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Table Facilitators' Reflections Regarding Their Interprofessional Core Competencies

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Abstract

Background: Providing students and practitioners opportunities to learn from other disciplines in a supportive environment has the potential to improve patient outcomes and practitioner job satisfaction.

Purpose: The purpose of this study was to describe an annual Interprofessional Education Event offered in a university setting and explore participant views regarding their competencies based on the Interprofessional Education Collaborative's four core competency domains: Values/ethics for interprofessional practice, roles/responsibilities, interprofessional communication, and teams and teamwork.

Method: Twenty-six faculty and students participated in preparatory activities and served as table facilitators for a large case study event. After the session, twenty submitted survey responses reflecting on changes in their interprofessional competencies.

Discussion: Table facilitators reported that their core competencies in all areas remained stable or improved as a result of their participation in the pre-planning stages and case study workshop. Participant comments indicated the importance of initiating interprofessional education during academic training and to continue it throughout an individual's career. Future directions include pre-event competency assessments and longer-term follow-up with participants.

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Interprofessional Education

Early on, healthcare professionals may have worked side by side but rarely worked as a team (Mellor, Hyer & Howe, 2002). Even with limited team interaction, patient outcomes improved making practitioners and researchers consider the impact of health care teams. The result was more formalized training in university settings and at professional development conferences. An early example of this occurred at the Purdue University School of Pharmacy and Pharmaceutical Science in 1968. Faculty developed a curriculum that directly connected pharmacy students with future healthcare team members through classes, medical rounds, and clinical placements (Tobbell, 2016).

Similarly, curricula in nursing programs included effective ways to collaborate with physicians. The Student American Medical Association aided in creating collaborative educational opportunities and by 1975, around 5000 students had participated in voluntary Interprofessional Education (IPE) projects (see Baldwin, 2007 for review). Further, an interprofessional committee led the 1972 Institute of Medicine conference, where individuals from the fields of nursing, pharmacy, medicine, dentistry, and allied health developed a program to discuss the growing need for collaborative practice, surmounting medical costs, and overall scopes of practice (Pellegrino, 1972).

As educational institutions plan to implement IPE opportunities, several university programs provide examples on ways to proceed. Rosalind Franklin University of Medicine and Science, University of Florida, University of Washington, and the University of Minnesota have interprofessional programs that require enrolled students to participate in various educational opportunities and meet minimum competencies related to interprofessional collaboration. Their programs range from one-credit courses to completely integrated curricula. The major focus is on demonstration of competencies in effective team membership rather than discipline specific scope of practice (Bridges, Davidson, Odegard, Maki, & Tomkowiak, 2011; Rosalind Franklin University of Medicine and Science [RFU], n.d.; WWAMI Institute for Simulation in Healthcare, 2016; University of Washington, 2002; University of Minnesota, n.d.). The overall goal is to train collaboration-ready healthcare professionals.

Interprofessional Competency

In 2011, the Interprofessional Education Collaborative (Interprofessional Education Collaborative Expert Panel, 2011) published a report outlining interprofessional competency development, concepts of interprofessionalism, and core competencies for interprofessional collaborative practice. The development of the common core competencies were intended to provide overarching guidelines for the coordinated effort across health professions to direct integrated professional and institutional curricular development.

Each of the four competency domains is defined by a general competency statement and multiple specific competencies. The first competency, values/ethics for interprofessional practice, has been an integral component of interprofessional teams described throughout the literature (Cooper, 1942; Silver, 1958; Baldwin, 2007; Slavkin, Sanchez-Lara, Yang, & Urata, 2014) and highlights the need to work in cooperation with patients and other team members to develop trusting relationships and provide high quality healthcare. It outlines the need for professionals to be honest, show integrity, and respect the dignity and privacy of patients while embracing cultural diversity and individual differences. All of these values are embraced while maintaining competence in one's own profession.

The second competency domain, roles/responsibilities, requires professionals to effectively communicate their own and other team members' roles and responsibilities to patients, families, and other professionals. Healthcare professionals have a specific knowledge and skill set according to their Scope of Practice, however the approach to interprofessional knowledge should remain open and flexible (Bachrach, Robert, & Thomas, 2015). Medically complex patients often require more than one discipline to provide treatment and care, which increases the demand for health professionals to work synergistically. Understanding of each discipline's roles, responsibilities, and strengths helps improve patient care. Team-based practice has been argued to provide not only improved comprehensive care but is also associated with cost savings and increased job satisfaction (Medves et al., 2010). By forging interdependent relationships with other professions, individuals must recognize their own limitations in skills, knowledge, and abilities. Teams that engage in continuous professional and interprofessional development will utilize the full scope of the team's knowledge and skills to provide the best care possible.

