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Roles and Responsibilities: Asking Nurses and Physicians What They Know, Do Not Know and Want to Know about Each Other's Profession

Dordie Moriel MPA, RN, Karla Felix PhD, & Patricia Quinlan PhD, MPA, RN
Hospital for Special Surgery, New York

Abstract

Background: In 2015, an Institute of Medicine (IOM) report acknowledged that interprofessional education (IPE) had focused on academic learning yet had not been well assimilated into clinical practice. The aim of this study was to gather data from practicing clinicians to inform a curriculum that could be integrated into practice environment educational regimens.

Methods and Findings: A qualitative description approach was utilized to analyze data gathered via focus groups conducted with practicing nurses and physicians. Participants were asked to describe what they knew, did not know, and wanted to know about each others profession, and what they felt would be the best method of delivery for this information. Findings indicate a lack of understanding of the roles and responsibilities of the other profession and genuine interest in learning more.

Conclusions: Integrating IPE into practice environment education is of interest and would be beneficial to healthcare professionals for improving patient care, safety, and professional rapport.

Keywords: Roles and responsibilities; Interprofessional; Nurse; Physician; IPE; Education; Curriculum; Practice environment education

Introduction

Embarking on an exploration of integrating interprofessional education (IPE) into the workplace is a challenge facing all healthcare professionals in a clinical setting. The Institute of Medicine (IOM) has advocated for its integration and cited its benefits; the National Center for Interprofessional Practice and Education was created to support evaluation and research into IPE; the Interprofessional Education Collaborative (IPEC) has created core competencies in values and ethics, communication, teamwork, and roles and responsibilities; and private foundations are dedicating resources to further research in IPE [1].

In the 2015 report *Measuring the Impact of Interprofessional Education on Collaborative Practice and Patient Outcomes*, the Institute of Medicine (IOM) acknowledged that, "the focus of IPE was on learning in the academic setting and had

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Corresponding author: Dordie Moriel. Email: morield@hss.edu

not been well assimilated into clinical practice" [2]. Owen and Schmitt note that in order for IPE to expand into the practice setting, organizations need to value and incorporate IPE into administrative structures, organizational culture, and staffing resources [3]. The Josiah Macy Foundation, a strong proponent and funder of IPE development, stated at its 2013 conference: "Missing from these many laudatory and innovative efforts is the ability to connect practice redesign with interprofessional education reforms" [4, p. 21].

The goal of this study is to inform curriculum development for an IPE component to be integrated into practice environment education regimens, utilizing as a framework the IPEC roles and responsibilities competency domain [1]. To do so requires developing an understanding of what level of IPE knowledge and interests the intended participants have so that curriculum can be crafted accordingly.

Using focus groups for data collection and the (IPEC) [1] competency domain of roles and responsibilities as a guideline, we began to elicit pertinent data from active practitioners. Nurse and physician participants were asked to discuss what they knew, did not know, and wanted to know about each other's professions, and what they felt would be the best method of delivery of IPE content within practice environment education regimens. Group selection criteria was physicians and nurses with ten years or less of experience in their profession, the intent being to have discussions with in-practice clinicians that were within recent proximity of their academic training. The physicians were in various stages of their residency or fellowship. The nurses were recent graduates of a hospital-based nurse residency program. The cohort of participants was of the generation considered "millennials."

Background

Making the efforts of all health professionals synergistic instead of competitive was a goal of the 1972 IOM report *Educating the Health Team* [5], which called for closer interaction among health professionals during academic training. Yet in 2015, the IOM found that while IPE had been largely focused in the academic setting, it had not been well assimilated into clinical practice [2]. Cooper, Carlisle, Gibbs, and Watkins echoed this line of thinking by speculating that the sooner healthcare students are introduced to IPE, the more likely they are to incorporate it into practice [6]. Owen and Schmitt noted that administrative and staffing cultures needed to devote more resources to IPE [3]. Further, non-profit organizations such as Josiah Macy have expressed support for connecting practice redesign with interprofessional education reforms [4].

Systematically reviewing the literature on evaluations of interprofessional education [6], which were deemed high-quality studies based on their design and information, four studies were valued as effective when interdisciplinary professionals worked together to improve care delivery after taking part in a course or workshop. In addition, improved knowledge about various participating disciplines was found to be a beneficial by-product that researchers reported across all four studies.

Stuart Mackay [7], building on these earlier studies, found that while structured workshops designed as interventions to improve and share information about roles

and responsibilities were described as beneficial, instruments that quantify these perceptions were scarce. Mackay concluded that the dearth of studies specific to knowledge and attitudes on roles and responsibilities might be attributable to the lack of measurement. He evaluated two instruments designed to measure the perceptions of professional roles and responsibilities. The first was the Generic Role Perception Questionnaire (GRPQ), which is designed to measure role perception across multiple professions. To develop the instrument, different professions were interviewed in groups of three and asked to identify how their professions were similar and how they differed. The most popular generic constructs were identified and then organized into a questionnaire for future participants to select, on a scale of 1 to 10, their level of agreement or disagreement with the described professional attributes. The second, the Nursing Role Perception Questionnaire (NRPQ), was developed using the GRPQ scale as a guideline specifically for the nursing profession. We were unable to find research that used these role and responsibility questionnaires despite psychometric testing.

