

Conceptualizing collaboration in nursing

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Abstract

Nurses practicing at every level need a clear definition of collaboration before applying the concept in daily practice. Additionally, a conceptual definition of collaboration in nursing assists nurse researchers in finding or developing instruments for measuring collaboration and attributes of collaboration, which will enhance research findings. Collaboration extends beyond communication and includes sharing, teamwork, and respect. Multiple databases including CINAHL, PubMed, and ERIC were searched using the keywords collaboration, nursing, concept analysis, sharing, respect, and teamwork. For this analysis, using Walker and Avant's method, the conceptual definition of collaboration in nursing is an intraprofessional or interprofessional process by which nurses come together and form a team to solve a patient care or healthcare system problem with members of the team respectfully sharing knowledge and resources. Two instruments consistent with the conceptual definition of collaboration are The Mayo High Performance Teamwork Scale (MHPTS) and Team Strategies and Tools to Enhance Performance and Patient Safety (Team STEPPS) and these instruments are summarized in this study. Finally, case scenarios are given to illustrate exemplars of collaboration in clinical practice.

KEYWORDS

collaboration, concept analysis, nursing, respect, sharing, teamwork

1 | INTRODUCTION

Collaboration is an important concept in healthcare and particularly in nursing. In 2010, the Institute of Medicine (IOM) included collaboration as one of the recommendations in "The Future of Nursing: Leading Change, Advancing Health" report. Additionally, the American Association of Colleges of Nursing¹ stipulated that interprofessional communication and collaboration are two of the core essentials for baccalaureate and advanced practice nursing education programs. The Interprofessional Education Collaborative (IPEC) (2011) is an organization committed to promoting interprofessional learning to enhance the collaborative approach to patient care and to improving healthcare outcomes. In 2016, IPEC² determined that collaboration was the central concept from which interprofessional education (IPE) emerged. Furthermore, the Quality and Safety in Nursing Education Institute³ emphasized the importance of collaboration within nursing and interprofessional teams.

Changes in federal regulations are also prompting a focus on collaboration. Senot et al⁴ noted that collaboration between physicians and nurses during healthcare delivery could help facilities avoid financial penalties imposed by the Centers for Medicare and Medicaid Services (CMS) for not meeting minimum quality requirements. The CMS is the federal government's regulatory entity that decides reimbursement to healthcare facilities and providers. In 2011, CMS adjusted the reimbursement rules to address conformance of healthcare facilities with quality measures and enhancement of the patient experience to reduce hospital readmission rates and improve the quality of patient care and patient satisfaction (Medicare Program; Hospital Inpatient Prospective Payment Systems, 2011).⁵ This change in reimbursement is an impetus for emphasizing collaboration in nursing. By working collaboratively with other healthcare providers, nurses help to develop and implement strategies to improve patient experience and decrease readmission rates, thus increasing CMS reimbursement to the healthcare facility.

Furthermore, The Joint Commission on hospital accreditation⁶ correlated the increased collaboration among healthcare providers to increased patient safety, decreased morbidity, and decreased mortality. Also, in 2010, the World Health Organization contended that the detection, prevention, and treatment of serious global diseases such as HIV/AIDS and tuberculosis needed collaboration of every type of healthcare worker.

With multiple organizations supporting collaboration as an essential part of a nurse's work, collaboration is an essential part of nursing practice, education, and research. When teaching about effective collaboration in the nursing curriculum, educators need a thorough understanding of the concept. Nurses practicing at every level need a clear definition of collaboration before applying the concept in daily practice. Developing a conceptual definition of collaboration in nursing assists nurse researchers in identifying or developing instruments for measuring collaboration and attributes of collaboration, which will enhance research findings. Also, a review of current healthcare literature showed a need for current analysis of the concept of collaboration in nursing to bridge the communication gap between healthcare facilities and primary care nurses.⁷ The aim of this paper, therefore, is to develop an operational definition of the theoretical concept of collaboration, identify attributes of collaboration, and illustrate collaboration in nursing using Walker and Avant's⁸ approach to concept analysis.

