

Effect of Peer-to-Peer Nurse–Physician Collaboration on Attitudes Toward the Nurse–Physician Relationship



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The goal of this study was to pilot a novel peer-to-peer nurse–physician collaboration program and assess for changes in attitudes toward collaboration among a group of newly licensed nurses and resident physicians ($n = 39$). The program included large group meetings, with discussion of key concepts related to interprofessional collaboration. In unit-based teams, the registered nurses and physicians developed a quality improvement project to meet a need on their unit.

Creating learning activities like this program enable nursing professional development specialists to promote interprofessional collaboration and learning.

Collaboration between physicians and nurses is vital in modern health care, but teamwork and cooperation have historically been hampered by various challenges, including poor communication, power differentials, disrespect, and unclear delineation of roles (Tang, Chan, Zhou, & Liaw, 2013). Traditionally, the relationship between physicians and nurses has been hierarchical and further complicated by confounding elements such as gender and age (Zomorodi & Foley, 2009). Prior research on interprofessional collaboration (IPC) has shown that people ascribe to and are generally socialized to a particular professional role, which can make it difficult to take on new roles or behaviors not associated with those roles (Schmitt, Blue, Aschenbrener, & Viggiano, 2011). Thus, physicians and nurses socialized into a hierarchical rather than a collaborative relationship, which has shared authority and responsibility, may find it difficult to function in the collaborative work relationships currently recommended by the Institute of Medicine (2003). Although learners of various disciplines at academic health centers share common core values, knowledge, and skills, they are typically taught in distinct silos, cementing traditional expectations, roles, and professional identities (Kitts, Christodoulou, & Goldman, 2011).

Recent work culture surveys in our institution have shown mixed attitudes toward IPC across our institution. In May 2014, two items on the Morehead Work Culture Survey (Morehead Associates, Charlotte, NC) referenced physician–staff collaboration. The first item, “physicians and staff work well,” together scored 4.02 on a 5-point scale of 1–5. The other item, “communication between physicians, nurses, and other medical personnel is good at my entity,” scored 3.86. Newly licensed nurses scored 2.81 (on their initial employment) and 3.57 (at 12 months),

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on a scale of 1–4, on an item related to physician communication. None of these scores met the expectations of local organizational leadership.

Purposes

The purposes of this study were to pilot a unique peer-to-peer nurse–physician collaboration program and assess for changes in attitudes toward nurse–physician collaboration. The program was implemented with a group of newly licensed registered nurses (RNs) and resident physicians early in their graduate medical education (GME) training from across a single academic health center.

BACKGROUND

Variation in perspective between providers was recently confirmed in a meta-analysis of 51 surveys of IPC, involving more than 18,000 physicians and nurses, with nurses scoring higher on IPC ratings than physicians (Sollami, Caricati, & Sarli, 2015). Physicians perceived that there was an environment of collaboration more than nurses did across multiple studies. This finding suggests that there is a disconnect between how physicians perceive their ability to collaborate and how that behavior is then observed in the environment. However, differences in observed IPC between physicians and nurses can be reduced through a wide range of IPC educational interventions (Sollami et al., 2015).

Past studies have shown that IPC can have a major impact on patient safety (Brock et al., 2013; Jeffs et al., 2013; Raab, Will, Richards, & O'Mara, 2013; Vyas, McCulloh, Dyer, Gregory, & Higbee, 2012). With a growing understanding of the importance of IPC, educational programs now often incorporate interprofessional education (IPE) experiences for learners across disciplines. Pinto et al. (2012) found that learners in a structured IPE program had improved perceptions of IPC relative to that of students in traditional clinical programs. Another study of nursing and medical students showed that IPE can change attitudes: Nursing students identified more near-miss events than medical students, emphasizing their sense of responsibility to the patient, and medical students recognized how hierarchy in medical practice can attribute to inaction (Stevenson et al., 2015). Although new graduates may have experience with IPE, many practicing nurses and physicians do not, and nursing professional development (NPD) practitioners have an important role in providing this type of education in the practice setting (Park, 2015).

