



The Preferences of Male Students for Different Pharmacy Sectors in Research Project Course

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Author's contribution

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

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ABSTRACT

Objective: The aim of this study was to explore the students' preferences for different pharmacy departments in research project course in Al-Kharj.

Methodology: This study included a web-based survey using google forms delivered to the students about the students' research interest. The students ranked the pharmacy departments according to their preferences. The descriptive data were represented as frequencies and percentages.

Results: The cumulative grade of 78.85% of the students was more than or equal to 3 out of 5. About 33.66% of them ranked pharmacology as their first choice and 33.66% of them selected clinical pharmacy as their first choice.

Conclusion: Pharmacy students were interested in conducting researched mainly in pharmacology and clinical pharmacy department. Training programs, workshops and lectures are required to enhance pharmacy students' research capabilities.

Keywords: Pharmacy students; preferences; research; research project.

1. INTRODUCTION

At the end of 20th century, the main responsibility of pharmacists was to compound and dispense medications [1]. Over the past few years, there have been notable transformations in the pharmacy profession; Pharmacy practice has come up with—novel developmental approaches, tools, and job prospects [2]. Currently, pharmacists are responsible for relieving the excessive stresses on the health care system [3]. Additionally, patient-oriented services have been provided by the pharmacist, so that pharmacist can communicate with the patients and counsel them about the medicines use [3]. Pharmacists are playing a fundamental role in conducting vital research in the field of pharmacy which is essential to modernizing professional practices [4].

The early exposure of students to research-related coursework and research experiences leads to several benefits that include increasing student-interest in research or at least getting them to a level of comfort with conducting or evaluating certain types of projects [5]. Another benefit is formative training for those students who will go into residency programs where a research project is required and the conduct of pharmacy practice research is an elective outcome [5].

Research skill development is increasingly being recognized as an essential principle of undergraduate programs [6]. A research project also facilitates in-depth learning and provides opportunities for independence that is not offered in a standardized curriculum [7,8]. These opportunities to develop self-directed learning skills and problem-solving promote life-long learning, which will benefit the students' future career as a pharmacist [7,8]. Furthermore, undergraduate pharmacy students' participation in research projects is essential in producing pharmacists better accustomed to increase the accessibility of unbiased health and medicine-related information to the public and also to health care specialists [9]. Murphy et al stated that studying research-related coursework without conducting a research project may have limited impact if the profession is committed to promoting new research in pharmacy [10]. They also stated that knowledge of the current status of research-related efforts in pharmacy colleges would be of value in understanding the preparation of pharmacists for the roles that

require greater understanding of the literature and research processes [10].

Nowadays, there is an increasing interest in clinical pharmacy practice. A previous study stated that in developing countries, the content of pharmacy education should be more involved in clinical pharmacy-related knowledge, rather than confined to pharmaceutical production-related chemical knowledge [11]. The development and improvement of clinical pharmacy services at hospitals have expanded the traditional dispensing role of the pharmacist to a profession that provides pharmaceutical care to patients [12]. Scientific knowledge is more vital in reporting and solving difficulties encountered during clinical practice in relation to the patients and community, so it is mandatory that research is progressively promoted by health care organizations and committees across the world [13]. The aim of this study was to explore the students' preferences for different pharmacy departments in research project course in Al-Kharj.

2. METHODOLOGY

We conducted a retrospective study that included the response of the fifth year male students in the college of pharmacy in Al-Kharj in the second semester/2020 and first semester/2021 to explore the students' preferences for different pharmacy departments in research project course. Research project course is a course that should be completed by students in their tenth semester.

Before the beginning of the course, a web-based survey using google forms was delivered to the students about the students' research interest. The students ranked the pharmacy departments according to their preferences. The pharmacy departments include clinical pharmacy, pharmaceuticals, pharmacology, pharmacognocny and medicinal chemistry.

The inclusion criterion was to include pharmacy students in AL-kharj. Other students were excluded from the study. Moreover, forms that were not completed were excluded.

The data were collected by using Microsoft Excel spreadsheet and the descriptive data were represented as frequencies and percentages.

3. RESULTS AND DISCUSSION

Table 1 shows the number of the pharmacy students who were included in the study. 104 students registered in the research project course, most of them in the second semester/2020.

The cumulative grade of 78.85% of the students was more than or equal to 3 out of 5. Table 2 shows the cumulative grade of the students in the college of pharmacy in Al-Kharj.

Table 3 shows the students' preferences for different pharmacy departments in research project course. Most of the pharmacy students were interested in conducting their research in pharmacology or clinical pharmacy. About 33.66% of them ranked pharmacology as their first choice and 37.50% of them selected pharmacology as their second choice. Moreover 33.66% of the students selected clinical pharmacy as their first choice and 25.00% of them selected clinical pharmacy as their second choice.

Pharmacy students, particularly students who want to continue training in postgraduate studies, are interested in conducting pharmaceutical

research. Saleem et al reported that about 61.0% of the participants in their study intended to pursue a postgraduate research degree [14]. So, it is important to complete a course about researches for all of the students in the college of pharmacy. Maharajan et al reported that the implementation of a pharmacy curriculum which focuses on research and capabilities needed in research may change the attitude of pharmacy students towards research [15].

The majority of the pharmacy students in the present study selected pharmacology or clinical pharmacy department for their research. This is a rational result as most of the pharmacists nowadays prefer to work in hospitals. Almaghaslah et al reported that hospital pharmacy was found to be the most preferred pharmacy sector by 55.4% of the participants in their study [16]. Tadesse et al stated that nearly one-fifth of pharmacy students intended to work in hospital/clinical/ community Pharmacy after graduation [17]. Moreover, a study in Malaysia showed that the preferred career for pharmacy students was working in public hospitals. The study also found that compounding pharmacy, sales and marketing as well as clinical research were the least popular option for respondents [18].

Table 1. Number of included students who were included in the study

Academic Year	Number	Percentage
Second semester/2020	64	61.54
First semester/2021	40	38.46
Total	104	100.00

Table 2. The cumulative grade of the students in the college of pharmacy

Grade (out of 5)	Number	Percentage
More than 4	21	20.19
3-3.99	61	58.66
Less than 3	22	21.15
Total	104	100.00

Table 3. Students' preferences for different pharmacy departments in research project course

Departments	First choice	Second choice	Third choice
Clinical Pharmacy	35 (33.66%)	26 (25.00%)	21 (20.19%)
Pharmacology	35 (33.66%)	39 (37.50%)	14 (13.46%)
Pharmaceutics	14 (13.46%)	18 (17.31%)	30 (28.85%)
Pharmacognosy	14 (13.46%)	15 (14.43%)	27 (25.96%)
Medicinal Chemistry	6 (5.76%)	6 (5.76%)	12 (11.54%)

4. CONCLUSION

Pharmacy students were interested in conducting researched and they desired to be involved more in research publications mostly in pharmacology and clinical pharmacy department. Training programs, workshops and lectures are required to enhance pharmacy students' research capabilities.

CONSENT

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

ETHICAL APPROVAL

It is not applicable.

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COMPETING INTERESTS

Author has declared that no competing interests exist.

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