different countries, academic backgrounds, and experiential training, their in-service training was a challenge. Countries in the Middle East have different clinical training requirements for the 5-year baccalaureate degree in pharmacy. Some programs (e.g., in Egypt) do not appear to have a structured practical experience as a requirement for graduation; other programs have experiential training requirements that range from 10 to 36 weeks [3]. Most programs appear to focus on the traditional 'knowledge-based' curricula with a lesser emphasis on the clinical sciences [3]. The variability between different pharmacy programs makes it more perplexing to train the new staffs and ensure a standardized practice among them. Another important aspect to keep in mind is the significant number of medication errors and sentinel events that orientation and training can cause. It is documented by the JCI that orientation and training are the second most frequently cited root cause of both medication errors (approximately 60%) and sentinel events (approximately 55%) [4].

Smooth integration of new pharmacists and pharmacy technicians into the new workplace is essential to enhance their job satisfaction. Qatar health care sectors are expanding very fast in the recent years and years to come. To expect excellence in patient care in the demanding healthcare environment today is to make available opportunities for staff to learn new skills, to sharpen old ones and to deepen understandings of their role in the workplace. Even though staff development is a continuing process, staff orientation is an important initial step. Studies have assessed the relationship between training effectiveness and employee attitudes and behaviour [5-7]. However, lack of study has been done to look at the perceptions and satisfaction of newly hired pharmacy staff in the middle-east. This study is one of the few published studies assessing pharmacists and

pharmacy technicians' perception on standardized and organized orientation system and the first in the Middle-East. Specifically, the study was conducted to assess pharmacists' and pharmacy technicians' perceptions and satisfaction towards the standardized pharmacy orientation program for newly hired staff at the HH and NCCCR.

## Methods

### Study design and procedure

In January 2009, the pharmacy departments at the NCCCR and HH created a workgroup consisting of members from all ranks of the pharmacy to restructure the orientation system for newly hired pharmacy staff. The workgroup developed a structured orientation manual within three months. The orientation manual works as a guide for the newly hired pharmacy staff during their 3 month orientation period.

The orientation manual consists of five sections which represent the different pharmacy departments: Outpatient Pharmacy, Inpatient Pharmacy (subdivided into: Unit dose pharmacy, Sterile compounding, Total parenteral nutrition, Chemotherapy), Clinical Pharmacy, Store, Narcotic and Controlled medication unit. Each section in the manual is divided into six subcategories: section overview, objectives, activities, questions, checklist, and two way evaluation forms. Essential materials that support HMC and the pharmacy department vision and strategic plan were included: department overview, mission, vision, & values, organizational structure, reference to HMC policies & procedures, adverse drug reaction forms, occurrence/variance/accident report form, confidentiality agreement, code of ethics, and quality assurance agreement [8,9]. To ensure a homogenous operation of the orientation system, a clinical pharmacist was assigned as a site coordinator for each pharmacy department. The site coordinator duties were the following: Oversees the orientation system process, formulates a schedule for the newly recruited staff, coordinates the orientation in different pharmacy sections, handles any issue facing the new staff and/or preceptor, completes the initial skills assessment required by the human resources when the staff completes the three months period, and reviews any suggested addition to the orientation manual.

The site coordinator meets the newly recruited staff on his/her first day upon joining the department. The site coordinator provides the recruited staff a copy of the orientation manual and fills in the orientation timetable that consists of twelve weeks. The timetable includes the start date in every pharmacy section and the mentor's name assigned for this section. After implementing the new orientation model for almost 6 months, the work group decided to design a cross sectional study to explore the perceptions and satisfaction of newly hired pharmacy staff toward the orientation program in the HH and the NCCCR.

The study was based on an online survey which was developed to examine the staff's perceptions and satisfaction. The survey was piloted, validated and distributed to newly hired pharmacy staff after completing their three month orientation program. The study covered staff recruited from January 2010 till April 2013.

### Ethical consideration

This study was approved by the HMC Medical Research Centre.

## Population and sampling

All pharmacists and pharmacy technicians who were recruited at HH and NCCCR were requested to complete the questionnaire upon the completion of the three months initial skills assessment period. Out of the 64 pharmacy staff that completed the survey, 42 were pharmacists and 22 were pharmacy technicians.

## Assessment tool's development and validation

At the time of designing the study, an online search was done to find validated surveys focusing on the pharmacy staff perceptions and satisfaction toward a standardized orientation program. A survey questionnaire was developed by the assigned workgroup, then validated and piloted. The survey consisted of the following parts: pharmacy staff socio-demographic and practice characteristics; 5 perceptions statements related to the orientation's site; 11 perception statements related to the mentors; 3 perception statements related to the orientation manual; and an overall satisfaction question, in addition to open ended questions. A five points scale (5=Excellent, 4=Good, 3=Satisfactory, 2=Needs Improvement, and 1=Unacceptable) was used in the questionnaire.