In 2011, IPEC published its report *Core Competencies for Interprofessional Collaborative Practice*, articulating a framework of four competency domains in values and ethics, communication, teamwork, and roles and responsibilities. Specific competency statements further defined each domain. The roles and responsibilities domain and its specific competency statements were determined to be relevant and adaptable to the clinical environment for the purposes of this study, in that this level of specificity would allow for development of an institution staff-specific curriculum [1, p. 21].

Integrating IPE has long been a goal and focus of public, private, and nonprofit research. An IPE mindset has seen broad acceptance in the academic community, yet to a lesser extent in practice environment settings. The intent of this study was to utilize and leverage IPE best practices that have been developed and written about into an IPE educational component.

The idea that connecting practice redesign with IPE reforms is not widely written about and that the views of the practicing clinician may be underappreciated supports the effort of this study to obtain current professional views regarding roles and responsibilities from practicing professionals, and contributes to creating and developing tools for future use.

Methods

A qualitative description design approach was utilized to interpret data gathered via focus groups. Sandelowski describes qualitative descriptive designs as, "typically an eclectic but reasonable and well-considered combination of sampling and data collection, analysis, and re-presentational techniques" and states that, "Qualitative description is especially amenable to obtaining straight and largely unadorned (i.e., minimally theorized or otherwise transformed or spun) answers to questions of special relevance to practitioners" [8, p. 337].

Qualitative descriptive studies are arguably the least theoretical of the spectrum of qualitative approaches, as researchers conducting such studies are the least

encumbered by pre-existing theoretical and philosophical commitments. This study aimed to inform curriculum based on a clear understanding—with as little extraneous interpretation as possible—of what nurses and physicians had in the way of IPE training, what they knew, did not know, and wanted to know about each other's professions, and what they felt would be the best method of delivery of IPE content, so as to inform and craft curriculum accordingly.

Focus groups are structured around a set of carefully predetermined questions intended to engage the participants and explore attitudes, beliefs and behaviors [9]. The intent was to seek answers to elemental questions regarding the practicing clinician's understanding of the roles and responsibilities of the profession other than their own could best be obtained if interviews were conducted in a profession-specific, safe and anonymous environment. Focus groups conducted along specific guidelines [9] were determined to be the best way to ensure this process.

Selection criteria for representative participants was based on those clinicians early in their careers, thus closer to their respective academic experience, specifically nurses and physicians with less than ten years of experience in their professions. Nurses who received invitations to the focus groups had participated in nurse residency programs that provided professional development in a specific area. Physician recipients of the invitation were either residents or fellows in their fields. Age was not considered criteria for inclusion or exclusion.

Representative participants were invited via email to participate in a focus group and if interested, given five dates and times to choose from. The invitation included a brief explanation of the study. Invitations were sent to 24 nurse residents and 53 physician residents/fellows. Incentive for participation included a $25 gift card to the hospital coffee kiosk. There were no refusals to participate based on the subject matter.

The focus groups were held in hospital conference rooms. Upon arrival, the participants were asked to provide demographic information (occupation, gender, years of service) (see Figure 1), and to read and sign an informed consent form. Participants were verbally made aware that the session would be audio recorded, that the study had obtained Institutional Review Board (IRB) approval (as there were no ethical conflicts, Research Ethics Board approval was implied in the IRB), and were given a verbal guarantee of anonymity.

We conducted ten focus groups, five for each profession, and the number of participants ranged from four to six participants per group. There was a total of 39 participants in the focus groups. There were twenty nurse participants (N = 20): (N = 12) worked in the operating room, (N = 4) in the inpatient care unit, (N = 3) in the step-down unit and (N = 1) in the post-anesthesia care unit. There were four male nurses (N = 4) and sixteen female nurses (N = 16). Nineteen house-staff physician participants included anesthesiology fellows (N = 8), orthopedic surgery residents (N = 4), rheumatology fellows (N = 4), radiology fellows (N = 2), and one orthopedic specialty fellow (N = 1). There were seven female physicians (N = 7) and twelve male physicians (N = 12).

After introductions and a summary of the purpose of the focus group was presented, the World Health Organization (WHO) definition of IPE, "When students

from two or more professions learn from, with, and about each other to enable collaboration and improve health outcomes" [10, p. 7] was projected onto a screen and remained there during the discussion.

