

# 2025 POSTER FAIR PRESENTATIONS

FROM IDEAS TO IMPACT:  
INNOVATION IN INTERPROFESSIONAL  
EDUCATION & PRACTICE



November 20, 2025  
3:00 - 5:00 P.M. ET



# 7th Generation Operation: Expanding Pathways to Health Professions Through Community Engagement and Interprofessional Collaboration

Amanda Bahgat MPH, Maeanna Merrill, Humberto Molina, Jessica S. Kruger, PhD, MCHES, Daniel J. Kruger, PhD, Michael J. Oldani, PhD, MS



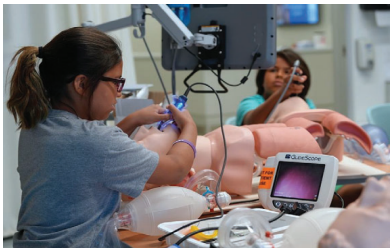
## Background

Indigenous people remain drastically underrepresented in medicine and other health professions.

In the 2024–2025 cycle, of 23,156 matriculants to U.S. MD-granting medical schools:

- Only 35 identified as American Indian or Alaska Native (AI/AN) alone.
- Only 166 identified as AI/AN in combination with another race or ethnicity.

To address this disparity, UB medical students collaborated with the Seneca Nation Education Department to create **7th Generation Operation**, an annual event introducing Indigenous students in grades 5–Undergraduate to diverse health careers.



## Objectives

- Expose Indigenous middle and high school students to health professions including Medicine, Nursing, Dentistry, and allied health fields.
- Build interprofessional collaboration skills among UB health profession students.
- Promote cultural humility and community engagement in health education.
- Support diversity and equity in the future health workforce.

## Event Design

Hands-on workshops, interactive career fair, and case discussions.

Medical students led event planning, evaluation, and facilitation.

## Interprofessional Engagement

Students from multiple health professions worked together as organizers, facilitators, and mentors.

## Evaluation Methods

Cross-sectional analysis using validated tools:

- ICASS (Interprofessional Collaborative Assessment Scale for Students).
- UBiSDoH (University at Buffalo Social Determinants of Health scale).



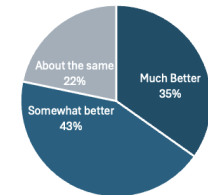
## Results

A total of N=23 completed the survey from the following health professions, Audiology, Dental Medicine, Medicine, Dietetics, Nursing, and Physician Assistant program.

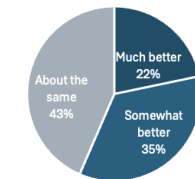
Participants scored higher on the UBiSDoH,  $t(21) = 3.77$ ,  $p < .001$ ,  $d = 0.79$  and the ICCAS,  $t(22) = 3.66$ ,  $p < .001$ ,  $d = 0.78$ , after participating in the 7<sup>th</sup> Generation Operation.

## Results Continued

Compared to before volunteering, my confidence to work in an interprofessional environment is...



Compared to the time before volunteering, my confidence in working with Indigenous patients is...



## Conclusion

7th Generation Operation demonstrates the power of student-led, community-engaged programming to:

- Strengthen interprofessional education (IPE) competencies.
- Build culturally responsive future providers.
- Foster workforce diversity in medicine and other health professions.



# Establishing Interprofessional Strategies for STEAM & Health Promotion Initiatives in Academic Institutions & Community Centers



Nathan Tat, Vivian Tat, Avni Kantawala, Jessica Matos, Tony Nguyen, Sean Icuspit Pagay, Candise Tat, Gabrielle Dewson, Mary Beth Trevino, Leslie Stalnaker

## INTRODUCTION & BACKGROUND

- “Good Health and Well Being” and “Quality Education” are key United Nations Sustainable Development Goals for achieving a better future, emphasizing the link between health and education.
- Taking Our Best Shot (TOBS) was founded to strengthen community well-being, foster evidence-based science communication, and promote health literacy through science, technology, engineering, arts, and math (STEAM)-based approaches.
- Team members possess cross-disciplinary backgrounds across science, public health, medicine, and civic engagement.

## OBJECTIVES



Engage, educate, empower, and inspire enthusiasm in STEAM



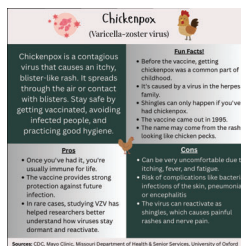
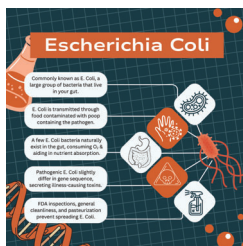
Disseminate public health knowledge to increase scientific trust and understanding



Improve community well-being by promoting the uptake of public health practices



taking our best shot



## PROJECT DESIGN & METHODOLOGY

- **Infographic Challenges:** We implemented this program to engage students in building critical skills in understanding trustworthy science and health sources. This also strengthened their communication skills by translating complex findings into concise and informative infographics for the public.
- **Community & Health Fairs:** We co-hosted or participated in health fairs seeking to improve the community's holistic health, facilitating attendees' engagement with various resources.
- **TOBS at Health Conversations:** We established a health seminar series featuring speakers from the health and medical fields. This program provided community members with sources of health information in an informal setting, and young professionals fostered communication abilities in a public forum.
- **TOBS at STEAM Paths:** We led interactive discussions with students and empowered participants to succeed academically and enter STEAM careers.
- **TOBS x OLLI Seminars:** We partnered with the Osher Lifelong Learning Institute (OLLI) to host seminars informing attendees on science, health, and wellness.
- **TOBS Engages:** We participated in various activities designed to emphasize the power of education, partnership, and community in STEAM.



