

Community Pharmacy Policy and Procedures: Scientific Research System

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Received: 24-09-2023;

Accepted: 19-12-2023;

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International Journal of Pharmacology and Clinical
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www.ijpcs.net

DOI:
10.5530/ijpcs.2024.13.22

ABSTRACT

Objectives: We aim to introduce the Research policy in community pharmacy practice as a significant and impactful new initiative in Saudi Arabia, underscoring its crucial role in advancing the field. **Methods:** We conducted a comprehensive narrative review of pharmacy research in community pharmacy practice. Our search spanned databases such as PubMed, Medline, and Google Scholar, covering specific research policies and procedures in pharmacy practice from the 1960s to October 2024. The term was in English, including narrative review, systemic review, Meta-analysis, and guidelines. We included all hospital or community pharmacy services in the search term, along with national and international guidelines for general hospital practice research. The committee of pharmacy research was formulated and consisted of various expert members, including community pharmacists, clinical pharmacists, and research pharmacist specialists. The guidelines of the policy draft were meticulously reviewed and corrected, with the third revision by the research pharmacist specialist. The topic emphasizes the community Pharmacy Research policy and procedures. **Results:** The Community Pharmacy Research policy is a comprehensive document covering many items. These include assigning a research pharmacist, establishing an annual plan and a strategic research plan, assessing scientific research practice, conducting community pharmacy research education and training, setting policy for various types of research, creating a quality management plan for community pharmacy scientific research, and relevant Key performance indications. **Conclusion:** The community pharmacy research policy is a new initiative for service pharmacy activities and performances. It is a vital investigational drug service as it continuously develops services, improves patient care, and improves economic recovery. Therefore, implementing the community pharmacy research policy and procedures in Saudi Arabia is highly recommended, promising significant improvements in patient care and economic recovery.

Keywords: Community, Pharmacy, Policy, Research, Saudi Arabia.

INTRODUCTION

Research into pharmaceutical care practice might be essential in preventing mortality and morbidity in patient care.^[1,2] Besides, it can avoid unnecessary economic consequences on the healthcare system.^[3-5] Various types of methods of research's pharmacy services might involved, such as cross-sectional, case reports or care series, or cohort studies for post-marketing surveillance of adverse drug interactions.^[6-8] A fundamental method is a randomized, double-blind trial methodology to choose the appropriate safety and effective medicine for various diseases.^[9] The foundation of research and development departments in pharmacy services is another new approach that can improve patient care and provide more accurate and innovative disease control and management approaches.^[10,11] Most research emphasizes hospital pharmacy settings rather than community-based pharmacies.^[12-14] Most of the research methodology done at community pharmacies was cross-sectional studies for pharmacists, patients, or customers.^[15-18] However, it is rarely found in randomized masked clinical trials.^[19,20] Stability studies of extemporaneous preparations and formulations are seldom found.^[21,22] Research and development

programs are essential for current practice and the future.^[10,11] The author is unfamiliar with any published research about research policy and procedures at community pharmacies.^[11,23] The current review aims to multistate the research policy and procedures on community pharmacy services.

METHODS

It was a narrative review of new sights of Research policy in community pharmacy practice. Litterateur searched databases, including PubMed, Medline, and Google Scholar, about specific Community pharmacy policy and procedures topics. The search period is from the 1960s until September 2024. The term is in English, and They included Full-text Full text, Case Reports, Classical Articles, Clinical Conferences, Clinical Studies, Clinical Trials, Clinical Trials, Phase I, Clinical Trials, Phase II, Clinical Trials, Phase III, Clinical Trials, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English. All community pharmacy services are included in a search term. The

