

Enhancing Collaborative Practices Across Nursing, Laboratory Medicine, Pharmacy, and Midwifery: A Theoretical Framework for Holistic Patient Care ksa

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Abstract

Mutual respect, understanding, and effective communication among nurses, laboratory medicine professionals, pharmacists, and midwives are essential components of holistic patient care. Insufficient capability to work collaboratively can lead to a variety of negative outcomes, such as misinterpretation of results, medication errors, and suboptimal care. Intercultural interaction in healthcare is increasingly crucial in today's multicultural and multi-ethnic society. Health professional students, including nursing, medical laboratory science, pharmacy, and midwifery students, face difficulties in grasping the essence of intercultural interaction. Most programs oversee a variable number of curricular hours that health professional students can interact, including laboratory sessions. Students in these professions face the same limitation while obtaining their first professional degree, regardless of cultural and social beliefs and practices among patients, which impact accuracy, interpretation, and efficient use of data such as blood transfusion, body weight in cooking recipes, height in easily obtained aspirin dosage, antibiotics in upper respiratory infections, contraceptive medication, saturated fat, and cholesterol in hypertensive patients, and self-medication in patients. There is a limited number of scholarly publications on intercultural interaction across nursing, medical laboratory science, pharmacy, and midwifery. With increased interaction, these opportunities become central to the socialization process and the eventual integration of students into their respective disciplines. This study provides an innovative special curriculum for a joint collaborative learning perspective of cultural and professional interaction in healthcare developed by social brainstorming.

keywords

nurse, midwife, clinical scientist, laboratory medicine, pharmacy, collaborative practices

1. Introduction

In the twenty-first century, modern healthcare systems are facing the challenge of managing chronic diseases with limited financial and human resources. The health workforce also struggles with overcoming diagnosed and/or undiagnosed comorbidities in patients with numerous health conditions that require ongoing treatment. A need for more effective and efficient ways of delivering accessible and holistic healthcare requires a major mindset shift from professionals who work within institutionalized professional tribalism, treating patients with a single condition or from a reductionist specialization standpoint. However, research typically treats nurses, laboratory scientists, pharmacists, and midwives as isolated disciplines, contributing to the problem rather than identifying potential solutions. The solutions can come

from closer collaboration across domains. This aims to enhance collaboration through a theoretical framework. (Vainauskienė and Vaitkienė2021)

Recently, there has been an increasing call for more professional disciplines to work together within interprofessional teams or collaborations and a need for more specific conceptualizations and frameworks that underpin the processes. Much of the generic literature suggests that effective collaboration can only occur if we understand the roles and emphases related to other disciplinary elements. For example, it is unlikely that nursing could know the importance of various laboratory results if both are considered in isolation, and therefore nursing contributes almost 20% to the value chain of fees for services in laboratory medicine tests but rarely appraises the importance of all the lab tests. Each of the professions must have greater insights into nursing, laboratory medicine, pharmacy, and midwifery. (Moirano et al., 2020)

A greater understanding of the role of each element emphasizes the need for a more specialized, specialty-specific analysis. In doing so, the aims of the study are: (1) to propose a conceptual model that considers nursing, laboratory medicine, pharmacy, and midwifery; (2) to reflect on how to apply this model to our specific domain; (3) to explore how drawing on additional disciplines can create value. By virtue of the scope and nature of the data, we propose the name of the theoretical framework: the phenomenal teamwork continuum, in the remainder of the discussion. (Wintle et al.2022)

1.1. Background and Rationale

There are different theories and tools of leadership, teamwork, and collaboration that have been designed and developed to overcome existing barriers. Though most nursing efforts focus on teamwork within units or departments, individual team members usually span across several units within the hospital and have different job roles. Hence, healthcare professionals need to collaborate across organizational and professional boundaries to function effectively as an interprofessional team. Teams in a healthcare organization are dynamic and are composed of professionals with diverse educational, environmental, organizational, and personal backgrounds. Interprofessional collaboration is patient-centered and involves trust, respect, shared decision-making, role awareness, commitment, and cohesiveness among team members. Collaboration in the healthcare context allows sharing resources, technologies, and human capital to support patient safety and better clinical outcomes. (Noordegraaf, 2020)