From Busy to Balanced: Health Tips for Life in the Fast Lane

Sun Safety



Perspectives on Space, Economics, History, and Public Health



Keeping Your Jaw Healthy



DNA and the Philadelphia Chromosome



## RESULTS

Table 1. Health Fairs

Texas AHEC East Coastal Region Fall Health Fair	St. Vincent's Back to School Block Party
St. Vincent's Hope Health Fair	Ready for Success
Holiday Health Extravaganza Texas AHEC	Fall into Health Fair
Galveston County Health District Health Fair	St. Vincent's Fall Family Health Fest

Table 2. TOBS at Health Conversations

Opioid Education and Naloxone Administration Training – in collaboration with the Community Overdose Response and Recovery Effort (CORRE)
The Impact of Nutrition on Youth
Infectious Diseases and Immunizations
Coping with the Anxieties in Daily Life
Fun in the Sun: Skin Cancer Prevention
Hearts Start Here: All About Cardiovascular Disease
Alzheimer's Disease: Airing Out the Brain's Laundry
Breast and Lung Cancer Screening: How Do They Apply to Your Health?
Mental Health: Introducing the Community Resilience Model
Opioid Education and Naloxone Administration Training – in collaboration with CORRE
Food Safety

Figure 1. TOBS x OLLI Seminars

## CONCLUSIONS & FUTURE DIRECTIONS

- Multidisciplinary backgrounds have been vital to TOBS' success. Our organization consists of individuals with a variety of training and education. We also have invited speakers from the biomedical sciences, nursing, and medicine.
- Likewise, partnerships have been foundational to TOBS' journey. Synergetic approaches have enabled us to broaden our reach and unite partners around a common goal: improving the health of our society. Connecting with media sources such as *The Daily News*, *CanvasRebel*, and *VoyageAustin* has helped widen our scope.
- We also collaborate with community-centered institutions like Moore Memorial Public Library (MMPL) and schools.
- Addressing multiple determinants of health is another aspect of TOBS such as incorporating lunches from local businesses.
- All described projects were curated for a variety of topics and can be readily adapted for any academic, educational, or community institution.

## TESTIMONIALS



"Your enthusiasm and passion for your work really shines wherever you go." -



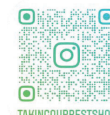
"TOBS...has made substantial progress towards promoting public health."



"I am most proud of the student engagement element..."

## ACKNOWLEDGMENTS

- Much gratitude to our families, friends, supporters, audience, and community!
- **Team Members, Speakers, Judges, and Partners:** Holly Chapman, Jacqueline Silva, Miranda Serrano, Kate Burnaman, Dane Bossert, David Aghado, Jane Onyemachi, Madison Kidd, Chris Doan, I'lasha James, Sophia Choi, Alekhyia Gurrum, Danielle Miller, Sarah Alnemrat, Katherine Araya, Riley Watson, Dinda Aryaputri, Hannah Vedder, Donna Tat, Andy Tat, Amy Neblett, MMPL, Albert Schweitzer Fellowship of Houston-Galveston, City of Texas City, and many more!



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# Centralizing Research Opportunities and Strengthening Community: The Student-Led SOAR Newsletter

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College of Natural Science and Mathematics<sup>3</sup>, University of Houston

## Project Description

### Needs Assessment

Many medical schools lack a **student-led, accessible, and centralized** source for research updates that focus on **engaging students and creating a sense of community**<sup>1</sup>. Existing communications included a faculty-driven email listing and announcements, and various databases that were not visually appealing, user-friendly, contained complex verbiage that could be discouraging for students, and were fragmented. Thus, a motivated student editorial team with institutional support aimed to create a newsletter that develops a **centralized, comprehensible, and personable research hub for students** with interprofessional interests.

### Project Goals

This project centralizes research-related content applicable to BCM students across different disciplines. The content strives to be student-driven with a **focus on spotlighting student achievements, opinions, and experiences in research**. The newsletter's goal is to cultivate a **sense of community** among classes and faculty while emphasizing relevant research and educational opportunities. It **encourages creativity** through humor, art, lifestyle, and event pieces. Multi-channel distributions ensure access to all students and faculty across departments. This addresses the **lack of a centralized student platform** that promotes accessibility to a general audience while **providing reliable information and facilitating dialogue**.

The newsletter employs a student senior officer team that has a variety of skills and experiences in journalism, editing, creative art, and design.

- Team employs and trains students in these various disciplines to curate content.
- Articles follow AP style and are intended to appeal and be accessible to a general audience.
- Newsletter is distributed across email, social media, and in print throughout campus.



Figure 1. The SOAR Newsletter Front Covers

The SOAR Newsletter began as a student-led initiative to showcase groundbreaking research and events while spotlighting distinguished students and projects. It was a way to encourage student development and highlight research opportunities. Since then, it has evolved into a creative outlet that engages the community and advocates for broader student opinions.



Figure 2. The SOAR Newsletter Content Development Timeline

The Newsletter consists of three teams: writing, editing, and design. Each month, pitches are sent out over the weekend, and students have the chance to sign up for a writing, editing, or artwork assignment. Students are given the chance to work on their assignments for 2-3 weeks under the guidance of the senior officer team and assigned mentors. Stories are finalized and submitted to the design team, which compiles the stories and organizes them into a visually cohesive newsletter. The newsletter is sent to print by the end of the month.

## Project Description

### Evaluation Plan

- 1 Engagement is tracked through open, click-through rates
- 2 Content quality is monitored through peer feedback and monthly surveys
- 3 Qualitative reflections from the editorial team assess leadership growth and serve to guide continuous improvement



Figure 3. SOAR Newsletter Graphics

Graphics shown above were illustrated by BCM students on the SOAR Newsletter Team, often in collaboration with other writers and editors. These were used for a variety of stories, reflecting opinion pieces, lifestyle pieces, or research opportunities.