2 | EXPLORING COLLABORATION IN THE LITERATURE

The term collaboration originated from the Latin word *collaboratus* meaning to work together.⁹ As defined in *Merriam Webster's Online Dictionary*, collaboration means working with another person or group to achieve a goal.⁹ Surprisingly, one definition found in *Merriam-Webster's Online Dictionary* for collaboration has a negative connotation of rendering aid to an invading enemy during times of war. Another definition of the concept used by the US military is shared power and authority.¹⁰

Alternatively, in business, collaboration may refer to individuals working together toward a common purpose to achieve a mutual benefit (Association for Information and Image Management, 2018).¹¹ Viki¹² defined collaboration as people from various disciplines working together to share an array of views. Viki¹² also associated collaboration with help-seeking and help giving. Collaboration can occur within and between organizations, between individuals, and between countries.¹³ Green and Johnson¹³ also described collaboration as a well-defined, mutually beneficial relationship between two or more organizations with the purpose of achieving common goals.

In the liberal arts, the concept of collaboration can refer to coauthorship, such as the collaboration of Shakespeare and Fletcher.¹⁴ Also, Gardner¹⁵ (para. 9) provided a germane definition of collaboration as "...a process and outcome in which shared interests or conflict that cannot be addressed by any single individual is

addressed by key stakeholders." This definition of collaboration is markedly similar to the definition used in education. Montiel-Overall¹⁶ used terms such as respect, sharing, collegiality, and trust to describe collaboration in education. A comprehensive definition of collaboration used in education expresses the formal commitment of agencies to work together to achieve a common mission while sharing resources, power, and authority.¹⁷

Sims et al¹⁸ described collaboration in healthcare as team members communicating and working together in a supportive and respectful atmosphere. Mulvale et al¹⁹ inferred that teams and team structure are critical components of collaboration in the healthcare setting. Hojat and Gonnella²⁰ identified teamwork as an important construct of collaboration. Alternatively, Pajarillo^{21(p.1)} described collaboration as "a process that is evolving, changing, and emerging in response to a critical situation or problem that is patient or health-care related." Researchers stressed the importance of mutual respect for team members during collaboration.^{13,18,22}

More specifically, in nursing, collaboration may refer to intraprofessional interaction, between nurses, or interprofessional interaction, between nurses and others outside the nursing profession. Interestingly, O'Leary et al²³ studied the phenomenon of nurse-physician collaboration and reported that physicians described collaboration with nurses as positive, whereas nurses insisted collaboration with physicians was lacking. This discrepancy resulted from the varying definitions of collaboration noted between the two parties. Physicians defined collaboration as the nurse assisting the physicians²⁴ and nurses defined collaboration as physicians listening to the nurses' ideas while formulating plans.²⁵ Fewster-Thuente²⁶ derived a grounded theory of the process of nurse-physician collaboration and found that collaboration is a basic social process occurring in two stages: forming a group and achieving harmony and as a process that should not be confused with communication.

Though sometimes used interchangeably with collaboration in the literature, communication is not the same concept. Communication is "the act or process of using words, sounds, signs, or behaviors to express or exchange information or to express your ideas, thoughts, feelings."²⁷ According to IPEC (2011), collaboration encompasses more than just the exchange of information. Collaboration, as noted in IPEC's 2011 report, includes active listening, questioning, and discussing. Other concepts closely related to collaboration, as derived from *Merriam Webster's Online Dictionary* cooperate, conspire, conjoin, affiliate, combine, connive, and ally. As indicated in the discussion thus far, common themes noted in the definitions for the concept of collaboration extracted from the literature indicate collaboration includes teamwork, sharing, and respect.

3 | ATTRIBUTES OF COLLABORATION

The characteristic most often attributed to collaboration in the literature is "sharing." D'Amour and Oandasan²⁸ discussed shared objectives and goals as a necessity for multidisciplinary collaboration.

Sharing encompasses more than goals and objectives. Sharing, concerning collaboration, also involves sharing of resources¹³ and in decision-making.^{15,22,23,29} Gardner¹⁵ stated, sharing in the decision-making process is one of the key traits of collaborative relationships. Green and Johnson¹³ expanded the meaning of sharing to include sharing of costs and risks when collaborating as well as sharing in the rewards for positive collaborative outcomes.