1.2. Scope and Importance of Collaborative Practices

The importance of interprofessional collaboration for positive patient outcomes is widely recognized. Different clinical groups, including medical laboratory professionals, work together to provide interdisciplinary care. However, the tools that are currently used to measure interprofessional collaboration are not suitable for laboratory medicine and other disciplines. Healthcare can be viewed as a team effort with multiple professionals collaborating to improve patient care. Clinical professionals, including physicians, nurses, and pharmacists, work collaboratively. However, healthcare also includes interdisciplinary care with alignment to specific professions such as laboratory medicine. It involves the diagnostic, therapeutic, and monitoring aspects of patient care that contribute to treatment management. Both laboratory medicine and nursing are patient-centered, and the patient should be the main consideration when these two professions work together. A patient-centered approach to care recognizes that patients are individuals and respects their rights, values, and autonomy in joint decision-making. (Kaiser et al.2022)

2. Theoretical Foundations of Collaborative Practices

The integration of a theoretical foundation acknowledging the collaborative and differentiated responsibility of nursing, midwifery, laboratory medicine, and pharmacy professions is an early step in addressing patients' holistic outcomes across the projects of each role. Previous collaborative practice theoretical foundations are designed for interprofessional education and practice, but are limited in focus to salutogenic or specific profession needs. We propose a framework to guide the integration between these differing health professions to not only allow for collaboration but also for dynamism in role changes when patients present with interprofessional medical needs. The shared theoretical foundation is essential before

considering evaluation through interprofessional education or practice components. (Al-Adwan et al.2021)

This theoretical foundation aligns with a formal health system classically known as nursing, midwifery, laboratory medicine, and pharmacy as a qualifying acronym. The NMLP sectors contain the skill mix typically required to meet the majority of patients' medical needs. While the structure is universal, the demarcation between the roles may differ due to individual country regulations, but the roles for patient health promotion, assessment, and treatment are identifiable components of the roles. It is possible that artificial training silos create training constraints and focus on ultimate patient gains of each health profession, including the basic medical needs that are not the training trades. Conclusive evidence that clear scope of practice rules leads to better patient outcomes is difficult to find, and further study into how the roles of other health professions can be improved would be beneficial. (Zhang et al.2023)

2.1. Interprofessional Education and Collaborative Practice

Interprofessional collaboration and education have gained increased attention within undergraduate health programs and health service settings. This is due to an increasing recognition that working together with a range of different health professionals typically results in improved care outcomes for patients. Accreditation bodies have reinforced the importance of fostering interprofessional collaboration across the professions. Improving health by scaling and better aligning interprofessional education reported that health profession education programs should provide interprofessional learning experiences to pre-professional students that include at least two different professions, and that programs must include all core clinical education specialties for the smallest team planning to deliver a particular health service. In addition, the framework for strengthening health systems describes both competencies required to function collaboratively and attributes needed for successful health teams. (De La Rosa et al., 2020)

To facilitate opportunities for interprofessional education, health professions education programs must develop and implement a range of educational strategies, establish pre-existing links with other health education programs, and demonstrate a commitment to delivering interprofessional education through ongoing resources that meet students' needs. In order to establish these capabilities effectively, education programs need to develop institutional standards that mandate interprofessional education and a collaborative practice curriculum. Such programs may warrant the appointment of an individual who bears the responsibility for overseeing interprofessional education and can advocate on its behalf. Furthermore, programs should ensure they communicate with all stakeholders involved in practice-based learning experiences to establish interprofessional education experiences. Finally, to develop a sustainable focus on interprofessional education, institutions need to ensure that they engage with partnerships and ensure advocacy at a national level. (Black et al.2022)(Zeeman et al.2024)

