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Interprofessional Education: Graduate Students' Perspectives

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Abstract

Background: This program evaluation used qualitative methodology to describe students' expectations, concerns, needed supports, and experiences in a yearlong Interprofessional Education program.

Methods and Findings: Focus groups were used to obtain the views of nurse practitioner and Master of social work students. Students participated in focus groups at the program beginning and completion. Interprofessional education competencies, expectations, and concerns were examined. Results showed that at the beginning, students indicated a desire to understand the other's professional role. They also expressed concerns. During the post-program interviews, students indicated a desire to have had more classes and work together in clinical practice. Limitations included a lack of participation of all students in the final focus groups.

Conclusions: Student input in a program is essential. Further research is needed.

Keywords: Interprofessional education (IPE); Qualitative research; Student evaluation; Graduate education

Introduction

Interprofessional education (IPE) and IPE competencies have been the focus in many healthcare academic institutions, committees, and governmental organizations [1], but supporters of IPE have identified significant barriers to implementation [1-3]. The integration of IPE requires that these barriers be addressed and rectified [1-3]. Some of the barriers identified are the unique professional cultures in each discipline, as well as having other healthcare collaborators, scheduling, and institutional challenges [1,2]. Attitudes of the faculty regarding IPE can be a barrier to effective implementation [2,4,5]. Students attitudes may also be a challenge for IPE [2,4].

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Golden, Gammonley, Hunt, Olsen, and Issenberg [6] suggest that perceptions about IPE need to be examined. One study looked at several disciplines' attitudes related to interdisciplinary teamwork; a positive response to IPE was noted when it included authentic engagement [7]. Rosenfield, Oandasan, and Reeves [8] evaluated medical and other healthcare students. Findings showed that students valued the IPE experience; however, they had recommendations for improvements, such as using smaller group activities, decreased didactic information, and the integration of content into current coursework [8]. Maeno, Takayashiki, Anme, Tohno, Maeno, and Hara [9] examined how Japanese students felt about their education from an IPE program. The sample included nursing, medicine, and other healthcare professions. Findings identified several themes, including the ability to know about other health professions, recognizing that others have different points of view, and an increased understanding of one's own discipline. Other common themes were related to "interprofessional work" [9, pp. 9,12], communication, and group work—specifically discussions.

Of the qualitative studies about IPE, some do not include nurse practitioner (NP) and graduate social work students (MSW) and/or are from programs outside of the United States [8,9]. One gap noted is that it is not known what students entering IPE programs understand about IPE as an educational strategy and what expectations and concerns they may have prior to and following an IPE program with integrated IPE competencies [1]. The literature related to positive attitudes toward IPE demonstrates that students often enjoy the strategy; however, they may not fully understand discipline roles and practice guidelines, although improvement of their understanding of different roles of other healthcare providers may occur [10,11]. Therefore, the specific objective of this program evaluation using qualitative methodology was to describe graduate students' perceptions of general and specific aspects of IPE at the beginning and the end of a new IPE program.

IPE program

Health Resources and Services Administration (HRSA) awarded a grant to incorporate IPE into a graduate nurse practitioner program that included the concepts of comprehensive, safe, quality, culturally sensitive, and family-centered care for infants and children, as well as their families. Technology was also to be utilized when providing IPE. Due to each participating program's scheduling, two IPE cohorts of one year (two semesters) were planned. Cohorts included students from the following disciplines: pediatric nurse practitioner programs (primary and acute care) and master of social work.

Specific program and grant faculty integrated IPE throughout several existing courses using multiple methods, including didactic content—such as IPE competencies [1], the roles of each profession, and content related to child abuse, since this is a multidisciplinary crisis where the disciplines must work together to avert more harm to the child, both physically and mentally. Additional methods comprised joint assignments/team activities, including written and simulated (mannequin-based and standardized patient) clinical case scenarios. Technology was incorporated through simulation and a virtual classroom, e.g., content provided on a learning

management system (LMS) (an online password-protected site with course materials for the class/program). Specific assignments and grading criteria were developed to evaluate students on IPE coursework.

Methods

As part of program evaluation for the first cohort, as well as to inform changes for the second cohort, focus groups were utilized to glean the graduate students' perspectives to discover the groups' classification and conceptualizations of phenomena [12]. Recruitment was conducted at the beginning of the first day of class of the two-semester IPE program. Students were recruited by email and a posted announcement in the LMS.

Focus groups

Data collectors trained in focus group methodology met with the students who chose to participate in the project and obtained Institutional Review Board (IRB) consent. Trained observers recorded field notes but did not interact with group members. Triangulation was achieved using field notes and digital recordings. Each focus group lasted approximately one hour.