Despite the existing challenges with implementing IPE and care, they have grown in popularity and have become accepted as a standard for health care professional education and patient care teamwork (Haddara & Lingard, 2013). A search in PubMed using the terms “interprofessional collaboration” and “healthcare” results in more than a

thousand scholarly articles. In the educational realm, there is a focus on IPC as a required competency for most learners (Swing, 2007). There are numerous examples of attempts to include IPE into curricula, from individual intensive courses (Gordon, Lasater, Brunett, & Dieckmann, 2015) to redesigned curricula across multiple professions (Horsley et al., 2016; Kahaleh, Danielson, Franson, Nuffer, & Umland, 2015) to focused bedside interprofessional rounds (Gonzalo, Kuperman, Lehman, & Haidet, 2014). The efforts to incorporate IPC into education and care will continue as the literature suggests that it strengthens health systems and, ultimately, patient outcomes (World Health Organization Health Professions Network Nursing and Midwifery, 2010).

METHODS

Design

The study used a one-group pre–post design. Participants completed a 6-month peer-to-peer collaboration program implemented in unit-based teams. The unit-based teams were composed of new graduate RNs and physicians during their residency or fellowship. Attitudes toward nurse–physician collaboration were measured prior to and at the end of the program. The authors' university institutional review board approved this study (exempt).

Participants and Setting

The participants included 23 newly licensed RNs enrolled in a nurse residency program, who were paired with 16 physicians in their residency or fellowship on the same unit (39 participants total). The RNs were selected by the nurse manager of the participating unit from those nurses currently in the nurse residency program. The units were selected from a cross section of six units across the medical center that performed both on the high and low percentiles for nurse–physician communication on the most recent work culture surveys. The units included maternal/child, pediatric intensive care, adult general medicine, two adult intensive care, and adult hematology/oncology units.

Peer-to-Peer Nurse–Physician Collaboration Program

The peer-to-peer program was anchored by a combination of large group meetings of all participants and online collaboration using the university's learning management system (LMS). An initial large group orientation provided an overview of the program (format and timeline); the goal of the program, which was to strengthen nurse–physician collaboration; expectations for participants; and introduction of the teams. The teams, consisting of new graduate RNs and physicians during their residency or fellowship, were instructed to meet informally after the orientation to discuss current issues on their unit and possible quality improvement (QI) projects they could do collaboratively.

Two additional large group meetings were held during the 6-month program. At these meetings, participants discussed key concepts and challenges related to nurse–physician collaboration. The meetings were led by the Associate Chief Nursing Officer for Education, coordinator of the nurse residency program, and physician who was one of the principal investigators of the study. Other attendees at these meetings included the study team, GME residency program directors, and various medical and nursing leaders in the medical center. During the second large group meeting, a national expert on IPC presented, sharing case examples and lessons learned. Teams then shared the current state of their QI project work, received feedback from their peers, and identified further assistance or resources they needed related to their QI projects. The final large group meeting provided the venue for each team to present the outcomes of their collaborative QI project and their recommendations for the unit related to their project.

Resources and articles on IPC were provided for the participants via the LMS. All print materials related to the QI project were available through the LMS to encourage use of the site. Weekly online learning opportunities included a review of articles referencing IPC and the option to participate in a discussion board about IPC.

Throughout the 6-month program, each team completed a joint QI project designed for implementation on the specific clinical unit in which they worked. Teams met face-to-face either on the unit or on campus, identified an issue related to quality care on their unit, developed a QI project related to that need, and implemented the project, if feasible. The coordinators of the nurse residency, for the newly licensed RNs, and the GME residency program directors communicated via e-mail and direct contact with each team over the 6 months of the program to keep them focused on their projects and respond to other general concerns.