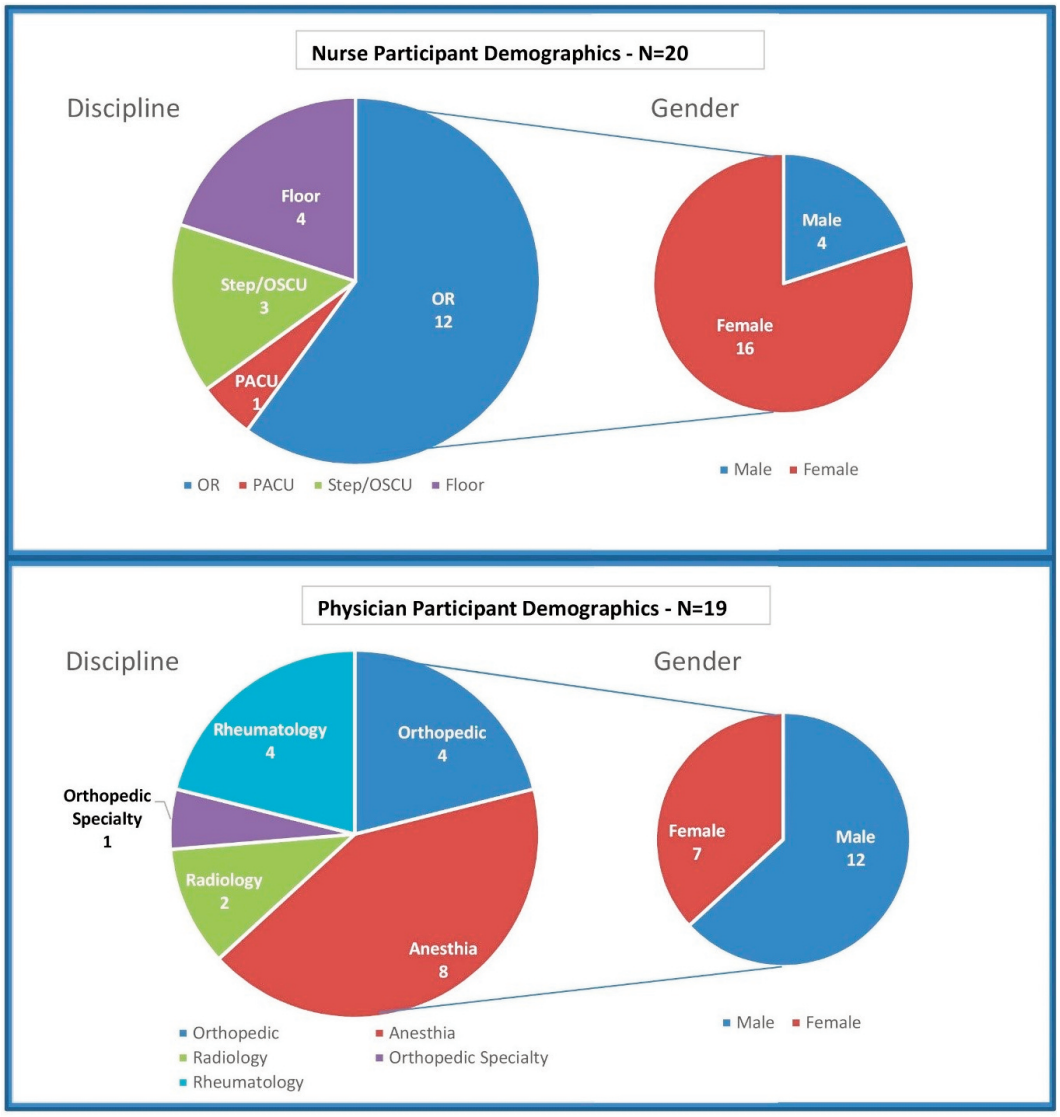

Figure 1

Semi-structured questions were designed to establish a baseline for understanding the perspective of each professional, and for obtaining ideas to ultimately create a useful and effective IPE curriculum. The groups were kept profession specific to allow for and help facilitate candid discussion. The primary investigator (DM) conducted the physician focus groups and a secondary investigator (KF) conducted the nurse focus groups. The same set of questions was asked of both groups.

The questions explored the participants' motivation for choosing healthcare as a career, what exposure or training they may have had in IPE, what they knew, did not know, and wanted to know about each other's professions, and finally what they felt would be the best method of delivery for this information.

Semi-structured questions posed to both groups

To physicians:

Why did you choose healthcare as your profession?
Have you had any interprofessional education schooling or training?
What do you know about nurses?
What would you like to know about nurses?
What would you like for nurses to know about physicians?

To nurses:

Why did you choose healthcare as your profession?
Have you had any interprofessional education schooling or training?
What do you know about physicians?
What would you like to know about physicians?
What would you like for physicians to know about nurses?

To both groups:

The competency statements relative to the roles and responsibilities domain were projected onto a screen, and the five of the nine statements determined to be most relevant to the discussion were highlighted. Each participant was given a printed copy of this and asked to circle the one or two competencies they thought were most important in their personal practice.

Final question to both groups:

What do you feel would be the best method for the delivery of an IPE educational component within the practice environment setting?

After the questions had been asked and answered, a brief closing discussion took place, then participants were given their incentive for participating, thanked for their time, and the meeting was closed and the session audio recording was completed.

Sessions were audio recorded with the consent of the participants, then transcribed by the online service TranscribeMe and imported into NVIVO, a qualitative data analysis software program. The focus group transcriptions were analyzed alongside the audio recordings to gauge the tone and temperament of the responses. The analysis was then organized, categorized and reviewed by all investigators.

