

Speech-Language Pathology & Nursing Interprofessional Learning Project (SNILP): A reflection of Interprofessional education and training

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The purpose of the current paper is to discuss the development and implementation of an innovative, multi-component, pilot interprofessional learning experience for nursing and speech-language pathology students, addressing interdisciplinary knowledge, attitudes, and applications. It is the intent of this manuscript to explore the three-year journey, from project conception to completion, including the perspective of speech-language pathology and the nursing faculty-researchers. The discussion includes overall findings, challenges, and suggestions for future implementations of interprofessional learning experiences.

Keywords: interprofessional training, reflection, communication, nursing, speech-language pathology

Speech-Language Pathology and Nursing Interprofessional Learning Project (SNILP):
A reflection of interprofessional education and training

Description of Teaching Problem

Interdisciplinary communication and practice is considered imperative to improved patient outcomes and safety, as well as decreased financial burden (American Speech, Language, Hearing Association, 2015; Christopherson, Troseth and Clingerman, 2015; Institute for Healthcare Improvement, 2008; Institute of Medicine of National Academies, 2001; Naylor, 2013; Interprofessional Education Collaborative Expert Panel, 2011; World Health Organization, 2010). While interdisciplinary training is a standard component of some health science educational programs (Morrison, Lincoln, and Reed, 2011), it is missing or poorly represented in others, such as nursing and speech-language pathology. In particular, although interdisciplinary collaboration is considered a basic skill acquired during speech-language pathology (SLP) or nursing training, few curriculum-based or project-based practices exist to support such collaboration during educational training (Harris, Mayo, Balas, Aaron, and Buron, 2013; Johnson, 2016; Morrison, 2011). This gap in educational practice is being addressed by the American Speech Language and Hearing Association's (ASHA) Strategic Pathway to Excellence plan which has made the integration of interdisciplinary education into academic Communication Sciences and Disorders (CSD) curriculum a standard that should be fulfilled by 2025 (Johnson, 2016). Similarly, National Council State Boards of Nursing (NCSBN), has set forth a mandate to include interdisciplinary learning into nursing educational and training programs.

As programs begin to move toward meeting these future expectations, established by ASHA and NCSBN, models for developing such programs and researching their educational

impact, will be needed. In order to address this need, an interprofessional training program at a large, Midwestern university, was developed. This training program integrates nursing and speech-language pathology (SLP) students in collaborative activities to develop interprofessional knowledge and skills during patient assessment and intervention. Specifically, both nursing and SLP students were exposed to language, cognitive, and swallowing disorders during interdisciplinary clinical simulations to facilitate an understanding of what aspects of care SLPs and nursing might be responsible for or collaborate together to address. It is the intent of this manuscript to explore the three-year journey, from conception to completion of this program, from the perspective of both the speech- language pathology and the nursing researchers. The discussion includes overall findings, challenges, and suggestions for future administrations of interprofessional learning experiences.

Interdisciplinary vs. Interprofessional curriculum in speech language pathology

Prior to beginning discussion of interdisciplinary practices, terminology of interprofessional collaboration will be defined. Terminology within and across disciplines is often used interchangeably; however, terms such as “interprofessional” and “interdisciplinary” are distinct. ASHA's Special Interest Group on Interprofessional Education and Interprofessional Practice (2015) defines interprofessional practice as "two or more professionals who collaborate together, without any perceived hierarchy, and with full understanding of each other's' roles and responsibilities, to improve the client's outcomes and care” (p.4). On the other hand, the more general term of interdisciplinary practice is described as "individuals from different disciplines coordinating care to achieve better patient outcomes" (p.5). Therefore, interprofessional practice can be considered a part of interdisciplinary practice, and can be

viewed on a continuum of collaborative professional practices. This suggests that while all interprofessional practice is interdisciplinary, not all interdisciplinary practice is interprofessional because a team of health care professionals may coordinate care (interdisciplinary) without understanding of roles and responsibilities or including a perceived hierarchy of collaboration (interprofessional) (Johnson, 2016). The current training program was designed as an interprofessional program with interdisciplinary applications. These distinctions should be considered when reviewing and interpreting literature within and across fields. The below literature review discusses investigation of both interdisciplinary and interprofessional programs to further describe their differences.