## Data collection

The survey was created online using Survey Monkey®, the web survey development company. The survey was distributed by email to all pharmacy staffs that completed the three months orientation period. The respondents were given a week to complete the online survey.

## Data analysis procedures

The survey data was exported from the online survey tool to SPSS version 21. To simplify interpretation, the five points scale was consolidated into two categories (agree & disagree). Staffs that chose "Excellent, Good, or Satisfactory" were considered as positive response and labelled as "agree" and those who chose "Needs Improvement or Unacceptable" were as negative response and labelled as "disagree". The data was analysed using descriptive statistics.

Qualitative analysis was used to categorize collected respondents' comments into particular themes. The following are questions that were asked to the staff:

- What recommendations would you suggest for improvement in the orientation system?
- What did you like most about the orientation system?
- What do you like most about the orientation manual?

Agreement was reached on classification of statements into themes after negotiation among the investigators relating to interpretation of the comments and consistency.

## Results

All respondents who were hired during the period of January 2010 to April 2013 completed the survey. The pharmacist consist of 66% (n=42) and the pharmacy technicians 34% (n=22). Table 1 below shows the characteristics of the respondents. The majority of the new staffs were females (69%, n=44), 47% (n=30) of the staffs have their highest degree as BSc pharmacy, 42% (n=27) attained their highest degree in Qatar, 39% (n=25) of the pharmacy staffs have no prior

experience before joining HH or NCCCR. Majority of the respondents had worked in the GCC countries (46%, n=29) before joining HH and NCCCR, only 6% (n=4) had working experience in either UK or Canada, while 46% do not have any working experience in other countries (39%, n=25).

Characteristic	N (%)
<b>Profession</b>	
Pharmacists	42 (66)
Pharmacy Technicians	22 (34)
<b>Gender</b>	
Male	20 (31)
Female	44 (69)
<b>Highest pharmacy degree</b>	
Diploma	22 (36)
BSc Pharmacy	30 (47)
MSc Pharmacy	5 (8)
PharmD	6 (9)
<b>Country awarding highest pharmacy degree</b>	
Qatar	27 (42)
Egypt	14 (22)
Asia (India & Philippines)	7 (11)
Lebanon	4 (6)
UK & Canada	4 (6)
Others	8 (12)
<b>Pharmacy practice history prior to HH or NCCCR</b>	
Hospital	20 (31)
Community	14 (22)
Medical representative	2 (3)
No Experience	25 (39)
Academia	3 (5)
<b>Country of the previous experience prior to NCCCR &amp; HH</b>	
Qatar	14 (22)
KSA	10 (16)
UAE	5 (8)
UK & Canada	4 (6)
Others	6 (9)
No experience	25 (39)

**Table 1:** Pharmacy staff socio-demographic and practice characteristics.

### Perceptions of the site and rotation

Table 2 presents the staffs' degree of agreement on the statements related to the site and rotation. Eighty eight percent (n=56) of respondents agreed that orientation to the site was adequate. Eighty one percent (n=52) agreed that orientation to the site was well organized. Ninety two percent (n=59) of the pharmacy staff agreed that pharmacy staff were receptive and willing to interact with them. Nighty five percent (n=61) agreed that the site provided an opportunity for applying knowledge.

Statement	Agree N (%)	Disagree N (%)
Orientation to the site was adequate	56 (88)	8 (13)
Orientation to the site was well organized	52 (81)	12 (19)
Pharmacy staff are receptive and willing to interact with you	59 (92)	5 (8)
The site provided opportunity for applying knowledge	61 (95)	3 (5)
Value of the experience gained from this orientation	61 (95)	3 (5)

**Table 2:** Respondents' responses on the site and rotation evaluation.

Statement	Agree N (%)	Disagree N (%)
Mentor(s) demonstrated an interest in orienting you	59 (92)	5 (8)
Mentor(s) were available and willing to help you	59 (92)	5 (8)
Mentor(s) spent adequate time with you	51 (80)	13 (20)
Mentor(s) explained and clarified information to you	57 (89)	7 (11)
Mentor(s) encouraged you to ask questions, solve problems and make decisions under supervision	59 (92)	5 (8)
Mentor(s) were enthusiastic and interested in their practice	59 (92)	5 (8)
Mentor(s) were knowledgeable in their area of practice	61 (95)	3 (5)
Mentor(s) provided constructive criticism on interpersonal skills with staff and patients whenever needed	60 (94)	4 (6)
Mentor(s) made sure learning objectives were met	59 (92)	5 (8)
Mentor(s) displayed professional	59 (92)	5 (8)
Mentor(s) displayed professional attitude and motivation	59 (92)	5 (8)
Mentor(s) served as a good role model	58 (91)	6 (9)