## Outcomes and Conclusion

### Qualitative

Qualitative evidence was measured across three aspects, content growth, distribution growth, and outreach growth.

- **Content growth**
  - Increased variety of article topics and headlines (e.g., research highlights and events, student reflections and opinions, faculty advice, life & arts).
  - Noted the growing number of student and faculty submissions month-to-month.
  - Editorial team reports improved collaboration and leadership skills through reflection meetings. Emphasized strengthened connections with faculty mentors and a greater sense of community belonging.
- **Distribution Growth**
  - Transition from exclusively digital distribution (email/newsletter platform) to printed copies placed across high-traffic areas at BCM and social media utilization (e.g., Instagram).
  - Anecdotal peer and faculty feedback and increased visibility at SOAR and BCM-sponsored events.
- **Outreach growth**
  - Increased student engagement in submitting questions and advice, event recaps, and personal opinions/narratives to the newsletter.
  - Preliminary survey results showed students are more likely to attend SOAR events, visit the SOAR database, contact a research mentor, submit an abstract for presentation, present a research project, and apply for a travel award.
  - Survey respondents strongly agreed that the SOAR newsletter was relevant to their academic and research interests, timely in highlighting opportunities, easy to follow, and effective in fostering a sense of community through recognition of student achievements.
  - Respondents also strongly agreed that the newsletter communicated SOAR Office updates effectively, increased their awareness of available research events and projects, improved their confidence in pursuing research, and would be recommended to peers.

## Outcomes and Conclusion

### Quantitative

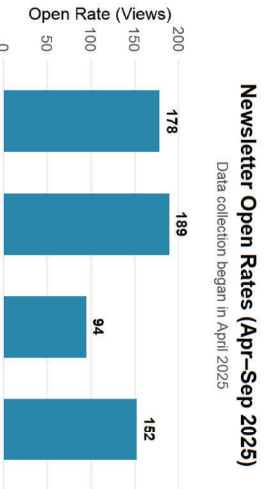


Figure 4. Newsletter Open Rates (Apr–September 2025).

Open rate tracking began in April 2025. The highest number of views occurred in May (189), followed by April (178). A notable decline was observed in June (94), with partial recovery in September (152). These data provide an initial baseline for monitoring audience engagement with the newsletter over time.

### Conclusion

The student-led Student Opportunities for Advancement in Research (SOAR) newsletter is designed to make research-related content **accessible** and **engaging** while also providing students with a creative outlet. Topics include research opportunities, events, conferences, and awards, student and faculty spotlights, authentic and reputable advice across a range of medical school-related concerns, institutional updates, and student life and opinions. This **multifaceted content** is relevant to students and faculty across different stages and disciplines at Baylor College of Medicine (BCM) and aims to foster a strong sense of community, curiosity, and collaboration. Its **multi-channel distribution** plan ensures its availability and accessibility for all members, encouraging engagement from both students and faculty who may not typically interact.

The set evaluation plan allows the effectiveness of the newsletter to be measured through **monthly surveys assessing behavioral outcomes** like increased connections with faculty/peers, increased database traffic, and event attendance. Engagement is also tracked through open/click rates. Survey results demonstrate that respondents **strongly agreed** that the newsletter is easy to follow, relevant to their academic and research interests, and effective in presenting opportunities and fostering community. Students also reported **greater confidence** in participating in research, interprofessional connections with peers and faculty, and willingness to recommend the newsletter to peers. In addition, open rate tracking further supports a wide and **increasing community engagement** and helps establish a baseline for monitoring audience reach and informing future strategies to broaden impact. Overall, the newsletter continues to **challenge** itself with each edition, continuously delivering meaningful and thought-provoking content to its audience.

### Contact information

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### References

1. Spelling, D., & Reddel, J. (2023, February). "Figure 1. A Student-Led Biomedical Research Newsletter by Peer Education, ResearchGate, unknown. [https://www.researchgate.net/publication/369152420\\_Figure\\_1\\_A\\_Student-Led\\_Biomedical\\_Research\\_Newsletter\\_by\\_Peer\\_Education](https://www.researchgate.net/publication/369152420_Figure_1_A_Student-Led_Biomedical_Research_Newsletter_by_Peer_Education)



# Assessing Interprofessional Competency Development Among Health Professions Students During a Global Medical Mission to Medellín, Colombia

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1. University of South Florida Taneja College of Pharmacy, Tampa, Florida; 2. University of South Florida Morsani College of Medicine, Tampa, Florida

## INTRODUCTION

- Interprofessional education (IPE) is essential for preparing health professions students to deliver effective, patient-centered care through teamwork and collaboration<sup>1</sup>. Global service-learning experiences provide unique opportunities to strengthen these competencies while addressing health disparities in resource-limited settings<sup>2</sup>.
- The Interprofessional Health Student Collaborative (IHSC) at the University of South Florida (USF) partnered with Universidad CES in Medellín, Colombia, to conduct an interdisciplinary medical mission focused on sustainable global health engagement.
- Students from medicine, pharmacy, nursing, and public health worked collaboratively through clinical services, home visits, and health education.
- This study aimed to:
  - Evaluate changes in self-perceived interprofessional competencies among participating students using the validated Interprofessional Collaborative Competency Attainment Survey (ICCAS)<sup>1</sup>
  - To assess changes in interprofessional competencies following participation in a structured global health education experience<sup>3</sup>.

## METHODS

A retrospective, paired pre-post observational study was conducted using data collected before and after the March 2025 IHSC medical mission to Medellín.

### Participants:

- Seventeen USF students from the Colleges of Medicine, Pharmacy, Nursing, and Public Health who completed both the pre- and post-mission ICCAS surveys.

### Intervention:

- Students participated in a one-week, interprofessional global health service trip that included joint clinical care, home visits, and health education in underserved communities under supervision of CES and USF faculty.