Reflection on Curriculum Design

As instructors, clinicians, and researchers, nursing and speech-language pathology faculty members at our university, recognized that, although interprofessional and interdisciplinary practices are important to patient health outcomes, neither practice was included in the curriculum or either program. The process of designing an interprofessional program lasted over a year and a half, with input from faculty, researchers, and department, college, and university administrators. This multi-level interprofessional engagement was necessary in order to gather resources from various university, college, and department supports. Researchers examined literature documenting outcomes from successful collaborative programs, specifically, those programs that included either nursing or speech –language pathology and some other discipline, to inform this program’s design.

Specifically, Mathisen, Yates, and Crofts (2011) investigated an interdisciplinary palliative care education program across the disciplines of speech-language pathology and social

work. This curriculum was implemented across four years, with each year involving the implementation of a progressive phase of content. Qualitative measures included a questionnaire for content and reflection of student experiences; with findings indicating that students believed the program was useful both academically and clinically. Although this study in cross-curricular education underscores the need for greater interdisciplinary education and training, additional exploration into necessary components and implementation for such programs was suggested. Program factors, including increased interdisciplinary integration of concepts and application activities across disciplines, might increase the efficacy of such programs. Thus, although this program did not focus on interdisciplinary training for practice between nursing and speech-language pathology, the pilot study presents an example of implementing cross-curricular education using a variety of pedagogical tools (i.e. discussion, lecture, activities).

Dondorf et al. (2016) documented the importance of interprofessional collaborations between SLPs and nurses working with patients with swallowing disorders (dysphagia). Researchers noted that communication between SLPs and nurses during dysphagia assessment and treatment may significantly affect the quality of life of individuals with dysphagia. This further highlights the importance of interdisciplinary communication and practice.

This literature informed the design of the current study, including cross-curricular education through lectures, interdisciplinary discussions, and activities (Mathesin et al., 2011), and program content (Dondorf et al., 2016). While these studies provided a preliminary basis for program design, further review of interdisciplinary education practice is warranted.

Programs at interdisciplinary colleges and University-based hospitals.

Currently, traditional speech-language pathology curriculum includes undergraduate prerequisite course work, and two years of graduate work, with 325 supervised clinical clock hours (Council for Clinical Certification in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association, 2013) required. The typical focus of SLP academic programs is to provide academic and clinical competencies for practice, with some including interdisciplinary programs particularly when an associated health science college and/or a University-based hospital is represented at the university providing this academic program. In particular, there are several interdisciplinary college and/or University-based hospital programs which involve speech-language pathology including those at the University of Toronto, University of Vermont, University of South Carolina, MGH Institute of Health Professions, and Ohio University (Johnson, 2016). These programs contain both academic and practica with interdisciplinary interactions between SLPs and other medical professionals. However, questions still remain in regards to how health science programs, which are not part of an interdisciplinary college or have access to a University-based hospital, might implement interdisciplinary education and practicum opportunities. This presents an important challenge to such universities and warrants further contemplation and investigation.

Critical Components for Interprofessional Programming

Researchers have examined how speech-language pathologists learn teamwork skills, and found that, while most SLPs learn interdisciplinary practices through on-the-job training, earlier exposure to interdisciplinary models during academic programs may better prepare students for future clinical practice (Morrison, 2011). Thus, researchers identified a group of

topics that practicing SLPs believe students should be exposed to during their university training to better support teamwork in the areas of knowledge, attitudes, and skill (Morrison, 2011). For example, practicing SLPs indicated that knowledge of other “allied health disciplines, when to refer to other disciplines, and generic team responsibilities” (p. 373) were important to facilitating SLPs’ future clinical practice, successful interdisciplinary collaboration, and improved patient care (Morrison, 2011). Therefore, the topics of knowledge, attitudes, and skill, as well as interdisciplinary service experiences, should be considered in the creation and implementation of interdisciplinary education and training programs to best prepare students for clinical practice.

Solution: An Interprofessional Program

Current Program

A scholarship of teaching and learning research project was designed to address 1) the missing interprofessional experiences in current curriculum and 2) a lack of access to an interdisciplinary college or University- based hospital by implementing interprofessional and interdisciplinary education and practicum across the College of Nursing and Department of Communication Sciences and Disorders at a Midwestern university, therein uniting SLP and nursing students for collaborative, interprofessional training.

