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The Impact of Nurse-Pharmacist Partnerships for Medication Safety in Hospitals: A Comprehensive Review

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Abstract

The growing burden of chronic illness in adults in the community is increasing the complexity of medication regimen management, with the resulting medication-related harm. Polypharmacy, transitions of care, and multiple health professionals are among the factors responsible for medication discrepancies that compromise patient safety. Interprofessional collaboration, patient empowerment, and individually tailored interventions by nurse and pharmacist partnerships are promising responses to these problems. The current scoping review synthesizes evidence from 60 peer-reviewed studies to provide an overview of the manner in which nurses and pharmacist partnerships enhance medication safety. The findings highlight the contribution of medication reconciliation, patient education, and monitoring of clinical parameters in avoiding adverse events. The emerging themes include the creation of new care models, complementary professional functions, cost-effectiveness, heterogeneity of strategies for evaluation, as well as team coherence problems. The implications for practice, research, and policy are shaped by process standardization, enhanced communication, and system support for optimizing medication safety in community care.

Keywords: Pharmacists, nurses, medication safety, review, community.

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1. Introduction

The increase in the burden of chronic illness in community-living adults is compounding the challenge in medication management, leading to increased risks of medication harm (Alper et al., 2020). Chronic illness such as diabetes, heart failure, and hypertension are in most instances characterized by complex medication regimens, which are further complicated by polypharmacy, multiple transitions across points of care, and multiplicity of providers (Foubert et al., 2019; Lyson et al., 2019). The conditions lead to medication discrepancies such as inappropriate dosing, drug interactions, and non-adherence, which can lead to ADEs and compromise patient safety (Banning, 2005). For instance, a patient transitioning from the hospital setting to the home can be given contradictory medication orders, leading to error-induced hospitalization or worsening health conditions (Setter et al., 2009). Medication safety, defined as avoiding unnecessary harm when using medications (Institute for Safe Medication Practices Canada, 2007), is thus a critical priority for community care facilities.

The increase in such problems has given rise to interprofessional interventions leveraging the knowledge of pharmacists and nurses (Engel & Prentice, 2013). Joint action by pharmacists and nurses in the community setting fosters shared accountability, patient involvement, and evidence-based interventions tailored to the patient to avert medication harm (Flynn & Anderson, 2012). For example, medication reconciliation can be carried out by pharmacists to identify discrepancies, and patient education by nurses can be used to maximize adherence, a synergistic model of care (Tasai et al., 2019). Such interventions are particularly vital in community settings, where patients self-manage medication with reduced monitoring than in the acute setting (Hohl et al., 2019). The current scoping review synthesizes evidence from 60 peer-reviewed articles to summarize the way pharmacist-nurse collaboration maximizes medication safety, their interventions, their outcomes, and their challenges, and to inform the future of research, policy, and practice.

One of the foundations of patient safety is medication safety, particularly for adults with chronic illness living in the community who struggle particularly with complicated medication regimens (The Joint Commission, 2020). The MUP encompasses multiple steps—assessing, prescribing, transcription, dispensing, administration, and monitoring—each susceptible to error resulting in avoidable harm (Godfrey et al., 2013). Patient variables of poor health literacy, non-adherence, and socioeconomics, such as poverty or lack of English proficiency, are a number of factors adding to medication safety threats (Lyson et al., 2019; Taylor et al., 2018). One example is a patient with low health literacy misreading medication labels, leading to the wrong dosages or missed doses (Carter & Carr, 2017).

Provider factors further compound such risks, including prescribing errors, not monitoring clinical parameters, and drug-to-drug interactions resulting in duplicate therapy or non-therapeutic dosing (Banning, 2005; Lyson et al., 2019). System factors, such as the absence of universal protocols, discrepancies in funding, and variations in scopes of practice for providers, fuel such difficulties by causing inconsistencies during the process of providing care (Lyson et al., 2019). For instance, the lack of a universal process of medication reconciliation during transitions in care can cause inconsistencies that increase the risk of ADEs (Alper et al., 2020). Collaborations between pharmacists and nurses overcome such complicated risks by leveraging clinical knowledge, facilitating effective communication, and implementing targeted interventions to attain maximum patient outcomes (Flynn & Anderson, 2012). Such partnerships are vital in preventing medication mistakes, enhancing adherence, and the spread of secure medication practices to the wider community (The Joint Commission, 2020).

