



NURSING STAFF AND PHARMACEUTICAL CARE: NTERPROFESSIONAL, EVIDENCE-BASED WORKING TO IMPROVE PATIENT CARE

Fahad Madallah Dehiman Alsharari^{1*}, Bandar Mufadhi Alsharari², Shoaab Abdullah Alotaibi³, Inad Zaki Alsharari⁴, Hadeel Saleh Alharbi⁵, Salha Musleh Aljohani⁶, Haya Douhaian Aljohani⁷, Nasser Mufreh Salamah Al-Nusairi⁸, Mohammed Sihman Alsharari⁹, Adel Maqbul Alsharari¹⁰, Saeeda Fahd Sultan¹¹

Abstract:

Background: Pharmaceutical care plays a crucial role in optimizing medication therapy outcomes and improving patient health. It involves collaboration among various stakeholders, including patients, caregivers, healthcare professionals, and administrators, to ensure the responsible provision of pharmacotherapy for achieving positive patient outcomes. The focus is on individualizing treatment regimens to maximize therapeutic benefits while minimizing adverse effects.

Objective: This research article aims to assess the level of interprofessional collaboration between nursing staff and pharmacists in patient care, evaluate the impact of evidence-based pharmaceutical care on patient outcomes, explore nursing staff's involvement in medication management and patient education, investigate nursing staff's attitudes towards pharmaceutical care and collaboration, and contribute to the understanding of nurses' roles in pharmaceutical care and interprofessional collaboration.

Conclusion: The article underscores the significance of interprofessional collaboration in pharmaceutical care, with a specific emphasis on the valuable contributions of nurses. By incorporating evidence-based practices, healthcare providers can tailor treatment plans to individual patient needs, enhance medication adherence, prevent errors, and empower patients through education. Recognizing and leveraging nurses' roles in pharmaceutical care can lead to more efficient healthcare provision, ensuring patient safety and improved outcomes. Embracing integrated, person-centered care involving all stakeholders is crucial for achieving optimal pharmaceutical care and enhancing overall patient well-being.

Keywords: nursing, pharmaceutical care, interprofessional collaboration

^{1*}Records Technician, Al-Issawiya Hospital, Al-Jawf, Tabarjal, Saudi Arabia

²Pharmacy Technician, Al Eisawia Hospital, Alqarayyat, Saudi Arabia

³Nurse, Primary Health Center, Riyadh, Saudi Arabia

⁴Health Assistant, Tabarjal Hospital, Al-Jawf, Saudi Arabia

⁵Midwife, Alyammamah hospital, Riyadh, Saudi Arabia

⁶Nurse, Madina Cluster, Madina, Saudi Arabia

⁷Medical Secretary, Madina Cluster, Madina, Saudi Arabia

⁸Health Assistant, Al-Issawiya General Hospital, Al-jawf, Qurayyat, Saudi Arabia

⁹Health Assistant, Primary health center in Qalib Khader, Al-jawf, Qurayyat, Saudi Arabia

¹⁰Nursing technician, Qurayyat General Hospital, Al-jawf, Qurayyat, Saudi Arabia

¹¹Nursing technician, King Abdullah Hospital, Bishah, Saudi Arabia

***Corresponding Author:** Fahad Madallah Dehiman Alsharari

*Records Technician, Al-Issawiya Hospital, Al-Jawf, Tabarjal, Saudi Arabia

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Introduction:

Prescribed and acquired medications play a crucial role in the management of patients [1]. The process of optimizing and customizing each patient's pharmacotherapy regimen to achieve maximum therapeutic benefits while minimizing adverse effects can be quite complex. Pharmaceutical care, which focuses on enhancing medication use and improving health outcomes [1], requires significant collaboration and effort from patients, informal caregivers, a team of healthcare professionals, and healthcare system administrators. Before patients can fully benefit from modern medicine, it is essential for all stakeholders to collaborate, respect each other, and agree on their responsibilities throughout the intricate process of pharmaceutical care.

Pharmaceutical care is defined as the responsible provision of pharmacotherapy aimed at achieving specific outcomes that enhance a patient's quality of life [2,3]. These outcomes, as outlined in core outcome sets, include various factors such as drug-related hospital admissions, inappropriate medication use, drug interactions, quality of life, pain management, adverse reactions, medication complexity, mortality, and side effects [4,5]. The focus is on how pharmaceutical care can be effectively implemented for the well-being of patients and healthcare services. Patients and their families or friends are crucial partners in care, contributing to care goals and evaluating the care provided by healthcare providers.

The resolution highlights opportunities and challenges in optimizing pharmaceutical care through interprofessional and patient-centered approaches. The steps involved in pharmaceutical care, as outlined in the resolution, include patient assessment, identification of medication-related issues, intervention selection, patient agreement and monitoring, and follow-up [11]. Concepts such as medicines optimization, as defined by the UK National Health Service (NHS) [6], align with the definition of pharmaceutical care presented in this paper.

