The Effects of Intraprofessional Education on Occupational Therapy and Occupational Therapy Assistant Students' Perceptions of Collaborative Practice Skills

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Abstract

As the healthcare industry changed, Occupational Therapy Practitioners (OTP) needed to be prepared to meet these demands by demonstrating the ability to work collaboratively. Intraprofessional learning activities were critical in developing knowledge, skills, and attitudes for intraprofessional collaboration among future occupational therapy practitioners. Effective preparation for intraprofessional collaboration and collaborative practice was vital to developing a stronger, collaborative, inclusive, and cohesive Occupational Therapy team, consequently enhancing occupational therapy service delivery. The research was an intraprofessional collaborative educational experience between Occupational Therapy (OT) students and Occupational Therapy Assistant (OTA) students. The purpose of the research was to identify and determine if participating in up to two virtual intraprofessional collaborative educational activities changed OT and OTA students' perceptions of the essential skills for collaborative practice. The research utilized sixty-three newly enrolled and continuing OT and OTA students to participate in up to two virtual intraprofessional collaborative educational sessions, each lasting three hours. The students participated in a Team Building-Social event and a Simulated Patient lab. A post-session debriefing and reflection followed each session. The researchers utilized pre- and post-session surveys to assess student perceptions of the essential skills for collaborative practice. The results indicated that student perceptions changed. The study further demonstrated a correlation between student engagement in intraprofessional collaborative education and student perceptions of essential skills for collaborative practice, such as Teams and Teamwork, Interprofessional Communication, Roles/Responsibilities, and Values/Ethics.

Keywords: Intraprofessional, teamwork, interprofessional collaboration, student engagement.

Introduction

The healthcare industry was transforming. Current trends focus on decreasing costs and improving the quality of patient care. Collaborative practice effectively decreased costs, improved patient satisfaction, and improved patient care outcomes, such as quality care and patient safety (Morley & Cashell, 2017). According to World Health Organization (WHO) literature, there was a global healthcare worker shortage. Therefore, there was an increased need to train individuals in health education programs to be collaborative-ready healthcare providers. Individuals entering the healthcare work environment were expected to demonstrate the skills necessary for collaborative practice (WHO, 2011). In 2011, the WHO and its partners, including educational accreditation agencies, developed a framework of strategies specifically for interprofessional education. This initiative created a significant push for interprofessional collaboration and interprofessional evidence-based practice. In 2016, the Interprofessional Education Collaborative (IPEC) published a revised version of the four competencies for collaborative practice to further interprofessional learning and education. The essential competencies for collaborative practice were Teams and Teamwork, Interprofessional Communication, Roles/Responsibilities, and Values/Ethics (Interprofessional Education Collaborative, 2016). Over the years, much research has been conducted on the benefits of interprofessional collaboration. Interprofessional healthcare teams were a key to higher patient outcomes.

Problem

While there had been significant interest in interprofessional education, including practical tools for collaborative learning, there needed to be more literature on intraprofessional collaboration in healthcare. Many professions had various degrees and certification levels, and occupational therapy was among those that required intraprofessional collaboration and supervision. However, there needed to be more literature regarding intraprofessional education for those preparing to be occupational therapists (OT) or occupational therapy assistants (OTA). Additionally, there needed to be a clear consensus on specific curriculum models or frameworks that Occupational Therapy educators should have used.

Diamant et al. (2018) suggested that occupational therapy education should have explored the competencies needed for intraprofessional collaboration specific to the profession. To improve collaborative practice among occupational therapy practitioners (OTP), the Accreditation Council for Occupational Therapy Education (ACOTE) revised educational standards related to OT and OTA collaboration. However, a lack of explicit curriculum models or frameworks that outlined the optimal frequency and sequence of intraprofessional educational activities remained. With precise models, it was easier for educators to choose the best activities to build and improve the necessary skills for intraprofessional collaboration.

Historically, occupational therapy curricula have provided limited information on OTAs' knowledge and capabilities, strategies for effective OTA supervision, and OT-OTA collaboration. In contrast, OTA curricula focused on role delineation, supervision, and collaboration. These differences were mainly due to the varying supervisory roles and licensing requirements for OTs and OTAs. The limited information OTs had about the OTA's role and skills often led to misconceptions about the OTA's abilities and function on the team.

Pitonyak et al. (2020) surveyed practicing OT practitioners and found that most OTs developed their skills for intraprofessional collaboration post-professionally in the workplace. On the other hand, most OTAs reported that they developed these skills during their educational experience. Dillon (2002) recognized that a positive and unified OT-OTA relationship was essential for delivering quality occupational therapy services. Therefore, all occupational therapy programs should include intraprofessional collaborative activities for their students. These learning activities were essential in developing the knowledge, skills, and attitudes necessary for future occupational therapy practitioners. Proper preparation for intraprofessional collaboration was critical to building a cohesive and inclusive occupational therapy team.

Carson et al. (2018) found that offering opportunities early in the curriculum for OT and OTA students to engage in intraprofessional experiential learning activities improved relationship building and student learning. Jung et al. (2008) noted that intraprofessional fieldwork education, usually at the end of a degree program, often led to

increased knowledge of roles, skill sets, and the ability to resolve clinical issues or dilemmas. The studies mentioned above focused on individual intraprofessional experiences. Therefore, it was necessary to determine if participation in up to two intraprofessional collaborative educational activities changed OT and OTA students' perceptions of collaborative skills.

Purpose

This research, titled *The Effects of Intraprofessional Education on Occupational Therapy and Occupational Therapy Assistant Students' Perceptions of Collaborative Practice Skills,* addressed the need for intraprofessional curriculum models or frameworks in Occupational Therapy education. The research aimed to determine if participating in up to two virtual intraprofessional collaborative educational activities would change OT and OTA students' perceptions of essential skills for collaborative practice. The essential skills for intraprofessional collaboration were based on the four Interprofessional Education Collaborative (IPEC) Core Competencies: Teams and Teamwork, Interprofessional Communication, Roles/Responsibilities, and Values/Ethics (Interprofessional Education Collaborative, 2016).

Additionally, the research aimed to contribute to creating a curriculum model or framework for implementing intraprofessional collaborative educational activities for OT and OTA students. The study used a pretest-posttest quasi-experimental design, generating quantitative and anecdotal data.

Hypothesis

The hypothesis was that after participating in up to two virtual intraprofessional collaborative educational activities strategically placed in the OT and OTA curriculum, both OT and OTA student groups would show changes in or improved perceptions of collaboration skills related to the four Core Competencies for intraprofessional collaboration: Teams and Teamwork, Communication, Roles/Responsibilities, and Values/Ethics. IPEC Competencies were found to serve as the foundation for building intraprofessional collaboration skills (Diamant et al., 2018). Additionally, students were expected to demonstrate increased awareness of role delineation between OTs and OTAs, express fewer negative perceptions and stereotypes between the groups, and understand the value of intraprofessional education.