The data review process started as soon as the first focus group concluded; transcripts were obtained and imported into the NVIVO qualitative analysis software program. The investigators were able to begin sifting and categorizing transcript and audio data, which served to inform more substantive discussion in subsequent meetings while maintaining strict adherence to the focus group format and the questions established. It is important to note that there was no change or modification to the questions asked in subsequent meetings.

With awareness of categories and themes that emerged in previous meetings, investigators were able to take a dynamic approach with participants in subsequent

meetings, enabling them to delve deeper when presented with a recurring theme, and/or notice the emergence of new themes. As subsequent meetings took place and data was added for coding, the refinement of overlapping categories became clearer and more defined themes emerged.

The analysis of transcripts and audio content was initially separated for review and coding first by sample group—e.g., nurses as one group, physicians the other—then by each group's response to the individual questions—e.g., all of the nurse responses to "why did you choose healthcare as a profession?" and the same process for the physician responses. The same process was repeated for each meeting, group and individual questions in the same manner. Themes initially separated by group and by question began to overlap and broader themes became more apparent. Coding categories and subsequent themes were derived directly from the responses, as reviewers were able to identify the same, similar, and/or new responses from participants.

Findings

Study findings suggest that the interest of both nurses and physicians to incorporating IPE into clinical education was positive, based in part on their awareness of a knowledge disparity, as one physician stated: "I think there's a big knowledge gap and I think there's a lot of stuff that I would like to know about nursing."

The themes and findings themselves are presented as a narrative along with the questions as they were asked and answered.

Why did you choose healthcare as your profession?

Themes emerging from this question were parallel. Almost all felt a desire to help people. For some it was a second career choice, to others family influence played a role.

> "you're working towards the same goal, and that you try and provide highly efficient care to treat the patient, together" (MD)
>
> "My mother actually. It was kind of a little bit of an organic, because I think my mother saw that I had a little bit of an affinity towards helping people." (RN)
>
> "I guess I went to healthcare originally because I was doing science and I was trying to figure out a way to do science and help people at the same time." (MD)
>
> "I went into nursing because I knew it was a professional career, and I wanted to help people." (RN)
>
> "I worked for Big Pharma and I loved that. I loved the academic pursuit, but I felt quite divorced from the patient care end of things, so I actually chose medicine after having done a PhD." (MD)
>
> "I came into the medical field from finance. I changed my mind because it got pretty boring in finance, and then I decided that I'm going to do what I was meant to do, take care of patients in the OR." (RN)

Altruistic and optimistic, the nurses and physicians interviewed expressed a desire to help people.

Did you or have you had any interprofesional education in your professional schooling or training?

In asking about previous IPE, the responses were more succinct and disproportionate. A higher number of physicians had heard of or were exposed to IPE. Nurses remarked on being introduced to professionalism, but not interprofessionalism.

> "I mean we had a professionalism class … but you didn't really explore it." (RN)
>
> "We did have an integrated course formally on IPE, called IPE." (MD)
>
> "I knew that they had it in my hospital … but I never participated." (MD)
>
> "I can't remember specifics but I'm sure along the way in medical school, and even in residency, we did." (MD)
>
> "Interprofessionalism is emphasized, I think, in this day and age, from the moment you start your medical training." (MD)

We then asked more pointedly if the participants saw any advantages to having an IPE orientation curriculum specifically about professional roles and responsibilities. Physicians and nurses expressed positive views regarding an IPE program, especially if it delineated professional roles and responsibilities.

> "there would be an advantage understanding the interactions between different members of the team." (MD)
>
> "it's always useful to learn more about different people's roles " (MD)
>
> "If you can improve the communication of these two major disciplines, I cannot see how that wouldn't be a positive here." (RN)
>
> "I think it is beneficial for the doctors to know what it takes for us to do what we do … where we can know each other's goals." (RN)

Physicians

What do doctors know about nurses?

Very clear themes emerged with this question, the most prominent being that nurses are the patients' advocates, nurses have much closer interaction with patients—patients see the nurse as liaison and caregiver—and one of nurses' primary roles is that of patient assessor.

> "their role is kind of assessment and reporting as well as executing the plan."
>
> "They're basically the primary care givers for the patient."
>
> "I think they tend to be the patient advocate … the first eyes and ears for assessment."

> "they're the point of contact with the patient, who are there to raise issues you may have missed. … [A]nd who are there to advocate for the people that they're taking care of. And I think that's what defines their core roles, probably not their only role, but certainly their most important role in terms of my relationship with them."
>
> "I think that nurses are the first liaison of the patient when they arrive in hospital."
>
> "it seems like they're in the front-lines in terms of what they're able to provide for the patients. And it's usually direct care but also, like it was mentioned, really the closest advocate for the patient because it is a different perspective."
>
> "The nurses are there at the front lines who [sic] really are the intermediary between the physicians and the patients."
>
> "There's [sic] assessments that involve vital signs assessments, and then pain assessments, and then some degree of localization or chief complaint type assessment."

