Raising the Bar: Evolution of a Statewide Interprofessional Education Program Following a 5-Year Outcomes Evaluation

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Introduction

The Indiana University Interprofessional Practice and Education Center (IU IPE Center) is charged with designing and implementing interprofessional learning opportunities through education and practice. As a means of providing interprofessional learning experiences, the IU IPE Center created Team Education Advancing Collaboration in Health (TEACH), a foundational, interprofessional curriculum, engaging approximately 20 health professions programs, 10 partnering institutions, and 8000 learners in interprofessional practice and education opportunities across the state of Indiana during an academic year.

After five years of TEACH implementation, an external review was conducted to determine outcomes, existing challenges, and opportunities for growth. The purpose of the current work is to discuss evaluation results and present strategies and implications for interprofessional education (IPE) as the IU IPE Center continues future work.

Background

Indiana University is a complex campus system across the state of Indiana. IU-Bloomington hosts the main campus with nearly 50,000 students, while Indiana University-Purdue University Indianapolis (IUPUI) has approximately 30,000. Additionally, there are seven regional medical school campuses located throughout the state in Gary, Evansville, Fort Wayne, Muncie, South Bend, Terre Haute, and West Lafayette.

In 2010, IU's President established University Clinical Affairs (UCA), a group composed of Deans from Dentistry, Public Health (IU-Bloomington), Richard M. Fairbanks Public Health (IUPUI), Health and Human Sciences, Medicine, Nursing (IUPUI, IU-Bloomington, IU-Fort Wayne), Optometry, and Social Work. As the coordinating body for all health professions schools at IU, the UCA works across all campuses to identify and facilitate opportunities for collaboration and coordination among the educational, research, clinical, and administrative areas. Four years later, the UCA established the IU IPE Center. The Center is responsible for transforming curricula by integrating the Interprofessional Education Collaborative (IPEC) core competencies that prepare learners to engage in effective, team-based health care to improve the health of individuals and populations (IPEC, 2016), as well as designing and implementing TEACH.

TEACH was created with three phases – Exposure, Immersion, and Entry-to-Practice. Each phase includes two Learning Anchors, or live learning events, with IPEC competencies/sub-competencies (IPEC, 2016) and learning objectives mapped to each. See Table 1 (on previous page) for objectives of the first four Learning Anchors. The Learning Anchors were developed, vetted, and piloted as the initial part of TEACH, with two Entry-to-Practice Learning Anchors in development.

Each Learning Anchor experience includes the following components: individual preparation/online pre-work, the live interprofessional learning event, assessment/evaluation, and uniprofessional debriefing (program/course specific). Exposure level Learning Anchors (1 and 2) provide opportunities for students to gain knowledge of the fundamental components of IPE and the benefits and outcomes of collaborating in teams. Learners observe a scenario and share perspectives from their role, then work in teams to identify a prioritized, collaborative approach while balancing potentially competing values and priorities represented across the team. Immersion level Learning Anchors (3 and 4) provide opportunities for learners to apply and integrate principles of person-centered care to create a comprehensive care plan for a patient portrayed by a standardized patient who has complicated and complex health issues. Learners work as a team with a patient/client to understand and resolve barriers to communication and utilize effective team collaboration.

Participating programs mapped the Learning Anchors to specific courses in their respective curricula. Between 2015 and 2020, the Learning Anchors were large-scale, in-person experiences for thousands of students statewide. Due to the pandemic, the Learning Anchors were modified for the online format and successfully converted to synchronous experiences via Zoom.

Methodology

By the 2019-2020 academic year, the Center had functioned for five years, allowing the accumulation of outcomes data. At the conclusion of each Learning Anchor, data are collected from students to measure