Significance to the Occupational Therapy Profession

This research is both significant and highly relevant to the field of occupational therapy. By combining up to two intraprofessional educational activities and assessing the outcomes, we can provide evidence-based information to advance how OT and OTA students are educated. Furthermore, the research can help identify the best approaches for changing or improving OT and OTA students' perceptions of collaboration skills. Improvements in student perceptions may lead to positive changes in collaborative behaviors. These changes can strengthen the OT and OTA relationships and partnerships, ultimately enhancing occupational therapy service delivery.

Theory and Frame of Reference

The Experiential Learning Theory and Kolb Learning Styles were used as guides to improve occupational therapy education. Several research studies showed that the Experiential Learning Theory and Kolb Learning Styles had been valuable tools in the education of healthcare professionals across various disciplines and degree levels. A study by Brown et al. (2008) on the learning preferences of occupational, physical, and speech therapy students found that each discipline's student group exhibited various learning styles. They also concluded that teaching methods should have been designed to reflect these varied learning styles to prepare students for the complex demands of their chosen fields (Brown et al., 2008). Similarly, a 2018 study by Fewster-Thuente and Batteson used the Kolb Experiential Learning Theory as a framework for interprofessional education collaboration. The researchers examined various instructional methods, such as interprofessional case studies, high-fidelity simulation, and service learning, to determine the most effective approaches for educating future healthcare professionals to become collaborative practitioners (Fewster-Thuente & Batteson, 2018).

Literature Review and Synthesis of the Literature

Significant interest and research were conducted on interprofessional education in allied health education. Several research findings provided multiple ideas for collaboration, including effective learning and assessment tools. There has been limited literature on intraprofessional collaboration in healthcare, despite many professions having various degrees and certification levels. A thorough review of the existing literature was conducted to answer the established research question—whether participating in intraprofessional collaborative educational activities changed OT and OTA students' perceptions of collaborative practice skills. The literature review yielded ten peer-reviewed articles. Eight were original research, one was a retrospective case study, and one was a systematic literature review. The research designs varied from quasi-experimental, mixed methods, cross-sectional surveys, and pretest-posttest designs, yielding quantitative and qualitative data.

From the literature review, five main themes emerged. The first theme was student participation in intra- and interprofessional collaborative educational activities. The second theme consisted of the timeframes in which students were exposed to the program curriculum's intra- and interprofessional collaborative experiences. The third theme identified essential competencies or skills for intra- and interprofessional collaboration and practice. The fourth theme included students participating in pre- or post-collaborative experiences, such as reflections, discussions, debriefings, presentations, assignments, and completing structured surveys. The fifth theme identified statistical significance for improvements in any of the four Interprofessional Education Collaborative (IPEC) Core Competencies: Teams and Teamwork, Interprofessional Communication, Roles/Responsibilities, and Values/Ethics. These competencies contributed to building professional relationships and collaborative practice skills (Diamant et al., 2018).

Eight studies focused on the first and second themes of student participation in collaborative educational activities embedded within the curriculum. These intraprofessional and interprofessional collaborative learning activities aimed to impact student attitudes or perceptions of interprofessional education and improve collaboration skills, such as teamwork, communication, professional roles, or knowledge of intraprofessional team members or other healthcare disciplines. The studies also identified specific points in the curriculum when students were exposed to these activities. All the studies involved participation in collaborative learning activities. The type of learning activities, the time spent, and the timing within the degree programs varied across the studies.

Colgrove et al. (2015), O'Reilly et al. (2019), and Shoemaker et al. (2014) used one-time intra- and interprofessional simulation and case-based experiences. Carson et al. (2018), Fernandes et al. (2015), Jutte et al. (2016), and Scheerer (2002) conducted a variety of collaborative learning activities over time with multiple collaborative interactions. These activities included social interactions, teaching and discussions, assignments, extended group projects, community-based projects, and research. In the Jung et al. (2008) study, OT and OTA students completed Level II fieldwork experiences, which lasted eight to twelve weeks. In contrast, in the Thompson et al. (2016) study, students participated in a 32-week interprofessional clinical experience.

Various studies defined specific timeframes for intra- and interprofessional collaborative activities within students' degree programs. Carson et al. (2018) offered OT-OTA collaboration early in the curriculum, and Jutte et al. (2016) provided an early interprofessional experience to students from various disciplines. Scheerer (2002) facilitated collaborative activities between OT and OTA students at early and later stages in their programs. Colgrove et al. (2015) noted that DPT and PTA students engaged in intraprofessional collaboration at different points, with DPT students collaborating earlier in their programs and PTA students later. Shoemaker et al. (2014) and Fernandes et al. (2015) used students in the early stages of their programs, while Jung et al. (2008) and Thompson et al. (2016) provided these experiences during the clinical portions of their programs, occurring at the end of their degree programs.

Three studies focused on identifying essential skills or competencies for intraprofessional collaboration and practice. These studies surveyed occupational and physical therapy practitioners, identifying essential competencies of communication, respect, professionalism, and role delineation. The literature also highlighted

subcategories such as timely feedback, trust, clear expectations, appreciation, accountability, and responsibilities (Diamant et al., 2018; Dillon, 2002; Jelley et al., 2013).

The fourth theme involved students participating in pre- or post-collaborative experiences, such as discussions, debriefings, presentations, assignments, and surveys. Post-activity debriefing was a common technique, as it promoted learning through student reflection and the reexamination of their actions and clinical decisions. Debriefing was found to be an effective way to enhance future clinical performance and achieve learning outcomes (Abulebda et al., 2021). All the studies, except Thompson et al. (2016), used post-experience activities to help students understand intra- and interprofessional education. In Thompson et al. (2016), students reported on patient progress, which served as an informal discussion, negating the need for structured debriefing.

The final theme identified statistical significance in improving the IPEC Core Competencies: Teams and Teamwork, Interprofessional Communication, Roles/Responsibilities, and Values/Ethics. IPEC identified these competencies as necessary for post-licensure collaborative practice (Interprofessional Education Collaborative, 2016). Olson and Bialocerkowski (2014) found that IPE simulations, groups, and clinical experiences helped develop collaborative practice skills. The outcomes of the studies supported these findings, as students showed improvements in competencies related to teamwork, communication, and roles.