Community pharmacy services included point of sale at a community pharmacy, Human Resources of community pharmacy, education and training, compounding center, Community pharmacy store, and clinical Community pharmacy services. Besides, the National and international guidelines of general community pharmacy practice policy and procedures in the community setting.^[24-31] That included the Saudi Food and Drug Authority (SFDA),^[32-34] the European Medicine Agency,^[35] the American Society of Health-System Pharmacists (ASHP),^[24-26,36-38] and the World Health Organization (WHO),^[39,40] and other literature.^[10,11,23,41-55] The pharmacy policy and procedures committee formulated and consisted of various expert members. That includes pharmacists, expert community pharmacists, and clinical pharmacist specialists. The policy guidelines were drafted by one member, reviewed and corrected by the second member, and the third revision by a research pharmacist specialist. The topics included policy and procedures for narrative review, case reports, case series, cross-sectional, cohort analysis, case-control, and clinical trials. Besides, the Institutional review boards and pharmacy data management.^[6-8,56-60]

Search: (**community pharmacy**[Title/Abstract]) AND (**research policy**[Title/Abstract]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Clinical Trial, Phase I, Clinical Trial, Phase II, Clinical Trial, Phase III, Clinical Trial, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

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Search: (**community pharmacy**[MeSH Terms]) AND (**research policy**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Clinical Trial, Phase I, Clinical Trial, Phase II, Clinical Trial, Phase III, Clinical Trial, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

Phase III, Clinical Trial, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English

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Translations

community pharmacy[MeSH Terms]: "pharmacies"[MeSH Terms]

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]

policy[MeSH Terms]: "policy"[MeSH Terms] Search: (**community pharmacy**[Text Word]) AND (**research policy**[Text Word]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Clinical Trial, Phase I, Clinical Trial, Phase II, Clinical Trial, Phase III, Clinical Trial, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

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Search: (**retail pharmacy**[MeSH Terms]) AND (**research policy**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Clinical Trial, Phase I, Clinical Trial, Phase II, Clinical Trial, Phase III, Clinical Trial, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

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Translations

retail: "retail"[All Fields] OR "retailed"[All Fields] OR "retailer"[All Fields] OR "retailers"[All Fields] OR "retailer's"[All Fields] OR "retailing"[All Fields] OR "retails"[All Fields]

pharmacy[MeSH Terms]: "pharmacy"[MeSH Terms] OR "pharmacies"[MeSH Terms]

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 "researchers"[All Fields] OR "researches"[All Fields] OR "researching"[All Fields] OR "researchs"[All Fields]

policy[MeSH Terms]: "policy"[MeSH Terms]
Search: (retail pharmacy[Text Word]) AND (research policy[Text Word]) Filters: Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Clinical Trial, Phase I, Clinical Trial, Phase II, Clinical Trial, Phase III, Clinical Trial, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English

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OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR clinicaltrialphasei[Filter] OR clinicaltrialphaseii[Filter] OR clinicaltrialphaseiii[Filter] OR clinicaltrialphaseiv[Filter] OR veterinaryclinicaltrial[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))
Search: (community pharmacy[Title/Abstract]) AND (good clinical practice[Title/Abstract]) Filters: Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Clinical Trial, Phase I, Clinical Trial, Phase II, Clinical Trial, Phase III, Clinical Trial, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English

("community pharmacy"[Title/Abstract] AND "good clinical practice"[Title/Abstract]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR clinicaltrialphasei[Filter] OR clinicaltrialphaseii[Filter] OR clinicaltrialphaseiii[Filter] OR clinicaltrialphaseiv[Filter] OR veterinaryclinicaltrial[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

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governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (fft[Filter]) AND (humans[Filter]) AND (english[Filter]))

Translations

community pharmacy[MeSH Terms]: "pharmacies"[MeSH Terms]

Warnings

(community pharmacy[MeSH Terms]) AND (good clinical practice[MeSH Terms])

Term not found: practice

Search: (community pharmacy[Text Word]) AND (good clinical practice[Text Word]) Filters: Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Clinical Trial, Phase I, Clinical Trial, Phase II, Clinical Trial, Phase III, Clinical Trial, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English