Instrument

The Jefferson Scale of Attitudes Toward Physician–Nurse Collaboration (JSAPNC) was used to measure participants' attitudes at the beginning and end of the program. This instrument assesses nurse and physician attitudes toward professional collaboration. The JSAPNC contains 15 items rated on a 4-point Likert scale from 1 (*strongly disagree*) to 4 (*strongly agree*), with higher scores representing more positive attitudes toward nurse–physician collaboration (maximum score of 60). In prior studies, reliability coefficients were 0.85 for nursing students and 0.84 for medical students (Hojat et al., 1999) and, in another study, 0.77 for nursing students (Ward et al., 2008).

A factor analysis completed in an earlier study by Hojat et al. (1999) provided support for the construct validity of the instrument. The underlying factors are as follows: Shared Education and Collaboration (e.g., medical and nursing students should be involved in teamwork to

understand their respective roles and should learn about interprofessional relationships), Caring as Opposed to Curing (e.g., nurses are qualified to assess and respond to patient needs), Nurse's Autonomy (e.g., nurses should clarify a physician's order if it has the potential for detrimental effects on the patient), and Physician's Authority (e.g., the primary function of the nurse is to carry out the physician's order [this is reversed scored]). Higher scores on these factors suggest more positive attitudes toward nurse–physician collaboration

Procedures

Participants completed the JSAPNC at the beginning of the first group meeting in which they were oriented to the program. They completed the same tool at the end of the last group meeting. Responses to each item on the JSAPNC were entered into *REDCap* (Research Electronic Data Capture) using identification numbers only.

Data Analysis

Demographic data were summarized using descriptive statistics. A post–pre assessment difference score per participant was calculated for each factor score and the total score for the JSAPNC. Nonparametric Wilcoxon signed-rank tests for repeated measurements were used to test whether the post–pre difference was significantly different from zero. A nonparametric approach was selected due to the skewness of the data distribution for several pre and post factor scores. Nondirectional statistical tests were performed with the level of significance set at .05. Data were analyzed using SAS version 9.3 (SAS Institute, Inc., Cary, NC).

RESULTS

Twenty-five participants completed the pre and post JSAPNC assessment. These included 17 RNs and 8 physicians. There were eight other participants who completed only the pretest and an additional four who answered only the posttest; however, these were not included in the data analysis. The respondents included 22 female participants and 3 male participants. Most of the nurses had a bachelor of science in nursing degree ($n = 15$); there was one nurse prepared at the associate degree level and another one with a master's degree in nursing. The mean age was 27.2 years ($SD = 3.5$ years), with a range of 22–35 years.

The median total JSAPNC score at the pre- and posttest assessment was 55.0 and 56.0, respectively. The median post minus pre difference score was 1.0, with a range of –6 to 6. The Wilcoxon signed-rank test indicated no statistically significant change in total scores ($S = 46.5, p = .13$). The analysis also showed no significant post minus pre difference with regard to the JSAPNC factors: Shared Education and Collaboration, Caring as Opposed to Curing, Nurse's Autonomy, and Physician's Authority (see Table 1).

TABLE 1 Total and Factor Scores on Jefferson Scale of Attitudes Toward Physician–Nurse Collaboration

Measures	Mean (SD)		Median (Min, Max)		Median (Min, Max)	<i>p</i> Value ^a
	Pre	Post	Pre	Post	Post–Pre	Post–Pre
Shares Education and Collaboration	26.2 (1.5)	26.2 (2.1)	26.0 (23.0, 28.0)	27.0 (22.0, 28.0)	0 (–6.0, 3.0)	.63
Caring vs. Curing	10.8 (1.2)	11.2 (0.9)	11.0 (8.0, 12.0)	11.0 (9.0, 12.0)	0 (–2.0, 3.0)	.11
Nurse’s Autonomy	11.5 (0.7)	11.7 (0.7)	12.0 (9.0, 12.0)	12.0 (10.0, 12.0)	0 (–2.0, 1.0)	.40
Physician’s Authority	6.1 (1.2)	6.4 (1.6)	6.0 (4.0, 8.0)	7.0 (2.0, 8.0)	0 (–3.0, 4.0)	.47
Total score	54.5 (3.1)	55.3 (3.8)	55.0 (48.0, 60.0)	56.0 (48.0, 60.0)	1 (–6.0, 6.0)	.13

^a*p* Value for the nonparametric Wilcoxon signed-rank test for the post minus pre difference score.