Overall, all the studies reviewed produced positive outcomes related to intra- and interprofessional education, collaboration, and the development of IPEC core competencies. Longer collaborative experiences were found to be more effective than shorter ones. The literature specific to OT-OTA collaboration recommended that these experiences be embedded early in the curriculum to improve collaborative skills (Carson et al., 2018). Using valid and reliable assessment tools was essential for evaluating the effectiveness of intra- and interprofessional collaborative education. Scheerer (2002) detailed an OT-OTA partnering model following a hierarchical intraprofessional education approach. However, further research and curriculum guidance were needed to ensure that healthcare programs used the most effective educational activities to build collaboration skills.

Methodology
Participants

The researchers recruited students from the Occupational Therapy program at the University of St. Augustine and the Parker University Occupational Therapy Assistant program. The participants were newly enrolled and continuing OT and OTA students in their degree programs at various stages. The OT and OTA students participated in one or two three-hour virtual intraprofessional collaborative educational activities as part of the OT and OTA didactic curriculum.

Ethical Considerations

These virtual intraprofessional collaboration activities were part of the OT and OTA curriculum. They occurred during regularly scheduled lab times for the corresponding University of St. Augustine courses HSC5130c - Patient/Client Care Management 1 and OCT5410c - Clinical Applications in Adulthood, as well as the Parker University courses OTHA 1305 - Principles of Occupational Therapy and OTHA 1353 - Occupational Performance for Elders. Additionally, the intraprofessional activities aligned with institutional, program, and course student learning outcomes. There was no expectation of adverse student impact.

Student participants were provided with details of the study and pre-post surveys. While the interprofessional activity was a course requirement, completing the pre- and post-activity surveys was optional, and there was no penalty for not providing permission for data usage. Informed consent was obtained from each student and incorporated into each survey on the opening page. The pre- and post-surveys were completed anonymously to protect student identity. The data collected from the surveys remained unidentifiable to safeguard student anonymity. Researchers made every effort to collect and analyze the data accurately and objectively.

Procedure

Before implementing the virtual interprofessional activities, the researchers and faculty held multiple planning meetings to review the event agendas and faculty roles before and during each interprofessional learning event. The researchers collaborated with OT and OTA faculty to ensure that the intraprofessional collaborative educational activities aligned with the program and course student learning outcomes. The OT and OTA faculty listed the assignment on each course syllabus, and the assignment details were available on the universities' learning management systems. Each institution's OT and OTA faculty posted the study disclosures within the learning management system, which outlined the research study's details and included the informed consent document.

In collaboration with the OT and OTA faculty, the researchers divided the students into two groups, A and B. OT student Group A was in its first term of the OT program, participating in introductory coursework. OT student Group B was in the fourth term of its degree program. OTA student Group A completed introductory coursework during the first semester of its degree program, while OTA student Group B was in the third semester. OTA student Group B had completed courses related to two practice areas: mental health and adult physical dysfunction. Group B OT and OTA students were in their final semester before Level II Fieldwork experiences.

The collaborative educational sessions were designed to progress from simple to more complex interactions. Each event required a different level of collaboration among student participants. The intraprofessional collaborative activities also aligned with current ACOTE education standards, program standards, curriculum, and student learning outcomes.

The initial activity was a team-building social event conducted via the virtual platform RingCentral. All student groups participated in the collaborative social event. The second activity was an advanced simulation-based telehealth intervention with standardized patients created for students further in their academic programs. Students completed pre- and post-surveys for each collaborative activity and participated in structured debriefing and discussions, reflecting on the collaborative learning experience.

The overall goal of the collaborative education activities was to change or improve OT and OTA student perceptions of the four IPEC Core Competencies that function as a foundation for intraprofessional collaboration: Teams and Teamwork, Communication, Roles/Responsibilities, and Values/Ethics (Diamant et al., 2018). Additional goals included

- promoting increased awareness of role delineation between OT and OTA,

- reducing negative perceptions and stereotypes between OT and OTA student groups and

- fostering an understanding of the value of intraprofessional education.

Student perceptions of essential collaborative practice competencies were measured using pre- and post-interprofessional collaborative educational activity surveys. The identified surveys were adapted versions of the Readiness for Interprofessional Learning Scale (RIPLS) and the Interdisciplinary Education Perception Scale (IEPS). The first of two intraprofessional collaborative activities was the team-building social event. Due to the number of students, scheduled labs, and their stage in the degree program, students participated with their identified group. Group B students participated in this activity first, followed by Group A.

The team-building social events were part of the OTHA 1305 - Principles of Occupational Therapy curriculum in the OTA program and HSC5130c - Patient/Client Care Management 1 in the OT program. This intraprofessional collaborative activity addressed program student learning outcomes for OTHA 1305 - Principles of Occupational Therapy and the course learning objectives for HSC5130c - Patient/Client Care Management 1. For details on the OTHA 1305 course learning outcomes/ACOTE standards, see Appendix 1. For details on the HSC5130c associated ACOTE standards, see Appendix 2.

Program Student Learning Outcomes for OTHA 1305

- Worked collaboratively with the Occupational Therapist, patient/client, family/significant others, caregivers, and interdisciplinary team in various settings (including traditional and non-traditional environments) to develop client-centered, culturally relevant, occupation-based goals and interventions based on evaluation and assessment.

- Exhibited entry-level competency by demonstrating the ability to safely modify or adapt interventions, activities, and/or environments by incorporating evidence-based/best practices for maximal patient/client engagement in desired occupations.

- Understood and appreciated Occupational Therapy professional ethics, values, attitudes, behaviors, advocacy, and an occupational therapy practitioner's responsibilities related to service delivery.

Course Learning Outcome for HSC5130c - Patient/Client Care Management 1

- **CLO #4:** Exhibited effective and professional communication with simulated patients and interdisciplinary classmates. (ILO/PLO 2 & 4)

The virtual team-building social event began with researcher and faculty introductions and a brief review of the event agenda. The students then accessed the pre-activity survey via the survey link posted in the virtual course chatbox and completed the survey. Once the survey was completed, students introduced themselves to the entire group of participants, followed by an icebreaker activity.

Next, the researchers and OT-OTA faculty conducted a 30-minute presentation on the four IPEC core competencies, general standards of practice, role delineation, Texas Board of Occupational Therapy Examiners Occupational Therapy Rules, and OT-OTA education. After the presentation, the students were placed in breakout groups based on a virtual numbered envelope, which had been sent via email before the event. A faculty facilitator was assigned to each group to lead the learning activities.

The first group activity was an OT-OTA education standard match game. The researchers and faculty used a PowerPoint presentation containing various ACOTE standards for this. The facilitators showed the student groups the standards, and the students matched the education standard to the correct degree level.