### Instrument:

- The ICCAS tool, consisting of 20 Likert-scale items across six domains, was administered electronically 2–3 weeks before and after the trip. The ICCAS questions cover the following six domains: communication, collaboration, roles/responsibilities, collaborative patient-centered care, conflict resolution, and team functioning<sup>1</sup>.

### Analysis:

- De-identified paired responses were analyzed using the Wilcoxon Signed-Rank Test to compare pre- and post-survey scores across all domains. Results were also stratified by discipline to explore potential differences in perceived competency gains.

## OUTCOMES

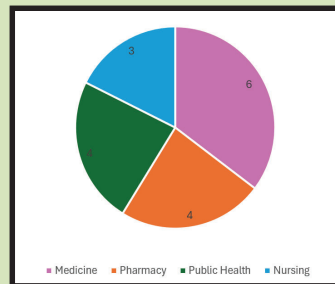


Figure 1: Proportion of Students by Discipline

Activity	Description	# of individuals
Direct Medical Consultations	Internal medicine, pediatrics, dermatology, OB/GYN, optometry	~280
Health Education & Screenings	Cardiovascular, mental health, and sexual health outreach	450+
Total Impact	Combined direct care and community outreach	~800

Table 1: Population Activities of IHSC Interprofessional Medical Mission to Medellín, Colombia

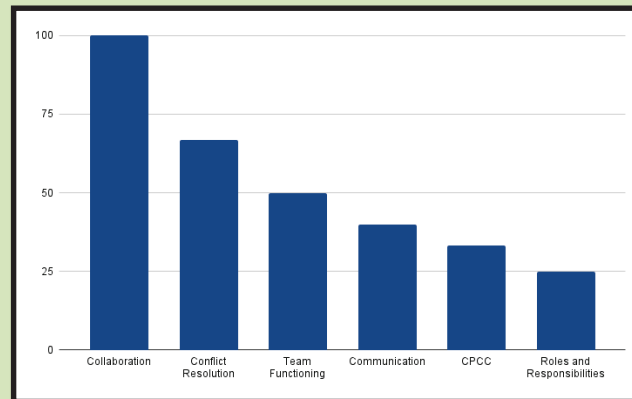
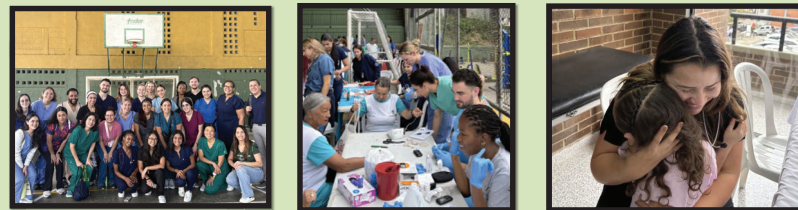


Figure 2: Percent of Domain Questions with Statistically Significant Improvement



## RESULTS

- The ICCAS survey was administered to 18 students from medicine, pharmacy, nursing, and public health, and 17 completed both pre- and post-mission ICCAS surveys (Figure 1). At least one question across all domains showed statistically significant improvement. The collaboration domain had the greatest proportion of statistically significant improvements, and the roles and responsibilities domain had the lowest proportion (Figure 2).
- Stratified analysis showed that medical students reported a statistically significant increase in ability to identify and describe their abilities and contributions while working with an interprofessional team – a finding not significant overall. Other disciplines, when analyzed alone, did not show statistically significant improvement in any category.

## DISCUSSION & CONCLUSION

Participation in the IHSC global medical service trip to Medellín, Colombia, led to measurable improvements in students' interprofessional collaboration, communication, and teamwork skills, as shown by ICCAS results. The immersive structure provided opportunities to apply interprofessional competencies in underserved settings. Students across all disciplines reported gains in collaborative competencies, with medical students showing greater improvement in recognizing their professional roles within interprofessional teams.

Strengths include use of a validated IPE tool (ICCAS) and an experiential, multidisciplinary model fostering skill development and cultural humility. Limitations include a small cohort and single-site design. The absence of statistically significant changes among other disciplines is likely attributable to the limited sample size, rather than a lack of meaningful effect. Future directions include increasing sample size, longitudinal follow-up, and evaluating outcomes across additional global health missions.

These findings highlight the importance of global service-learning as a powerful educational approach that builds interprofessional collaboration, cultural competence, and social accountability. Integrating such experiences into health professions curricula can better prepare future providers for ethical, patient-centered, and team-based care in diverse environments.

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## DISCLOSURES

No conflicts of interest to disclose. IRB Study #008803

Global service-learning experiences are an immersive educational approach that builds interprofessional collaboration, cultural competence, and social accountability to better prepare future health care providers for ethical, patient-centered, and team-based care in diverse environments.

**USFHealth**

# Interprofessional Collaboration at a Student-Run Free Health Screening Clinic Enhances Student Education

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Michael Petterson, MS<sup>1</sup>; Anna Balinski<sup>3</sup>; Karissa Kim, PharmD<sup>2</sup>

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Keywords: interprofessional collaboration, underserved



## Introduction

- Effective interprofessional collaboration in medical settings is associated with improved patient outcomes, reduced healthcare costs, and increased team morale and job satisfaction.<sup>1,2</sup>
- Early introduction of interprofessional education can improve health professions students' perceptions of other disciplines and attitudes toward collaboration.<sup>3</sup>
- The University of Cincinnati Open School is a student-run clinic offering health screening and self-management support at St. Vincent de Paul – a nonprofit organization serving underserved community members.
- Students from different health professions programs volunteer weekly and meet with neighbors to perform health screenings (e.g., weight, blood pressure, blood glucose) and lifestyle counseling.