The physicians seemed clear on certain roles of the nurse, and these were expressed in a positive light. For the most part, they articulated the tasks and the role of the nurse in relation to their own role. Yet they conveyed surprise when asked what they wanted to know about the nurse, and their realization about how much they did not know.

There appeared a genuine interest in understanding the education and competencies of nurses. The physicians were academic in the information they wanted about nurses: scope of practice, levels of education, and understanding of the hierarchy of the nursing department. They acknowledged their lack of understanding about nursing practice, and shared an expressed interest in knowing more.

> "I still don't have that same appreciation for all the different levels of nurses that are here."
>
> "I definitely want to know more about levels of nursing and education and understanding what each person's capacities are"
>
> "some sort of introduction ahead of time, exactly what is their role, their scope of practice, level of training and understanding all of those things."
>
> "I think there's a big knowledge gap and I think there's a lot of stuff that I would like to know about nursing."
>
> "I think I'd also be a little bit interested in learning about what they learned in nursing school so that I understand where they're coming from and what their focus is."

Discussion became more ardent when asked what they wanted the nurses to know about physician practice (e.g., issues of communication and clarity, priorities,

and the pressures they are under). One physician noted that an early experience would have gone considerably smoother had he understood the nurse's capacity for assessment and informed opinion on medication.

What do they want nurses to know about doctors?

Physician participants wanted nurses to know more about their work, specific to patient load, responsibilities, and time constraints. They spoke to priorities and prioritizing, and the pressures they face.

> "I think the priorities are different for the residents versus the nurses and sometimes there is communication breakdown on exactly what we are doing."
>
> "One thing that I don't think they understand, like how many patients are on your list."
>
> "an appreciation of how we have to triage things and prioritize things and what that means in terms of when a request can be met and what could be reasonably expected."
>
> "I think there are a lot of issues in our roles that other people don't know about. We're under a lot of pressure to make sure things happen expeditiously."
>
> "That's a tough question. I guess I really don't know how much they know about what we do and how we practice."
>
> "I think this scope of our practice is equally as important for them to understand, as for us to understand theirs."
>
> "as a provider or sometimes, depending on the day, the amount of patients you're carrying fluctuates and so that different days you might be in more of a rush than in other days."

Nurses

Nurses were very clear when asked to cite the role of the physician. It is important to note that their responses appeared to be addressed to the attending physicians that they worked with. Themes were more succinct and included leadership, business, and hierarchy.

What do nurses know about doctors?

Nurses concurred on three main physician roles: prescriber, decision-maker, and educator:

> "they prescribe and diagnose."
> "they can write orders."
> "the decision maker of what is going on with the procedure."
> "leader of the situation (operating room)."

They acknowledged the role of attending physicians as educators to residents and fellows:

"definitely the educator in terms of educating residents and fellows."
"the go to person as far as education."
"They're definitely the educators."

There was a distinct difference of opinion on the role of the physician among the nurses who dealt with physicians in the operating room and the nurses who worked with them on the patient care units, post-anesthesia care unit, or specialty units. Themes of hierarchy, attitude, and minimal understanding of the nurse's job were noted.

> "I think I have a different viewpoint of it because I work specifically in [OR]. What I understand is specifically surgery. I don't know about their bedside manner or I don't know how they interact with the patient."
>
> "And in the operating room the hierarchy is much more apparent."
>
> "They are supposed to set the tone for, at least for the OR in my opinion, they are supposed to set the tone for how things are going to go, what's going to happen."
>
> "We work closely with anesthesia on our unit so we have a better understanding of their roles as opposed to like the surgeons."
>
> "there is a bit of a hierarchy … where the physician is the lead."

What do nurses want to know about doctors?

Nurses expressed interest about clinical specialization and scope of practice for the residents and fellows. They seemed more comprehensive in their knowledge of the physician's role and responsibilities in their specific area of practice.

> "I don't know specifically what each PG [post-graduate] class can do."
>
> "I don't really know what they do other than the actual surgery itself … what residents can and cannot do."
>
> "I don't feel like I'm very confused about their role and responsibility, but I am perplexed about what they need to feel comfortable."
>
> "I'd be curious to see what they say their roles and responsibilities are, just to see what's important to them."

What do they want doctors to know about nurses?

Responses were specific and pointed. Akin to physician responses were references to workload and associated responsibilities.

> "How busy and demanding it is, and how frustrating it can be sometimes; when we're trying to get everything done and we're working so hard for these patients."
>
> "Primarily I'd want them to know that we're their liaison … we're the eyes and ears of the patient."

> "I think we both want productivity. I know they want the same. We want the same. But it's the way that we want to get to it that's different."
>
> "I know we're just doing so many other things besides just taking care of that patient. I think if they were able to see that and assign value to that."

Nurses highlighted a desire for respectful interaction:

> "We are the advocates for their patients. They should trust and respect us."
>
> "If they knew all the things you had to juggle, in order to make something seem like it's smooth … they would put a higher value on the work that we do if they know what we had to get through to get there."
>
> "Some of the doctors don't respect you as a nurse. They think that you're just kind of there to help them and serve them I don't think they understand a lot of what we have to do as a nurse."

There were also positive comments.