The second activity entailed a series of videos depicting the four IPEC core competencies. The facilitators showed video vignettes, and each student group discussed the observed behaviors, identified the IPEC competency demonstrated in the video, and explained how it related to the OT-OTA roles.

The third activity was the "Virtual Conversation Jar" group discussion. The facilitators showed a randomly selected code of ethics behavior or standard of practice, and the group discussed and identified which code or standard was represented. Students were encouraged to contribute by answering questions, asking further questions, or offering insights.

The final small group activity was a roleplay session. Each student group was provided with two scenarios. One student roleplayed the OT, another the OTA, and a third the client/family member/healthcare professional or service provider. The OT/OTA student was required to demonstrate therapeutic use of self and explain the role of the OT/OTA during the screening, evaluation, treatment, and collaboration processes. Each scenario roleplay lasted no more than five minutes, followed by two minutes of feedback.

After the interactive activities, the students rejoined the larger group for a debriefing and reflection session. At the end of the intraprofessional collaborative session, the students accessed the post-activity survey via the virtual course chatbox link and completed the survey.

The second virtual activity was an intraprofessional intervention designed for OT and OTA student Group B, who were in their final didactic term before Level II Fieldwork. This advanced simulation-based telehealth intervention was divided into four parts. It was an OTHA 1353 - Occupational Performance for Elders course

assignment for the OTA students and a part of OCT5410c - Clinical Applications in Adulthood for the OT students.

Program Student Learning Outcomes for OTHA 1353 - Occupational Performance for Elders

- Demonstrated and articulated Occupational Therapy history, philosophy, theory, frame of reference, scientific evidence, practice standards, and the role of occupational performance in health and wellness.

- Worked collaboratively with the Occupational Therapist, patient/client, family/significant others, caregivers, and interdisciplinary team in various settings (including traditional and non-traditional environments) to develop client-centered, culturally relevant, occupation-based goals and interventions based on evaluation and assessment.

- Exhibited entry-level competency by safely modifying or adapting interventions, activities, and environments using evidence-based practices for optimal patient/client engagement in desired occupations.

- Assisted with managing occupational therapy services by maintaining records and required documentation for services provided.

Course Learning Outcomes for OCT5410c - Clinical Applications in Adulthood

- Obtained information for an occupational profile and analyzed it to identify occupational performance needs, conduct assessments, and interpret and analyze data to understand the occupational performance deficits of assigned clients, groups, or conditions.

- Constructed intervention plans (including discharge planning) for assigned adult clients or related groups, conditions, or settings.

- Constructed and demonstrated an intervention plan using supporting evidence for implementing interventions for assigned adult clients or related groups, conditions, or settings.

- Demonstrated effective written, oral, and nonverbal culturally competent professional communication skills with clients, families, and other healthcare professionals.

The researchers created various case scenarios based on diagnoses related to the adult population, including Post-COVID general debility (Home Exercise Program, energy conservation), Multiple Sclerosis (medication management, patient education for wound healing and positioning), Total Hip and Knee Replacement (adaptive equipment), Shoulder Replacement (Home Exercise Program), and Traumatic Brain Injury (falls).

The researchers hired four standardized patients to participate in at least two clinical simulations. All Group B students participated in this intraprofessional collaborative simulation. OT students assumed roles such as OT evaluator, PRN OT, OT supervisor, and observer/simulation critic, while OTA students assumed roles such as OTA clinician, PRN COTA, and observer/simulation critic. Teams of three were formed, with each team participating in the simulation for one hour and fifteen minutes.

The simulation was conducted in parts, starting before the simulation day and continuing on the identified day. Part one involved the OT student evaluator completing an initial evaluation before the simulation day. On the simulation day, OT and OTA students completed a pre-activity survey before beginning the collaboration conference and treatment session. The OTA student led the intervention, and the OT student supervised it. Afterward, they reconvened to discuss the outcome, potential modifications, and future planning.

In the final part of the activity, students engaged in a debriefing session using the Gather, Analyze, and Summary (GAS) debriefing tool. Common themes and trends in student responses were documented. Students completed the post-activity survey and submitted their course-specific requirements as outlined in the syllabus. The intraprofessional collaboration assignments were graded by the course-specific faculty.

Assessment

The essential competencies for collaborative practice were Teams and Teamwork, Interprofessional Communication, Roles/Responsibilities, and Values/Ethics (Interprofessional Education Collaborative, 2016). The data was collected through pre- and post-interprofessional collaborative educational activity surveys. The assessments used by the researchers were the Readiness for Interprofessional Learning Scale (RIPLS) and the Interdisciplinary Education Perception Scale (IEPS). Both assessments were validated for undergraduate and postgraduate students (McFadyen et al., 2005).

The researchers adapted both questionnaires by replacing "interprofessional" with "interprofessional" and adjusting the questions to be specific to the Occupational Therapy profession. Each survey also contained questions related to the four IPEC Competencies. The RIPLS, a 19-item questionnaire with a 5-point scale, was used to measure the readiness of healthcare students for interprofessional education (Judge et al., 2015). The adapted version of this assessment was used to measure the readiness of OT and OTA students to engage in intraprofessional education.

The IEPS, an 18-item questionnaire with a 5-point scale, was used to evaluate student perceptions of interprofessional education experiences (McFadyen et al., 2007). The adapted version of this assessment measured OT and OTA students' perceptions of the other degree levels within the Occupational Therapy profession.

The students' pre- and post-activity survey scores were compared to determine if there were any changes or improvements in student perceptions. In addition, a structured debriefing session followed each virtual intraprofessional activity, utilizing the Gather, Analyze, and Summary (GAS) debriefing tool. The researchers documented trends and common themes from the student responses to the discussion questions.

The study followed a pretest-posttest quasi-experimental design, generating quantitative and anecdotal data. The optimal outcomes reflect improvements in student perceptions of the four IPEC competencies. IPEC Competency was the foundation for building intraprofessional collaboration skills (Diamant et al., 2018).

The pre-and post-surveys were administered electronically via Scantron. Students accessed the surveys through a link posted in the virtual course chatbox and completed them anonymously to protect their identities. The data collected from the surveys was unidentifiable, ensuring student anonymity. Researchers made every effort to collect and analyze the data accurately and objectively.

The research data was stored within the University of St. Augustine's Blackboard Learning Management System (LMS), which is password-protected. Additionally, the data collected was stored in the Parker University electronic Scantron system housed in the Institutional Effectiveness Department.

Results

Sixty-three students participated in one or two virtual interprofessional collaborative educational activities. The student groups consisted of thirty-five OT students and twenty-seven OTA students. Each group completed the surveys before and after each virtual collaborative experience. Group A completed each survey once, while Group B completed each twice.