## Purpose

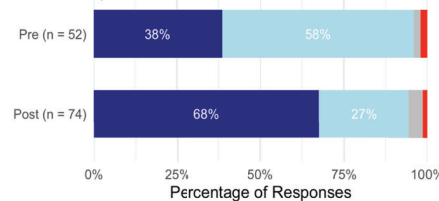
- The impact of Open School on interprofessional education has not been assessed.
- Evaluate how Open School affects attitudes toward interprofessional collaboration among health professions students from a large, urban, academic health center.

## Actions

- UC students from MD, RN, PharmD, DPT, RDH, and nutrition programs volunteered for a 4-hour shift at the UC Open School.
- During the volunteer experience, students advised neighbors based on their respective expertise, and they conversed with each other about their educational programs and discipline-specific work.
- Students were asked to voluntarily complete the Student Perceptions of Interprofessional Clinical Education-Revised Instrument, version 2 survey (SPICE-R2) before and after volunteering.<sup>4</sup>

## Results

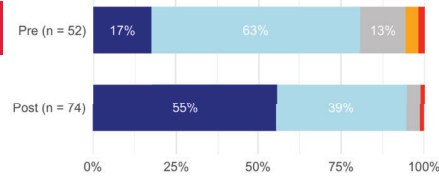
a) During their education, health professional students should be involved in teamwork with students from different disciplines in order to understand their respective roles ( $p = 0.003$ )



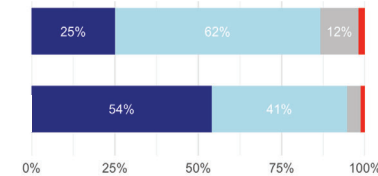
Score

- 1 Strongly Disagree
- 2 Disagree
- 3 Neutral
- 4 Agree
- 5 Strongly Agree

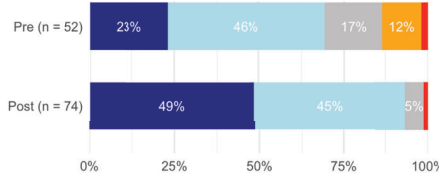
b) I understand the roles of other health professionals within an interprofessional team ( $p < 0.0001$ )



c) My role within an interprofessional team is clearly defined ( $p < 0.0001$ )



d) I have an understanding of the courses taken by and training requirements of, other health professionals ( $p = 0.0002$ )



e) Patient/client centeredness increases when care is delivered by an interprofessional team ( $p < 0.001$ )

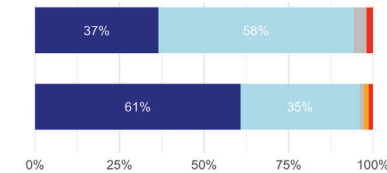
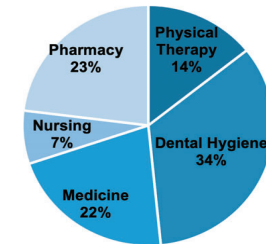


Figure 1. Pre and Post Survey Responses

Comparisons between two independent groups were done using Wilcoxon rank-sum.

## Results



Pre-Survey (n = 52)  
Post-Survey (n = 74)

Figure 2. Disciplines at UC Open School

"Helping to solve their healthcare goals was easier when able to bounce ideas off each other."

"I learned the importance of encouraging and uplifting people! Working in an interdisciplinary team enhances my learning and the patient experience."

## Discussion

- The UC Open School provides a venue for interprofessional collaboration among students from different health professions.
- Volunteering as part of an interprofessional team enhanced students' education by improving their understanding of their own role and others' roles within a team, the training requirements of other professionals, and the positive impacts of such work on patient care.
- Implementing interprofessional opportunities for health professions students can foster an environment of respect and promote teamwork among disciplines, which students will hopefully carry into their future careers.

**Future directions:** Ethnographic studies into interdisciplinary conversations, clients' perceptions and attitudes toward being seen in an interdisciplinary clinic



Scan above for works cited.

# WHERE EAST MEETS WEST: ESTABLISHING A CENTER FOR INTERPROFESSIONAL EDUCATION

Southern California University of Health Sciences established its inaugural Center for Interprofessional Education (IPE) to unite Eastern (complementary) and Western (conventional) medicine in advancing collaborative, whole-person care. Within one year, IPE initiatives expanded dramatically—activities increased 400%, student engagement 1,566%, and faculty participation 1,700%—with students achieving double-digit competency gains across all IPEC domains, validating a transformative, integrative model for practice-ready health professionals.

## AUTHORS

Karina Madrigal, EdD, MA – Dean, Center for Interprofessional Education  
Michael Ramcharan, MD, DC, MPH, EdD – Vice Provost, AVP of Academic Affairs



## BACKGROUND

- A comprehensive institutional self-assessment using the IPEC Institutional Assessment Instrument revealed the absence of a formal, longitudinal IPE curriculum at SCU.
- While the university demonstrated a strong commitment to interprofessional education, implementation across the didactic, simulated, and clinical continuum was inconsistent.
- Consequently, students were not receiving structured opportunities to develop collaborative practice competencies essential for whole-person, team-based care.

## PURPOSE

To design and implement an Interprofessional Education (IPE) Center that advances student learning, strengthens faculty engagement, and promotes integrative, whole-person team-based care through both complementary and conventional medicine traditions.

## METHODOLOGY

The Center for IPE operationalized a systematic, data-informed framework anchored in integrative, whole-person health principles.

### Implementation Steps:

- Administered the IPEC Institutional Assessment Instrument to establish baseline capacity.
- Established the Center for Interprofessional Education to centralize leadership and accountability.
- Aligned IPE initiatives with the University's Mission, Vision, Learning Outcomes, and accreditation standards.
- Expanded the quantity and quality of IPE learning activities across didactic, simulation, and clinical phases.
- Developed a robust evaluation framework using pre- and post-assessments to measure competency gains in all IPEC domains.