> "The anesthesia teams, they're so great, they're always respectful. They treat you like we're all on the same team."
>
> "I think one common thing that we all have in common is the patient's safety and that's one role that is the main thing."
>
> "We all have the same goal to help the patient and keep them safe."
>
> "Anesthesia … I feel like we have a great interpersonal relationship with them and a great communication. I think they really respect the nurses."

Discussion was lively and expressive. There was also a slight element of surprise at not knowing or not being taught about the other profession while recognizing the advantage the information would provide. As one physician noted, "You might not realize that the nurse is responsible for a certain amount of things, and that they actually help you." One nurse stated, "… I think if you understand someone's roles and responsibilities then you know what to expect and what not to expect from them."

Practicality prevailed in what physicians wanted the nurses to understand about their roles and responsibilities: their workload, priorities and prioritizing, and the pressures they are under.

Practical and precise, the nurses wanted specifics on scope of practice, and understanding the levels of post-graduate year practice. They also wanted more information about what the attending physicians do within their practice. The nurses were outspoken about what they wanted the physicians to know about the nurse's role and responsibilities.

Competency ranking

Prior to the final question regarding the best methods for the delivery of IPE curricu-

lum, the competency statements relative to the IPEC roles and responsibilities domain (see Table 1) [4] were projected onto a screen and the five items deemed most relevant were highlighted. Each participant was given a copy and asked to circle the one or two competencies they thought were most important to their personal practice.

RR #5 was chosen 36 percent of the time: "Use the full scope of knowledge, skills, and abilities of available health care workers to provide care that is safe, timely, efficient, effective, and equitable."

RR #8 was chosen 21 percent of the time: "Engage in continuous professional and interprofessional development to enhance team performance."

Table 1. Competency Domain 2: Roles/Responsibilities

RR1	Communicate one's roles and responsibilities clearly to patients, families, and other professionals.
RR2	Recognize one's limitations in skills, knowledge, and abilities.
RR3	Engage diverse healthcare professionals who complement one's own professional expertise, as well as associated resources, to develop strategies to meet specific patient care needs.
RR4	Explain the roles and responsibilities of other care providers and how the team works together to provide care.
RR5	Use the full scope of knowledge, skills, and abilities of available health professionals and healthcare workers to provide care that is safe, timely, efficient, effective, and equitable.
RR6	Communicate with team members to clarify each member's responsibility in executing components of a treatment plan or public health intervention.
RR7	Forge interdependent relationships with other professions to improve care and advance learning.
RR8	Engage in continuous professional and interprofessional development to enhance team performance.
RR9	Use unique and complementary abilities of all members of the team to optimize patient care.

Note: General Competency Statement-RR: Use the knowledge of one's own role and those of other professions to appropriately assess and address the healthcare needs of the patients and population served.

What do you feel would be the best method for delivery of an IPE educational component within the practice environment setting?

Nurses and physicians agreed that an IPE education curriculum would enable a roles and responsibilities agenda that would benefit both professions.

> "it would be kind of cool that we all sit in on one lecture, we all listen to each side, and then maybe do role-playing activities." (RN)
>
> "I think it needs to be something live. I think the opportunity to interact with our colleagues really is what gives it value." (MD)
>
> "An interactive lecture would be the best. I think it would be nice for physicians not only to hear about the nurse's role, but to maybe hear

> a little bit about their role and how … they can make it a more positive environment for themselves and nurses." (RN)
>
> "I think a lecture would probably be best if forwarded from nursing to us, and I think it's needed." (MD)
>
> "I think the webinar is too easy to skip through and not really pay attention, or to say that you missed it. You can't really ignore when someone is talking to you." (RN)
>
> "if it's part of the online modules that everyone has to do, I mean I'm like doing five things and clicking buttons as fast as I can to try to get through it. So, I think maybe it would be better in an isolated format." (MD)

The willingness and interest in collaboration and the understanding of the benefits of more information on each other's profession was voiced by both professions, and is a key component of studies emerging that describe the millennial generation [12]. Both groups expressed a preference for interaction with each other and genuine interest in learning more about the other. Indeed, surprise came from both professions wanting to have interactive meetings with each other on this subject, rather than simply a computer module course. In addition to discussion, both groups expressed a desire and value for a reference site providing easier access to specific information regarding their respective roles and responsibilities, delineation of privileges, scope of practice, unit information, and other relevant information.

Summary and discussion

The integration of IPE into the academic and practice environment has been written about, discussed, researched, and has had much in the way of intellectual and financial resources devoted to its development for over forty years. There have been meaningful strides integrating IPE in the academic environment, but much less has been achieved integrating IPE into the practice environment. This divergence between the academic and practice settings has been widely written about yet specific efforts remain sporadic. This study's intent is to add, in a pragmatic fashion, to the body of work currently being devoted to practice environment education.

The purpose of the study is to develop curriculum for an IPE component that can be integrated into practice environment education regimens that has been informed by the needs and interests of the staff to whom the curriculum would be presented. The long-term goal is to inform practicing clinicians of each other's roles and responsibilities through educational components incorporated into clinical environment education regimens.