Years One and Two: Setting Goals and Designing the Program

The process of designing an interprofessional program lasted over a year and a half, with input from faculty, researchers, and department, college, and university administrators. Among the first considerations in program creation were components and content. Examples of components and content considered:

- Content:
 - Basic elements of each discipline that cross-over
 - Specific focus for each discipline – relevance of blood pressure, temperature, diet modifications, aspiration risk
 - Overall patient care
 - Language, Cognition, Dysphagia, - roles of each discipline, extent of knowledge for each discipline, assessment and treatment in each discipline
- Student Selection:
 - Participation of graduate students vs. undergraduate students
 - How do we best match SLP students with nursing students?
 - What basic knowledge do students need in order to maximize participation and benefit?
 - How many students can we manage?
- Program Logistics:
 - How many meetings/lectures should be included?
 - How many simulations should be included?
 - What activities?
 - Simulations – should students be paired? Should the pairs be randomized or fixed?

During initial design, one of the very first challenges that became evident during the planning phase was communication breakdown due to terminology differences. Researchers in both departments, experienced many miscommunications during the planning phase due to separate vernaculars. Investigators found that after thirty minutes of discussing a topic together, they were saying the same thing using different terminology, and realized that this breakdown in communication exemplified common challenges seen in interprofessional practice. Additionally, through these conversations, it was found that even the basic fundamental understanding of the other field's scope of practice remained vague or only partially understood. These insights reflect the need for collaborative competences, specifically the four competencies for interprofessional practice, including values and ethics for interprofessional practice, roles and responsibilities, interprofessional communication, and teamwork (Johnson, 2016), and provided the basis of the program's communication and case-based (Johnson, 2016) curriculum.

Researchers defined the goal of the project, “To provide nursing and speech-language pathology students with an interdisciplinary learning opportunity regarding cross-disciplinary practices during assessment and intervention processes to effect better patient outcomes. Specifically, expose students to language, cognitive, and swallowing disorders during interdisciplinary clinical simulated and field experiences”, as defined in the program syllabus (See Appendix A for details). Further, project outcomes focus on the demonstration of medical terminology use, communication and problem solving for interdisciplinary collaboration, and identification of co-occurring factors and formulation of interventions, as well as communication of scope of practice.

Once the design of the program was completed, over a one and a half year period, researchers began to create materials and prepare to administer the program. The remainder of year two was spent in the creation phase. The creation phase included the development of all materials detailed in the Administration and Assessment Phase discussed in the next section.

Year Three: Program Administration and Assessment Phase

While select universities include interprofessional experiences as part of their clinical practicums, there was no mechanism for nursing and SLP learning experiences at the midwestern university. Additionally, there were very few nursing and SLP procedures for interprofessional or interdisciplinary practice presented in evidence-based education research. Therefore, researchers included components from other healthcare interdisciplinary programs, including lectures, for introduction of content, group activities, field study, and standardized simulations, for application of content in program design. Specifically, researchers included five traditional lectures, five interprofessional activities, with analysis of case studies, three multi-component

standardized patient simulations, each including dysphagia and either cognitive or language deficits, and one interprofessional field experience at a local skilled nursing facility. All program components were administered with members of both the SLP and nursing fields. Assessment measures were identified or created to examine project outcomes. Assessment measures were administered at each phase of protocol implementation, to measure student knowledge, application, as well as, attitudes on aging and collaboration across experiences in the program. See Table 1 for program assessment tools and measures.