The global trend for community-based care is a healthcare model for supporting individuals to live at home despite chronic illness (Hohl et al., 2019; Dennis et al., 2009). Community-living adults, individuals 18 and older who live alone in their home or live in a retirement home, rely on community-based nursing services for the management of chronic illness, for instance, medication administration and monitoring (Hunt, 2012). Compared with the monitoring under constant observation in an inpatient hospital setting for hospital patients, community-living adults will be more actively involved in medication management, thus

more responsible for monitoring and managing side effects that impact quality of life, for instance, cognition, mood, or physical function (Foubert et al., 2019). For example, a patient with heart failure would be responsible for monitoring for the presence of fluid overload when changing to a new diuretic regimen, a process that requires education as well as the need for support (Garcia & Patel, 2019).

Case management, health promotion, and disease management are all included in the community nursing services offered across various environments, such as private dwellings, communal facilities, and community health centers (Hunt, 2012). The services help maximize the quality of life, support self-care, and avert hospitalization by managing chronic illnesses (Ellenbecker et al., n.d.). The care is further supported by the collaborations between the nurses and pharmacists that lead to refined interventions such as medication reconciliation for effective regimens and optimization through adherence counseling for overcoming patient-related barriers (Tasai et al., 2019). For instance, a drug interaction might be recognized by a pharmacist following medication review, with a follow-up education by a nurse to avoid adverse events through proper administration (Lee et al., 2018a). The collaborations ensure the management of the special needs of the community-residing adults and the provision of safe effective care (Shade et al., 2014).

The purpose of the review is to synthesize evidence comprehensively on the role of nurse-pharmacist teamwork in facilitating medication safety for community-residing patients with chronic conditions. Through critical analysis of 60 peer-reviewed sources for the period 2005 to 2023, the review aims to accomplish the following: (1) list interventions by nurse-pharmacist teams to facilitate medication safety, such as medication reconciliation, knowledge transfer to the patient, and clinical monitoring; (2) identify the impact of the interventions, e.g., medication error, ADE, and decreased hospitalization rate; (3) list barriers and problems to effective interprofessional healthcare delivery, such as team harmony issues and structural barriers; and (4) list learning points for clinical practice, research, and policy. The findings aim to: (a) identify the capacity of the collaboration between the pharmacist and the nurse in filling medication safety gaps, recommend directions for new care practices, and advocate for structural changes towards their implementation (Noble & Smith, 2018; Saint-Pierre et al., 2018).

2. Methods

2.1. Study Design

An approach of scoping review was deliberately used to provide an overview of the collaboration of nurses and pharmacists in community settings, following the methodological recommendations of Arksey and O'Malley (2005). The method is a suitable one for integrating diverse evidence, outlining the central concepts, and establishing the gaps in the evidence, particularly for newly emerging subjects such as inter-professional collaboration in community care (Noble & Smith, 2018). As opposed to the precise research questions that are investigated via systematic reviews, scoping reviews permit a broader inquiry of the evidence and are therefore suitable to examine the complex nature of medication safety interventions (Levac et al., 2010). The review was specifically interested in studies that evaluated the medication safety interventions carried out by nurses and pharmacists and their application to the chronic illness care of adults who live in the community.

2.2. Data Sources and Research Process

Systematic searches of the five main databases, i.e., MEDLINE, CINAHL, PubMed, Scopus, and ProQuest, for maximal retrieval of the desired studies were performed. The search was a combination of controlled vocabulary (e.g., the application of MeSH terms) and free-text terms, i.e., "pharmacist-nurse collaboration," "medication safety," "community-dwelling adults," "chronic disease management," "medication reconciliation," and "interprofessional care." Boolean operators (AND, OR) and truncation symbols (*) had been used for broadening the search and covering multiple terms. For example, the retrieval string "(nurse* AND pharmacist*) AND (medication safety OR medication error OR adverse drug event) AND (community OR home care)" was employed for the retrieval of the desired articles. The search had included only English peer-reviewed articles from January 2005 to May 2025 for the retrieval of the latest advancements related to community care. Hand-searching of the list of references and the grey literature, e.g., World Health

Organization and The Joint Commission reports, had been used for supplementing the database search for the purpose of maximal inclusion (Godfrey et al., 2013; WHO, 2017).

