

Infusing Interprofessional Education Core Competencies and Collaborative Practice Into Standards-Driven Curricula



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One challenge facing healthcare training programs is balancing the need to provide students with interprofessional education (IPE) and collaborative practice (CP) opportunities in the context of highly prescribed standards-driven curricula (e.g., nursing and speech-language pathology). An infusion-based approach is an option for institutions and standards-driven programs that do not have specific IPE/CP courses or open electives in their curriculum.

Infusion is a strategic way to include content and practical opportunities for applying learned skills across disciplines (McGuire, n.d.). A curriculum infusion model can strategically integrate IPE content and CP opportunities into regularly offered courses across programs (Renzulli & Waicunas, n.d.). An infused curriculum underscores the roles of the faculty, students, and administrators in its development and implementation, whereas an integrated curriculum may be content-driven without the systematic integration of content and application of knowledge and skills across disciplines (McGuire, n.d.). Infused content may comprise two or more units of a course, or the content may weave thematically through courses (Fairfield, 2012). Infusing interprofessional education core competencies and collaborative practice into standards-driven curricula depends on "intrinsic connections that can be made between a course's intellectual content and health issues" (Riley & McWilliams, 2007,

p. 1). The purpose of this project was to examine the feasibility of using case-based scenarios and motivational interviewing techniques to teach IPE/CP and professional communication skills to students in standards-driven healthcare training programs.

Background

The Framework for Action on Interprofessional Education & Collaborative Practice (WHO, 2010) provides strategies that help training programs implement interprofessional education and collaborative practice into the curriculum. The World Health Organization (WHO) describes interprofessional education as occurring "when students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes" (p. 10). "Collaborative practice happens when multiple healthcare professionals from different backgrounds work together with patients, families, [caretakers], and communities to deliver the highest quality of care" (WHO, 2010, p. 7).

A state university's College of Nursing and Health Sciences established an Ad-hoc Interprofessional Education committee to help direct IPE/CP activities in the College's three units (i.e., Department of Health and Human Sciences, Kinesiology and Health Studies, and the School of Nursing). There are ten undergraduate programs in

the College and five graduate programs. The College Ad-hoc IPE committee was formed to assess the feasibility of implementing IPE/CP among the College's healthcare programs. Consequently, the committee prioritized the IPE core competencies and selected Interprofessional Communication as a priority, followed by (2) Roles and Responsibilities, (3) Teams and Teamwork, and (4) Values and Ethics for Interprofessional Practice (IPEC, 2016). The Ad-hoc committee's priorities for curriculum development energized faculty to move forward with IPE/CP opportunities.

Methodology

Four faculty members from four programs in the College of Nursing and Health Sciences developed an IPE/CP curriculum (i.e., two IPE modules and one CP module) that was infused into each program's required coursework: three undergraduate programs (i.e., athletic training, nursing, and kinesiology and health education and promotion) and one graduate program (i.e., speech-language pathology). Students completed Module 1 and 2 as out-of-class (100% online) assignments. Module 1 introduced IPE/CP and Interprofessional Communication. Module 2 presented Motivational Interviewing (MI) techniques that are a collaborative conversation style for strengthening a person's motivation and commitment to change.

Module 3 was an in-class case-based CP activity. Figure 1 is an example of one of the case-based scenarios where student teams made clinical decisions using Motivational Interviewing strategies. Each team of students from across the four disciplines chose a case-based scenario and developed Motivational Interviewing responses (i.e., empathy, partnership, acceptance, evocation, and affirmation) to address the patient's/client's statements. Teams met face-to-face to brainstorm their Motivational Interviewing techniques and shared their comments.

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Collaborating faculty collected data for the modules using the described assessments: pre-and post-tests, knowledge assessments (i.e., Learning Checkpoints), self and team evaluations, personal communication style inventories, and a post-survey tool. Instructors had the flexibility to add additional assessments or questions to the described assessments to meet course objectives and learner outcomes.