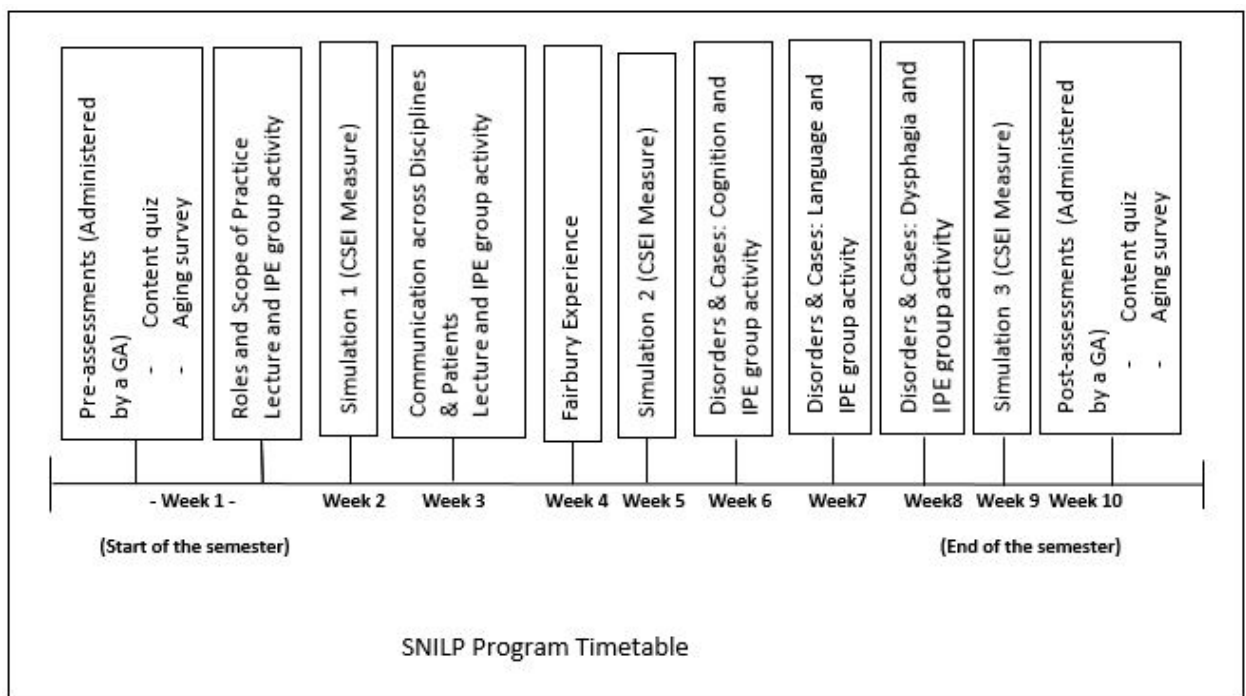
Table 1. Program Measures

| Assessment Tools | Administer & Scorer | What each Measured | How the measure was used |
|--|---|--|--|
| Content Quiz | Program Graduate Assistant | Content Knowledge- Scope of Practice, Communication, including Medical Terminology, Basic disorders in language, cognition, and swallowing. | Pre/Post Program Assessment |
| Knowledge and Attitudes on Aging Survey | Program Graduate Assistant | Knowledge and Attitudes on Aging Survey – This survey measures facts and attitudes about the aging process. This was included because the aging population were the focus of the simulation and field experiences. | Pre/Post Program Assessment |
| Creighton Simulation Evaluation Instrument (CSEI) Measure | Simulation Graduate Assistant | Application of Concepts to Simulations - Communication, including Medical Terminology, Basic interventions in language, cognition, and swallowing, and interdisciplinary problem solving and collaboration. | Assessment at the beginning, middle, and end of the program |
| IPE group activities | Instructor & Program Graduate Assistant | Application of Concepts to Case Studies – Communication, including Medical Terminology, Basic interventions in language, cognition, and swallowing, and interdisciplinary problem solving and collaboration. | Five Assessments throughout the semester. |
| Reflection after each class activity, simulation, and field experience | Program Graduate Assistant | Reflection – Reflection of all program components | Reflections were completed throughout the semester, across all program components. |

Program Content Summary. The core curriculum covered the following topics: scope of practice, communication, cognition, language, and dysphagia. The scope of practice content

included discussion of SLP and nursing scope of practice, cross-disciplinary practices (e.g. team conferences), and common miscommunications (e.g. terminology and charting). The communication content covered discussion of common medical terminology, discipline specific terminology, cross-disciplinary communication practices, communication with families, and communication with patients. Further, the researchers found that frequent populations treated by both fields included individuals with cognitive, language, and dysphagia disorders. Therefore, the last three content topics covered these areas with specific discussion of disorders, patient care, and common miscommunications during treatment. See Table 2. for Project Phase Time Table and Content summary.