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Search: (retail pharmacy[Title/Abstract]) AND (good clinical practice[Title/Abstract]) Filters: Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Clinical Trial, Phase I, Clinical Trial, Phase II, Clinical Trial, Phase III, Clinical Trial, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English

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 Clinical Conference, Clinical Study, Clinical
 Trial, Clinical Trial, Phase I, Clinical Trial,
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 Humans, English**

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Translations

retail: “retail”[All Fields] OR “retailed”[All
 Fields] OR “retailer”[All Fields] OR
 “retailers”[All Fields] OR “retailers”[All Fields]
 OR “retailing”[All Fields] OR “retails”[All
 Fields]

pharmacy[MeSH Terms]: “pharmacy”[MeSH
 Terms] OR “pharmacies”[MeSH Terms]

Warnings

(retail pharmacy[MeSH Terms]) AND (good
 clinical practice[MeSH Terms])

Term not found: practice

Search: (**retail pharmacy**[Text Word]) AND
 (**good clinical practice**[Text Word]) Filters:
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 Government Publication, Guideline, Meta-
 Analysis, Observational Study, Randomized
 Controlled Trial, Review, Systematic Review,
 Humans, English**

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 AND (humans[Filter]) AND (english[Filter]))

Search: (**community pharmacy**[Title/
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 Classical Article, Clinical Conference,
 Clinical Study, Clinical Trial, Clinical Trial,
 Phase I, Clinical Trial, Phase II, Clinical Trial,
 Phase III, Clinical Trial, Phase IV, Clinical
 Trial, Veterinary, Government Publication,
 Guideline, Meta-Analysis, Observational
 Study, Randomized Controlled Trial, Review,
 Systematic Review, Humans, English**

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 AND (humans[Filter]) AND (english[Filter]))

Search: (**community pharmacy**[MeSH
 Terms]) AND (**practice research**[MeSH
 Terms]) Filters: **Full text, Case Reports,
 Classical Article, Clinical Conference,
 Clinical Study, Clinical Trial, Clinical Trial,
 Phase I, Clinical Trial, Phase II, Clinical Trial,
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 Guideline, Meta-Analysis, Observational
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 Systematic Review, Humans, English**

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Translations

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 “pharmacies”[MeSH Terms]

practice: “practicability”[All Fields] OR
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 AND (**practice research**[Text Word]) Filters:
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 Government Publication, Guideline, Meta-
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 systematicreview[Filter]) AND (fft[Filter])
 AND (humans[Filter]) AND (english[Filter]))

Search: (**retail pharmacy**[Title/Abstract])
 AND (**practice research**[Title/Abstract])
 Filters: **Full text, Case Reports, Classical**

Article, Clinical Conference, Clinical Study, Clinical Trial, Clinical Trial, Phase I, Clinical Trial, Phase II, Clinical Trial, Phase III, Clinical Trial, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English

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Search: (**retail pharmacy**[MeSH Terms]) AND (**practice research**[MeSH Terms]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Clinical Trial, Phase I, Clinical Trial, Phase II, Clinical Trial, Phase III, Clinical Trial, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

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Translations

retail: "retail"[All Fields] OR "retailed"[All Fields] OR "retailer"[All Fields] OR "retailers"[All Fields] OR "retailing"[All Fields] OR "retails"[All Fields]

pharmacy[MeSH Terms]: "pharmacy"[MeSH Terms] OR "pharmacies"[MeSH Terms]

practice: "practicability"[All Fields] OR "practicable"[All Fields] OR "practical"[All Fields] OR "practicalities"[All Fields] OR "practicality"[All Fields] OR "practically"[All Fields] OR "practicals"[All Fields] OR "practice"[All Fields] OR "practice's"[All Fields] OR "practiced"[All Fields] OR "practices"[All Fields] OR "practicing"[All Fields]

research[MeSH Terms]: "research"[MeSH Terms]