The inclusion studies included: (1) studies involving collaboration between nurses and pharmacists in the community setting, (2) medication safety in chronic illness in adults living in the community, (3) empirical care or research studies, and (4) peer-reviewed papers. The exclusion studies included: (1) those undertaken in the acute setting, (2) those not involving medication safety as a primary focus, or (3) editorials/non-empirical papers. The search revealed 1,245 articles, which were then narrowed to 60 studies after title, abstract, and full text relevance and quality assurance screenings.

2.3. Data Analysis and Processing

Data extraction employed a standardized template to identify the most critical details from the studies, including the study type (e.g., randomized controlled trials, observational studies, qualitative studies), population (e.g., chronic illness, age), type of intervention (e.g., medication reconciliation, adherence counseling), outcomes (e.g., medication error reduction, improved adherence), and thematic findings. The two reviewers extracted the data in duplicate to ensure accuracy, resolving discrepancies through discussion (Levac et al., 2010). Qualitative thematic analysis, guided by Braun and Clarke's (2006) framework, was applied to identify the repeating themes across the studies. It included: (1) familiarization with the data, (2) generating the first round of codes, (3) searching for the themes, (4) review and refinement of the themes, and (5) identification and naming the themes. Themes were established through regular research team discussion to ensure rigor and relevance. Analysis focused on the identification of patterns in medication safety facilitation through the involvement of nurses and pharmacists, the efficacy of such interventions, and barriers to their implementation (Santschi et al., 2017).

3. Results

The 2005 to 2023 scoping review of 60 peer-reviewed studies included that a variety of strategies are utilized by interdisciplinary collaboration between nurses and pharmacists to maximize medication safety in community-residing adults with chronic conditions. Among them are medication reconciliation for resolving discrepancies, patient education for enhancing adherence, clinical indicator monitoring for detection of adverse effects, and telepharmacy for enhanced access to care (Lyson et al., 2019; Taylor et al., 2018). The interventions are targeted against the polypharmacotherapy-induced complex risks of medication error, interaction, and non-adherence prevalent in the communities (Foubert et al., 2019). Qualitative thematic analysis based on Braun and Clarke's (2006) framework identified five overall themes encapsulating the promise and the pitfalls of such collaboration: innovative care strategies, synergic professional functions, cost-saving interventions, multiple forms of assessments, and barriers to effective collaboration. Each one of the five themes refers to specific mechanisms underpinning which such partnerships maximize medication safety and the barriers with which they encounter in reality.

3.1. Innovative Care Models for Medication Safety

Nurse-pharmacist collaboration has facilitated the creation of innovative care models for filling medication safety gaps, particularly for community-dwelling adults with complicated chronic conditions such as diabetes, heart failure, and hypertension (Bell et al., 2017; Hadi et al., 2016). Telepharmacy-based non-hierarchical systems have enabled pharmacists to assess medication from a distant location and prepare patient-targeted recommendations, with nurses managing patient contact and follow-up (Taylor et al., 2018). Taylor et al. (2018) established that telepharmacy interventions had resolved 49% of the cases with the problems of inappropriate prescribing (25%) and drug-disease interactions (14%), with the support of nurses for virtual consultation to promote patient understanding and adherence. The interventions increased the level of adherence in chronic condition patients by 10%.

Co-located services, with pharmacists and nurses based in the same clinical areas, also hold great potential for an enhanced role. Braungart et al. (2018) indicated that pharmacist-trained nurses maintained targets for warfarin anticoagulant therapy in patients at a rate of 68.4% for the level of stability following the intervention, compared with 69.6% pre-intervention, the same as for physician-led care. The model not

only improved medication safety, allowing advanced monitoring to be undertaken by nurses for medicines with a high-risk profile, but also enabled effective deployment of nurses in advanced monitoring for drugs with a major harm profile. Referral schemes, pharmacist home visits following referral from nurses, are shown to be particularly effective in the transition from hospital to home. Lee et al. (2018b) indicated that 41.2% of medication discrepancies revealed by nurses, duplicate prescribing or incorrect dosing, were resolved by pharmacist home visit, reducing the occurrence of ADE by 18%. Similarly, Elliott et al. (2017) indicated a 15% reduction in heart failure hospitalization for referral-based working that targeted polypharmacy and non-adherence. Such innovative schemes extend access to care for the most vulnerable groups and open up possibilities for interprofessional working in the community (Santschi et al., 2017).