## DISCUSSION

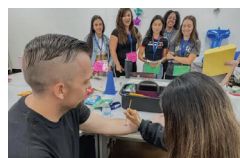
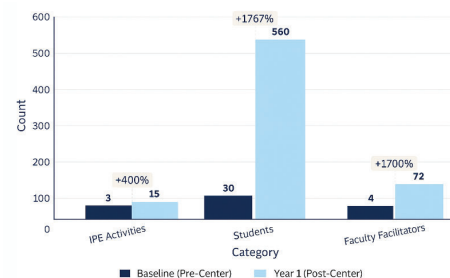
- Establishing a centralized Center for IPE transformed SCU's interprofessional learning culture within one academic year.
- The integration of complementary and conventional medicine offers a unique, holistic model for preparing students for whole-person, team-based care.
- Quantitative and qualitative data confirm that a structured, competency-based approach enhances learner readiness for collaborative practice.

## CONCLUSION

- The SCU Center for IPE has filled a critical educational gap, ensuring all students participate in intentional, competency-based interprofessional learning.
- This scalable and adaptable model demonstrates how universities rooted in integrative health can operationalize IPE effectively and measurably.

## RESULTS

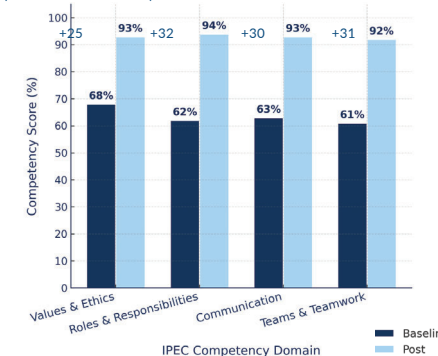
Institutional Growth in IPE Participation  
(pre-post center establishment)



## REFERENCES

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Competency Gains Across IPEC Domains  
(Pre-Post Assessment)





# A scoping review of educational interventions for clinical educators facilitating interprofessional student placements

Nikki Cooke, Claire Baldwin, Kelly Huxley, Clare Coulter, Maayken van den Berg  
College of Nursing and Health Sciences, Flinders University



## Background

Health professional clinical educators (CEs) play a central role in facilitating interprofessional (IP) student placements however, **IP practice is inherently complex and requires a high level of skill and confidence**. Clinicians often report feeling ill-prepared for interprofessional education (IPE) roles, **highlighting the need for targeted support and training**.

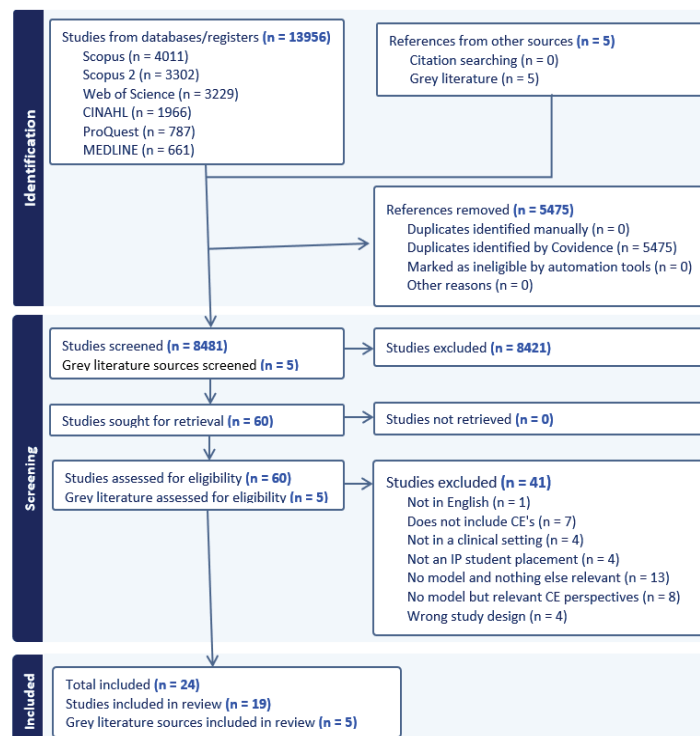
## Methods

### Research questions:

1. What educational models or approaches are available to support CEs in facilitating IPE during student IP placements in clinical healthcare settings?
2. What are the perceptions of CEs and organisations regarding these educational models or approaches?

### Methodology:

Informed by Arksey and O'Malley's (2005) framework. OSF registration



## CE perceptions of the educational models four key themes:

- |                                |  |
|--------------------------------|--|
| 1. Gained knowledge and skills | 3. Intention to change their supervision and professional practice |
| 2. Improved confidence         | 4. Value in training   |

## Discussion

### Key training features:

- Readiness for IPE requires a combination of training elements.
- Less than half of the models used multiple delivery modes, and only 17% offered repeated workshops.
- Simulation-based training, present in a quarter of the identified models, via face-to face or e-learning, is known to support complex skill development.

### CE perceptions:

- Motivation is critical to fostering positive learning environments but is influenced by multiple factors.
- Sustainable IPE in clinical settings requires organisational support.

### IPE Competencies:

- Standardisation of competencies for CEs remains limited.
- Inclusion of IPE competencies in CE training models is inconsistent.
- Only three models explicitly referenced IPE competencies with only one aligning with IPEC standards.
- Further research is recommended into standardising IPE competency frameworks for CE training.

These findings will guide the development of an IPE toolkit, which will be integrated into an existing IP placement program.

## Results

- Twenty-four educational models were identified from academic (n=19) and grey literature (n=5) sources.
- Most were delivered by university faculty (10). Training setting were mostly at a university (4) or online (3).
- Training dose ranged from 2 hours to three semesters and a summer session, depending on delivery mode and level of support.