The third competency domain, interprofessional communication, describes the importance of active listening, providing instructive feedback, and using respectful communication in healthcare settings. It is not only important for health care professionals to understand the rationale for their care but also be able to communicate that information to the patient and other professionals (Bachrach et al., 2015). Ineffective communication among healthcare professionals has been shown to be a common denominator behind many adverse events, medical errors, and delays in patient care. In fact, Kohn, Corrigan, and Donaldson (2000) reported 80% of errors were due to miscommunication (among colleagues, between patient and physician, inaccessible medical records, etc.) that led to physician reported patient-harm 43% of the time. These preventable medical errors, based on ineffective communication, costs billions of dollars each year and increase overall mistrust in the healthcare system (Kohn, Corrigan, & Donaldson, 2000). Therefore, consistent communication among team members, patients and family is imperative for this integrated, interdependent approach (Bridges et al., 2011). Professionals who are able to express their knowledge with confidence, clarity, and respect support the maintenance of health and the treatment of disease.

The fourth competency domain, teams and teamwork, relates to an individual's ability to integrate knowledge and experience from other professions as a way to effectively inform care. The goal of interprofessional collaboration is to develop and enhance one's cooperation and leadership skills while working with professionals who have different content knowledge and skills as a means to understand and address health problems (Bachrach et al., 2015). Health care professionals must learn to communicate their knowledge in ways that others can understand and in turn, develop an appreciation and understanding of other discipline's methods. This team approach can lead to improved relationships, increased trust, dispelling of stereotypes, and significantly improved attitudes towards other professionals (Parsell & Bligh, 1999). Individuals who share accountability and engage themselves and others in dialog regarding possible disagreements and develop consensus on ethical principles effectively demonstrate this competency.

Research Question

Several years ago, Northern Illinois University began

offering an annual case study workshop for faculty and students from six allied health disciplines to provide interprofessional education to their students. The purpose of this manuscript is to describe one of the events and answer the following research question:

- Using the Core Competency Domains for Interprofessional Collaborative Practice (2011), do table facilitators' perceptions of their core competencies change as a result of the event?

Methodology

Event Preparation

In preparation for the workshop, a 32 year old woman who sustained injuries after a rollover car accident met with faculty mentors from audiology, medical laboratory sciences, nutrition/dietetics, physical therapy, rehabilitation counseling, and speech-language pathology to discuss the incident and her medical conditions (see Appendix A for case summary). In addition to providing information about the case, this initial meeting served as an opportunity for faculty to develop and engage in collaborative practice, setting the stage for the integration of students.

Each discipline selected two students to be involved in future planning sessions, conduct research and complete assessments with the client. The faculty mentor met with their students multiple times to discuss the client's medical history, current living situation, physical abilities and limitations. Additionally, students administered the following testing:

- hearing and central auditory processing disorders (audiology)
- glucose levels and cholesterol levels (medical laboratorysciences)
- dietary questionnaire, weight, BMI (nutrition/dietetics)
- range of motion (physical therapy)
- job potential analysis (rehabilitation counseling)
- expressive language, word finding, and memory (speech-language pathology)

Two additional large group meetings occurred with the client, faculty mentors, and student table facilitators.

tors from each discipline. An additional eight faculty joined the 12 students and six faculty mentors at these meetings, all of whom served as table facilitators at the workshop. At these meetings, scopes of practice were discussed as well as specific tests individual disciplines administered and the results obtained. Each discipline's team (faculty mentor and two students) created a one-page summary outlining the critical information relevant to this particular case study and what they wanted other professionals to know about their discipline.

Workshop Description

Approximately 180 students and 20 faculty from the six disciplines were seated seven to eight per table for small group discussions. Seating assignments were made so that as many fields as possible were represented at each table. Due to the number of dietetics and physical therapy students who participated, each table had three to four dietetics students and one physical therapy student. One speech-language pathology and one audiology student were seated at most tables. The smaller number of rehabilitation counseling and medical laboratory students meant each table was limited to one or the other discipline. Faculty from each discipline gave a brief overview of their scope of practice and the client provided her case history. Following this information, participants at each table shared information regarding their discipline's scope of practice. Table facilitators (12 students, six faculty mentors, and eight additional faculty) used the summary sheets peers had generated to aid in directing the conversation.

After twenty minutes of table discussion, the twelve student table facilitators who were most familiar with the case participated in a panel presentation where they expressed their concerns regarding the impact of the accident on the client's overall health, hearing, balance, communication, memory, future education and work opportunities, nutrition intake, and laboratory readings. Each discipline's summary included concerns and possible deficits, exams to be conducted, and possible referrals that could be made. Details were provided regarding the findings of individual tests that had been administered.