Semi-structured questions, based on concepts/competencies inherent in IPE [1] that provided a framework for the program evaluation using qualitative methodology, were designed to guide the focus group sessions and obtain information to answer the research question. Follow-up prompts were posed to provide additional insight.

Participants

Participants were a convenience sample of students enrolled in graduate nursing (primary pediatric nurse practitioner, acute care pediatric nurse practitioner) and Master of social work (MSW) programs at a university in the southwestern United States. Thirty-eight students participated in the initial focus groups at the beginning of the program before any content was delivered; 15 students from the same group participated in focus groups at the end of the second semester. Each focus group had approximately five to six students. Focus groups were separated into different disciplines; however, the focus group leader was a member of the opposite discipline, in order to allow students to freely discuss their thoughts with someone who was not a member of their own faculty.

Setting

The focus groups were conducted in a private setting.

Analysis

Following a verbatim transcription of the electronic recordings, a line-by-line content analysis was conducted and emergent key findings were identified. A second independent reviewer validated responses with a secondary analysis/coding of the data.

Results

Several themes emerged from the focus groups. Headings are grouped under major themes, with initial observations followed by end-of-program thoughts. These themes included definitions of IPE, expectations, concerns about IPE, needed supports, expected and actual gains from IPE, and end-of-program thoughts.

Definitions of IPE

Initial responses to the question, "How would you define IPE?" were "vague." Graduate students indicated that they did not know what responsibilities persons in other disciplines have, what they can do, their standard preparation, or their values and ethics. They also expressed lack of knowledge about governing bodies and certification requirements in the other's discipline.

Perceptions of IPE at the end of the program differed significantly from the beginning:

> Learning about what other professions do, and knowing how you can use them as resources and how you can work together—for our instance, work together to take care of all aspects of patient care.
>
> By knowing what the other profession can provide, you can give more holistic care.

After students participated together in selected classes and projects, an understanding of each other's professions emerged as the definitive theme.

Expectations

Expectations related to coursework and the IPE competencies of teamwork, communication, roles, responsibilities, professional ethics, and values [1] were articulated. Similarities and differences among students from the two disciplines were identified.

Coursework

A major theme of learning the boundaries of each other's roles was evident at the start. For example, MSW students expressed the need to understand what nurses do in a hospital setting, understand what nurses expect from social workers, and gain some knowledge of nursing and medical terminology. Similarly, NP students expressed the need to learn the role of the social worker and what resources they have in the community. The question of how much clinical information to give social workers was also raised.

Students from both disciplines believed "it would be challenging" and would have preferred to have more information about being in coursework with each other. "I didn't have any expectations; it wasn't in our degree plan when we started the program."

Teamwork

When initially questioned about expectations for teamwork, NP students expressed the need to know who to go to with questions. Social work students spoke strongly about the need for getting everyone's perspectives.

Communication

Communication was considered "number 1" in importance, as it was viewed as essential to working in a team. Both NP and MSW students voiced that learning about the others' roles and how to communicate effectively would lead to better outcomes for patients. "Communication may help me indirectly, but it helps patients more directly if we communicate well."

Roles and responsibilities

One of the MSW participants described "turf issues," which had been observed in hospital settings. There was an initial expectation from both MSW and NP students that learning about each other's roles (including the legal parameters) would give their patients and families a better quality of life by making sure their needs were met medically and socially. Additionally, MSW students expressed the wish that acquiring this interdisciplinary approach would make them more marketable.

Professional ethics and values

In response to the question about their expectations of IPE in relation to professional ethics and values, NP students said that they did not know if there were differences in the ethics and values of nursing and social work at the start of the program.

> We don't know what social workers know about values we learned—i.e., autonomy, beneficence, maleficence, all that stuff we learn … if they have a theory base like we do.

Social worker students clarified that they value knowledge and always have a responsibility to learn a "new lingo," i.e., possibly to better communicate with other practitioners so that decisions could be made together about patients. They also indicated that they expect that professionals will not cross each other's boundaries.

Expectations at the end

Overall, students' expectations, which were vague prior to beginning the program, were mostly met—to the extent that they could articulate them.

> I felt like overall it was what I expected … I mean, I think that collaborating with social workers on our projects and stuff was what I expected.
>
> I think when I came into the program; I expected to work together a little bit more than we actually did.

Concerns about IPE

Coursework

Preliminary concerns about coursework included not understanding how it might help, the time involved, learning how to define terms (a new language), and the fact that it was a new program. Nurse practitioner and Master of social work students indicated that they would have preferred more information prior to the beginning of

the semester. The biggest concern expressed by students was the amount of time that would be involved.

> I have no time for myself; too much time for practicum.
>
> This is something extra—we all have work, school, clinicals, and families scheduling conflicts.

