


Research Policy on Research Pharmacist Competency

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Received: 15-10-2021;

Accepted: 30-12-2021.

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www.ijpcs.net

DOI:
10.5530/ijpcs.2022.11.12

ABSTRACT

Objectives: This study explores the Research policy of Research Pharmacist Competency as a new initiative in Saudi Arabia. **Methods:** This article is a narrative review of pharmacy research. Litterateur researched specific research policies and procedures in pharmacist competency in research practice using a variety of databases, including PubMed, Medline, and Google Scholar. The period covered for the search is from the 1960s to October 2021. The English language uses the terms and encompasses narrative reviews, systemic reviews, meta-analyses, and guidelines. The search term includes all hospital and community pharmacy-related services. Besides, there are national and international guidelines for conducting general research in hospital practice. The pharmacy research committee was formed and comprised numerous expert members, including clinical pharmacists, pharmacists specializing in drug information, and clinical research specialists. A member drafted the policy's guidelines, which were then reviewed and corrected by another member. The research specialist made the third revision. The topic emphasizes the Pharmacy Research policy of pharmacist competencies in Research. **Results:** The Pharmacist Competency on Pharmacy Research included several items, such as five modules of clinical pharmacist competencies. That consists of Patient care, research skills, communications, Professionalism, and continuing professional development. In addition, each model included a description of the module of various activities, pre-training and post-training exams, type of assessment, and assessment scores. **Conclusion:** The pharmacy research policy of Research pharmacist competency is a new initiative and a component of the pharmacy strategic plan. The pharmacy policy's research pharmacist competency aims to enhance pharmacists' research abilities and encourage pharmacists to conduct various types of research in multiple settings within the public and healthcare sectors. Therefore, the Research pharmacist competency policy is critical for the pharmacy career in Saudi Arabia. **Keywords:** Research, Policy, Pharmacy, Competency, Saudi Arabia.

INTRODUCTION

The implementation of Pharmaceutical care has expanded locally and internationally in recent years.^[1-4] The number of Pharmacy colleges has increased, as has the enrollment of graduate students.^[5] The number of residency sites increased, as did graduation.^[5] Additionally, pharmacy practice specialties developed due to affiliations with various medical specialties.^[5-6] Locally and internationally, the number of research projects in different pharmaceutical specialties within and outside Saudi Arabia has increased.^[7] Manuscripts submitted for various publications contained numerous errors for a variety of reasons. Specific causes were straightforward, while others were more complicated. As a result, there was a deficiency in the pharmacist's ability to conduct research. Numerous studies examined research competency, which encompasses the knowledge, practice, and skills necessary for practice.^[8-11] In the new initiative, pharmacy services will include research and development. Therefore, it is necessary to implement the pharmacist's research competency. The demand the pharmacist evaluations before and during the duration of the job and follow-up with candidates to ensure that their research practice skills continue to improve. Worldwide, few studies and regulations

have addressed pharmacist competency, including research competency.^[12-15] The authors were unaware of any publications addressing pharmacists' research abilities. This review aims to establish a pharmacist's competency in the practice of pharmacy research.

MATERIALS AND METHODS

It's a narrative review of pharmacy research. Litterateur searched for specific topics related to research in pharmacy practice in a variety of databases, including PubMed, Medline, and Google Scholar. The time frame for the search is from the 1960s to October 2021. The terms used were in English and included narrative review, systemic review, Meta-analysis, and guidelines. The policies were limited for the previous ten years. In a search term, all hospital or community pharmacy services are included. Inpatient pharmacy, outpatient or ambulatory care pharmacy, satellite pharmacy, extemporaneous preparation, repackaging units, pharmacy store, drug information center, and clinical pharmacy services were among the pharmacy services available. Furthermore, the National and international guidelines for general research in hospital practice.^[16-29] The Saudi Food and Drug Authority,^[17-18] European Medicine Agency,^[28] the American Society of Health-System Pharmacist