According to the data collected from the pre- and post-activity surveys, the adapted Intradisciplinary Education Perception Scale (IEPS) pre-survey received seventy responses, and the post-survey received thirty-three total responses. The adapted Readiness for Intraprofessional Learning Scale (RIPLS) received sixty-three total responses for the pre-activity survey and forty-two for the post-activity survey. The pre- and post-survey scores were analyzed, and an overall result was documented for each.

The researchers identified which survey questions showed statistical significance through further data analysis. Additionally, they reviewed the anecdotal data to identify common themes related to the IPEC competencies.

Data Analysis

Unpaired t-tests with a p-value set at ≤ 0.05 were conducted to compare the differences between the pre-and post-activity survey results. The adapted Intradisciplinary Education Perception Scale (IEPS) results showed a statistically significant difference between the pre-and post-activity survey responses, with a p-value of 0.0259 (see Figure 1). However, no significant differences were found between the pre-and post-activity surveys for the adapted Readiness for Intraprofessional Learning Scale (RIPLS), with a p-value of 0.1059 (see Figure 2).
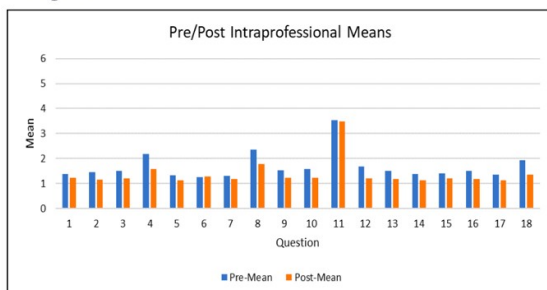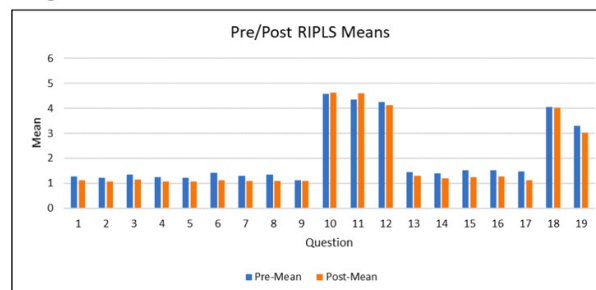
Figure 1.

Figure 2.

The researchers analyzed each survey question to further understand intraprofessional education's effects on OT and OTA students' perceptions of collaborative practice skills, where the four IPEC Core Competencies functioned as a foundation. They found statistically significant differences between the pre-and post-survey responses in six questions on the adapted Intradisciplinary Education Perception Scale (IEPS). The questions that showed the most significant changes in student perceptions of the other degree level were related to professional competency, understanding the capabilities and contributions of the other degree level, sharing of information and resources among OT practitioners, opinions of other health professions regarding OT, and working well together (see Table 1).

Table 1

Adapted Intradisciplinary Education Perception Scale (IEPS) - Pre /Post Survey results
Student perceptions of the other degree level within your profession- (OT or OTA)
Please rate your perception of the other degree level within your profession- (OT or OTA)
2.12 - Individuals in my profession make every effort to understand the capabilities and contributions of other OT practitioner - Statistically significant - P value - 0.0172
2.13 - Individuals in my profession are extremely competent - statistically significant - P value- 0.0161
2.14 - Individuals in my profession are willing to share information and resources with one another - statistically significant - P value - 0.0322
2.16 - Individuals in my profession think highly of other related professions - statistically significant - P value- 0.0180
2.17 - Individuals in my profession work well with each other - statistically significant - P value - 0.0369
2.18 - Individuals in other professions often seek the advice of people in my profession – very statistically significant - P value- 0.0051

Upon reviewing the survey results for the adapted Readiness for Intraprofessional Learning Scale (RIPLS), the researchers found statistically significant differences between the pre-and post-survey responses related to four questions. These questions examined student attitudes toward intraprofessional learning. The noted changes were

related to collaborative learning in the following areas: development of communication skills, understanding one's professional limitations, improving working relationships after qualification for collaborative practice, thinking positively about OT or OTA professionals, opportunities for shared learning with OT or OTA students, and shared learning before and after qualification to support the development of teamwork skills (see Table 2).

Table 2

Adapted Readiness for Intraprofessional Learning Scale (RIPLS)- Pre /Post Survey results
Student attitudes towards Intraprofessional learning
Examine the attitude of occupational therapy and occupational therapy assistant students towards intraprofessional learning. When answering the questions consider the degree level other than your own (OT or OTA).
2.6 - Communications skills should be learned with other OT/OTA students - statistically significant - P value- 0.0237
2.8 - Shared learning will help me to understand my own professional limitations - very statistically significant - P value- 0.0058
2.9 - Learning between OT and OTA students before qualification and for professionals after qualification would improve working relationships after qualification / collaborative practice - statistically significant - P value- 0.0268
2.10 - Shared learning will help me think positively about OT or OTA professionals - statistically significant - P value- 0.0141
2.17 - I would welcome the opportunity to share some generic lectures, tutorials or workshops with OT or OTA students - statistically significant - P value- 0.0217
2.19 - Shared learning before and after qualification will help me become a better team worker - very statistically significant - P value- 0.0037

A thematic analysis of the compiled anecdotal data revealed consistent commonalities related to specific IPEC competencies. Four themes emerged across both surveys: structured debriefings and student reflections.

The first theme, related to Roles/Responsibilities—role Delineation, received the most comments from students. They improved their ability to delineate each OT practitioner's specific roles and responsibilities in the therapeutic process and OT service delivery.

The second theme was related to Teams/Teamwork. Many students agreed on the importance of teamwork and collaboration between the OT and the OTA. They expressed an increased appreciation and understanding of working together as a team to solve problems and maximize patient outcomes.

Intraprofessional Communication emerged as the third theme, with students emphasizing the value of effective communication strategies.

The fourth theme involved understanding ethics, values, and practice standards. When asked which IPEC competency or skill resonated the most, 83% of students identified Teams/Teamwork, 78.6% indicated the ability to collaborate, 74% identified fulfilling their professional roles/responsibilities, 62% emphasized communication skills, and 52% highlighted the importance of professional values and ethics.

According to the anecdotal data, students described the overall collaborative virtual learning experience as "enjoyable, insightful, great, helpful in building confidence, and precious for improving team building and communication skills." Some students shared that they "appreciated the similarities in OT/OTA education" and found the learning environment an "honest and safe place to learn." Students also praised the interactive learning activities, stating that "scenarios were very helpful in building critical thinking skills" and that they "enjoyed the role plays and small group discussions." Many expressed support for using intraprofessional collaborative

learning activities in OT and OTA education, with one student stating that this type of learning should be "incorporated into all OT/OTA programs."