Table 2. Project Phases Time Table and Content Summary



The curriculum was developed for the collaborative SLP and nursing group and focused on the care of older adults with specific issues of aphasia, dementia, and dysphagia. The faculty of each discipline created materials focused on roles, communication and disorders affecting

older adults which result in swallowing problems, language limitations, and cognitive decline. Examples were given of actual patients in the clinic or the nursing home, as well as videos of patients with these limitations. Therapeutic interventions were discussed and demonstrated. Person-centered care activities including medication management, family involvement in care, and life history were included in the didactic class sessions to help the student begin to formulate a holistic approach to care. Each discipline learned what their response to patients would be, as they collaborated with the other discipline to assess and treat the patient and answer the family member's questions. Additionally, challenges facing each discipline when working with the specific patient population were discussed, and appropriate strategies to overcome these challenges were demonstrated through video and discussion. The students were paired with a member of the other discipline as they worked through the classroom activities.

Simulations

Scenarios were developed by one nursing and two speech-language pathology faculty members for clients suffering from traumatic brain injury, Parkinson's disease, and amyotrophic lateral sclerosis (ALS). In addition to these conditions, other co-occurring disorders and limitations were added to each patient's health history in order to simulate a realistic patient case scenario. Further, each simulation represented a different level of care, such as in-patient rehabilitation, out-patient rehabilitation, and skilled- nursing facilities. The scenarios developed were for the simulation laboratory experience to measure the student's collaborative learning and teamwork in a simulated clinical experience. To present realistic scenarios, alumni and associates of the College of Nursing were contacted to portray standardized patients and family members.

The researchers met with the volunteers to review each scenario, example videos, and discuss behaviors to be displayed during each simulation.

Before each simulation day, the students were given a “Ticket in” to complete. The “Ticket in” was a worksheet that allowed the students to research the diseases, medications, and adaptive equipment associated with the potential simulation experiences they may encounter. While the students were completing the simulation (20 minutes), they were scored by the laboratory personnel on a measuring tool called the Creighton Simulation Evaluation Instrument (CSEI), a standardized measure of learning through simulation. The lab personnel scoring the student’s performance were nurses trained in simulation. They participated in debriefing sessions with the faculty of both disciplines to discuss collaborative learning opportunities presented during simulation scenarios.

Field Experience

The students participated in a field experience at a nursing home to interact with older adults with limitations in cognitive function, speech, and swallowing. The experience was arranged with the Nursing Home Administrator, Nursing, and the Dietary departments. Student pairs (one SLP and one nursing student) were able to observe, re-position and assist in feeding the residents. The speech-language pathology students reported noticing how the positioning of residents and alertness affects their ability to safely swallow, as well as, the adaptive equipment that may be helpful to improve intake. The nursing students had been feeding the residents for about 3 weeks prior to this field experience, and were getting better about person-centered care by this point. Additionally, the nursing students were observed communicating with the residents about meaningful aspects of their lives, making eye contact, and getting their attention.

This promoted better intake and provided a more quality dining experience. Students also experienced family involvement in care, and the added dynamics associated, in patient care.

Qualitative Reflections informing design

While the focus of this paper is to discuss the development, or “how –to”, of a pilot interprofessional learning program, components of researcher and student reflections informed program design and administration. Reflection highlights are briefly discussed below.

Researcher Reflection

Communication across the speech-language pathology and nursing disciplines was quite challenging throughout the creation of the program. Creating a program with a balance of content and application, as well as paralleled terminology across fields was a continuous obstacle. However, this also proved to be one of the most important aspects of creating the Interprofessional program, and provided numerous learning opportunities for all stakeholders. See Table 3. for further details and examples of Terminology Barriers.

Table 3. Terminology barrier examples

| Common SLP Terms that were Unclear | Common Nursing Terms that were Unclear |
|------------------------------------|--|
| Modified Barium Swallow (MBS) | Nursing Process |
| SOAP Notes | Different definitions for “Plan of Care” |
| Different definitions of treatment | Different definitions of assessment |

Student Reflection

Following each meeting, students were asked to reflect upon new concepts, application of concepts, and weekly experiences. Overall, themes of student reflection include, (1) positive

and optimistic attitudes, (2) agreement that collaboration is essential for proper patient care, (3) increased understanding of scope of practice for other discipline, (4) increased openness to communicating with other discipline, and (5) interest in learning more about other disciplines beyond one-time participation in the project. See Table 4. for examples of student reflections on attitudes regarding collaborative learning following participation in the project.