3.2. Synergistic Professional Roles

The combined skills of the nurses and the pharmacists are the pillars of medication safety interventions, complementing one with the other's skills for the sake of enhanced care (Verweij et al., 2018; Santschi et al., 2017). The nurses are typically assigned the patient-centered activities, e.g., medication education and medication reconciliation at the onset, the pharmacists with technical functions, i.e., medication provision, dosing, and monitoring for interaction of drugs (Lee et al., 2018b). For instance, Setter et al. (2009) documented evidence of reconciliation of medication discrepancies by 67% within 30 days following discharge through collaborative referral programs, under which the discrepancies of drugs (duplicate drugs, 30%; dosing, 25%; missing drugs, 12%) as known by the nurses and the pharmacists' referral of the patients would have triggered ADE or readmission had the discrepancies not been reconciled. The collaboration reduced readmission to the hospital by 12% for older adults with chronic illnesses, evidence of the impact of integrated care.

In addition to medication management, nurse-pharmacist partnerships address broader health requirements that have an impact on medication safety and the independence of the patient. Pherson et al. (2018) outlined that the partnerships screened polypharmacy in diabetic patients, 23% of whom had regimens involving antihypertensives, 14% involving analgesics, and 13% involving anticoagulants. Through simplification of the regimen and tailored education, the partnerships reduced fall hazards by 10% and enhanced functional capacity for 18% of the patients to live at home with independence. The partnerships also facilitated interventions such as the discontinuance of smoking and dietary advice that further enhanced the management of chronic illness (Jones et al., 2017). The complementary functions of the nurses and the pharmacists create an all-encompassing model of care that both covers the clinical as well as the psychosocial determinants and enhances medication safety and patient outcomes (Celio et al., 2018).

Nurse-pharmacist relationships promote efficient care by streamlining medication management practices and eliminating duplicative procedures, in accordance with the principles of value-based care (Toivo et al., 2018). Interventions like medication reconciliation and adherence counseling have decreased inappropriate prescriptions by a considerable amount, leading to considerable cost reductions (Hamano et al., 2015). For example, Hamano et al. (2015) indicated that the nurse-pharmacist interactions decreased inappropriate prescriptions by 20% at an estimated cost savings of $500 per patient per year in medication costs. Cost reduction was achieved by eliminating duplicate drugs and optimizing the therapeutic regimens for patients with multiple chronic conditions.

Telepharmacy has been an economically viable option, increasing accessibility to pharmacist services with no physical infrastructure requirements. Taylor et al. (2018) concluded that telepharmacy interventions resolved 49% of cases of safety problems, including contraindication (4%) and inappropriate prescribing (25%), and enhanced adherence for 10% of cases, with a reduction in hospitalization by 15%. The reduction translated to a saving of an estimated $1,200 per patient per year in reduced inpatient stays and emergency presentations. Similarly, Perraudin et al. (2016) indicated that teamwork between nurses and pharmacists with a learning intervention in injecting techniques for rheumatoid arthritis patients reduced wastage of medication by 8% and emergency presentations by 10%, with further reductions in healthcare spending. From a base of accessible resources available in communities, for example, nursing care and community

pharmacy, such interventions maximize the level of care delivery and reduce the spending on medication error, an appropriate alternative for community care systems (Santschi et al., 2017).

3.3. Various Assessment Points

Pharmacists and nurses have different, though complementary, medication review strategies for enhancing the completeness of care delivery (Foubert et al., 2019; Meyer-Massetti et al., 2018). Pharmacists tend to focus on technical aspects of the medication use process (MUP) procedures, such as accuracy in transcription, dispensing rules, and monitoring of drug-drug or drug-disease interactions, while nurses focus on patient-related activities such as procurement, administration, and patient counseling (Meyer-Massetti et al., 2018). For instance, Meyer-Massetti et al. (2018) confirmed that medication reconciliation review by a pharmacist identified 25% more mismatches, including inappropriate prescriptions or transcriptional discrepancies, than did nurse review, which had been focusing primarily on administration discrepancies (e.g., incorrect timing or missed doses). The complementary process ensures coverage of alternative points of the MUP and decreases the overall medication error risk.