The first question introduced to the focus groups was designed to be a prelude to the discussion, and we were not surprised when both nurses and physicians stated that they entered their respective professions to help people. This established that both professions have the same goal: wanting to provide exceptional care for patients.

In further exploring what staff knew, did not know, wanted to know, and wanted the other profession to know, the findings suggest that, other than nurses and physi-

cians appreciating the others' clinical contributions to patient care, there is much to be learned about one another. Areas in which both professions expressed having little knowledge included a lack of understanding regarding the responsibilities of the other profession, and not having a clear comprehension of the roles of the other, especially in their duties, daily functions, and performance expectations.

The most expressive discourse came with what the professions wanted the other profession to know about their duties and functions. Nurses repeatedly brought up the desire for greater respect from the physicians in their specific clinical settings, confirmation, recognition, and esteem germane to their contributions to seamless patient care. For physicians were issues around paging (being paged multiple times within a short time span), indicating that they wanted nurses to better understand the pressures they are under and their differences in patient work load.

The operating room nurses wanted to know what the post-graduate year (PGY) meant in terms of experience and capability, and were unaware of a hospital webpage identifying delineation of privileges.

The physicians were pragmatic, expressing that they did not have a clear understanding of educational requirements in nursing, and felt that an introduction to this information would be useful. Physicians also wanted further information regarding nurse certifications, scope of practice in different areas of the clinical setting and an understanding of the clinical nurse ladder. A few physicians were aware that the hospital was (at that time) a three-time designated Magnet hospital, but did not understand exactly what that meant. (The Magnet Recognition Program® "recognizes health care organizations for quality patient care, nursing excellence and innovations in professional nursing practice."[14]) Both professions expressed a goal of wanting to provide exceptional patient care and that despite differences in duties they both feel the priority and pressure to make things happen expeditiously.

It cannot be ignored that in the context of discussion, these two groups did not know far more than they knew about one another's profession. Notable, however, is that the "wanting to know" element of the discussion was generally the antithesis of the same discussion. In other words, at the same time the participants were articulating something they did not know about the other profession, they were also keen to point out their interest in learning more about the topic under discussion, and would often expand on what their interests were.

With respect to the method of content delivery, both professions expressed a desire for interaction with the other profession in a workshop setting with a moderator so participants would have a chance to ask questions and propose solutions. Alternatively, they were practical, noting that time was a factor given time-constrained schedules. Recommendations, such as inclusion in rounds or conference topics with website support were suggested to address the issue of time constraint. As one physician noted, "reminders and further encouragement to explore as professional life-long learners and the opportunity to interact with our colleagues has value."

Post-hoc we noted that the cohort of participants was of the generation considered "millennials." A literature search regarding the millennial generation reveals

that they have traits vital and conducive to interprofessional collaboration: they are team players, comfortable working in groups, and have grown up using technology. The International Education Advisory on Learning in the 21st Century describes the millennial generation and notes that they often prefer computer learning [12]. The fact that the study cohort felt the best method for content delivery would be face-to-face topical discussion with the other profession can be considered an affirmation of their generational characteristics of familiarity with teamwork and collaboration.

Finally, the roles and responsibility competency chosen to be most important by a majority of participants was role and responsibility 5 (RR5): "Use the full scope of knowledge, skills, and abilities of available health professionals and healthcare workers to provide care that is safe, timely, efficient, effective, and equitable." This coincided with the common thread between nurses and physicians to serve the patient and provide highly efficient healthcare.

The second competency chosen was RR8: "Engage in continuous professional and interprofessional development to enhance team performance," adding confirmation to the finding that both nurses and physicians were interested and open to learning about the other profession.

Study strengths and limitations

Study strengths include a systematic approach for finding and obtaining preference data, providing a rich source of information important to practitioners beyond the academic experience. This study represents data collected from nurses and physicians who have transitioned to practice, and as such provide expert knowledge regarding their experiences. Information about what is important to learn once in a practice setting need not be restricted to the textbook scope of clinical practice but instead extends beyond professional schooling to real experience in the work environment. Understanding roles and responsibilities involves the *interpretation* of knowledge and experience about the profession other than your own.

Study sample distribution was limited and voluntary, and as such, not all experience levels or professional designations were equally represented. Interviewing practitioners early in their career, while decreasing sample distribution, brought participants who would be closer to their academic experiences. The intent was that participants would have greater agility, receptivity, and creativity when it comes to discussing new and innovative subjects and ideas. Future expansion of study sample distribution would be to include more experienced nurses and physicians, and/or nurses and physicians paired with their respective counterparts, which could include specific areas and/or unit information for discussion.

We believe the study data to be credible based on the responses, and our scrutiny of these responses, obtained from both groups of participants. In keeping with qualitative methods of data review [13], the principle investigator took the majority of the responsibility for conducting the analysis. The investigators discussed themes from transcripts and audio recordings at bi-weekly meetings.