(ASHP),^[29] and World Health Organization (WHO)(26), and other literature.^[13-15,30-31] The pharmacy research committee was formed and comprised of numerous expert members. This includes clinical pharmacists, pharmacists specializing in drug information, and clinical research specialists. One member drafted the policy guidelines, another member reviewed and corrected them, and a research specialist revised them three times. The topic covered various areas, including pharmacy research practice, research and ethical committees, data collection and organization in pharmacy practice, the quality of pharmacy research services, pharmacy research competency, and pharmacy research education and training. The current reviews were reported in accordance with the internationally adopted Appraisal of Guidelines, Research, and Evaluation (AGREE) standard.^[32]

Search: pharmacy research policy[Title/Abstract] Filters: Full text, Humans, English (“pharmacie”[All Fields] OR “pharmacies”[MeSH Terms] OR “pharmacies”[All Fields] OR “pharmacy”[MeSH Terms] OR “pharmacy”[All Fields] OR “pharmacy s”[All Fields]) AND “research policy”[Title/Abstract] AND ((fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Translations

pharmacy: «pharmacie»[All Fields] OR “pharmacies”[MeSH Terms] OR “pharmacies”[All Fields] OR “pharmacy”[MeSH Terms] OR “pharmacy”[All Fields] OR “pharmacy’s”[All Fields]

Search: pharmaceutical research policy[Title/Abstract] Filters: Full text, Humans, English (“biopharmaceutics”[MeSH Terms] OR “biopharmaceutics”[All Fields] OR “pharmaceutic”[All Fields] OR “pharmaceutics”[All Fields] OR “pharmaceutical preparations”[MeSH Terms] OR (“pharmaceutical”[All Fields] AND “preparations”[All Fields]) OR “pharmaceutical preparations”[All Fields] OR “pharmaceutical”[All Fields] OR “pharmaceutics”[All Fields] OR “pharmaceutical s”[All Fields] OR “pharmaceutically”[All Fields]) AND “research policy”[Title/Abstract] AND ((fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Translations

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[All Fields] OR “pharmaceutically”[All Fields]

Search: investigational drug policy[Title/Abstract] Filters: Full text, Humans, English (“investigational”[All Fields] AND “drug policy”[Title/Abstract]) AND ((fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Search: clinical trial policy[Title/Abstract] Filters: Full text, Humans, English (“clinical trial policy”[Title/Abstract]) AND ((fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Search: research competency[Title/Abstract] Filters: Full text, Guideline, Meta-Analysis, Practice Guideline, Review, Systematic Review, Humans, English

(“research competency”[Title/Abstract]) AND ((guideline[Filter] OR meta-analysis[Filter] OR practiceguideline[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Search: research competency[MeSH Terms] Filters: Full text, Guideline, Meta-Analysis, Practice Guideline, Review, Systematic Review, Humans, English

(“research personnel”[MeSH Terms] OR (“research”[All Fields] AND “personnel”[All Fields]) OR “research personnel”[All Fields] OR “researcher”[All Fields] OR “researchers”[All Fields] OR “research”[MeSH Terms] OR “research”[All Fields] OR “research s”[All Fields] OR “researchable”[All Fields] OR “researche”[All Fields] OR “researched”[All Fields] OR “researcher s”[All Fields] OR “researches”[All Fields] OR “researching”[All Fields] OR “researchs”[All Fields]) AND “mental competency”[MeSH Terms] AND ((guideline[Filter] OR meta-analysis[Filter] OR practiceguideline[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

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research: «research personnel»[MeSH Terms] OR (“research”[All Fields] AND “personnel”[All Fields]) OR “research personnel”[All Fields] OR “researcher”[All Fields] OR “researchers”[All Fields] OR “research”[MeSH Terms] OR “research”[All Fields] OR “researchs”[All Fields] OR “researchable”[All Fields] OR “researche”[All Fields] OR “researched”[All Fields] OR “researcher’s”[All Fields] OR “researches”[All Fields] OR “researching”[All Fields] OR “researchs”[All Fields]

competency[MeSH Terms]: «mental competency»[MeSH Terms]

RESULTS AND DISCUSSION

When implementing pharmacy research competency for any pharmacist, it was

recommended that the following suggested policies and procedures as explored in Table 1 be followed.^[13-15]