Discussion

The overall goal of this study was to determine if participating in up to two virtual intraprofessional collaborative educational activities improved OT and OTA students' perceptions of essential skills for collaborative practice. The essential competencies for collaborative practice were Teams and Teamwork, Interprofessional Communication, Roles/Responsibilities, and Values/Ethics. Additional goals of the intraprofessional collaborative educational activities were to promote an increased awareness of role delineation between the OT and OTA, mitigate negative perceptions and stereotypes between OT and OTA student groups, and foster an understanding of the value of intraprofessional education. This research aimed to provide a curriculum model or framework for implementing intraprofessional collaborative educational activities for OT and OTA students.

The results showed changes in OT and OTA students' perceptions of essential skills for collaborative practice after participation in intraprofessional collaborative educational activities. These findings were consistent with existing literature related to intraprofessional education. A study by Jung et al. (2008) found that students expressed improvement in collaborative practice skills. Similarly, Carson et al. (2018) indicated an increased understanding of role delineation and improved mutual respect.

The results from the adapted Intradisciplinary Education Perception Scale (IEPS) pre- and post-surveys demonstrated statistical significance, indicating changes in OT and OTA students' perceptions of the other degree level within the occupational therapy profession before and after the intraprofessional collaborative education activities. This outcome supports the assertion that intraprofessional collaborative education helps mitigate negative perceptions and stereotypes between OT and OTA student groups. The areas of change were found in the sub-components of the following IPEC competencies: Teams and Teamwork, Interprofessional Communication, and Roles/Responsibilities.

The virtual intraprofessional student learning activities were designed to cultivate a better understanding of the IPEC competencies related to OT and OTA collaboration. The results were anticipated based on previous literature and the design of the virtual activities. Jung et al. (2008) suggested that learning outcomes are supported by engaging students in specific and well-defined learning activities, interactions, and experiences.

The adapted Readiness for Intraprofessional Learning Scale (RIPLS) results showed no significant differences in OT and OTA students' attitudes toward intraprofessional learning. This outcome may be due to student exposure to previous intra- and interprofessional learning experiences. Although the overall RIPLS survey results showed no statistical significance, a closer analysis of each question showed statistically significant changes in the following related IPEC sub-competencies: development of communication skills, understanding one's professional limitations, improving working relationships after qualification for collaborative practice, thinking positively about OT or OTA professionals, opportunities for shared learning with OT or OTA students, and shared learning before and after qualification to support the development of teamwork skills.

Overall, student responses supported engaging in OT and OTA collaborative learning experiences to enhance collaboration skills. The survey results were consistent with the anecdotal data. Based on the students' responses, it was clear that they gained a better understanding of and increased knowledge about the IPEC competencies: Teams and Teamwork, Interprofessional Communication, Roles/Responsibilities, and Values/Ethics. In addition, the results showed that students enjoyed the overall collaborative educational activities and found them valuable for both OT and OTA students. They also believed that all IPEC core competencies are vital to patient care. Students did not prefer virtual or in-person collaborative experiences, suggesting that virtual intraprofessional collaborative educational activities can effectively overcome location barriers for both OT and OTA programs.

Limitations

While the study produced positive results supporting intraprofessional education, several limitations were identified. The small sample size was the first limitation, with only sixty-three student participants. Due to this small sample size, the study outcomes cannot be generalized across all OT and OTA student populations. However, the results are consistent with findings in the available literature related to OT/OTA intraprofessional education. For future research in this area, we suggest using a larger student sample, which may be achieved by partnering with additional OT and OTA programs.

Another limitation was the limited timeframe for participating in the virtual collaborative sessions. Due to course schedules, the time available to complete the virtual intraprofessional collaborative learning sessions were limited, and time had to be set aside to address technology issues. Despite this, there was no indication that the limited timeframe significantly weakened the students' overall experience. We recommend that OT educators carefully select dates and times when scheduling conflicts are less likely. If the experience is completed virtually, allowing time for log-in and technology-related issues is essential.

Lastly, due to the lack of standardized assessments designed explicitly for OT/OTA intraprofessional education, the researchers adapted two surveys commonly used for interprofessional collaboration. We suggest developing OT-specific intraprofessional education assessments for future studies.

Conclusion

This study aimed to identify and determine if participating in up to two virtual intraprofessional collaborative educational activities changed OT and OTA students' perceptions of essential skills for collaborative practice. The results indicated that student perceptions did change. The study further demonstrated a correlation between student engagement in intraprofessional collaborative education and their perceptions of essential skills for collaborative practice, such as Teams and Teamwork, Interprofessional Communication, Roles/Responsibilities, and Values/Ethics.

These results build upon the existing body of evidence for intraprofessional collaboration and contribute to OT/OTA educators' knowledge base. This study provides OT/OTA educators with a guide for incorporating virtual intraprofessional collaborative educational activities into OT and OTA curricula. Intraprofessional education is the foundation for building a positive OT/OTA relationship, thereby fostering greater unity within the field of occupational therapy.

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Appendix 1

OTHA 1305		
Program Outcomes		
2. Students will exhibit entry-level clinical/professional competency by carrying out evaluation/screening and occupational therapy intervention.		
Program Student Learning Outcome		
3. Work collaboratively with the Occupational Therapist, patient/client, family/significant others, caregivers, and interdisciplinary team in a variety of settings (including traditional and non-traditional environments) to develop client-centered, culturally relevant, occupation-based goals and intervention, based on evaluation and assessment.		
Course Student Learning Outcome/ACOTE standard After completion of this course the student will be able to:	**Method of Course delivery/Instructional method**	**Assessment Method/ ACOTE Compliance**
B.4.24 - Demonstrate effective intra-professional OT/OTA collaboration to explain the role of the occupational therapy assistant and occupational therapist in the screening and evaluation process.	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	**OT-OTA Intraprofessional Collaboration Social Team building event**
Program Student Learning Outcome		
2. Students will exhibit entry-level clinical/professional competency by carrying out evaluation/screening and occupational therapy intervention.		
Program Student Learning Outcome		
4. Exhibit entry-level competency by demonstrating the ability to safely modify or adapt interventions, activities and/or the environments by incorporating evidence based/best practice for maximal patient/client engagement in desired occupations.		
Course Student Learning Outcome/ACOTE standard After completion of this course the student will be able to:	**Method of Course delivery/Instructional method**	**Assessment Method/ ACOTE Compliance**
B.4.1 - Demonstrate therapeutic use of self, including one's personality, insights, perceptions and judgments, as part of the therapeutic process in both individual and group interaction.	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	**OT-OTA Intraprofessional Collaboration Social Team building event**
Program Student Learning Outcome		
3. Students will be able to demonstrate professional behaviors and communication in a therapy setting.		
Program Student Learning Outcome		
5. Understand and appreciate Occupational Therapy professional ethics, values, attitudes, behaviors, advocacy, and the responsibilities of an occupational therapy practitioner as it relates to service delivery.		
Course Student Learning Outcome/ACOTE standard After completion of this course the student will be able to:	**Method of Course delivery/Instructional method**	**Assessment Method/ ACOTE Compliance**
B.7.1 - Demonstrate knowledge of the American Occupational Therapy Association (AOTA), Occupational Therapy Code of Ethics and AOTA Standards of Practice and use them as a guide for ethical decision making in professional interactions, client interventions, employment settings, and when confronted with personal and organizational ethical conflicts.	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	**OT-OTA Intraprofessional Collaboration Social Team building event**