Table 1. Pre and Post-Conference Confidence in Skills on Interprofessional Learning in Practice, 2018-2019

| | Pretest Extremely Important | Post-Test Extremely Important |
|-------------------------------------------------------------------|-----------------------------|-------------------------------|
| Open Communication | 80.0 | 87.5 |
| Clear Direction | 76.7 | 95.8 |
| Non-threatening Work Environment | 70.0 | 91.7 |
| Clear and Known Roles and Tasks for Team Members | 56.7 | 91.7 |
| Respectful Atmosphere | 73.3 | 87.5 |
| Shared Responsibility for Team Success | 46.7 | 83.3 |
| Appropriate Balance of Member Participation for the Task at Hand | 40.0 | 83.3 |
| Acknowledgment and Processing of Conflict | 70.0 | 87.5 |
| Clear Specifications Regarding Authority and Accountability | 53.3 | 91.7 |
| Clear and Known Decision-Making Procedures | 60.0 | 95.8 |
| Regular and Routine Communication and Information Sharing | 76.7 | 100 |
| Enabling Environment, including Access to Needed Resources | 63.3 | 95.8 |
| Mechanism to Evaluate Performance Outcomes and Adjust Accordingly | 53.3 | 83.3 |

Module 1: Interprofessional Education (IPE)/Collaborative Practice (CP) and Interprofessional Communication.

Students, before beginning Module 1, completed a teacher-made pretest comprised of 13 closed-ended questions. Students rated the importance of communication techniques on a 1 to 5 scale (i.e., 1= Not At All Important; 2=Slightly Important; 3=Moderately Important; 4=Very Important; 5= Extremely Important). Once the students completed Module 1, students’ knowledge of the importance of communication in interprofessional practice was assessed using ten objective questions (i.e., five True/False questions and five multiple-choice questions).

Module 2: Motivational Interviewing

Students, before beginning Module 2, completed an 8-question teacher-made pretest. The pretest asked students to rate their role as healthcare providers to assist patients/ clients to adopt a new behavior. Their ratings ranged from 1=Strongly Disagree, 2=Disagree, 3=Agree and 4=Strongly Agree. Students then completed the Motivational Interviewing module. Students completed the module and answered a ten-item objective assessment (i.e., five True/False questions and five multiple-choice questions) about their knowledge of Motivational Interviewing techniques.

Module 3: Interprofessional Collaborative Practice Activity

Before beginning Module 3, students completed the *Communication Style Inventory* (CSI) (Alessandra & O’Connor, 1996). The CSI is comprised of 18-paired statements. Instructions asked students to circle the statement that most described how you usually act in everyday situations. The idea is to get a clear description of how you see yourself. The students’ answers were classified into one of four categories: Controller/Director, Promotor/Socializer, Supporter/Relater, or

Analyzer/Thinker. After students completed Module 3, they completed a 13-item teacher-made closed-ended post-test. This post-test was the same as the pretest completed before Module 1. Students also completed a self-evaluation and a team-evaluation using a 7-item assessment. Students rated themselves and fellow team members on questions dealing with collaborative relationships, sharing information, productive feedback, and team focus. A 1 to 5 rating scale was applied (1=Well Below Expected; 2=Below Expected; 3=Nominally Expected; 4=Above Expected, and 5=Well above Expected).

Results

Thirty students from across four healthcare programs (i.e., speech-language pathology n=11; nursing n=5; athletic training n=6; kinesiology and health education and promotion n=8) independently completed Modules 1 and 2. Four teams, comprising 28 students from the original 30 students, met for Module 3, for a case-based collaborative practice activity.

Thirty students completed a pretest and post-test, which asked them to rate the importance of effective Interprofessional Communication. All students rated each factor at least a 4 (i.e., Very Important) or a 5 (i.e., Extremely Important). The percentage of students who rated the factors as “Extremely Important” markedly increased on the post-test (see Table 1).

