



## **The Attitudes and Perceptions of Pharmacy students toward applying Pharmaceutical care after Graduation in Alkharj city**

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### **ABSTRACT**

*Pharmaceutical care is a new concept in the practice of pharmacy. Many developing countries started the adoption and the implementation of pharmaceutical care and so many universities started the PharmD program and others started teaching pharmaceutical care courses for the pharmacy bachelor degree. To investigate Pharmacy undergraduate student attitudes and perceptions toward applying pharmaceutical care in Alkharj city. The study was conducted in pharmacy college in Prince Sattam Bin Abdulaziz university. The students were requested to fill questionnaire about the attitudes and perceptions of pharmacy students toward applying pharmaceutical care principles after graduation. All of the respondents respond positively to the statement of "All pharmacists should perform should pharmaceutical care" and they feel that pharmaceutical care application would benefit pharmacists. About 42.55% reported that "Lacking of place for patient counseling in the pharmacy and Insufficient technology in the pharmacy" barriers will prevent the pharmacist from applying pharmaceutical care in the future. There was a positive outlook for the pharmacy profession with an expanding patient oriented role. There are many barriers to applying pharmaceutical care. These barriers can be overcome by good management of pharmaceutical services.*

**Keywords :** pharmaceutical care, pharmacy students, Alkharj city

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### **INTRODUCTION**

The pharmacy profession has changed dramatically since the mid of 1970s. Pharmaceutical care is a new concept in the practice of pharmacy in which the traditional role of pharmacists changed from a product oriented to the patient oriented role. In this new era, pharmacists taking responsibility in the performance of clinical roles such as recognizing, inhibiting and solving Drug therapy problems [1].

Pharmaceutical care is defined as the responsible provision of drug therapy for the purpose of achieving definite outcomes that improves or maintains a patient's quality of life [2].

Numerous studies have shown that Pharmaceutical Care (PC) services can affect optimal drug therapy, save lives, and enhance a patient's quality of life [3,4].

In developed countries, the pharmaceutical care is well recognized and practiced [5]. In addition to that, many developing countries started the adoption and the implementation of pharmaceutical care and so many universities started the PharmD program and others started teaching pharmaceutical care courses for the pharmacy bachelor degree.

One of the studies about the attitudes of pharmacy students toward pharmaceutical care in Riyadh city reported that there are favorable positive attitudes toward pharmaceutical care [6]. Another study in Ethiopia reported that clinical pharmacy students have a good attitude toward PC [7] also one study in Pakistan stated that pharmacy students were motivated to practice pharmaceutical care during their clerkship as well as professional Career [8]. In Qatar, pharmacy students had positive attitudes toward PC. Efforts should be exerted to overcome their perceived limitations [9].

In Jordan, for example, there are steps have been taken in the past which are considered indicators of attempts to improve the quality of pharmacy education [10]. In another research about pharmacy education in Jordan, Kuwait and Saudi Arabia showed that the future of pharmacy education looks bright [11].

Another study reported that there are favorable attitudes for different universities toward pharmaceutical care education. Theoretical and practical part should be included in the curriculum of pharmacy to provide the required knowledge and skills [12].

There are few studies about Saudi Arabia students' attitude toward pharmaceutical care. The Aim of the present study is to investigate Pharmacy undergraduate student attitudes and perceptions toward applying pharmaceutical care in Alkharj city.

## METHODOLOGY

The study was conducted in pharmacy college in Prince Sattam Bin Abdulaziz university. About 60 students were requested to fill the self administered questionnaire used in previous studies [13,14] about the attitudes and perceptions of pharmacy students toward applying pharmaceutical care principles after graduation. The questionnaire language was English, we translated it to Arabic language and gave it to the students during pharmaceutical care course.

The participation in the study is voluntary and all of the information included in it was completely confidential. We didn't obtain consent from study participants before their participation in the study. Filling the questionnaire completely is considered as an Acceptance to participate in the study.

The questionnaire contains 3 parts, the first part about the age of the participants. The second part contains 12 questions about the attitude of the students toward pharmaceutical care. The third part answer question about the barriers that could prevent you from providing PC when you graduated and become a pharmacist in the future? ", and contains 12 points.

All Numerical Data presented in Number (percentage) unless otherwise mentioned. After collecting the questionnaires we started the entry and the analyzing of the data using Statistical Package for Social Sciences (SPSS) program.

## RESULTS AND DISCUSSION

We Asked 60 students to fill the questionnaire, 48 of them responded by filling the form (the responding rate is 80 %). Only 39 wrote their age (65 %). The Age of 38.46 % of the participants was 22. The average age is 22.6 (Standard deviation = 1.1). Table 1 shows the distribution of the participants age.

Table 1: The Age of the respondents.