Appendix 2

HSC5130c
CLO #4 Exhibit effective and professional communication with simulated patients and interdisciplinary classmates. (ILO/PLO 2 &4)
• 4.1 Identify occupational needs through effective communication with patients, families, communities, and members of the interprofessional team in a responsive and responsible manner that supports a team approach to the promotion of health and wellness (B4.23)   • 4.2 Demonstrate knowledge of the principles of interprofessional team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient and population-centered care as well as population health programs and policies that are safe, timely, efficient, effective, and equitable. (B4.25)

Appendix 3

OTHA 1353

Program Outcome

1. Students will demonstrate an understanding of the basic tenets in Occupational Therapy and fundamentals of practice.

Program Student Learning Outcome

2. Demonstrate and articulate the Occupational Therapy history, philosophy, theory, frame of reference, scientific evidence, practice standards and the role of occupational performance on health and wellness.

Course Student Learning Outcome/ACOTE standard After completion of this course the student will be able to:	Method of Course delivery/Instructional method	Assessment Method/ACOTE Compliance
B.3.2 - Demonstrate knowledge of and apply the interaction of occupation and activity, including areas of occupation, performance skills, performance patterns, context, environments, and client factors	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	Case Study/Treatment plan – OT/OTA intraprofessional collaboration

Program Outcomes

2. Students will exhibit entry-level clinical/professional competency by carrying out evaluation/screening and occupational therapy intervention.

Program Student Learning Outcome

3. Work collaboratively with the Occupational Therapist, patient/client, family/significant others, caregivers, and interdisciplinary team in a variety of settings (including traditional and non-traditional environments) to develop client-centered, culturally relevant, occupation-based goals and intervention, based on evaluation and assessment.

Course Student Learning Outcome/ACOTE standard After completion of this course the student will be able to:	Method of Course delivery/Instructional method	Assessment Method/ACOTE Compliance
B.3.6 - Demonstrate activity analysis in areas of occupation, performance skills, performance patterns, context(s) and environments, and client factors to implement the intervention plan.	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	Case Study/Treatment plan – OT/OTA intraprofessional collaboration
B.4.4 - Contribute to the evaluation process of client's occupational performance including an occupational profile, by administering standardized and non-standardized screening and assessment tools and collaborating in the development of occupation-based intervention plans and strategies	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	Case Study/Treatment plan – OT/OTA intraprofessional collaboration
B.4.6. - Under the direction of an occupational therapist, collect, organize, and report on data for evaluation of client outcomes.	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	Case Study/Treatment plan – OT/OTA intraprofessional collaboration
B.4.19 - Engage in the consultative process with persons, groups, programs, organizations, or communities in collaboration with inter- and intraprofessional colleagues	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	Case Study/Treatment plan – OT/OTA intraprofessional collaboration
B.4.21 - Demonstrate the principles of the teaching–learning process using educational methods and health literacy education approaches: *To design activities and clinical training for persons, groups, and populations. *To instruct and train the client, caregiver, family, significant others, and communities at the level of the audience.	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	Case Study/Treatment plan – OT/OTA intraprofessional collaboration
B.4.22 - Monitor and reassess, in collaboration with the client, caregiver, family and significant others, the effect of occupational therapy intervention and the need for continued or modified intervention and communicate the identified need to the occupational therapist	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	Case Study/Treatment plan – OT/OTA intraprofessional collaboration
B.4.24. Demonstrate effective intraprofessional OT/OTA collaboration to explain the role of the occupational therapy assistant and occupational therapist in the screening and evaluation process.	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	Case Study/Treatment plan – OT/OTA intraprofessional collaboration
B.4.26 - Identify and communicate to the Occupational Therapist the need to refer to specialists both internal and external to the profession	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	Case Study/Treatment plan – OT/OTA intraprofessional collaboration

Program Outcomes

2. Students will exhibit entry-level clinical/professional competency by carrying out evaluation/screening and occupational therapy intervention.

Appendix 3 (con't)

Program Student Learning Outcome		
4. Exhibit entry-level competency by demonstrating the ability to safely modify or adapt interventions, activities and/or the environments by incorporating evidence based/best practice for maximal patient/client engagement in desired occupations.		
Course Student Learning Outcome/ACOTE standard **After completion of this course the student will be able to:**	**Method of Course delivery/Instructional method**	**Assessment Method/ ACOTE Compliance**
B.4.2 - Demonstrate clinical reasoning to facilitate occupation –based interventions, client factors, performance patterns and performance skills	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	Case Study/Treatment plan – OT/OTA intraprofessional collaboration
B.4.3 - Utilize clinical reasoning to facilitate occupation-based interventions that address client factors. This must include interventions focused on promotion, compensation, adaptation, and prevention.	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	Case Study/Treatment plan – OT/OTA intraprofessional collaboration
B.4.10 - Provide direct interventions and procedures to persons, groups, and populations to enhance safety, health and wellness, and performance in occupations. This must include the ability to select and deliver occupations and activities, preparatory methods and tasks (including therapeutic exercise), education and training, and advocacy.	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	Case Study/Treatment plan – OT/OTA intraprofessional collaboration
B.4.18 - Assess, grade and modify the way persons, groups and populations perform occupations and activities by adapting processes, modifying environments and applying ergonomic principles to reflect the changing needs of the client, sociocultural context and technological advances	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	Case Study/Treatment plan – OT/OTA intraprofessional collaboration
Program Outcomes		
2. Students will exhibit entry-level clinical/professional competency by carrying out evaluation/screening and occupational therapy intervention.		
Program Student Learning Outcome		
6. Assist with the management of occupational therapy services by maintaining records and required documentation for occupational therapy services provided.		
Course Student Learning Outcome/ACOTE standard **After completion of this course the student will be able to:**	**Method of Course delivery/Instructional method**	**Assessment Method/ ACOTE Compliance**
B.4.29. Demonstrate knowledge of various reimbursement systems and funding mechanisms (e.g., federal, state, third party, private payer), treatment/diagnosis codes (e.g., CPT®, ICD, DSM® codes) and coding and documentation requirements that affect consumers and the practice of occupational therapy. Documentation must effectively communicate the need and rationale for occupational therapy services.	Lecture, Readings, Class Discussions, videos, collaborative activities, computer assignments, on-line research	Case Study/Treatment plan – OT/OTA intraprofessional collaboration