Participating nurses and physicians collaborated to improve care through their QI projects. The teams were encouraged to explore projects meaningful to their units. Projects included focused literature searches to review evidence prior to making recommendations for enhancements to practice. Sample projects are listed in Table 2. In two of the projects, the teams and other physicians and nurses on the unit critically reviewed screening tools for early recognition and treatment of delirium specific to their patient populations and developed a process for translating these tools into the electronic medical record. In another project, new patient education materials were developed and incorporated into the electronic medical record. Another nurse–physician team conducted a study of paging practices on their unit and recommended a new process for physicians to page nurses.

Through their work on these evidence-based QI projects, the nurse–physician teams collaboratively addressed topics of concern to the immediate care of their patients. The formal structure of the QI projects, involving nursing and medicine and focusing on a quality issue on their units, allowed for senior leaders from the medical center to partner and act upon the recommendations of the teams.

Discussion between nurses and physicians in the LMS revealed their understanding of the importance of IPC. One of the physicians described an experience of “breaking bad news” to a patient. The physician commented in the discussion forum:

I gave her and her husband time to comfort one another and stepped out the room. Immediately, I found the patient’s nurse and alerted her of the pathology and informed her that I just told the patient. The nurse told me, “thank you for telling me. Sometimes I walk into rooms after doctors and have no idea what I’m walking into.” I realized then that when updating patients and families, it’s best to do so with their nurse. Making this our practice would greatly benefit patients’ care and satisfaction. We [physicians] should practice this skill prior to residency.

One of the nurse’s responded in the online discussion that

the bedside nurse should be clued in to the information that patient’s families are receiving.... I am often present when the resident or nurse practitioner is updating the family. Families often have additional questions after the providers leave or feel comfortable asking questions of the nurse who has been at the bedside consistently.

DISCUSSION

These results captured a cohort of nurses and physicians who showed positive attitudes toward IPC even prior to initiation of our peer-to-peer program. Our cohort showed a positive view of nurses’ contributions to education and psychosocial aspects of care, agreed with statements about

TABLE 2 Sample Nurse–Physician Quality Improvement Projects

Project Title	Inpatient Unit
Delirium Prevention in the Surgical ICU	Adult intensive care
Standardizing Home Care of Sternotomy and Thoracotomy Incisions After Surgery	Adult intensive care
Implementation of an Infant Delirium Screening Tool for the Earlier Recognition of Infant Delirium	Neonatal intensive care
Barriers to Breastfeeding	Maternal/child
Paging Culture and a Proposed Model for Improvement	Adult general medicine
Importance of Interprofessional Communication in the Inpatient Oncology Setting	Adult hematology–oncology

nurses' involvement in decisions about care and policies, and rejected a dominant role for physicians in care. Their median scores were higher than reported by Hojat et al. (1999) (median = 51) and Ward et al. (2008) (median = 54).

The study was limited by a small sample size. It is likely that because our recruitment required suggestions for participants from both residency program directors and nurse managers that some selection bias for high performing individuals occurred. In addition, given the generational differences seen with prior studies using the JSAPNC (Hojat et al., 1999; Ward et al., 2008), it is possible that this younger generation of nurses and physicians carries a more intrinsic positive attitude toward nurse–physician collaboration. We found no differences in scores pre and post implementation of our program.