3. Key Elements of Collaborative Practices

Collaborative practice among health professionals occurs when they work together to achieve the best possible health outcomes. This is achieved by sharing common values and mutual expectations. Although the term team care is often used in the health care context, a team does not always necessarily operate as if it were a team, nor does it possess the capacity for collaborative practice without infrastructure and support. A coordinated health care team is flexible and responsive to the needs of the patient and the scope of practice of those within the team. It includes ongoing evaluation of the team interaction and the overall efficacy of the patient care process. Within the professional scope of practice, team members have access to shared patient information and share the common expectation that each other's roles are to be supported by all within the team. (van Diggele et al., 2020)

Inclusive collaborative practice is built on the pillars of flexible policy and process and an environment that supports the team's ability to provide seamless patient care. Instituting such structure and support measures can be challenging. This can be made more complex when the components have additional clinical and other practical implications. Education, credentialing, career path direction, governance, standards, and evaluation are examples of service concepts

that are infinitely bound with professional practice, research, and inclusion into the academic agenda, in an egalitarian and in-depth fashion at an undergraduate, postgraduate, and practicing level. When building a team, it is imperative that institutions maintain the ability to distinguish between the team environment and the possible professional practice limits. This allows future teams to be flexible enough to accommodate variation in health care needs, administrative models, and other delivery considerations without compromising the integrity of the professionals themselves or the broader goal of optimal patient care. (Tariq2024) (Evans and Knepper, 2021)

3.1. Communication Strategies

Functions of strong communication teams include providing timely information and ensuring rapid response. The presence of pharmacists in the care of patients admitted to the hospital reduces the utilization of medical services such as multiple duplicative consultations. This result can be attributed to the ability of the communication strategy among the teams. A repeated theme was the impression that pharmacists positively influenced a number of collaboration services. At the clinic in the outpatient department, they made contributions to the service generally found in primary care where medical defense departments had no or limited exposure to clinical pharmacists during their college years. (Ilardo and Speciale2020) In a study of primary care applicants, medical students who completed the elective opportunity for pharmacists rated their confidence in their clinical and consultative experience higher than students who had not carried out a pharmacy course in the clinical curriculum. Communication and teamwork strategies play a prominent role in ensuring patient safety and quality of care through individual or business interactions, information exchanges, knowledge collaborations, consultations, and team building with colleagues, patients, and members of the education of other physicians. Specifically, there are a number of strategies that must be implemented in collaboration between professionals to protect older and hospitalized consumers. (Campbell et al.2020)

3.2. Shared Decision-Making

Patient autonomy and appropriate levels of shared decision-making are core components of holistic patient care, and the at times didactic nature of healthcare can diminish the involvement of the patient in the treatment process. Integration of nursing, midwifery, pharmacy, and laboratory medicine at the undergraduate level offers students both the experience of patient shared decision-making and the skills to participate. Laboratory stewardship, education, and patient involvement in decisions is a framework for shared decision-making that recognizes the roles and autonomy of the nurse, midwife, and pharmacist in advising, procuring treatment, and prescribing. The pathologist guides the decision to undertake the right type of laboratory test, and the patient is encouraged to participate in the shared decision to undergo the most effective medication, treatment, or labor in terms of improved health. The laboratory allows personalized microdata to be produced relating to accurate diagnoses and matching the most appropriate therapeutic decision to the needs and beliefs of the patients. In part I of this series, the undergraduate theory was explored within the widening participation agenda. (Caverly and Hayward, 2020)

4. Case Studies and Best Practices

Background Understanding and appreciating the practical aspects of laboratory medicine have been difficult subjects to make understandable and meaningful to learners until they are actively involved in clinical activities. To increase novice health care professionals' familiarity with established practical knowledge that enables seamless collaboration between laboratory scientists and health care professionals, and enhances problem-solving for patient diagnosis and management, as well as an interest in laboratory medicine career opportunities among students, it is critical that they are provided with insights and experiences within their didactic medical curriculums. Currently, there is limited incorporation of laboratory medicine understanding and the practical applications received in medical student didactic curriculums. Methods An active learning experience for first professional year medical students was managed, designed, and implemented through a five-session, small group, non-credit elective course that met for three hours three days per week during the University of Michigan Medical 598