**Table 3:** Respondents' responses on the mentor(s) evaluation.

### Perceptions of mentors

Table 3 presents the staffs' degree of agreement on the statements related to the mentors. Ninety two percent (n=59) of pharmacists and

pharmacy technicians agreed that their mentor(s) demonstrated an interest in orienting them, were available and willing to help them, were enthusiastic and interested in their own practice, made sure learning objectives were met, displayed professional attitude and motivation, encouraged them to ask questions, solve medication problems and make decisions under supervisions. Eighty percent (n=51) of pharmacy staff agreed that their mentor(s) spent adequate time with them. Eighty nine percent (n=57) of the pharmacy staff agreed that the mentor(s) explained and clarified information to them. Ninety five percent (n=61) agreed that their mentor(s) were knowledgeable in their area of practice. Ninety four percent (n=60) agreed that the mentor(s) provided constructive criticism on interpersonal skills with staff and patients whenever needed. Ninety one percent (n=58) agreed that the mentor(s) served as a good role model.

### Perceptions of orientation manual

Table 4 presents the staffs' degree of agreement on the statements related to the orientation manual. Eighty six percent (n=55) of pharmacy staff agreed that the manual was helpful. Ninety two percent (n=59) agreed that learning objectives were clear. Eighty eight percent (n=56) of pharmacists and pharmacy technicians agreed that the assignments were adequate.

Statement	Agree N (%)	Disagree N (%)
Orientation manual was helpful	55 (86)	9 (14)
Learning objectives were clear	59 (92)	5 (8)
Assignments were adequate	56 (88)	8 (12)

**Table 4:** Respondents' responses on the orientation manual evaluation.

### Overall satisfaction

Furthermore, 94% (n=60) of the pharmacy staff were satisfied with the standardized orientation program.

### Qualitative analysis

The questionnaire contained four open-ended questions in which the staffs were asked to provide comments. For the first question on recommendation on orientation system, 58 staff provided comments.

These comments were categorized under three major themes:

- Objective and content of the orientation manual.
- Duration of the orientation.
- Characteristics of the trainers/mentors.

When asked about what does the staff like most about the orientation system, 66 of them commented.

The responses were categorized under the following themes:

- Organization of the orientation.
- Teamwork and collaboration among staff.
- Quality of the mentors/preceptors.

Staff provided comments on the orientation manual (n=65). Main things that they mentioned are that the learning objectives are clear and the contents were well organized (Table 5).

"The preceptors were busy and sometimes didn't interact with me"
"No follow up and feedback systematically provided to me"
"When the section in charge isn't available, I'm lost and unattended by other staff"
"Objectives aren't clear for me and this makes it hard for me to make sure I got all the essential information"

**Table 5:** Pharmacy staff verbal comments on the old orientation system.

## Discussion

This study is the first of its kind in the Middle East to evaluate pharmacists and pharmacy technicians' perceptions and satisfaction towards the structured pharmacy orientation program for newly hired staff. Sixty four newly hired pharmacy staffs in both NCCCR and HH have undergone their training and orientation in different pharmacy sections with the new orientation model. They were invited to complete an online survey upon the completion of their orientation program to explore their perceptions and satisfaction. All the participants responded completely to the survey.

The participants in the study reflect the variant demographics of Qatar. The majority of new staffs have graduated from Qatar, but still more than fifty percent of them have graduated from different countries worldwide. The majority of new staffs have no prior experience, but still more than fifty percent has experience in hospital, community, academia, or medical companies. The majority of the new staff who have previous experience have been working in Qatar, but still more than fifty percent have been working in KSA, UAE, UK/Canada, or other countries. All those data reveals the variability among the newly recruited staff in the NCCCR and HH. This variability creates a challenge on the pharmacy department to reproduce equivalent and analogous staffs at the end of their orientation given their different educational or professional background. Similarly, Nadir et al have shown that countries in the Middle East have different clinical training requirements for the 5-year baccalaureate degree in pharmacy. Some programs (e.g., in Egypt) do not appear to have a structured practical experience as a requirement for graduation; other programs have experiential training requirements that range from 10 to 36 weeks. Most programs appear to focus on the traditional "knowledge-based" curricula with a lesser emphasis on the clinical sciences [3]. El Hajj et al in another study reported that the majority of pharmacists received their degrees in Egypt, India, or Jordan. However the majority of pharmacists hired without previous experience and minority had working experience in Egypt, India or Sudan before coming to Qatar [10].

Despite the variability in the newly recruited staff, 94% of the participants reflected their overall satisfaction with the orientation system. This satisfaction suggests that the new orientation system was successful in accommodating the demands of staff from different educational or professional background. This satisfaction also suggests the success of the orientation system in delivering its objectives and thus achieving an almost equivalent and analogous staffs at the end of their orientation.