There was also concern related to future roles after the end of the program: "Will social workers be phased out if nurses learn what we do?"

At the end of the program, students from both disciplines reported that they had expected to work together more than they did. One noted that "[I] thought there would be … a couple of more projects like acting, in the [simulation hospital]." Another stated that she/he "thought that we would have done that [project] one more time." Similarly, students in both disciplines reported that: "It would have been helpful to meet together in a lab in small groups once each week."

Time constraints were voiced as a concern about coursework, as many of the students worked full-time while enrolled in school and were hoping to "have a life on top of that." Participants reported that they were worried about grades from group projects with persons they had not worked with before.

Teamwork

Initially, students of both professions expressed concerns about the amount of time that would be required for teamwork within the IPE coursework. Conversely, one person expressed concern that there would not be enough time to form relationships with students from the other profession.

At the end, some students perceived teamwork throughout the program as positive, while others perceived it as negative. "My team had great teamwork—we were all able to communicate with each other easily; everyone always responded to their e-mails." Others disagreed.

> Social workers went to the [simulation hospital] [for simulation activities] with the intent to develop interprofessional collaboration, working with the nurses—but the nurses wouldn't, like their primary goal is the patient so it felt like … there wasn't a lot of interprofessional collaboration.

Communication

From the beginning, communication was cited as important to the successful implementation of the IPE program, but it was generally "expected" that there would be confusion at the start. One person was concerned about the other professional members "thinking we are stupid" and expressed hope that "our opinion will be respected."

Overall, there was not a lot of discussion in the focus groups about concerns over communication.

At the end of the program, students reflected that communication between themselves and faculty was "confusing" at times. Communication with other students during the exercises in the simulated hospital on campus was also confusing,

especially for the MSW students who were not familiar with how this type of program works.

> [I]t was like a soccer game where you have never played together and you go out in the field and no one knows what position they're playing and you just go out and you just know that your goal is to get the ball in the opposite side. We've never really worked with them. We did the paper but, and this actual (simulation hospital) simulation thing, we never really worked with them so we went in there and it was like, k [*sic*], go for it.

Roles and responsibilities

At the onset, concerns over roles and responsibilities within the IPE program again focused on "turf" issues; participants reported having observed these issues in hospitals. One participant commented: "I don't know if they are required to have experience before coming into graduate social work classes … Situations will be very individual—you don't expect the other to come in and take over." Concern about grades was expressed in relation to time. In this context, it was stated that they were concerned about "everyone doing their part."

Professional ethics and values

Mutual respect from persons in both disciplines was cited as essential to working together in IPE in the beginning. One individual pointed out that both professions were "service industries." "I think the professional ethics and values would pretty much be the same … our goal is to 'do good and do no harm.'" Others questioned where to "draw the line" citing liability within their own institutions and their own licenses.

At the end of the program, outcome measures for concerns about IPE showed that students from both disciplines concurred that social workers and nurse practitioners share a lot of the same ethics and values. "I kind of went into it feeling that way but it was nice when we had lectures from social work and the Safe Team from the [local children's hospital]. I really appreciated that … it let us see how they put their values in perspective."

Needed supports

Expectations for the IPE coursework and the amount of time needed, along with schedules for group work, was a high priority for students in both professional programs at the start. Combined class times and "additional structure" to work on projects was suggested.

Faculty guidance for teamwork and assignments, along with grading criteria for projects, was essential. In addition, participants thought responsiveness from faculty and a "middle man" with knowledge of both NP and MSW projects and papers was needed. Open communication was also mentioned, along with the need for a "mediator if someone doesn't pull his/her weight." In response to the question, "how can we (faculty members) provide support?" the participants had very specific sugges-

tions: "Provide clarification re: responsibilities"; "Organization and communication"; and, "Resources and knowing faculty's specific area of expertise."

Overall, at the end of program, students voiced that they "had the support of the instructors."

> The support was there … all we had to do was ask.
>
> It would have been helpful to have a greater understanding of the logistics from the beginning.

Expected and actual gains from IPE

Initially, students' expectations of what might be gained from the IPE experience reflected the hope that they would feel more comfortable working with persons in the other profession. It was also viewed as a "self-growth" experience as they gained an understanding of what each other was talking about. Social work participants also hoped that it would make them uniquely qualified for hospital social work: "[we] hope it will give us a leg up."

Although some students from each discipline had worked with the other discipline in various settings, this experience provided them with information about working in different settings.

> I currently work in a hospital setting so I'm used to consulting with social work … if someone needs help with meals or transportation, I contact social work … but as I move to the primary setting in a doctor's office I won't have the social worker—so I learned some things I will have to do myself.

Conversely, another student noted: "It gave me a better idea of what kinds of problems I should bring forth and what kinds of resources are available."