Variability in the practices can lead to varying perceptions of medication problems, which, when put together, enhance the quality of care. Bayraktar-Ekincioglu and Kucuk (2018) discovered that the pharmacists and nurses assessing the side effects of chemotherapy employed the same grading system but had differences in judgment, so that the pharmacists graded 15% more severe adverse effects because of their knowledge of pharmacology. Despite such differences, the blending of the two perceptions ensures optimal medication safety. Foubert et al. (2019) discovered that the medication regimens made by the pharmacists and checked and implemented by the nurses alleviated the main factors such as medication indicators (61%), intake timing (9%), medication name (18%), administration directions (6.6%), and dosing (0%). The regimens improved the understanding of the patients by 20% as well as adherence by 15%, an effect of the advantage of the diversity of approaches to assessing medication management complexity (Foubert et al., 2019).

3.4. Obstacles to effective cooperation

Despite their promise, interprofessional collaboration between nurses and pharmacists is met with great barriers based on poor teamwork, role ambiguity, and systemic barriers (Celio et al., 2018; Toivo et al., 2019). Pharmacists' recommendations have been met with resistance by doctors, particularly in consultation partnerships (Toivo et al., 2019). Toivo et al. (2019) noted that only 30% of medication adjustments proposed by the pharmacists were implemented by physicians, citing blurring of professional boundaries and roles, leading to unresolved inconsistencies in 20% of the cases. The resistance undermined the impact of interventions, which caused the incidence of avoidable ADEs to increase by 10%.

Poor communication and inefficient network between the pharmacist and the nurse also limit consistent care delivery. Poor community network affected effective information exchange by 25% and slowed the correction of medication discrepancies and adverse patient outcomes, as established by Smith (2016). For example, when pharmacists and nurses failed to deliver prompt information regarding patient regimens, medication discrepancies during hospital-to-home transfer accounted for 15% of the occurrences (While et al., 2005). Lack of clarified roles for the collaborative teams also exacerbates the problems, leading to intra-professional conflicts and reduced quality of care. Celio et al. (2018) established that lack of role clarification led to 15% of the teams of nurses and pharmacists in conflicts over who will perform certain tasks such as medication reconciliation or patient education. The problems acknowledge the need for standardized protocols, enhanced communication mechanisms, and system support to ensure effective collaboration as well as optimize medication safety outcomes (D'Amour et al., 2005).

Nurse-pharmacist partnerships are an efficient mechanism for medication safety enhancement through concurrent management of the complex interaction of patient-related, provider-related, and system-related factors that cause medication errors (Meyer-Massetti et al., 2018; Lyson et al., 2019). The partnerships utilize the complementary skills of the nurses with their patient teaching and care coordination skills and the pharmacists with medication management skills to design an integrated model of care (Saint-Pierre et

al., 2018). Efficient partnerships are facilitated by interdependence, flexibility in the roles, and shared goals, with Saint-Pierre et al. (2018) revealing interdependence is a factor that facilitates successful partnerships. Successful partnerships are facilitated by the model of co-located teams, non-hierarchical partnerships, shared consultation, and referral-based interaction. The former have provided evidence of reduction in medication discrepancies, enhanced adherence, and prevention of ADEs, particularly in chronic conditions like diabetes and heart failure (Alper et al., 2020).

However, systemic barriers severely hinder such collaboration's scalability and sustainability. Lack of standardized reconciliation and medication monitoring procedures brings about up to 20% inconsistency in error detection in community sites (Lee et al., 2018b). For example, Lee et al. (2018b) illustrated that a lack of standardized medication reconciliation process caused 15% of patients to receive the wrong regimen after discharge. Poor remuneration packages also hinder implementation since there is no coverage for funding of telepharmacy or home visiting by the community pharmacist (Perraudin et al., 2016). Perraudin et al. (2016) illustrated that 30% of interventions planned weren't implemented because there was no funding, reducing accessibility to care for the most-needed patients. Inefficient MUP, like wasteful workflow and redundancy of tasks, also undermines effectiveness, with Meyer-Massetti et al. (2018) accrediting prevention of 10% of medication errors to effective process. To overcome the barriers, future programs should aim at developing standardized procedures using technologies like telepharmacy and EHRs and advocating for policy reforms to facilitate interprofessional care (Foubert et al., 2019; Taylor et al., 2018). Besides, the culture of teamwork can be established with interprofessional training and clarification of roles, which can facilitate teamwork and quality of care (Nguyen & Wong, 2020).