In keeping with qualitative research design, data was reflected upon and found to be constructive in the formation of a framework and to inform future educational

curriculums, based in part on those responses. Response data, which we believe were given honestly, and the subsequent findings, are applicable to the practice environment, therefore could be dispensed in hospital orientation/education presentations and/or as guidelines for IPE curriculum development.

This study was conducted within a certain cohort. We believe the same questions could be asked of more experienced nurses and physicians with results that would be consistent in some areas, and shed new light in others. We also believe that our methods could be adapted to other clinical settings and used to create and accommodate IPE curriculums for those settings.

Recommendations

We believe the study structure and approach could be considered for use by other institutions as a template or guide for gaining greater insight into the IPE needs and interests of their respective staff and culture in order to craft curriculum accordingly. In addition, appraising more experienced and non-millennial nurses and physicians would yield a deeper and wider range of data and insight.

The study findings will allow us to build a customized curriculum and inform the creation of a quantitative instrument, e.g., a survey for wider distribution, which can be used to evaluate roles and responsibilities for curriculum efficacy.

We have also considered exploring the development of an information application (app) for future IPE information that would address the issue of convenience as well as speak to increasing technological savvy.

As more postgraduates present to the clinical environment with background in IPE, the clinical setting needs to be prepared to encourage and continue interprofessionalism. The study demonstrates that in a brief amount of time, valuable data specific to this particular setting can be obtained, and that there is potential to use this to build an environment-specific interprofessional education tool for healthcare professionals.

In asking a few simple elemental questions, there is the potential to address issues and recommend solutions to situations that call for purposeful communication and collaboration in any patient care area, in hospital orientations, and in continuing education competencies. We believe that tapping into the traits and skills presented by millennials in the early stages of their careers, and with clinical IPE in the early stages of integration, clinical educators may be in an optimal position for the deeper integration of IPE in the practice setting.

We need all health professionals to work together to understand the roles and responsibilities of their closest colleagues. This is key to providing the best patient care experience. It is expected that the process explored in this study will result in a more interesting educational product that speaks to the real needs of practicing clinicians and the educators charged with crafting specific curriculum, so learners working together may address the overarching IOM goal of improved patient care.

Abbreviations

ANCC – American Nurses Credentialing Center

IOM – Institute of Medicine
IPE – Interprofessional Education
IPEC – The Interprofessional Education Collaborative
GRPQ – Generic Role Perception Questionnaire
NRPQ – Nursing Role Perception Questionnaire

References

1. Interprofessional Education Collaborative Expert Panel. (2011). *Core competencies for interprofessional collaborative practice: Report of an expert panel*. Washington, DC: Interprofessional Education Collaborative.
2. *Measuring the Impact of Interprofessional Education on Collaborative Practice and Patient Outcomes*. (2015). National Academy of Sciences, p. XIII.
3. Owen, J.A., & Schmitt, M.H. (2013). Integrating interprofessional education into continuing education: A planning process for continuing interprofessional education programs. *Journal of Continuing Education in the Health Professions*, *33*(2), 109–117.
4. Cox, M., & Naylor, M. (2013, January). Transforming Patient Care: Aligning Interprofessional Education with Clinical Practice Redesign. Proceedings of a Conference sponsored by the Josiah Macy Jr. Foundation, p. 196
5. IOM. (1972). IOM 1972 Report: "Educating for the Health Team" | National Center for Interprofessional Practice and Education. Institute of Medicine. URL: https://nexusipe.org/informing/resource-center/iom-1972-report-educating-health-team
6. Freeth, D., Hammick, M., Koppel, I., Reeves, S., & Barr, H. (2002). *A Critical Review of Evaluations of Interprofessional Education (Occasional Paper No. 2, October 2002)*. Retrieved from http://repos.hsap.kcl.ac.uk/content/m10123/latest/occp2.pdf
7. Mackay, S. (2004). The role perception questionnaire (RPQ): A tool for assessing undergraduate students' perceptions of the role of other professions. *Journal of Interprofessional Care*, *18*(3), 289–302.
8. Sandelowski, M. (2000) Whatever happened to qualitative description? *Research in Nursing & Health*, *23*, 334–340.
9. Morgan, D.L. (1996). *Focus groups as qualitative research* (Vol. 16). Thousand Oks, CA: Sage Publications.
10. World Health Organization. (2010). Framework for Action on Interprofessional Education & Collaborative Practice. *Practice*, p. 7.
11. Buring, S.M., Bhushan, A., Broeseker, A., Conway, S., Duncan-Hewitt, W., Hansen, L., & Westberg, S. (2009). Interprofessional education: Definitions, student competencies, and guidelines for implementation. *American Journal of Pharmaceutical Education*, *73*(4), 59.
12. Fryer, R. (1997). Learning for the 21st century: First report of the National Advisory Group for Continuing Education and Lifelong Learning. London, UK: National Advisory Group for Continuing Education and Lifelong Learning.
13. Thorne, S. (2016). *Interpretive description: Qualitative research for applied practice* (Vol. 2). Abingdon, UK: Routledge.
14. American Nurses Credentialing Center. (2017). *Magnet recognition program overview*. URL: http://www.nursecredentialing.org/Magnet/ProgramOverview [September 20, 2017].