Table 1: Objectives by TEACH Learning Anchor

Learning Anchor 1 (Exposure I)	• Describe the process of team development and the characteristics and practices of effective teams. • Describe the role of interprofessional team-based care in helping people to navigate the complexity of the health care system. • Explain roles and responsibilities of team members. • Describe the value of interprofessional team practice. • Recognize the value of actively seeking the contributions of other professions and perspectives.
Learning Anchor 2 (Exposure II)	• Use specific communication tools and methods within a team setting. • Describe the roles within the team and how they relate to the team as a whole. • Assess roles within the team and ways to improve contributions to the team. • Identify ways to improve team effectiveness and performance.
Learning Anchor 3 (Immersion I)	• Recognize similarities and differences in the "Code of Ethics" for two or more different professions. • Consider how similarities and differences across professions influence caregivers' decisions and understanding of health and heathcare priorities. • Describe health and health care as inclusive of people, populations, and communities. • Explain how everyone in the healthcare team shares accountability to improve prevention and healthcare outcomes. • Demonstrate effective methods of communicating with team members to clarify each individual's role and responsibilities. • Discuss the importance of teamwork in person-centered and community-focused care. • Demonstrate active listening, while encouraging ideas and opinions of others. • Identify ways to improve team performance.
Learning Anchor 4 (Immersion II)	• Use effective communication tools and techniques to facilitate improved team function. • Engage other professionals appropriate to the specific practice situation to participate in shared patient-, client-, community-, and population-focused problem solving. • Communicate information with patients, families, community members, and health team members in a manner that is understandable, avoiding discipline-specific terminology when possible. • Reflect on how learning is applicable to future practice.

achievement of student learning outcomes. Additionally, students and faculty provide data focused on continuous quality improvement. Utilizing the Modified Kirkpatrick's Model of Educational Outcomes for IPE (Freeth at al., 2002), the IU IPE Center evaluated outcomes related to reaction, acquisition of knowledge and skills, and behavioral changes. See Table 2 for an outline of evaluation levels and measures.

After a 5-year cycle of the TEACH curriculum, the Center underwent an external review to determine if the student and faculty outcomes were being met. In July 2020, the UCA appointed a Health Sciences Evaluation Team (HSET) comprised of nine (9) members representing each of the IU Health Sciences Schools to conduct an evaluation external to the Center, but internal to the University. Each UCA Dean appointed faculty and students from their schools to participate in the review process, all participants external to the IU IPE Center. The HSET completed the external evaluation during fall 2020 and shared the final report with the IU IPE Center team in November of 2020. The evaluation was mostly comprised of interviews and focus groups with members of the evaluation team, as well as representatives from the health professions' programs that participate in the TEACH curriculum. As a component

of the Center's internal evaluation process, an annual report was generated for all participating programs. The reports were used to provide additional data to the HSET, although peripheral to the external process. After receipt of the report, the IU IPE Center team created strategies and projections to redesign the TEACH curriculum. The HSET tasks and conclusions/recommendations are outlined in Table 3.

Results

The evaluation process and final HSET report was shared broadly with both the IU IPE Center team and stakeholders. Input from everyone involved was highly encouraged with time dedicated to receiving feedback from all stakeholders. During regularly scheduled meetings, stakeholders were provided opportunities to discuss thoughts, reactions, and suggestions related to the HSET report's conclusions and recommendations. The IU IPE Center team also met via bi-weekly mini-retreat sessions to digest the report and engage in robust discussions about next steps. Each recommendation of the HSET report was evaluated while ideas to address recommendations were collected. After a complete review, themes and specific strategies for the recommendations emerged.

Such strategies included:

1. Changes to the TEACH curriculum structure.

   • Prior Exposure phase included two separate events that have been combined into a single learning event. The overarching phases of the curriculum remain unchanged as Exposure, Immersion, and Entry-to-Practice.

   • The Exposure phase was moved online to facilitate the connection of health professions learners across the state and serve as a common foundation for all programs.

   • A new Immersion-level menu was created to increase flexibility and fidelity, providing programs with more options for when and how their learners could participate. This allowed the IU IPE Center and partners to take advantage of many existing IPE experiences already occurring within programs.

2. New committees were formed to increase ownership and engagement in the TEACH curriculum.

   • The Curriculum Committee was formed to

Table 2: Evaluation Levels and Methodology

Freeth/Kirkpatrick Model (2002) Level	Data Collection Method
1. Student Reaction	• Student self-report survey (Continuous Quality Improvement).
2. Acquisition of Knowledge/Skills	• Student Self and Team Assessment • ICCAS
3. Behavior Change	• ICCAS • Facilitator Behavioral Checklist • Standardized Patient Assessment of Team

review the content of all TEACH events and approve new Immersion menu options.

• The Assessment and Evaluation Committee was charged with approving evaluation processes and instruments, as well as designing assessment strategies to meet various programs' accreditation and programmatic standards.

• A Student Advisory Committee was formed to integrate students' feedback regarding the TEACH curriculum.