A lot of studies have shed the light on the relationship between the employees' training and their job satisfaction which ultimately increases their performance. In 2006, a research was conducted in Qatar by Zaidan et al. and among its aims was to investigate the

physicians' perceptions, and expectations of pharmacists at HMC [11]. This study showed that physicians have high expectations of pharmacists in performing their duties; however, the physicians reported a poor experience with pharmacists in terms of resolving drug-related problems. Among the reasons that can contribute to the pharmacists' poor performance is a weak training program. This trial did not measure the pharmacist's performance after undergoing the new orientation system; however, it studied the staff's satisfaction out of the training program and several trials have shown the positive relation between superior performance and the staffs' satisfaction towards their training. Ninety five percent of participants agreed that the site provided opportunity to apply their knowledge and they value the experience gained out of the orientation program. In addition, 94% of participants agreed that they are overall satisfied with the orientation system. The high level of agreement on those statements express the pronounced satisfaction employee perceived out of the orientation program. This goes in line with a study by Truitt who also suggests that training when perceived by employee to be relevant and meaningful, the results may be demonstrated through improved proficiencies. Training is also seen as relevant to fostering a positive relationship between learning satisfaction and the effectiveness of applied learning [5]. Another study by Sahinidis and Bouris showed the relationship between perceived employee training effectiveness and job satisfaction, motivation and commitment [7]. Thus, having the pharmacy staffs satisfied in their orientation to the required tasks and responsibility is essential for enhancing their level of performance.

Well guided training system helps in building bonds between new staff and experienced staff and helps in integrating the new staff easily into the team. In another study, Cheng and Ho pointed out the importance of sufficient training in improving employee communication and proficiency of performance [6]. Furthermore, aiming at communication skills with workmates considerably increases profit and number of positive working relationships. Ninety two percent of participants agreed that during their orientation period pharmacy staff were receptive and willing to interact with them. The agreement on this statement shows the satisfaction level of new staff while interacting with the senior staff. The orientation system paves the way for new staff to easily fit in the team.

One of the major drawbacks of the old training system was the high dependency of new staff on their preceptors. The new staff and their preceptors did not have clear objectives to follow and lacked an orientation manual to standardize the orientation process. The new staffs were very dependent on their trainers which created a burden on the trainers. Those drawbacks were tackled in the new orientation system especially with the formation of the orientation manual which cleared up the roles and responsibilities. In the survey, we have assessed the success of this new system by measuring the satisfaction of new staff. Eighty percent of participants agreed that mentors have spent adequate time with them, which leaves 20% of new staff dissatisfied by the time spent with mentors. At the same time, more than 90% of new staff agreed that mentors were available and willing to help them, made sure learning objectives were met, encouraged them to ask questions, solve medication problems, make decisions under supervisions, and served as a good role model. We can roughly conclude that even though sometimes mentors were busy with their workload, but still staffs were highly satisfied from the learning experience they got out of their mentors. All of this can lead us to a conclusion that clear objectives, aims, questions, checklists, and the whole manual helped the new staffs in achieving their goals even if their preceptors were busy. This is also demonstrated by 90% of

participants agreeing that the learning objectives were clear and 86% of them agreeing that the orientation manual was helpful. To achieve higher levels of satisfaction on the orientation manual, we are working on an updated edition that tackles all the shortfalls and the feedback of staffs.

The newly developed orientation system provided an opportunity to standardize the orientation and training among all newly hired pharmacy staff. The qualitative and quantitative results could reflect the perception and satisfaction toward the whole process. The results of the survey helped the pharmacy department management to fine tune the orientation system according to the level of satisfaction reflected by staff. This study helped in improving the orientation system in our hospitals.

The study has few limitations. At the time we conducted the study, we did not have baseline data on the perceptions and satisfaction of new staffs on the previous unstructured orientation system. We could not do a comparison between the current findings and baseline data. During the study period, a greater number of pharmacists were recruited in comparison to pharmacy technicians.

### Implications to practice

It's essential to have a comprehensive, structured, and tailored orientation system that satisfies the new staffs' needs. This orientation system was successful in accommodating the staffs' needs despite their different educational and professional backgrounds; it was also successful in integrating the new staffs easily into the team; and successful in achieving the learning objectives with less dependency on the mentors. We recommend every institution to develop such a survey to collect the level of satisfaction of staffs toward their orientation program. The staffs' satisfaction level results will help institutions to better shape their orientation systems.

### Recommendations and future steps

The high level of satisfaction achieved out of the new orientation system is promising; however, it's interesting to explore the relationship between the level of satisfaction and its effect on performance. This shall be considered in a future study.

### Conclusion

The newly developed orientation system was successful in achieving high satisfaction level among pharmacy staffs in different aspects. This study helped in assessing and improving the orientation system in our institution and can do the same if conducted in other hospitals.

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