An integrated interprofessional and multidisciplinary approach is crucial for enhancing the quality of care and patient outcomes. The World Health Organization (WHO) defines integrated health services as a continuum of healthcare services that encompass various aspects of health management, coordinated across different levels and sites of care [7]. Person-centered care, as emphasized in the editorial by J. Scerri et al. [8], is vital for ensuring safe medication use and decision-making at the clinical level. This approach focuses on the individual's

needs and expectations, promoting equality in the healthcare provider-patient relationship and considering the broader context of the patient, family, and community [9].

People-centered pharmaceutical care necessitates regular communication between patients and healthcare providers, patient education, monitoring, and customized interventions [10]. To deliver high-quality interprofessional relationships in pharmaceutical care, healthcare providers must acknowledge shared person-centered goals, respect each other's expertise, and collaborate effectively [11].

Objectives:

The main objectives of this review are:

1. To assess the current level of interprofessional collaboration between nursing staff and pharmacists in providing patient care.
2. To evaluate the impact of evidence-based pharmaceutical care on patient outcomes.
3. To determine the extent to which nursing staff are involved in medication management and patient education.
4. To explore the attitudes and perceptions of nursing staff towards pharmaceutical care and interprofessional collaboration.
5. To contribute to the body of knowledge on the role of nursing staff in pharmaceutical care and interprofessional collaboration.

Nurses' Contribution to Interprofessional Pharmaceutical Care:

Nurses play a vital role in pharmaceutical care on a daily basis, aligning with the World Health Organization's stance on the pivotal role of nursing in healthcare. They deliver both independent and collaborative care at the forefront, encompassing activities such as health promotion, disease prevention, treatment, and rehabilitation across diverse populations. Their involvement extends to closely assisting patients in managing medications, monitoring their effects, identifying any adverse reactions, and averting drug-related issues by verifying medications before administration [12,13].

The engagement of nurses in pharmaceutical care has been associated with a positive impact on the quality of care. Notably, in settings like nursing homes and community care, nurses' observations have significantly enhanced the identification and resolution of drug-related problems [14]. For instance, through the utilization of Pharnurse software, nurses identified a total of 821 adverse drug reactions among 60% of 418 nursing home residents, leading to 214 medication adjustments to

address patient concerns. Subsequent integration of the software into a multidisciplinary platform like OptiMEDs resulted in a 26% decrease in the use of potentially inappropriate medications among residents [15].

Furthermore, nurses' interventions during outpatient consultations have demonstrated their contributions to the effectiveness, safety, and efficiency of pharmaceutical care. This includes activities such as detecting inconsistencies in medical records, allergies, or intolerances, as well as educating patients upon discharge [16]. Doctors and pharmacists rely on nurses to make critical observations and assessments of key patient information for collaborative management within the interprofessional team.

Nurses, as integral members of interprofessional teams, fulfill various roles, including patient care and advocacy, education, and implementation of healthcare interventions [17]. The scope of nurse responsibilities in pharmaceutical care varies across Europe, ranging from medication administration to prescribing, and is often integrated within multidisciplinary treatment approaches. Given their positions within these teams, nurses play a crucial role in ensuring patient safety within pharmaceutical care contexts [18].

The shift towards person- and people-centered care places increased demands on healthcare providers, necessitating enhanced communication with patients, education, and personalized care monitoring. Patients under nursing care typically have more frequent interactions with nurses than with other healthcare professionals. Nurses possess the skills and opportunities to act as the eyes and ears of the multidisciplinary team, engaging with patients, understanding their needs, monitoring treatment outcomes, and sharing insights within the interprofessional setting. This collaborative approach not only enhances nursing care but also provides valuable data for physicians and pharmacists to enhance medical and pharmaceutical care quality. Therefore, it is imperative to involve nurses in aspects of pharmaceutical care such as interdisciplinary communication, patient support throughout the medication process, and post-treatment follow-up to solidify their roles as key providers in pharmaceutical care [19].

Acknowledging the Roles of Nurses in Pharmaceutical Care:

The acknowledgment of nurses' roles is crucial as it enables them to actively participate in research and policy formulation. Existing literature demonstrates that interventions aimed at enhancing

pharmaceutical care often lack an interprofessional approach and frequently fail to integrate the valuable contributions of nurses beyond medication administration. Furthermore, nurses are frequently underrepresented as investigators in research teams. For instance, a Cochrane review found that in 15 out of 50 studies, interventions were delivered by teams comprising multiple professions (physicians, pharmacists, and nurses), while nurses were involved in 17 out of 50 studies [20]. Another Cochrane review focusing on medication review in hospitalized patients revealed a lack of nurse involvement in the interventions examined [21]. These oversights in innovative interventions represent missed opportunities to organize effective care through interprofessional collaboration, ultimately impacting patient outcomes.