### Key training features of the educational models:

<b>Delivery mode</b> 	'Face-to-face' (19), 'e-learning' (8), 'simulation' (6) and 'preparation material' (5). Single mode approach (14), multi-delivery mode (10).	<b>Extended support</b> 	No extended support following the initial training (13), on-placement support (7), multiple workshops (4), post-training follow-up (1).
<b>Learning format</b> 	Group learning (12), combination of group and independent learning (9), independent learning (2), not reported (1).	<b>Training design</b> 	Designed for a specific context (13), generalised training (11).

# Evaluation of the impact of a student and resident interprofessional teaching certificate program

Haley N. Johnson, PharmD, BCPS<sup>1</sup>, Alberto Sobrero, MD<sup>2</sup>, Jiamu Sun, MPH<sup>3</sup>, Heather Hageman, MBA<sup>4</sup>, Dennis Chang, MD<sup>2</sup>, Denise Leonard, PhD<sup>5</sup>

<sup>1</sup>St. Louis College of Pharmacy at University of Health Sciences and Pharmacy, <sup>2</sup>Washington University School of Medicine, <sup>3</sup>Washington University Brown School of Social Work, <sup>4</sup>Collaboration for Interprofessional Education, <sup>5</sup>Center for Teaching and Learning Washington University in St. Louis

Collaboration for  
Interprofessional Education  
at Washington University Medical Campus

Goldfarb School of Nursing at Barnes-Jewish College  
University of Health Sciences and Pharmacy in St. Louis  
Washington University School of Medicine

## Background

- The Collaboration for Interprofessional Education (previously Center for Interprofessional Practice and Education) on Washington University Medical Campus was established in 2015 to aid in improving patient safety and healthcare quality through developing interprofessional (IP) curricula and promoting collaborative educational environments by building a community of IP champions.
- The CIPE implemented a student-resident interprofessional teaching certificate program in 2021 to prepare health professional trainees for future IP experiences as part of this mission.
  - The program requires completion of a general pedagogy section, attendance at a foundations of interprofessional education (IPE) workshop and one other IPE-related workshop, and direct co-facilitation of an IPE teaching experience with a faculty member.
- However, in the United States, few programs like this exist, and there is a lack of data evaluating programs' long-term impact. The primary objective of this research was to evaluate the impact of the program on participants' future behaviors.

## Purpose

- To assess the impact of participation in a trainee interprofessional teaching certificate program on future teaching, clinical practice, and/or research experiences

## Methods

- Qualitative thematic analysis with post-experience qualitative and quantitative assessment

### Surveys

- Anonymous qualitative survey emailed in Spring 2025 to all previous (2021-2023) and recent (2024) cohorts to assess program's future impact
- Routine post-survey for all participants immediately following completion of the program collecting their perceptions of IPE and IP collaboration (IPC) and their readiness for IP teaching
  - Adapted from validated teaching readiness and IP attitude tools

### Analysis

- Qualitative thematic analysis performed by two independent coders for written responses in both surveys
- Quantitative survey items assessed on a 5-point Likert scale (1=strongly disagree through 5=strongly agree) in the post-survey
- Descriptive statistics, including medians with interquartile ranges (IQR) and frequencies, utilized as appropriate for non-normally distributed data

## Results

Figure 1. Program participants by profession

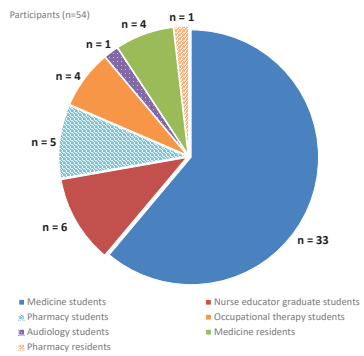


Figure 2. Program participants by year

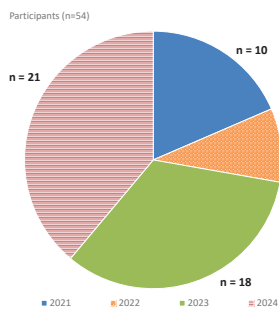


Figure 3. Qualitative analysis results

- Sixteen of 54 (30%) emailed program participants completed the qualitative survey in Spring 2025.
- Themes identified included increased confidence in **IP teamwork**, **enhanced IPC** and **IP communication**, and **improved IP teaching and curriculum design development**.
- Sixty-one program surveys were completed from 2021-2024.\*
- In the written responses, themes of **IP collaboration**, **teaching and facilitation**, and **impact on professional formation** were noted.

\*CIPE learners participated at varying cycles and administrations, resulting in 61 survey responses amongst 54 program participants.

Table 1. Select quantitative survey data

SPICE-R2 Subscale Scores, median (IQR) (n=61)	2021 – 2022	2023	2024	Total	
Interprofessional Teamwork and Teams-Based Practice	4.9 (0.3)	5 (0.1)	5 (0.3)	5 (0.3)	
Roles/Responsibilities for Collaborative Practices	4 (0.8)	4.3 (1.4)	4.3 (0.7)	4.3 (1)	
Patient Outcomes from Collaborative Practices	4.7 (0.2)	4.8 (0.7)	5 (0.7)	4.7 (0.7)	
Readiness Scores, median (IQR) (n=61)	2021	2022	2023	2024	Total
9. Communicate to an IPE team with confidence, clarity, and respect, working to ensure common understanding.	4 (0.5)	5 (0)	5 (0)	5 (0)	5 (1)
10. Demonstrate the use of respectful language appropriate for a variety of challenging situations within the interprofessional team.	5 (0.5)	5 (0)	5 (0)	5 (0)	5(0)

## Results (continued)

Table 2. Qualitative excerpts from survey sent to 2021-2024 participants

Coded Theme	Quotation
Understanding and utilizing skills of other professions	"I was able to better understand how to work with different professionals to enhance to care of a client"
Collaboration enhancement	"Participating in the IP Teaching Certificate allowed me to change in my research by furthering my understanding on the importance in interprofessional teachings and collaboration when developing a model of teaching that incorporated climate change"
Communication improvement	"I am more mindful of the terminology I use and ensure that I am clear and concise. Furthermore, I use improv to collaborate more fluidly and use 'yes, and...' which has helped acknowledge ideas and improve problem solving with my co-workers and other medical professionals"
Confidence in IP teamwork	"It made me consider differences don't separate us, but bring us together as we contribute unique perspectives."