In addition to sharing, “teamwork” is another defining attribute of collaboration noted in the literature. Collaboration requires working together with open minds and valuing the contributions of each team member.¹³ In education, administrators facilitated teamwork by restructuring lecture planning times to enhance teacher-to-teacher collaboration.³⁰ Teamwork encompasses the sharing of expertise, cooperating, and coordination with other professionals, as in the healthcare field.³¹ Additionally, the National League for Nursing’s³² recommendation for nursing faculty called for the development of learning opportunities that promote nurses as members of inter-professional teams. Teamwork allows for collaboration and coordination of care by members of the healthcare team.¹⁸

Researchers identified teamwork as an attribute of collaboration²⁰ and collaborative behavior.³³ Research also supports the implementation of healthcare teams and teamwork. For example, teams and teamwork appeared to be integral in caring for older people as noted in a study by Fulmer.³⁴ Also, researchers noted positive outcomes when pharmacists, physicians, and nurse practitioners (NPs) worked as a team, such as improved decision-making related to drug therapy, continuity of care, and patient safety.³⁵ Health professions students reported teamwork was a key factor in the improvement of patient outcomes.³⁶

The final attribute of collaboration discussed in the literature is “respect.” Mutual respect for each healthcare team member’s role and profession is necessary for effective collaboration.^{13,18,22} Team members must value what other members of the healthcare team bring to the discussion¹³ including the roles and knowledge of the team members.²² Respect requires healthcare teams to forego any hierarchical structure and allows all members to be equals.²² Furthermore, physicians and nurses need a positive and respectful relationship to ensure the quality of patient care.⁴

These attributes, “sharing,” “teamwork,” and “respect,” also serve as empirical referents for the concept. Empirical referents are how one can determine that the concept has occurred.⁸ In the literature, collaboration can refer to intraprofessional or interprofessional team committees or team rounds.^{35,37} However, attendance during team rounds does not guarantee that collaboration occurred. Team members must take part in the teamwork by sharing of information and resources and show respect for other team members while discussing and developing patient care plans or solutions to health system problems.

4 | ANTECEDENTS AND CONSEQUENCES

Before collaboration begins, certain antecedents, or conditions, must be present. Initially, nurses need a willingness to participate in

collaboration.^{12,26,38} Next, nurses need to possess effective communication skills, interpersonal skills, and the ability to work as a team.^{15,26,39–41} Rossler and Kimble⁴¹ also stressed the importance of a common vocabulary to improve understanding among various disciplines, specifically within the healthcare setting.

Another important antecedent of collaboration is an opportunity to collaborate. Nurses depend on leaders to encourage collaboration, optimize work schedules, and structure work environments that facilitate collaboration.^{12,22,30,40} Along with the opportunity to collaborate, nurses need a precipitating event that causes collaboration. In nursing, this event is often a patient-related problem or a health system problem that one cannot solve alone.^{12,26} Gardner¹⁵ cautioned, however, that not all problems need collaboration. For example, a NP can diagnose and treat hypertension without involving a team of healthcare providers. However, a NP should collaborate with a physician and pharmacist when managing a critically ill patient on multiple medications.

An equally important antecedent of collaboration is knowledge of one’s roles and skills as well as the roles and skills of others. Knowing the roles and skills of each member of the healthcare team allows for contacting the person best equipped to aid in solving the identified problem.^{26,38,40} Finally, nurses willing to take part in collaboration must be willing to accept the group consensus.^{12,26,38}

Consequences of a concept equate to outcomes and may yield future research variables.⁸ Positive consequences of collaboration in nursing include improvements in patient safety, patient satisfaction, patient care, and decreases in error rates, patient mortality, patient length of stay, and healthcare staff turnover rates.⁴² Makowsky et al³⁵ noted that when pharmacists collaborated with NPs and physicians about patients’ medications, the collaboration improved the knowledge of the providers and, thus, improved patient outcomes such as adherence to medication instructions. Another positive consequence of collaboration is job satisfaction for nurses.^{28,43}

A negative consequence of collaboration is the inability to work independently due to excessive collaboration.⁴⁴ Seeking a group consensus on every decision can stymie the workflow.⁴⁴ Knowing when to start and stop collaboration is important in decreasing excessive or unnecessary collaboration.^{13,26}

5 | CONCEPTUAL AND OPERATIONAL DEFINITION OF COLLABORATION IN NURSING

For this analysis and based on the discussion from the previous sections, the conceptual definition of the concept of collaboration in nursing is an intraprofessional or interprofessional process by which nurses come together and form a team to solve a patient care or healthcare system problem with members of the team respectfully sharing knowledge and resources.