As the IU IPE Center moves beyond the 5-year HSET evaluation, several priorities exist to achieve the charge, mission, and vision. The first being flexibility. Programs need the ability to select and participate in IPE events in a fashion that is conducive to their own coursework, schedules, and program outcomes. The programs can utilize additional activities or menu options that capitalize on unique strengths, available partnerships, and preferences of each individual campus and program.

Second, sustainability is vital to continuing quality IPE events in a complex university system. As the approach to and delivery of IPE continues to grow and change, learning experiences must be designed with sustainability in mind. Not only does the environment and learning context change, but numbers of participating learners and professions continue to increase. Learning opportunities should be relevant to all professions and the context of their practice, as well as accommodate large numbers of participants. The design and implementation must be done from both a curricular and logistic perspective, creating opportunities that continue to be valuable and viable across programs, situational variables, and academic years.

Finally, transparency continues to be essential to fostering trustworthy and valuable partnerships as the IU IPE Center continues to lead IPE and IPECP initiatives across the state. With a need for faculty to be engaged and possess ownership of the curriculum, transparency provides opportunities to include faculty and stakeholders at all levels of processes, implementation, and continuous quality improvement. Interprofessional learning opportunities should be an integrated piece of existing curricula, requiring program faculty to participate in development, implementation, evaluation, and improvement process.

Conclusion

As IPE continues to evolve, particularly post-pandemic, many aspects must be considered to create sustainability. It is imperative that programs utilize evidence-based approaches and review data to make curricula and programming changes. The data should include feedback from partners, stakeholders, faculty and students, as well as student learning data, to ensure objectives are being met. External reviews can also prove helpful in determining broader outcomes and strategic plans.

Interprofessional education cannot be a one size fits all approach, especially in light of the COVID-19 pandemic. With the pandemic, many advances were observed in respect to IPE (e.g., telehealth, increased cooperation and collaboration across professions, and flexibility of programming) (Langlois et al., 2020). With continuous assessment and evaluation cycles,

Table 3: HSET Tasks and Conclusions/Recommendations

Tasks	Conclusions/Recommendations
• Complete a formative evaluation with recommendations to the UCA cabinet on evaluating the IPE Center goal accomplishments, including implementation of the first year of the TEACH Curriculum. • Review the existing data summaries provided by the IU IPE Center for each health professions school. • Solicit and incorporate feedback from current partners and stakeholders. • Develop and implement the formative evaluation approach, including structured tools to collect data and feedback. • Provide a summary report with recommendations for the program. • Identify and summarize the IPE best practices from the other Big 10 Universities.	• Renew the focus of the IU IPE Center on the delivery of a high-quality interprofessional curriculum, with particular attention to addressing the accreditation and learning needs of each health professions school. • Engage faculty in the development and administration of the IPE curriculum, making every effort to minimize burdens while participating in IPE experiences. • Involve students in IPE planning, communication, and decision-making. • Emphasize IPE real-world experiences with patients and communities. • Maximize the flexibility of the IPE curriculum by offering a menu of IPE options from which each health professions school can choose. • Minimize implementation and operational complexity of the IPE curriculum. • Evaluate the costs of IPE and determine mechanisms to increase the value of the students' experiences and reduce costs, where possible.

programs can continue to capitalize on best practices, lessons learned, learner data, and stakeholder feedback to ensure the continual advancement of IPE as the context of health care and education continues to change.

Evidence suggests that fostering trust and building relationships among interprofessional teams is critical, particularly in an educational environment (Nortvedt et al., 2019). Likewise, creating a culture of trust and transparency can lead to sustainability of IPE programs. Faculty and student buy-in and ownership must be present in order to produce meaningful learning experiences. Although IPE Centers provide a core home for interprofessional education and practice, a Center must function in partnership with stakeholders, rather than appearing like siloed entities outside of their respective academic departments. There must be a continuous feedback loop from partners and stakeholders, and a continuous assessment cycle where data is collected and analyzed, results are shared, and changes are made before a new cycle begins.

Participating in an evaluation process with individuals outside of the IU IPE Center, but within the University, allowed for open and honest feedback based on the experiences of stakeholders, both students and faculty. This process allowed the IU IPE Center to be transparent in sharing how feedback was utilized to make changes and improve the experiences for students and faculty in the TEACH curriculum.

References

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