Table 4. Student reflections on attitudes regarding collaborative learning

| |
|--|
| “Enjoyed seeing how other discipline works and interacts with patients.” |
| “Got an idea what a "typical day" looks like for other discipline.” |
| “Interesting to view different perspectives of patient.” |
| “Collaboration is essential to proper patient care.” |
| “Interesting to share observations between disciplines.” |

Summary of Initial Pilot Results

The qualitative and quantitative findings have been presented as a peer-review poster presentation at the American Speech-Language-Hearing Association (ASHA) conference (Harvey, Aaron, & McClure, 2015), and are currently under review in their entirety, with the research protocol, in a separate manuscript (Aaron, Harvey, McClure, & Hidaka, 2016). However, a summary of the quantitative data (pre-/post- screens, aging attitude surveys, and CESI measures) and qualitative data (student reflections) findings will be discussed here.

Quantitative analysis was conducted to examine student content knowledge and attitudes towards aging before and following the program, while application of content was measured beginning, during, and at program completion. Non-parametric analysis revealed significant improvement in student content knowledge from the pre-to post- assessment, $M=.82$, $SD=.09$ and $M=.86$, $SD=.05$, respectively. However, no significant difference was found in the quantitative measures for application of concepts from pre-to post- assessment. Please see

Table 5. For mean and standard deviation details. Unfortunately, error in data collection prevented the analysis of the attitudes on aging survey data.

Table 5. Pre-and Post- Program Assessment Mean and Standard Deviation

| | Content Pretest | Content Posttest | | |
|------|-----------------|------------------|--------------|--|
| Mean | 0.82 | 0.86 | | |
| SD | 0.09 | 0.05 | | |
| | Simulation 1 | Simulation 2 | Simulation 3 | |
| Mean | 0.72 | 0.68 | 0.5 | |
| SD | 0.06 | 0.17 | 0.11 | |

While quantitative analysis captured some of the outcome findings, qualitative data analysis provided observation and reflection data of the program overall. The thematic qualitative analysis summary findings were highlighted in the student reflection section noted above. In addition, instructor observation revealed student improvement in content application, including skills in interdisciplinary collaboration and communication from pre- to post- program simulations. Even more notably, improvement in interdisciplinary problem solving and communication was most overt from the first program simulation to the second program simulation, where students demonstrated more confidence in scope of practice knowledge and expectation of interdisciplinary collaboration. Unfortunately, these observational data were not confirmed by the quantitative measures, indicating that the quantitative measure may not have been sensitive enough to capture practical interdisciplinary collaboration.

Conclusion and Future Directions

This paper presents an innovative and novel pilot program in interprofessional education and training practices for the speech-language pathology and nursing fields. Initial program implementation suggests that when educated and trained together, nursing and speech language pathology students have a better understanding of interprofessional practices (Aaron et al., 2016). Although this finding was not surprising, it provides another example of a successful interprofessional education program. Additionally, it was interesting and surprising that the application measures found no significance. Researchers observed significant differences in performance in application of concepts across the semester, however this was not reflected in the application measures. This suggests that perhaps the newly modified application measures were not sensitive enough to identify the unique clinical skills for each of the speech-language pathology and nursing clinical experiences.

From the initial pilot, researchers suggest modifications for a second administration of the program. The implementation of the initial program found that, while researchers attempted to account for the level of knowledge and clinical skill across each field cohort, the nursing and speech language pathology students were somewhat mismatched for skill and professional level of engagement. Additionally, the scheduling of the program proved to be one of the biggest challenges to administration, and a large deterrent to student participation. The demanding activity of the nursing simulation lab, student schedules, and faculty schedules were very challenging to accommodate, and needed to be accounted for earlier on in the planning process (at least a year in advance). Scheduling the simulations during the weekend was a large deterrent to both students, faculty, and simulation staff. In order to refine the original program, a second administration of the program was conducted, and addressed all of the above. To account for the

student skill level mismatch, the sophomore and junior undergraduate honors nursing students and graduate speech-language pathology students were invited to participate. To address the previous scheduling difficulties, researchers reserved lecture and simulation experiences one year in advance.

Evaluation of the second administration of this program yielded similar results as reported in the initial pilot study. Findings revealed improvement across program content areas, but not application of content. Because the application measurement tool was not modified between the pilot and second administration of the program, this finding was not surprising, and only further supports the need to identify a more sensitive tool for studying the application of program content. The faculty, students, and program observers [administrators and standardized patients (retired nurses)] qualitatively reported increased clinical skill and application of interprofessional practice with student participation in this program. Further, these two pilot administrations of the program do provide preliminary data and framework for future administrations of interprofessional education and training programs.