After the project, each student completed a self-assessment and team assessment on the quality of interprofessional communication. Each assessment was comprised of 6 factors, and each factor was assessed on a 1 to 5 scale. All scores for the self-assessment and team assessment ranged from 3 to 5. In general, students rated the quality of interprofessional communication high (i.e., 4 or 5) for both themselves and their team (see Tables 2 and 3).

Table 2. Percentage of Students’ Self-Assessment of Interprofessional Communication

| | Nominally Expected | Above Expected | Well Above Expected |
|---------------------------------------------------|--------------------|----------------|---------------------|
| Establishes Collaborative Relationships with Team | 0 | 44 | 56 |
| Integrates Information for Decisions | 16 | 36 | 48 |
| Asks Appropriate Questions | 0 | 41 | 59 |
| Provides Productive Feedback | 28 | 28 | 44 |
| Explains Unfamiliar Vocabulary/Role(s) | 28 | 28 | 44 |
| Helps Team Remain Focused | 16 | 20 | 64 |

Table 3. Percentage of Students' Team-Assessment of Interprofessional Communication

| | Nominally Expected | Above Expected | Well Above Expected |
|---------------------------------------------------|--------------------|----------------|---------------------|
| Establishes Collaborative Relationships with Team | 16 | 20 | 64 |
| Integrates Information for Decisions | 0 | 44 | 56 |
| Shares Useful Information with Others | 12 | 24 | 64 |
| Provides Productive Feedback | 36 | 4 | 60 |
| Explains Unfamiliar Vocabulary/Role(s) | 16 | 28 | 56 |
| Helps Team Remain Focused | 28 | 24 | 48 |

Discussion

Interprofessional education and collaborative practice in healthcare have been recognized as a precursor to effective team functioning and quality care (IPEC, 2016). Faculty and students who participated in this project reported positive feedback for all of the infused IPE modules and CP activities, and all student-learning objectives were met. Faculty assessed students' learning outcomes using uniform assessments with some additional assessments implemented for individual course objectives and learner outcomes. Barriers to scheduling courses and teaching content were overcome by offering out-of-class core content and face-to-face CP formats. Module 1 is under revision, and another core module, Roles and Responsibilities, is being developed. Programs in the College are identifying more courses where the modules could be infused, and they are developing additional collaborative practice activities.

Conclusion

Case-based scenarios and motivational interviewing techniques can be effectively infused into standards-driven healthcare training programs to teach IPE/CP competencies and collaborative practice. Barriers to an infusion-based approach are not unlike the obstacles encountered when offering stand-alone IPE courses with CP opportunities, such as scheduling conflicts, classroom space, and community-based learning events. High-level visible administrative and organizational support and structure are necessary to successfully implement an infused IPE/CP curriculum across healthcare programs. Faculty training and support (e.g., compensation or reassign time), and instructional and assessment flexibility are critical to successful implementation.

Students in healthcare training programs cannot continue to learn in silos yet be

expected to exhibit collaborative practice behaviors and attitudes in work settings. Healthcare training programs must identify effective and efficient ways to offer students opportunities to learn from and with students across different disciplines to deliver the highest quality of care.

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Figure 1. Example of Scenario

Chad is a 21 year-old single, college football player. Chad is in the gym at least twice a day, lifting weights. He "grunts" loudly with each lift. He injured his lower back when lifting weights at the university's athletic facility. Post MRI, he has received physical therapy (PT) for 4 months, with only minor relief. He was also referred to the speech department for a voice evaluation because of a "very hoarse voice." Since his injury, Chad has not been able to lift weights, participate in football practice, games or daily workouts. Today, he's meeting with his athletic trainer and speech therapist.

Chad: "I thought I would be over this by now. I'm only 21 years old, and I feel like I'm 80! I'm hesitant to do much of anything. I can't even look over my shoulder without being afraid I'm going to do something to make it worse. I'm depressed and eating too much. I've thought about smoking weed for the pain. At least everyone tells me my voice sounds better. I don't know what I'll do if I can't play football again."