	Age	(N=39)	%
1.	21	5	(12.82 %)
2.	22	15	(38.46 %)
3.	23	13	(33.33 %)
4.	24	4	(10.26 %)
5.	25	1	(2.56 %)
6.	26	1	(2.56 %)

The other part contains 12 questions about Pharmacy students' attitude toward Pharmaceutical Care in Alkharj. All of the respondents who filled the questionnaire answer these questions. All of the respondents respond positively to the statement of " All pharmacists should perform should pharmaceutical care" and they feel that pharmaceutical care application would benefit pharmacists (100.00%), Where, Positive response means strongly agree and agree. About (97.92%) respond positively to the statement " I feel that pharmaceutical care movement will improve patient health". Only (52.08%) respond positively to the statement I feel that practicing pharmaceutical care will benefit my professional pharmacy career as a pharmacy practitioner. In general this part showed that the students expect expanding role for the pharmacists by applying the pharmaceutical care principles. Response to questions related to Pharmacy students' attitude toward Pharmaceutical Care in Alkharj is shown in table 2.

Table 2: Response to questions related to Pharmacy students' attitude toward Pharmaceutical Care in Alkharj

Variables/Questions	Positive response (N=48)	% of positive response
1. I think that All pharmacists should apply pharmaceutical care	48	(100.00 %)
2. In health care setting the major responsibility of pharmacists should be to prevent and resolve medication-related problems	43	(89.58 %)
3. Pharmacists' main responsibility should be to practice pharmaceutical care	37	(77.08 %)
4. Pharmacy students can apply pharmaceutical care during their clerkship	46	(95.83 %)
5. I think the application of pharmaceutical care is valuable	30	(62.50 %)
6. Providing pharmaceutical care results in time wasting and takes too much effort	38	(79.17 %)
7. I would like to apply pharmaceutical care as a pharmacist practitioner	38	(79.17 %)
8. I think that the pharmaceutical care is the right way for the provision to be headed	44	(91.67 %)
9. I feel that pharmaceutical care application would benefit pharmacists	48	(100.00 %)
10. I feel that the application of pharmaceutical care will improve patient health	47	(97.92 %)
11. I feel that practicing pharmaceutical care will benefit my professional pharmacy career as a pharmacy practitioner	25	(52.08 %)
12. Providing pharmaceutical care is not worth the additional load that it places on the pharmacist	32	(66.67 %)

Where, Positive response means strongly agree and agree

In the third part we ask 12 questions about the barriers that may prevent the students from providing pharmaceutical care in the future. Out of 48 respondents, 47 answered this question (97.92%). About 42.55% reported that "Lacking of place for patient counseling in the pharmacy and Insufficient technology in the pharmacy" barriers will prevent the pharmacist from applying pharmaceutical care in the future. These 2 barriers can be solved by managing the service of pharmaceutical care.

About 61.70% reported that Inadequate drug information resources in the pharmacy represent barriers with moderate extent. About 51.06% stated that the religious constraint represents barriers with low extent. Table 3 shows the students' perceived barriers to the provision of pharmaceutical care.

Table 3: Students' perceived barriers to the provision of pharmaceutical care (N=47)

Students' perceived barriers	Would the following barriers prevent you from providing PC in the future?		
	High extent Frequency (percentage)	Moderate extent Frequency (percentage)	Low extent Frequency (percentage)
Insufficient drug information resources in the pharmacy	5 (10.64 %)	29 (61.70 %)	13 (27.66 %)
The access to patient medical records in the pharmacy is lacking	18 (38.30 %)	17 (36.17 %)	12 (25.53 %)
The therapeutics knowledge is lacking	6 (12.77 %)	27 (57.44 %)	14 (29.79 %)
The understanding of PC is lacking	12 (25.53 %)	18 (38.30 %)	17 (36.17 %)
Insufficient training in PC	18 (38.30 %)	20 (42.55 %)	9 (19.15 %)
The workplace for counseling in the pharmacy is lacking	20 (42.55 %)	21 (44.68 %)	6 (12.77 %)
Insufficient technology in the pharmacy	20 (42.55 %)	16 (34.04 %)	11 (23.40 %)
The self confidence is lacking	3 (6.38 %)	25 (53.19 %)	19 (40.43 %)
Lack of time (Time constraints)	16 (34.04 %)	13 (27.66 %)	18 (38.30 %)
Poor image of pharmacist's role in wards	17 (36.17 %)	13 (27.66 %)	17 (36.17 %)
Incapability to deal with a different sex	7 (14.89 %)	19 (40.43 %)	21 (44.68 %)
Religious limitation	6 (12.77 %)	17 (36.17 %)	24 (51.06 %)

## CONCLUSION

The present study found that there was a positive outlook for the pharmacy profession with an expanding patient oriented role. All of the participants reported that pharmacists should apply the principles of pharmaceutical care and this new role will benefit the pharmacists from different aspects.

There are many barriers to applying pharmaceutical care. These barriers, especially that affect with high extent, can be overcome by good management of pharmaceutical services.

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