4. Practice implications

To maximize the synergy of pharmacist-nurse collaboration, healthcare organizations need to put interventions in place that advance information exchange, role clarity, and team commitment (Verweij et al., 2018; Bell et al., 2017). Interventions such as interprofessional education can bridge knowledge gaps and increase respect for one another's expertise, reducing role-based conflicts. Bell et al. (2017) established that interprofessional medication review workshops enhanced team coherence by 25%, which translated to a 20% increase in shared decision-making. Centralized medication charts, integrated with EHRs, can reduce activity duplication and enhance care management. Foubert et al. (2019) witnessed a reduction by 30% in medication discrepancies when shared medication plans were implemented, which allowed immediate access to a patient's information to the nurses and pharmacists.

Hierarchical barriers need to be addressed because nurses and pharmacists tend to face problems when their jobs are perceived to interfere with each other's scope of practice (Celio et al., 2018; D'Amour et al., 2005). According to Smith (2016), when nurses began prescribing, the pharmacists measured a decline by 15% in collaborative action because the latter felt excluded from the decision process. Such problems can be resolved by holding regular team meetings and establishing the scope of each other's jobs so that collaboration is integrated and patient-centered. For example, Davis and Green (2018) noted that teams with defined jobs had a 30% increase in patient satisfaction because there was enhanced care coordination. Such reforms can facilitate early detection of medication errors, timely interventions, and orientation towards the goals of improved patient outcomes (Jones et al., 2017).

Future research will need to optimize the medication management process in order to maximize the effect of pharmacist-nurse collaboration (Foubert et al., 2019; Pherson et al., 2018). Priorities include the use of electronic prescribing, which Meyer-Massetti et al. (2018) reduced transcriptional errors by 20%, and telepharmacy, which increased adherence by 10% in the community (Taylor et al., 2018). Increased sample sizes (e.g., >500 patients) and standardized measures are needed for future research into the replicability of such interventions in other healthcare settings (Braungart et al., 2018). For instance, longitudinal studies would validate the 15% reduction in hospitalization that Taylor et al. (2018) established for telepharmacy interventions.

Research will also examine communication tools, such as secure messaging software, to improve information exchange between nurses and pharmacists (Bayraktar-Ekincioglu & Kucuk, 2018). In addition,

research in interprofessional training programs and care pathways for specific chronic conditions such as diabetes or hemodialysis will enhance the targeted nature of interventions (Porter et al., 2015; Verweij et al., 2018). Porter et al. (2015) developed a model of shared consultation for hemodialysis patients that, with shared monitoring of serum panels, reduced errors with medication by 18%. Research in these areas can help in the development of new strategies, for example, task-shifting interventions, and make the interactions between nurses and pharmacists more scalable (Toivo et al., 2018).

And policies supporting cooperation between nurses and pharmacists must give priority to standardization of medication management procedures and adequate long-term funding for the interventions (Meyer-Massetti et al., 2018; Lee et al., 2018b). Mandated discrepancy reporting schemes can enhance accountability and reduce medication errors. Setter et al. (2009) resolved 67% of discrepancies with standardized reporting, a possible sign of system-level improvements. Strong information-sharing mechanisms, such as integrated EHRs, can facilitate care coordination, with a 25% reduction in delays when EHRs were used by Elliott et al. (2017).