Establishing a community of learners through online interaction proved to be somewhat difficult in this pilot program. We recognized that in person meetings between small groups at regular intervals throughout the program would be difficult given varied clinical schedules and minimal free time outside of clinical duties for RNs and residents. We attempted to account for this by encouraging online interaction, which had the potential for ongoing reflection and discussion among participants without face-to-face meetings. Unfortunately, use of the LMS was minimal. In the future, we hope to try other methods of online interaction, for example, using social media such as Twitter, Facebook, and Instagram in place of an LMS.

There were numerous benefits to the peer-to-peer program. In a relatively short time frame of 6 months, all teams were able to conceptualize meaningful QI projects within their work environments. At the conclusion of the program, groups presented projects in various stages of development, ranging from one group that had completed data collection and analysis to a group that had only formulated an implementation plan after identifying a clinical problem. In the future, including specific tasks to be completed with timelines might be valuable to guide QI project development and implementation. Another strategy would be for NPD practitioners to meet with teams on a one-to-one basis to assess their progress and provide support. Although the JSAPNC measured attitudes toward nurse–physician collaboration, we did not assess other outcomes of nurses and physicians working jointly on a QI project that meets unit needs. This should be done in a future study. Anecdotally, participants found the experience to be a positive one. For many, they noted that they had never met their nurse or physician team member before. Most participants attended the large group sessions with no formal incentive suggesting a commitment to IPC. Although the nurse–physician teams in our study were composed of newly licensed RNs and physicians in their residency or fellowship, this program

could be done with experienced nurses and physicians on the unit.

NPD practitioners have the responsibility of providing orientation, competency, and education programs for clinical staff across disciplines. Often, the focus is on nursing staff. Creating learning activities such as this nurse–physician collaboration program enabled NPD practitioners to focus on learning activities that promote interprofessional learning and contribute to quality, safe, and patient-centered healthcare practice.

Conclusion

Given the importance of IPC for patient care outcomes, institutions need to find ways of incorporating IPE for learners and future healthcare team members. A peer-to-peer collaboration program with newly trained nurses and residents fostered positive attitudes toward IPC. In addition to successful QI projects, attendance and anecdotal feedback suggested that participants were committed to IPC. We intend to use this experience to consider how similar programs might be incorporated into orientations, educational programs, and professional development for teams.

References

- Brock, D., Abu-Rish, E., Chiu, C. R., Hammer, D., Wilson, S., Vorvick, L., ... Zierler, B. (2013). Interprofessional education in team communication: Working together to improve patient safety. *BMJ Quality & Safety, 22*, 414–423. doi:10.1136/bmjqs-2012-000952
- Gonzalo, J. D., Kuperman, E., Lehman, E., & Haidet, P. (2014). Bedside interprofessional rounds: Perceptions of benefits and barriers by internal medicine nursing staff, attending physicians, and housestaff physicians. *Journal of Hospital Medicine, 9*, 646–651. doi:10.1002/jhm.2245
- Gordon, M. A., Lasater, K., Brunett, P., & Dieckmann, N. F. (2015). Interprofessional education: Finding a place to start. *Nurse Educator, 40*, 249–253. doi:10.1097/NNE.0000000000000164
- Haddara, W., & Lingard, L. (2013). Are we all on the same page? A discourse analysis of interprofessional collaboration. *Academic Medicine, 88*, 1509–1515. doi:10.1097/ACM.0b013e3182a31893
- Hojat, M., Fields, S. K., Veloski, J. J., Griffiths, M., Cohen, M. J., & Plumb, J. D. (1999). Psychometric properties of an attitude scale measuring physician–nurse collaboration. *Evaluation & the Health Professions, 22*, 208–220. doi:10.1177/01632789922034275
- Horsley, T. L., Reed, T., Muccino, K., Quinones, D., Siddall, V. J., & McCarthy, J. (2016). Developing a foundation for interprofessional education within nursing and medical curricula. *Nurse Educator, 41*, 234–238. doi:10.1097/NNE.0000000000000255
- Institute of Medicine. (2003). *Health professions education: A bridge to quality*. Washington, DC: The National Academies Press.
- Jeffs, L., Abramovich, I. A., Hayes, C., Smith, O., Tregunno, D., Chan, W. H., & Reeves, S. (2013). Implementing an interprofessional patient safety learning initiative: Insights from participants, project leads and steering committee members. *BMJ Quality & Safety, 22*, 923–930. doi:10.1136/bmjqs-2012-001720
- Kahaleh, A. A., Danielson, J., Franson, K. L., Nuffer, W. A., & Umland, E. M. (2015). An interprofessional education panel on development, implementation, and assessment strategies.