Table facilitators integrated the panel information in the hour-long table discussions that followed. Teams expanded on the concerns presented, providing their own thoughts and listening to each other regarding the

case. A break from discussion allowed audience members to ask the client or table facilitators questions prior to returning to the final table discussion.

Survey

After the event, a survey was sent to table facilitators through Qualtrics. Participants were asked to evaluate personal changes related to the general competency statements taken from Core Competencies for Interprofessional Collaborative Practice (Interprofessional Education Collaborative Expert Panel, 2011) and explain their responses to the following questions. As a result of the Interprofessional Event, how did your competency level change in terms of:

- working with individuals of other professions to maintain a climate of mutual respect and shared values? (Competency Domain 1: Values/Ethics for Interprofessional Practice)
- using the knowledge of one's own role and those of other professions to appropriately assess and address the healthcare needs of the patients and populations served? (Competency Domain 2: Roles/Responsibilities)
- communicating with patients, families, communities, and other health professionals in a responsive and responsible manner that supports a team approach to the maintenance of health and the treatment of disease? (Competency Domain 3: Interprofessional Communication)
- applying relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan and deliver patient-/populations-centered care that is safe, timely, efficient, effective, equitable? (Competency Domain 4: Teams and Teamwork)

Participants

Twenty of the twenty-six table facilitators responded to survey. All individuals were associated with Northern Illinois University's academic programs of audiology, nutrition/dietetics, medical laboratory sciences, physical therapy, rehabilitation counseling, and speech-language pathology. Six respondents were students and 14 were faculty.

Results

For each question, table facilitators reported that their competency increased or stayed the same as a result of the interprofessional case study workshop. As noted in Tables 1 through 4, no participant reported feeling less competent in any domain as a result of the work-

shop. In addition to indicating if their competency levels changed, respondents were asked to explain their answers. Although all participants answered the multiple choice questions, not all participants answered the request to “Please explain your rating.” All participant responses are reported in Tables 1 through 4.

Table 1. *Competency Level Changes for Values/Ethics Domain 1*

	less competent	no change	more competent
As a result of the Interprofessional case study event, how did your competency level change in terms of working with individuals of other professions to maintain a climate of mutual respect and shared values?		6 (30%)	14 (70%)
Responses to a query to explain given rating			
<ul style="list-style-type: none"> • <i>Working on a real case provided great insight for interdisciplinary services.</i> • <i>I feel more able to understand a case as a whole rather than specific to my discipline.</i> • <i>I see crossover in our professions.</i> • <i>I never thought of allowing my students to see the point of view of other health care workers dealing with the same individual.</i> • <i>I have a better understanding of how some of the different fields pertain to case management.</i> • <i>I felt that I learned so much more about other professions and how we can collaborate when working with an individual.</i> • <i>Learned more about others scope of practice.</i> • <i>It was interesting to get more detail about other disciplines. I learned a lot from the PT student at our table - that was nice!</i> • <i>I always learn something about other professions when I interact with them. This year, I had the luxury to have three dietetic majors at my table. They helped me better understand the role of the dietitian and all of the possible vocational options available to those with a dietetics degree after graduation.</i> • <i>Know more about the details of what each program/profession does.</i> • <i>I gained substantial understanding of the dietetics and MLS groups.</i> • <i>Already feel competent in interdisciplinary care.</i> • <i>I'm a fairly seasoned professional who has spent most of my career on multidisciplinary teams.</i> • <i>I think I've been competent in this area for a few years.</i> • <i>I already had an idea of how the different disciplines would work together on the case.</i> 			

Table 2. Competency Level Changes for Roles/Responsibilities Domain 2

	less competent	no change	more competent
As a result of the Interprofessional case study event, how did your competency level change in terms of <i>using the knowledge of one's own role and those of other professions to appropriately assess and address the healthcare needs of the patients and populations served?</i>		8 (40%)	12 (60%)
Responses to a query to explain given rating			
<ul style="list-style-type: none"> • <i>There is a lot of information that goes into the other professions, and one event in my opinion is not enough to become truly acquainted with these disciplines. Although the event provided a great introduction to interdisciplinary services.</i> • <i>I learned more about how specifically my discipline could intervene with this case and what other disciplines I would work with most.</i> • <i>I am now aware of the roles of other professions in the health field.</i> • <i>By informing other professionals about my role in the rehabilitation process, I was able to provide many of them with a potential referral to help their clients find or enhance their work experiences.</i> • <i>The panel discussion really had a lot of information that showed the distinction between professions in terms of roles. However, I can also see how when working with an individual who has an injury or a disability, they can benefit when seeing different health professionals.</i> • <i>I learned new things about the role of certain healthcare workers in an acute situation.</i> • <i>I learned how my profession can better interact with other professions to more effectively serve the client.</i> • <i>Know more the details.</i> • <i>It reminded me how many competing concerns my patients may have.</i> • <i>Already feel competent in interdisciplinary care.</i> • <i>Already aware of roles</i> 			