Appendix 4

OCT 5410C
CLO 1: Obtain information for an occupational profile and analyze the information on an adult client to identify occupational performance needs, conduct assessments, interpret, and analyze to understand the occupational performance deficits of assigned client, and/or related group, condition(s), and/or settings. (ILO/PLO 3)

- Demonstrate the ability to use quantitative statistics and qualitative analysis to interpret tests and measurements for the purpose of establishing and delivering evidence-based practice. (B.1.4)
- Demonstrate sound judgment in regard to safety of self and others and adhere to safety regulations throughout the occupational therapy process as appropriate to the setting and scope of practice. This must include the ability to assess and monitor vital signs (e.g., blood pressure, heart rate, respiratory status, and temperature) to ensure that the client is stable for intervention. (B.3.7)
- Select and apply assessment tools, considering client needs, and cultural and contextual factors. Administer selected standardized and nonstandardized assessments using appropriate procedures and protocols. Interpret the results based on psychometric properties of tests considering factors that might bias assessment results (e.g., culture and disability status related to the person and context). (B.4.5)
- Collect, analyze, and report data in a systematic manner for evaluation of client and practice outcomes. Report evaluation results and modify practice as needed. (B.4.6)
- Interpret criterion-referenced and norm-referenced standardized test scores on the basis of an understanding of sampling, normative data, standard and criterion scores, reliability, and validity. (B.4.7)

CLO2: Construct intervention plans (including discharge planning) for assigned adult clients and/or related group, condition(s) and/or settings. (ILO/PLO 3)

- Apply, analyze, and evaluate scientific evidence, theories, models of practice, and frames of reference that underlie the practice of occupational therapy to guide and inform interventions for persons, groups, and populations in a variety of practice contexts and environments. (B.2.1)
- Demonstrate clinical reasoning to evaluate, analyze, diagnose, and provide occupation-based interventions to address client factors, performance patterns, and performance skills. (B.4.2)
- Design and implement intervention strategies to remediate and/or compensate for functional cognitive deficits, visual deficits, and psychosocial and behavioral health deficits that affect occupational performance. (B.4.9)
- Recommend and provide direct interventions and procedures to persons, groups, and populations to enhance safety, health and wellness, and performance in occupations. This must include the ability to select and deliver occupations and activities, preparatory methods and tasks (including therapeutic exercise), education and training, and advocacy. (B.4.10)
- Provide recommendations and training in techniques to enhance functional mobility, including physical transfers, wheelchair management, and mobility devices. (B.4.13)
- Evaluate the needs of persons, groups, and populations to design programs that enhance community mobility, and implement transportation transitions, including driver rehabilitation and community access. (B.4.14)
- Assess, grade, and modify the way persons, groups, and populations perform occupations and activities by adapting processes, modifying environments, and applying ergonomic principles to reflect the changing needs of the client, sociocultural context, and technological advances. (B.4.18)
- Demonstrate, evaluate, and plan care coordination, case management, and transition services in traditional and emerging practice environments. (B.4.20)
- Demonstrate, evaluate, and utilize the principles of the teaching–learning process using educational methods and health literacy education approaches • To design activities and clinical training for persons, groups, and populations.

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- • To instruct and train the client, caregiver, family, significant others, and communities at the level of the audience. (B.4.21)
- Monitor and reassess, in collaboration with the client, caregiver, family, and significant others, the effect of occupational therapy intervention and the need for continued or modified intervention. (4.22)
- Evaluate access to community resources, and design community or primary care programs to support occupational performance for persons, groups, and populations. (B.4.27)
- Develop a plan for discharge from occupational therapy services in collaboration with the client and members of the interprofessional team by reviewing the needs of the client, caregiver, family, and significant others; available resources; and discharge environment. (4.28)

CLO3: Construct and demonstrate an intervention plan, using supporting evidence, for implementing interventions for assigned adult clients, and/or related group, condition(s), and/or settings. (ILO/PLO 3).

- Evaluate and discuss mechanisms for referring clients to specialists both internal and external to the profession, including community agencies. (B.4.26)
- Utilize clinical reasoning to facilitate occupation-based interventions that address client factors. This must include interventions focused on promotion, compensation, adaptation, and prevention. (B.4.3)
- Evaluate client(s)' occupational performance, including occupational profile, by analyzing and selecting standardized and non-standardized screenings and assessment tools to determine the need for occupational therapy intervention(s). Assessment methods must take into consideration cultural and contextual factors of the client. Interpret evaluation findings of occupational performance and participation deficits to develop occupation-based intervention plans and strategies. Intervention plans and strategies must be client centered, culturally relevant, reflective of current occupational therapy practice, and based on available evidence. (B.4.4)
- Demonstrate knowledge of the principles of interprofessional team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient- and population-centered care as well as population health programs and policies that are safe, timely, efficient, effective, and equitable. (B.4.25)

CLO4: Demonstrate effective written, oral and nonverbal culturally competent professional communication skills with clients/family and other health care professionals (ILO/PLO 4)

- Demonstrate therapeutic use of self, including one's personality, insights, perceptions, and judgments, as part of the therapeutic process in both individual and group interaction. (B.4.1)
- Identify occupational needs through effective communication with patients, families, communities, and members of the interprofessional team in a responsive and responsible manner that supports a team approach to the promotion of health and wellness. (B.4.23)
- Demonstrate effective intraprofessional OT/OTA collaboration to: Identify the role of the occupational therapist and occupational therapy assistant in the screening and evaluation process. Demonstrate and identify techniques in skills of supervision and collaboration with occupational therapy assistants. (B.4.24.)
- Demonstrate knowledge of various reimbursement systems and funding mechanisms (e.g., federal, state, third party, private payer), appeals mechanisms, treatment/diagnosis codes (e.g., CPT®, ICD, DSM® codes), and coding and documentation requirements that affect consumers and the practice of occupational therapy. Documentation must effectively communicate the need and rationale for occupational therapy services. (B.4.29)
- Interpret the evaluation data in relation to accepted terminology of the profession and explain the findings to the interprofessional team. (B.4.8)