Internships were mentioned as very valuable, as they provided an opportunity to apply what was discussed in classes. Some participants would have liked to work together in the clinical setting in an internship.

> I think of the idea was good. I like that we had the chance to practice talking to nurses and them practicing talking to us because then it gets in our head that that should happen in the field. But like I said, it just wasn't enough but I think that's helpful to practice.

End-of-program additional thoughts

Favourite part of IPE

Students varied in their favourite part of the IPE experience.

> I liked the simulation part—maybe it's just me. … I would much rather demonstrate what I learned in a clinical setting than sit and write a paper—but that's just me.
>
> The face to face meetings and time together.

Least favourite part of IPE

Several students alluded to role-playing scenarios as their least favourite learning activity. While they indicated that they saw the benefits of this type of activity, they admitted that they were "nervous" because they did not have a good understanding of what they would be doing. Students in both disciplines identified the "lack of expectations" and "lack of written materials" from the beginning of the project as one of their least favourite aspects. Additionally, they would have liked to have had one person as a contact for emergent questions throughout the two semesters. "I think my least favorite was not having those interactions."

Summary

During the post-course focus groups, graduate students expressed that more interaction during classes would provide them with a way to experience and learn more about teamwork. Both groups thought they would be having more classes together and working together in clinical settings and in the simulated hospital on campus. The social work students did not feel as comfortable in the simulation lab and wanted more guidance and feedback. Since students were together in the simulated hospital only once, they were not able to experience sufficient teamwork and communication. Some of the social work students stated they had to "fight for what we thought best" for the patient. They believed they could have learned more about IPE if they had more classes together throughout the semester.

Discussion and conclusion

Graduate students from social work and nursing disciplines were articulate in identifying their expectations of IPE, the actual experiences encountered, and the disappointments and benefits. Students reported an increased understanding of each other's roles, which has been cited as an important outcome of IPE [13]. Both groups shared similar ethical principles, noting some potential overlap in roles. They believed that through communication and working together they could provide the best outcomes for those they cared for. Findings identified similar challenges to those encountered by Rosenfield et al. [8] during the implementation of an IPE program, including student concerns, particularly at the beginning of the program, and some negative experiences. Continuous monitoring of activities, seeking input from faculty members and students within each discipline, and providing support must be ongoing throughout the program.

From the focus groups prior to the IPE program, it appeared students from both professions had possible stereotypes of the other discipline. Cook and Stoecker evaluated studies of stereotypes by healthcare students [14]. Findings demonstrated that it is common for students in the healthcare profession to have stereotypes of other healthcare disciplines, as well as their own, and that these stereotypes can affect communication. The authors suggest that all students should learn correct information about each profession [14]. This is what participants in this program evaluation expressed they wished would have occurred when the course began.

Time was a major discussion point in regard to coursework and learning related to other disciplines. Previous studies of interdisciplinary team training [15] have

shown that students find the interdisciplinary approach beneficial, even with the time involved. In the study by Leipzig et al. [15], social work students thought teams were a more effective utilization of time as compared to students from other disciplines.

It was interesting to note that students valued the simulation portions of the project and wanted more time together. The use of simulations may be helpful in enhancing IPE [16]. The International Nursing Association for Clinical Simulation and Learning (INACSL) Standards of Best Practice: Simulation^{SM} standard on simulation-enhanced IPE [17] may be helpful when planning and evaluating IPE simulations. It is imperative that all participating disciplines are oriented to simulation-based activities.

Limitations of this program evaluation included the lack of follow-up participation by all of the students who participated in the first focus groups; some chose not to join in the final focus groups at the end of their program of study. Additionally, this was done at one university and with only two professions.

Lessons learned from the initial group of students participating in the IPE program permitted faculty members to restructure the program during the second year. Changes made included more specific information about the faculty members' expectations for teamwork and collaborative projects and preparation for working together in the simulation laboratory. Additionally, one faculty member was assigned as a "contact person" for all students so that the information given was consistent. Faculty members from both disciplines increased their number of meetings to plan and share any concerns. The roles and responsibilities of all persons involved were clarified.

Universities considering initiating IPE may benefit from the experiences of these researchers and clarify requirements and provide more classroom and simulation activities to promote communication. Recommendations for studies include evaluating student teams in clinical settings and exploring the effect on patient outcomes. Studying ways to improve communication and collaboration with other disciplines provides a wide range of opportunities to advance this field of work. Longitudinal effects of IPE on students following graduation would also be helpful.

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Note
1. The results of some of this project and research was presented as a poster at the 13th Annual International Nursing Association for Clinical Simulation and Learning (INACSL) Conference in Orlando, Florida, and as a poster at the 14th Annual INACSL Conference in Atlanta, Georgia.

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