Table 3. Competency Level Changes for Interprofessional Communication Domain 3

	less competent	no change	more competent
As a result of the Interprofessional case study event, how did your competency level change in terms of <i>communicating with patients, families, communities, and other health professionals in a responsive and responsible manner that supports a team approach to the maintenance of health and the treatment of disease?</i>		11 (55%)	9 (45%)
Responses to a query to explain given rating			
<ul style="list-style-type: none"> • <i>Being required to teach a large audience about the services my profession provides was a great experience and it helped me improve the skills of communicating with people who are unfamiliar with my terminology.</i> • <i>I have had limited experience working with patients, so working with a real case was helpful for my personal growth.</i> • <i>Helped with working with communities.</i> • <i>Better at referrals.</i> • <i>I felt more knowledgeable about some of the other fields, so that I feel more confident in explaining why various referrals or tests are necessary and appropriate.</i> • <i>Through my program, I have been learning from my instructors about how to communicate with clients, families, professionals, etc. They helped me and my cohort group learn how to develop effective counseling skills and practice cultural competency. Also, we learned about how we work with different health professionals.</i> • <i>Know more about the communication with the patient and those involved with the patient care.</i> • <i>I was reminded to ask about what other professionals my patients see.</i> • <i>Already feel competent in interdisciplinary care.</i> • <i>Already well versed in this.</i> • <i>Due to my real-work clinical experience, my competency did not change. However, many great points were made that would have definitely helped students learning. Specifically, the point about the client being busy and we need to not overwhelm them with unnecessary recommendations was a good take home message.</i> 			

Table 4. *Competency Level Changes for Teams and Teamwork Domain 4*

	less competent	no change	more competent
As a result of the Interprofessional case study event, how did your competency level change in terms of applying relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan and deliver patient-/populations-centered care that is safe, timely, efficient, effective, equitable?		10 (50%)	10 (50%)
Responses to a query to explain given rating			
<ul style="list-style-type: none"> • <i>I got to connect with other students in other programs and learn first-hand how their services contribute to the care of the patient.</i> • <i>I feel I am better able to deduce relevant information from patient interviews.</i> • <i>All health professions have an important role, helped to see how we can work together.</i> • <i>Planning for this case study gave me a lot of experience in working with other professionals to prepare a mock rehabilitation plan and make mock referrals.</i> • <i>The table discussions really helped! It was great hearing from students from various programs talk about their approaches and what issues they would address with their patients. We were all in agreement about how each specialty can help Catherine.</i> • <i>It is easy to get engaged in turf wars with other professions. This was a nice reminder that we are all on the same team.</i> • <i>Learned all the aspects described in this question.</i> • <i>Already feel competent in interdisciplinary care.</i> • <i>I teach teambuilding.</i> 			

Discussion

The case study event allowed university students and faculty in allied health fields to collaborate with each other in a supportive clinically relevant discussion regarding the treatment of one individual. While the event was limited to a 3½-hour session, the students who served as table facilitators received additional mentorship and opportunities for collaboration. Specifically, they met with the patient and their faculty mentor multiple times over the period of two months to plan, conduct patient evaluations, interpret test results, and develop information for the panel presentation. Further, all table facilitators met together several times to discuss the case. This study focused on the changes in interdisciplinary core competencies in values/ethics, roles/responsibilities, interprofessional communication, and teams and teamwork for the students and faculty who received the additional training opportunities.

Table facilitators reported that their core competencies remained stable or increased as a result of their participation in the pre-planning stages and case study workshop. Although data was not coded to match faculty or student status with individual responses, only six of the respondents were students. Since more than six respondents reported increased competency for each of the core principles, at least some faculty indicated their

interprofessional competencies improved as a result of the workshop and planning activities. This highlights the need to continue to engage in interprofessional education opportunities throughout one's career. The Institute of Medicine reviewed an IPE model that builds upon the patient centered approach to include IPE with basic education, graduate education and continuing IPE as a key component of lifelong learning (Institute of Medicine (IOM), 2015). The results of the current study support the continued value of IPE for both students and professionals.