Researchers have used various instruments to measure collaboration or a person’s readiness to engage in collaboration.^{39,41,45} However, few instruments exist that measure the attributes of

collaboration in a nursing or healthcare setting. For the purpose of this study, two instruments which are consistent with the conceptual definition of collaboration, were reviewed, The Mayo High Performance Teamwork Scale (MHPTS)⁴⁶ and Team Strategies and Tools to Enhance Performance and Patient Safety (Team STEPPS).⁴⁷ These instruments contain some items specific to the attributes of collaboration: sharing, teamwork, and respect.

MHPTS is a 16-question survey completed by team members rating the effectiveness of teamwork on a scale of 0 to 2 with 0 meaning *never or rarely* and 2 meaning *consistently*.⁴⁶ Self-rated items on the MHPTS consistent with the attributes of collaboration are: each team member demonstrates a clear understanding of his or her role, team members repeat back instructions for clarity, all team members are involved and participate in the activity, and team members call attention to actions that may cause errors or complication. Malec et al⁴⁶ concluded that the MHPTS has satisfactory internal consistency and construct validity.

TeamSTEPPS is a 23-item observation tool consisting of a 1 to 5 rating scale with 1 meaning *very poor* and 5 meaning *excellent*.⁴⁸ Observational items included on the TeamSTEPPS tool consistent with the attributes of collaboration are: includes patients and families as part of the team, identifies team members' roles and responsibilities, seeks information from all available sources, verifies that information is communicated, role models team behaviors, fosters communication, and effectively advocates for the patient.⁴⁸ The Department of Defense and the Agency for Healthcare Quality and Research (AHQR) jointly developed TeamSTEPPS⁴⁹ and the validity and reliability were supported by Castner.⁵⁰ The most effective means of measuring collaboration requires the researcher's keen and consistent observations of team behaviors in addition to peer evaluations of the team members.

6 | EXEMPLARS OF COLLABORATION

Four exemplar models, including model case, borderline case, related case, and contrary case are discussed below. The model case is an ideal representation of the attributes of collaboration and presents a clear picture of collaboration. The borderline case has most of the attributes of the concept, but not all. The related case is an illustration of a related or similar concept, but the attributes of the concept of focus. Finally, the contrary case is an example of what the concept is not.⁸

6.1 | Model case

A NP incidentally noted a mass on a patient's neck during an office visit. After examining and questioning the patient, the NP realized the mass was highly suspicious for malignancy. The NP discussed this with the patient, including the need for a timely workup. The patient was grateful and agreed to the expedited workup. The NP called the radiologist and related the examination findings and her concerns. Together, they discussed which imaging study would provide the best diagnostic data.

The NP called an ears, nose, and throat (ENT) specialist, and discussed the patient's case and related the plan she had initiated with the radiologist. Also, the NP and the ENT specialist agreed that after the patient finished the imaging study ordered by the NP, he should go directly to the ENT specialist's office to discuss the results. The radiologist called the NP and ENT specialist with a report and confirmed the findings of a mass suspicious for malignancy. The radiologist sent a copy of the films with the patient for the ENT physician to review. The ENT specialist called the NP at the end of the day to thank her for the referral and related that the patient was pleased with the prompt and caring service they had received from all providers.

This case illustrates the attributes of collaboration as well as the benefits of collaboration. The NP showed respect for the patient by having a frank discussion with him regarding the seriousness of the findings as well as taking the time to expedite the work up and referral. The radiologist and the NP exhibited teamwork and sharing. Together, they discussed the findings and planned what tests to order. The ENT specialist and NP also demonstrated mutual respect for each other's opinion. They engaged in teamwork by coordinating the care of the patient. Each provider and the patient shared in the decision-making process. The result was an expedited process to managing the patient's problem and high patient satisfaction.

6.2 | Borderline case

Angela is the Clinical Nurse Specialist (CNS) for the medical floor at a local hospital. Angela wanted to develop a mentoring program for newly hired nurses assigned to the medical floor. Angela randomly surveyed individual nurses to assess positive and negative perceptions they had about the work environment on the medical floor. Angela thanked the nursing staff for their participation, demonstrating that she respected their input and perspectives. Angela used the feedback to design a mentoring program and distributed the new mentoring policy to the nursing staff.