- American Journal of Pharmaceutical Education*, 79(6), 78. doi:10.5688/ajpe79678
- Kitts, R. L., Christodoulou, J., & Goldman, S. (2011). Promoting interdisciplinary collaboration: Trainees addressing siloed medical education. *Academic Psychiatry*, 35, 317–321. doi:10.1176/appi.ap.35.5.317
- Park, C. W. (2015). Interprofessional education: Implications for nursing professional development practice. *Journal for Nurses in Professional Development*, 31, 242–243. doi:10.1097/NND.0000000000000194
- Pinto, A., Lee, S., Lombardo, S., Salama, M., Ellis, S., Kay, T., ... Landry, M. D. (2012). The impact of structured inter-professional education on health care professional students' perceptions of collaboration in a clinical setting. *Physiotherapy Canada*, 64, 145–156. doi:10.3138/ptc.2010-52
- Raab, C. A., Will, S. E., Richards, S. L., & O'Mara, E. (2013). The effect of collaboration on obstetric patient safety in three academic facilities. *Journal of Obstetric, Gynecologic and Neonatal Nursing*, 42, 606–616. doi:10.1111/1552-6909.12234
- Schmitt, M., Blue, A., Aschenbrener, C. A., & Viggiano, T. R. (2011). Core competencies for interprofessional collaborative practice: Reforming health care by transforming health professionals' education. *Academic Medicine*, 86, 1351. doi:10.1097/ACM.0b013e3182308e39
- Sollami, A., Caricati, L., & Sarli, L. (2015). Nurse–physician collaboration: A meta-analytical investigation of survey scores. *Journal of Interprofessional Care*, 29, 223–229. doi:10.3109/13561820.2014.955912
- Stevenson, E., Chudgar, S. M., Turner, K., Molloy, M., Phillips, B., Engle, D. L., & Clay, A. S. (2015). How we engage graduating professional students in interprofessional patient safety. *Nursing Forum* E-pub ahead of print. doi:10.1111/nuf.12146
- Swing, S. R. (2007). The ACGME outcome project: Retrospective and prospective. *Medical Teacher*, 29, 648–654. doi:10.1080/01421590701392903
- Tang, C. J., Chan, S. W., Zhou, W. T., & Liaw, S. Y. (2013). Collaboration between hospital physicians and nurses: An integrated literature review. *International Nursing Review*, 60, 291–302. doi:10.1111/inr.12034
- Vyas, D., McCulloh, R., Dyer, C., Gregory, G., & Higbee, D. (2012). An interprofessional course using human patient simulation to teach patient safety and teamwork skills. *American Journal of Pharmaceutical Education*, 76, 71. doi:10.5688/ajpe76471
- Ward, J., Schaal, M., Sullivan, J., Bowen, M. E., Erdmann, J. B., & Hojat, M. (2008). The Jefferson Scale of Attitudes toward Physician–Nurse Collaboration: A study with undergraduate nursing students. *Journal of Interprofessional Care*, 22, 375–386. doi:10.1080/13561820802190533
- World Health Organization Health Professions Network Nursing and Midwifery. (2010). *Framework for action on interprofessional education and collaborative practice*. Geneva, Switzerland: World Health Organization.
- Zomorodi, M., & Foley, B. J. (2009). The nature of advocacy vs. paternalism in nursing: Clarifying the “thin line.” *Journal of Advanced Nursing*, 65, 1746–1752. doi:10.1111/j.1365-2648.2009.05023.x

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