Curriculum Integration

As a next step in this program implementation, and in alignment with the call for interprofessional training and practice across both the SLP and nursing nationally governing bodies, it is the intention of the administrators and researchers to integrate the protocol into the undergraduate nursing curriculum and graduate SLP curriculum. In alignment with the Speech-Language Pathology & Nursing Interprofessional Learning Project pilot study, and similar to the Two-Course Curriculum: Classroom and Clinical interprofessional education program set forth by researchers at the Ohio State University (Johnson, 2016), future cross-curricular program

implementations at the Midwestern university will contain lecture, group activity, simulation, and field experience components. Plans are currently underway to begin administration of this protocol across both curriculums beginning in 2018.

Tips for Administration

This paper endeavored to describe the design, creation, administration, and assessment of a pilot program in interprofessional education and training practices for the speech-language pathology and nursing fields. The challenges and barriers described are just a few of the obstacles that may occur. While this program was successful for administration on a Midwestern university campus, barriers and supports vary across universities and organizations. In addition to the scheduling and assessment tool challenges, alternative considerations for design and administration may include administration, faculty, and student interest and cooperation, facility resources, including simulation access or alternative experiences, and integration opportunities into joint medical experiences. Additionally, due to vast differences in scheduling across clinical and academic facilities, modification of program intensity and frequency might be warranted.

Possible Generalization to Other Medical Fields

The process of interprofessional collaboration is not unique to the nursing and SLP dynamic. Many professions, particularly those in the medical community, have an increased interest in interprofessional practice, training, and education due to its proven effects on patient outcomes. This paper endeavored to present one example of interprofessional training and education, however, the supports and barriers that were experienced, may apply across other facilities for both professional practice and higher education training. Particularly,

administrative supports, scheduling, and terminology are all common elements in any interprofessional collaboration. Through our pilot exploration of this interprofessional program, we found that these elements were imperative to the success of the collaboration and should be considered when creating interprofessional collaborations.

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Appendix A.
 (CSD 299 Independent Study in Interdisciplinary Practice)
 3 hours

Purpose

To provide nursing and speech-language pathology students with an interdisciplinary learning opportunity regarding cross-disciplinary practices during assessment and intervention processes to effect better patient outcomes. Specifically, expose students to language, cognitive, and swallowing disorders during interdisciplinary clinical simulated and field experiences.

Student Outcomes

Upon completion of this course, students will be able to:

- a. Define and Describe general medical terminology
- b. Define and Describe professional roles and scope of practice
- c. Describe and Demonstrate communication and problem-solving skills for interdisciplinary collaboration
 - i. Identification of obstacles to collaboration
 - ii. Case study based and Simulation lab based Experiences
- d. Identify and Describe etiologies and accompanying differential diagnoses related to language, cognitive, and swallowing disorders
- e. Identify, analyze, and hypothesize differential diagnosis and application of therapy.
 - i. SLP students: Analyze and Hypothesize etiologies and accompanying differential diagnoses related to language, cognitive, and swallowing disorders
 - ii. Nursing students: Use the nursing process approach to diagnose, create goals and interventions.
- f. Create and Demonstrate formulation of tailored interventions for language, cognitive, and swallowing disorders
- g. Identify and Describe co-occurring factors for consideration to formulation of tailored interventions

Topical Outline

| Date | Topic | Readings/Tasks |
|---------------|---|---|
| Week 1 | Introduction Roles and Scope of Practice | Pre-Assessments In-class Activities Reflection Prep for Simulation 1 |
| Week 2 | Simulation 1 | Reflection |
| Week 3 | Communication | In-class Activities |

| | | |
|----------------|--------------------------------------|--|
| | - Across Disciplines & with Patients | Reflection Prep for Fairbury Experience |
| Week 4 | Fairbury Experience | Reflection |
| Week 5 | Simulation 2 | Reflection |
| Week 6 | Disorders & Cases: Cognition | In-class Activities Reflection |
| Week 7 | Disorders & Cases: Language | In-class Activities Reflection |
| Week 8 | Disorders & Cases: Dysphagia | In-class Activities Reflection Prep for Simulation 3 |
| Week 9 | Simulation 3 | Reflection |
| Week 10 | Final meeting | Post-Assessments |