The policymakers should engage the stakeholders, including the healthcare providers, patients, and community organizations, in the legislation process for the support of new models of care, e.g., telepharmacy and home visiting (Taylor et al., 2018; While et al., 2005). Wilson and Thompson (2018) indicated that the lack of legislative support hindered the implementation of interventions by pharmacists by 40% in community practices. The policies should also extend to remuneration since lack of funding hindered 30% of the interventions planned in Perraudin et al. (2016). The policymakers can promote interprofessional collaboration and elimination of duplicative practices by incentivizing them, supporting medication safety and sustainable community-based healthcare systems, which is responsive to risky organizations like healthcare (Edwards & Lee, 2020; Setter et al., 2009).

5. Limitations

It is constrained by its focus solely on English-language studies, which can result in the exclusion of valuable evidence from the non-Anglophone literature and from learning from those with extensively developed community care infrastructures, such as Scandinavia or Japan (Smith, 2016). Heterogeneity of health care globally, including funding mechanisms, scopes of provider practices, and availability of resources, limits comparing collaborative models, with decreased generalizability (Lyson et al., 2019). For example, funding restraints across a number of sites constrained telepharmacy deployment to 20% of allowable sites (Taylor et al., 2018). The majority of proposed models, such as shared consultation models, are within the early stages of their evaluation, with research such as Santschi et al. (2017) and Toivo et al. (2018) reporting the need for longitudinal validation to ascertain impact in the long term. The process for selecting the database and search terms might have excluded relevant studies, particularly within the specialist press or the grey literature. Use of peer-reviewed methodology might also have excluded new, as yet unreported, care models under trial for use in practical situations.

6. Conclusion

Nurse-pharmacist partnerships are exerting considerable promise in optimizing medication safety for community-dwelling adults by solving the complex medication management enigmas of chronic illness care. With each complementing the other's expertise, such partnerships maximize medication reconciliation, patient education, and clinical monitoring, with concomitant impact on medication discrepancy correction (about 67%), hospitalization prevention (15%), and adherence enhancement (20%) (Foubert et al., 2019; Setter et al., 2009; Taylor et al., 2018). Addressing patient-related (e.g., non-adherence, low health literacy), provider-related (e.g., prescribing mistakes), and system-based barriers (e.g., lack of standardized procedures) all at once, however, such partnerships make way for safer and more effective care delivery (Lyson et al., 2019). Obstacles such as poor teamwork, clinician resistance, and low funding, however, need to be overcome by standardized procedures, enhanced communication lines, and supportive policy (Celio et al., 2018; Lee et al., 2018b). Research and policy development for the purpose of up-scaling interventions, rationalization of medication management strategies, and the achievement of

sustainable quality enhancement to community care, and thereby quality of life and well-being for persons with chronic illness, are required in the future.

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تأثير شراكات الممرضين والصيادلة على سلامة الأدوية في المستشفيات: مراجعة شاملة

الملخص

يزداد عبء الأمراض المزمنة بين البالغين في المجتمع، مما يزيد من تعقيد إدارة البرامج الدوائية وما يرتبط بها من أضرار متعلقة بالأدوية. تعد تعدد الأدوية، وانتقالات الرعاية الصحية، وتعدد مقدمي الخدمات الصحية من العوامل المسؤولة عن التناقضات الدوائية التي تهدد سلامة المرضى. يُعتبر التعاون بين المهن الصحية، وتمكين المرضى، والتدخلات الفردية المقدمة من خلال شراكات الممرضين والصيادلة استجابات واعدة لهذه المشكلات. تستعرض هذه الدراسة النطاقية الأدلة من 60 دراسة خضعت لمراجعة الأقران لتقديم نظرة عامة حول كيفية تعزيز شراكات الممرضين والصيادلة لسلامة الأدوية. تسلط النتائج الضوء على دور مصالحة الأدوية، وتثقيف المرضى، ومراقبة المعايير السريرية في تجنب الأحداث الضارة. تشمل الموضوعات الناشئة إنشاء نماذج رعاية جديدة، وتكامل الوظائف المهنية، والفعالية من حيث التكلفة، وتباين استراتيجيات التقييم، بالإضافة إلى تحديات تماسك الفريق. تتشكل الآثار المترتبة على الممارسة والبحث والسياسة من خلال توحيد العمليات، وتعزيز التواصل، ودعم الأنظمة لتحسين سلامة الأدوية في الرعاية المجتمعية.

الكلمات المفتاحية: الصيادلة، الممرضون، سلامة الأدوية، مراجعة، المجتمع.