Moreover, decisions regarding nursing care are often made by other disciplines, potentially overlooking crucial elements necessary for successful implementation, such as nurses' professionalism, experiential learning, and daily experiences. This oversight becomes particularly concerning in the context of healthcare professional shortages, high workloads, and restricted budgets. Implementation frameworks should take into account the expertise and contributions of all disciplines involved, aligning responsibilities and tasks with their competencies, availability, and costs while maximizing care quality and patient safety. Evidence suggests that nurses can significantly enhance healthcare provision by assuming responsibilities traditionally not associated with nursing tasks, including prescribing, and can deliver advanced care at standards equal to or higher than other healthcare professionals [23].

While extending nursing roles should not be an end in itself, it should be embraced if it leads to more efficient and effective pharmaceutical care. Future quality improvement projects in pharmaceutical care should be grounded in interprofessional implementation frameworks that facilitate collaboration among disciplines and levels to enhance care quality and patient outcomes. Recognizing nurses' roles fully will enable the development of interprofessional and multidisciplinary integrated care plans, centered on person-centered care, quality of care, and patient outcomes. Furthermore, acknowledging nurses' roles will encourage research investment in exploring the intersection of nursing care and pharmaceutical care, ultimately advancing the patient safety agenda [24].

Nurse Education in Pharmaceutical Care:

Throughout Europe, undergraduate nursing programs provide students with a comprehensive foundation in theoretical knowledge and practical skills, encompassing various aspects such as medication administration [25]. These educational programs typically incorporate a blend of teaching methods, including simulation exercises and online modules, focusing on medication safety during administration. While these initiatives touch upon areas like preventing medication errors, they often do not extensively cover aspects such as prescribing medications and monitoring patients for adverse reactions. This structured educational approach enables nurses to hone their medication administration skills within controlled learning environments, shielding them from the complexities of real-world clinical settings [26].

Scholarly literature highlights deficiencies in nurses' competencies related to pharmaceutical care, a concern that extends to other healthcare professionals like midwives, physicians, and pharmacists [27,28]. To address these gaps, interdisciplinary courses that bring together various healthcare disciplines to explore topics such as pharmaceutical care are crucial. Such collaborative learning opportunities foster shared goals and action plans aimed at bolstering patient safety. Establishing a coherent framework outlining the collective responsibilities of healthcare providers in pharmaceutical care is essential for enhancing educational preparedness. Pioneering initiatives like the European DeMoPhaC project have laid the groundwork by delineating models for nurses' roles and duties in pharmaceutical care, offering valuable guidance for educational institutions and healthcare providers alike [29].

Impact of evidence-based pharmaceutical care on patient outcomes:

The pharmaceutical care approach integrates clinical expertise, current research evidence, and patient values to optimize medication therapy outcomes [30]. By incorporating evidence-based practices, healthcare professionals can improve the quality, safety, and effectiveness of patient treatment through personalized treatment plans tailored to individual patient needs, considering factors such as age, gender, comorbidities, and genetic predispositions. This personalized approach enhances medication adherence, disease management, and reduces adverse drug reactions. Moreover, evidence-based pharmaceutical care helps in identifying and preventing medication

errors, drug interactions, and other risks, ultimately enhancing patient safety and outcomes.

Additionally, evidence-based pharmaceutical care emphasizes patient education and empowerment, providing clear and accurate information about medications, proper usage, potential side effects, and warning signs [31]. This increased understanding leads to improved medication adherence, better self-management of chronic conditions, and overall better health outcomes. By involving patients in decision-making and encouraging them to take an active role in their care, evidence-based pharmaceutical care fosters a sense of ownership and responsibility for their health, resulting in improved treatment outcomes and overall well-being.

Furthermore, evidence-based pharmaceutical care contributes to more efficient healthcare delivery and resource utilization by focusing on proven effective interventions, avoiding unnecessary treatments, reducing costs, and improving overall care quality. This approach helps healthcare systems allocate resources effectively, ensuring patients receive appropriate treatments based on individual needs. By promoting evidence-based guidelines and protocols, pharmaceutical care providers standardize practices, improve care consistency, and enhance patient outcomes across various healthcare settings [32].

Moreover, evidence-based pharmaceutical care advances pharmacy practice and the broader healthcare landscape by keeping professionals informed about the latest research, guidelines, and best practices [33]. This commitment to evidence-based practice drives innovation, quality improvement in pharmacy services, and better patient outcomes. Engaging in research, quality improvement initiatives, and interdisciplinary collaborations allows pharmaceutical care providers to contribute to generating new knowledge, developing best practices, and advancing the pharmacy profession as a whole.

Conclusion:

In conclusion, this research article emphasizes the importance of pharmaceutical care in optimizing medication therapy outcomes and improving patient health. It highlights the critical role of interprofessional collaboration, with a focus on nurses' contributions to pharmaceutical care. The article stresses the need for evidence-based practices to tailor treatment plans to individual patient needs, enhance medication adherence, prevent medication errors, and empower patients through education. Recognizing and fully utilizing nurses' roles in pharmaceutical care can lead to

more efficient and effective healthcare provision, ultimately benefiting patient safety and outcomes. Efforts towards integrated, person-centered care involving all stakeholders are essential for achieving optimal pharmaceutical care and improving overall patient well-being.

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