The competency that showed the greatest change was working with other professionals to maintain a climate of mutual respect and shared values. Comments suggested the event heightened participant awareness of what other professionals can offer them and their patients. It is possible this event was the first opportunity some participants had to discuss a case in a supportive environment, allowing them to fully appreciate what other professionals have to offer. Further, table facilitators were required to familiarize themselves with the scope of practice of all six disciplines, so they could adequately engage table participants in discussion, also allowing them the opportunity to learn more about potential collaborations with the target patient as well as future patients. This result is consistent with studies using TeamSTEPPS, a systematic approach to integrate teamwork into practice, which have shown improve-

ments in participant knowledge of, skills in, and attitudes toward team leadership, mutual support and situation monitoring (King et al., 2008).

Alternatively, the majority of participants indicated their competency in communicating with patients and other practitioners did not improve. This result may have been due to the fact that communication skills are an important element for each of the disciplines. Thus, most table facilitators had already received discipline specific instruction and feedback on respectful and culturally competent communication, which they felt comfortable transferring to an interprofessional context. Comments that indicated an improvement in competency level presented increased confidence in their own scope of practice and ability to make appropriate referrals.

Given that accreditation agencies are adding interprofessional education criteria to their academic standards, programs must document student competency in interprofessional work. The described interprofessional case study event allowed students to be introduced to other disciplines and practice being spokespersons for their own profession. The seating arrangements at the event required students to meet new people who viewed a case from a different perspective. Discussions across the disciplines provided an opportunity for all participants to achieve a more holistic view of a patient.

Limitations and Future Research

Though this study provides similar results to those of other studies of interprofessional competency, it is important to point out some of the limitations of the study. This study asked participants if their competency changed after the event. Adding a pretest survey would allow for paired samples analyses. While this would increase the robustness of the study, it must be paired with an increased sample size. Even if pre- and post-test surveys had been completed, statistical analyses with only 20 participants will have a high risk of Type 1 (false positive) error. Ultimately, the goal is to add to growing evidence that demonstrates that when professionals collaborate, patient outcomes improve (Epstein, 2014; Zorek, et al., 2015). Thus, a longitudinal study assessing the outcomes of participants' future patients would be a worthy addition to the literature.

Event-based programming is one way universities can provide students and faculty the chance to meet each

other and discuss a relevant case. At Northern Illinois University, these introductions have started discussions that have resulted in interprofessional clinical and research projects. As new relationships are forged, and curricula examined, integrated courses are being considered. Future research will focus on learner outcomes for all workshop attendees as well as additional interprofessional education programs.

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Appendix A

Case History

Patient Family, Educational History

- 32 y/o white female
- 5'7" tall; 238 lbs., BMI= 37.3
- Lives in small town
- Full-time undergraduate student
- Starting Speech-Language Pathology graduate program in 2 months
- Single mother, lives with her daughter (4 y/o), 1 cat, 1 large dog (100+lbs)
- Family lives nearby and helps with her daughter, but her mother also has health issues
- Familial history of diabetes (mgn, mgf), and heart disease (f, died at age 49, pgf)
- Lives in 2 story house, typically sleeps in bedroom upstairs, but after accident shared bedroom with her daughter and occasionally her mother

Current Concerns

- Car accident five months prior to workshop with multiple rollovers resulted in a burst fracture of her first cervical vertebrae, she was in a halo orthopedic device for three months, then placed in a hard cervical collar
- While in the halo, gained about 20-25 pounds as her physical mobility was severely limited
- Recent blood tests indicated normal cholesterol and glucose levels
- Pain in ear and neck affects ability to sleep
- She has trouble swallowing some things and consistently feels like something gets stuck. Swallow study completed while in the halo
- She has some trouble with word recall, and infrequently switches word order during conversational speech
- She currently has a lift restriction of nothing greater than 10 pounds ~weight of a full milk jug
- Limited mobility in neck and shoulders, difficulty in overhead reaching; numbness in fingers and parts of back
- Pain during day affects walking speed, needs to adjust (sit/stand) positioning frequently
- Fatigues earlier in day compared to before accident
- Takes narcotic pain meds and muscle relaxers at night. Takes Advil as needed during the day and can drive a car
- Her most recent job was tending bar, and before that she worked at the DMV conducting driving exams, neither of which she is currently physically capable
- She is attending university classes, but has help carrying her class materials

- She has been experiencing occasional dizziness when bending over at the waist
- Difficulty participating in activities enjoyed prior to injury: bicycle riding, playing with daughter, walking dog
- She has difficulty hearing men's voices since the accident and finds herself asking people to repeat themselves