School's annual Transition to the Clinical Curriculum course. Lab Handy Tubes was designed utilizing Medical Laboratory Science Laboratory Test Handout Descriptions and Student Laboratory Procedure Descriptions. To design and implement Lab Handy Tubes, a lab manual that is utilized as part of a department of Pathology and Laboratory Medicine lab service for clinical and research testing was utilized, requesting approval for its specifics and removing private patient demographic identifiers.

Discussion Lab Handy Tubes was a practical, laboratory-focused, cooperative educational method transfer collaboration between the University of Michigan pharmacy and first-year medical students for knowledge and practical experiences with various situation-appropriate laboratory medicine projects. The lab-focused collaborative tool and expected learning outcomes are provided, along with instructor and student feedback, discussion and commentary, and practical key points. Our current design, scoring, and limitations are discussed.

Summary Including practical knowledge and involvement of didactic lab medicine content during ISP ignited a special interest in laboratory medicine topics. Further development and induction of this content could expand the laboratory medicine residential and career opportunities and experiences for a broader group of medical students. As entry knowledge, experience, and comfort increase, medical students may have an enhanced opportunity for putting interdisciplinary collaboration for optimal patient care into operational practice.

4.1. Interprofessional Collaboration in a Maternity Ward

Interprofessional collaboration on a maternity ward requires complex and continuous dialogues between professional groups, one centering particularly on the health and well-being of the expectant family. The physical location and highly charged, time-constrained nature of childbirth result in maternity settings having a number of unique communication and care challenges. Not only do high levels of emotion, with potentially complicated psychosocial imperatives, intensify both the communication needs and the care required, but these are often urgent, non-routine, and interdependent. (WARELLA et al.2020)

A further complicating fact and affective element is that most interprofessional collaboration in maternity is affected under emergency and preplanned labor. It is important that diverse health workers, from different cultural values, gender, educational backgrounds, and work experiences, establish effective interprofessional collaboration in providing shared care in a maternity setting. In order to provide continuity and a safe consumer environment, therefore, the power relationships between maternity professionals should be minimized and the role of the mother, who has the most invested in the interprofessional collaboration, emphasized. To be safe and effective, effective interprofessional collaboration will require such concepts as professional respect and value, partnership collaboration, and the right of all professionals to take part in health care that will lead to a modification of ways of working. Through dialogue, practice, and reflection, health care providers will increasingly continue to work together to support women throughout the stages of childbearing. (Baird et al.2021)

5. Conclusion and Future Directions

We presented a theoretical framework that is based on the theory of practice and social constructivism to enhance collaborative practice across the fields of nursing, laboratory medicine, pharmacy, and midwifery. Despite numerous examples illustrating the benefits of improving interprofessional collaboration, very few programs are available to assist nursing, laboratory medicine, pharmacy, and midwifery professionals in building new knowledge and a deeper, shared understanding of their areas of expertise and their contribution to patient care. Our hope is that this framework will provide a foundation for the development of educational programs fostering interprofessional collaborative practices. Pharmacy, midwifery, nursing, and laboratory medicine have the potential to develop into health professions that offer a more holistic approach to patient care. Researchers need to conduct studies that evaluate changes in healthcare outcomes of extending the roles of nursing, pharmacy, laboratory medicine, and midwifery. Education programs for nursing, laboratory medicine, pharmacy, and midwifery professionals that are designed to foster communication with their peers are essential for preparing future generations to work collaboratively. Such programs necessitate a team of

educators who can provide future healthcare professionals with shared experiences that allow them to learn about, with, and from each other. Such experiences might therefore lead to improved collaborative practices when providing patient care.

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