This case illustrates two of the attributes of collaboration. First, this scenario demonstrates respect for the nurses who participated in the survey. Angela sought their input and thanked them for participating. Second, the nurses who participated in the survey shared their opinions and concerns with Angela. This case falls short of collaboration in that teamwork did not occur. Angela surveyed the nurses individually as opposed to bringing the nurses together to discuss the topic as a group. Angela did not include the nurses in the decision-making process, thus reinforcing that teamwork was a missing attribute in this process.

6.3 | Related case

The physician comes to the intensive care unit (ICU) to see a patient recently admitted from the emergency department (ED). After interviewing and examining the patient, the physician writes his notes and orders in the chart. The physician tells the bedside nurse the list of medical orders for the patient and asks the nurse to notify him if the patient's condition deteriorates. The nurse acknowledges the physician's

orders and notifies the physician of another consult in the ICU. The physician goes to see the new consult.

While this case is typical of many nurse-physician interactions in the hospital setting, the exchange falls short of collaboration and is a better example of communication. The nurse and physician exchanged information; however, important attributes of collaboration are missing. The nurse and physician did not share information and knowledge, or share in the decision-making, nor did they function as a team or demonstrate respect. The nurse and physician functioned in the typical hierarchical relationship of the physician giving orders to the nurse to carry out without discussing patient care and goals. Likewise, the nurse merely passed along information to the physician without elaborating on the patient's condition.

6.4 | Contrary case

Paramedics brought a 60-year-old female to the ED by ambulance after she fell into the lake trying to exit a boat. Initially, paramedics recorded a blood pressure of 138/80 mm Hg; however, on arrival to the ED, the patient's blood pressure was recorded as 90/60 mm Hg. The nurses and physicians in the ED failed to review the records from the paramedics. X-rays of the patient's hips confirmed a left hip fracture for which she underwent surgical repair.

The following day, the patient was complaining of shortness of breath, which she attributed to her asthma. The nursing staff did not note any wheezing on the examination and did not discuss this with the orthopedic surgeon. The orthopedic surgeon, who was now in charge of the patient's care, ordered the continuation of the patient's home medications and started an anticoagulant postoperatively to reduce the patient's risk of blood clot formation. The nurse reviewed the patient's medication list and discovered that the patient usually took two medications to lower her blood pressure. When the nurse called to confirm the order to continue the blood pressure medications, the orthopedic surgeon's angry reply was to follow the orders and not to call back unless there was a change in the patient's status. The patient's morning blood pressure was 85/58 mm Hg; however, the nursing staff assumed the surgeon saw this when he reviewed the chart before ordering the home medications. The nurse decided not to administer the blood pressure medication due to the low blood pressure. The hospital transferred the patient to a rehabilitation facility without addressing the low blood pressure and without further evaluation of her shortness of breath. After arriving at the rehabilitation facility, the patient's shortness of breath worsened, and her blood pressure remained low. The staff at the rehabilitation facility transferred the patient back to the ED for re-evaluation. The ED physician ordered a chest x-ray and diagnosed blood around the lungs (a hemothorax) and two fractured ribs. A vascular surgeon placed chest tubes to drain the blood from around the lungs and ordered a transfusion of four units of blood. By the following day, the patient's breathing and blood pressure had improved.

This case illustrates a complete lack of collaboration that resulted in readmission for the patient and additional procedures and costs. The nurse and the surgeon never fully evaluated the cause of the patient's shortness of breath or low blood pressure. Each assumed

the other was monitoring the situation. More importantly, the patient assumed each member of the healthcare team was communicating and coming together to provide her with the best possible medical and nursing care. This case demonstrates a lack of shared decision-making, lack of mutual respect, and lack of teamwork. This case represents what collaboration is not.

7 | SUMMARY

In summary, collaboration is a complex process requiring sharing, respect, and teamwork. Whether intraprofessional or interprofessional, collaboration leads to improved patient safety, improved quality of care,^{19,35,36,42} and job satisfaction for healthcare providers.²⁸ Multiple national and international organizations such as AACN,¹ CMS (2011),^{3,31,32,51} and WHO⁴² acknowledge that collaboration is an essential concept in nursing and healthcare. Nurse researchers need to evaluate the effectiveness and outcomes of collaboration. However, nurse researchers need a clear conceptual definition of collaboration in nursing because an inclusive definition of collaboration aids in the development of instruments to measure collaboration and is useful in teaching the process of collaboration. Finally, nurses must model the attributes of collaboration: engaging in teamwork, sharing in the decision-making process, and showing respect for other members of the healthcare team to improve the quality of patient care.

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