Search: (**retail pharmacy**[Text Word]) AND (**practice research**[Text Word]) Filters: **Full text, Case Reports, Classical Article, Clinical Conference, Clinical Study, Clinical Trial, Clinical Trial, Phase I, Clinical Trial, Phase II, Clinical Trial, Phase III, Clinical Trial, Phase IV, Clinical Trial, Veterinary, Government Publication, Guideline, Meta-Analysis, Observational Study, Randomized Controlled Trial, Review, Systematic Review, Humans, English**

("retail pharmacy"[Text Word] AND "practice research"[Text Word]) AND ((casereports[Filter] OR classicalarticle[Filter] OR clinicalconference[Filter] OR clinicalstudy[Filter] OR clinicaltrial[Filter] OR clinicaltrialphasei[Filter] OR clinicaltrialphaseii[Filter] OR clinicaltrialphaseiii[Filter] OR clinicaltrialphaseiv[Filter] OR veterinaryclinicaltrial[Filter] OR governmentpublication[Filter] OR guideline[Filter] OR meta-analysis[Filter] OR observationalstudy[Filter] OR randomizedcontrolledtrial[Filter] OR review[Filter] OR systematicreview[Filter]) AND (ff[Filter]) AND (humans[Filter]) AND (english[Filter]))

RESULTS AND DISCUSSION

The pharmacist should follow the policy and procedures of the Scientific Research for Community Pharmacy.

- The pharmacy designates a pharmacist or clinical pharmacist to oversee scientific research in the pharmacy, a role of utmost

importance in ensuring the research's quality and integrity.

- The community pharmacy should establish an annual and strategic plan for research in pharmacy practice and review these plans regularly to ensure they remain relevant and practical, providing reassurance and confidence in the process.
- The research pharmacist advised adhering to the guidelines and protocols for community pharmacy scientific research, providing security and guidance in their actions.
- Based on the guidelines and publication, the scientific research pharmacist for community pharmacy should assess scientific research practice. This term refers to the systematic and rigorous approach to conducting research, including adherence to ethical standards, appropriate research methods, and accurate reporting of findings.
- The assessment should determine the score level, a plan should be set up, and an annual reassessment should be conducted.
- As established by policy and procedures, all community pharmacy employees should complete education and training programs in pharmacy scientific research.
- All pharmacy staff members should receive special training based on published procedures to ensure they are competent in pharmacy scientific research. The pharmacist is responsible for occupational safety and health, following the precise published protocols and guidelines for the narrative review, case report, case series, cross-sectional, cohort analysis, case-control, and clinical trials. Institutional review boards, pharmacy data management, and other
- The scientific research pharmacist should establish a quality management plan for the pharmacy, scientific research, healthcare, and any relevant KPIs using established protocols and guidelines.

CONCLUSION

The community pharmacy has been expanding over the past year and has faced challenges. The solving of challenges needs a team to discuss and develop approaches appropriately. Sometimes, research must be considered to identify existing problems and suggest solutions. Various literature discussed community pharmacy challenges, recommendations for solutions, and strategies for improvement. Besides, scientific research is sometimes very costly during hospitalization

and needs some ambulatory care services and community pharmacies to reduce the economic burden. Therefore, the scientific research policy and procedures are critical to improving the community pharmacy service to patient care and creating a safety culture for the public and their families.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

FUNDING

None.

CONSENT FOR PUBLICATIONS

Informed consent was obtained from all the participants.

ETHICAL APPROVAL

This research was exempted from research and ethical committee or an institutional review board (IRB) approval.

<https://www.hhs.gov/ohrp/regulations-andpolicy/decision-charts-2018/index.html>

ABBREVIATIONS

MOH: Ministry of Health; **KSA:** Kingdom of Saudi Arabia; **SFDA:** Saudi Food and Drug Authority; **EMEA:** European Medicine Agency; **WHO:** World Health Organization; **ASHP:** American Society of Health-System Pharmacists.

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