1. Each year, all new pharmacy staff should complete a research competency course.
2. Each year, the pharmaceutical care research and development unit selects a certain number of pharmacists for research skills competency. All nominations must be made through the unit supervisor.
3. All nominated candidates enroll in education and training programs designed to improve their research abilities.
4. If the new staff pharmacist's competencies are integrated into the initial orientation program.
5. After completing the research skills training, the preceptor evaluates each candidate's competencies.
6. The perception results in a written examination of multiple-choice questions and performance evaluations.
7. The preceptor selected the assessment level from a minimum of one to five complete scores.
8. Assessment scores are classified into five categories. There are five equal complete or total competent individuals, four primary incompetent individuals, three partial competent individuals, two similar weak competent individuals, and one primary incompetent individual.
9. Number assessment score for any competency objective should be at least more than four.
10. If any competency objective is less than four, the pharmacist will fail the research skills assessment competency and be declared incompetent.
11. If candidates become incompetent, they will be assessed quarterly until they achieve a score of four or five.
12. A competency assessment of research skills should be conducted annually.
13. If a pharmacist receives less than four points on the annual assessment of research skills competency, the pharmacist will be required to complete five weeks of additional research skills training and education session.

CONCLUSION

The research competency policy and procedures are critical components of pharmacy research and development performance and activities. It included five components: patients care, research abilities, communication, professionalism, and ongoing professional development. Its sustainable

Table 1: Policy of Pharmacist competency in research practice.

No	Topic	Activity	Education and training			Assessment scores						
			Pre-training test	Post-training test	Exam	Preceptor	1	2	3	4	5	
1.	Patients care	<p>Keep patient research confidential.</p> <p>Do not do any research harm for the patients.</p> <p>Choose the best research project for patients with high clinical outcomes.</p> <p>Communicate research consultation for the patients</p>	✓	✓	✓	✓						
2.	Research skills	<p>Choose an appropriate research project that impacts patient care, economic impact, or Pharmacy career.</p> <p>Write clear research objectives.</p> <p>Ability to search in various research databases like PubMed, Scopus, web of science, Cochran Library, Google Scholar, and academic Microsoft</p> <p>Can summarise the litter and write a summary about litterateur</p> <p>Demonstrate activities of various research design methodology like observational studies, clinical trial, systemic review, meta-analysis, cohort, case-control, case series</p> <p>Can calculate sample size and choose appropriate sampling methods</p> <p>Collect the research data manual and electronically through using various software</p> <p>Analyze their data by using appropriate biostatistics tools</p> <p>Using appropriate references managers such as Endnote, Mendeley, Zotero</p> <p>Writing manuscripts through various research reports tools and using standardized writing research tools.</p> <p>Systems-based care and population health</p>	✓	✓	✓	✓						
3.	Communication	<p>Contribute in writing manuscript section included an introduction, methods, results, discussion, and references.</p> <p>Use the standardized writing research reports tools such as PRISMA, STROBE,</p> <p>Write the research abstract for poster presentation to the conference.</p> <p>Communicate with a researcher about the comment on the original research either personal contact or writing letter to editor or comment</p> <p>Do not use social media for comment distribution</p>	✓	✓	✓	✓						
4.	Professionalism	<p>Apply ethics in research</p> <p>Apply ethics in scientific publications</p> <p>Explore the disclosures</p> <p>Write the comments on the original research throat letter to the editor or comment only, and do not use social media for comment distribution.</p> <p>Respect all researcher and their activities</p> <p>Respect all trainees in the research and scientific writer</p>	✓	✓	✓	✓						
5.	Continuing professional development	<p>Update the research guidelines regularly based on recent literature</p> <p>Setup annual plan of research for each pharmacy services unit</p> <p>Make Available the research skills references and guidelines for pharmacy staff</p>	✓	✓	✓	✓						

processes help pharmacists improve their research abilities in practice. Its method of assessing and evaluating pharmacy staff involved in the design and methodology of the study. It enhances the academic writing skills necessary for writing research reports in a pharmacy setting. As a result, policies and procedures about research skills competency are strongly recommended for implementation throughout a pharmacist's professional career, both locally and internationally.

ACKNOWLEDGEMENT

None.


CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

ABBREVIATIONS

KSA: Kingdom of Saudi; **WHO:** World Health Organization; **ASHP:** American Society of Health-System Pharmacists; **AGREE:** Appraisal of Guidelines, Research, and Evaluation.

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