- See detailed qualitative and quantitative data from the full cohort and post-program surveys via the QR code



## Discussion & Conclusions

- Health profession students and post-graduate trainees enrolled in an IP teaching certificate program reported plans to work collaboratively in and improved understanding of IP teams through participation in the program.
- The qualitative data indicates that structured IPE fosters the development of a shared professional identity, strengthens communication and collaboration skills, and supports the integration of IP principles into teaching practices.
  - This suggests that well-designed IP programs not only enhance immediate clinical and educational competencies but also cultivate long-term professional growth and a commitment to collaborative, patient-centered care.
- A limitation of this research is that most data was obtained from the 2024 cohort.
  - More robust analyses from multiple institutions are warranted to further confirm changes in behavior following formal trainee interprofessional teaching and facilitation programs.

Barnes-Jewish College  
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UNIVERSITY OF HEALTH SCIENCES & PHARMACY

WashU  
Medicine

Disclosures  
The authors have nothing to disclose.

References  
Available upon request

# Empowering Faculty for IPE: Integrating Simulation, AI, and Collaborative Case Design

Taylor Yowan, BS; Nathan Frakes, MS; Deborah Wuest, EdD; Patrick McKeon, PhD; Holly Buchanan, PA-C



## Background

- Two Campuses
- 10 Allied Health Professions
- All Allied Health Professions require IPE accreditation.

## Project

- Empower faculty to design inclusive simulation-based IPE activities aligned with IPEC Core Competencies and HSSOBP using AI to reduce barriers.

## Needs Assessment

- Faculty attended IPEC Institute February 2025.
- Debrief highlighted institutional lack of faculty development and underutilized campus resources.

## Intervention

- 45-minute IPEC and HSSOBP presentation followed by interprofessional teams used discipline-specific objects to design simulations scenarios, apply AI prompts, and debrief key insights.

## Evaluation & Progress

- Ongoing evaluation beginning with faculty focus groups.
- Initial feedback will be used to develop a broader questionnaire for further assessment and direction.



AI integration in interprofessional healthcare and simulations, grounded in best practices.

- Learn More
- References
- Contact



# Interprofessional Education in Action: Embedding the IHI Certificate Across Public Health and Healthcare Administration Curricula

## Authors

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<sup>2</sup>Department of Healthcare Administration and Informatics School of Public Health, Samford University

## Introduction

The Institute for Healthcare Improvement (IHI) Basic Certificate in Quality and Safety is a nationally recognized, 13-module online micro-credential that builds competencies in quality improvement, patient safety, population health, healthcare leadership, and person- and family-centered care.

Modules include:

- QI 101–105 (Improvement Capability)
- PS 101–105 (Patient Safety)
- TA 101 (Triple Aim for Populations)
- LS 101 (Leadership)
- PFC 101 (Person- and Family-Centered Care)

To meet the growing need for shared safety culture and interdisciplinary systems thinking, an interprofessional faculty team launched this certificate integration in 2018 across undergraduate and graduate programs in public health and healthcare administration.

## Purpose

This project describes an interprofessional, scalable model for integrating a nationally recognized patient safety micro-credential into public health and healthcare administration programs to strengthen shared competencies, interprofessional learning, and workforce readiness.



Integrating a nationally recognized micro-credential in quality and safety across undergraduate, master's, and doctoral programs equips learners with workforce-ready competencies in systems thinking, patient safety, and improvement science. This interprofessional model strengthens academic-to-practice alignment, builds a shared safety culture, and offers a scalable framework for health professions education.



Scan to Access: References, Resources, and Project Details.

## Methods

This multi-year initiative, beginning in 2018, embedded the IHI Basic Certificate across required coursework using a structured, strategic approach:

- **Curriculum Mapping:** Aligned IHI modules with program competencies from AUPHA, CEPH, and CAHME using a shared tracking system.
- **Course Embedding:** Integrated modules into required undergraduate courses (e.g., Managing Healthcare Organizations I & II, Health Systems, Patient Safety & Quality) and graduate core courses (e.g., Leadership, Health Systems, Human Resources, Patient Safety).
- **Technology Infrastructure:** Developed a shared Canvas course for access, progress tracking, and certificate verification.
- **Stakeholder Collaboration:** Coordinated with faculty, department chairs, and university data teams to plan implementation and manage enrollment.
- **Equity and Access Planning:** Identified free alternative training options for out-of-major students and explored university grant funding to support certificate access.
- **Scalability Strategy:** Currently evaluating IHI Group Subscription Services for institutional tracking and future scaling.

## Results

Over 200 students across the BS in Healthcare Administration, BS in Public Health, MHCA, and DrPH programs have completed or are actively completing the certificate.

## Student Feedback

- Increased confidence in leading quality improvement efforts
- Stronger understanding of patient safety and improvement science
- Value placed on the credential for résumés and LinkedIn profiles

## Faculty Observations

- Enhanced interdisciplinary conversations
- Clearer systems thinking
- A shared language of safety across clinical and administrative roles

Students and faculty view the credential as accessible, credible, and highly relevant to healthcare practice and leadership roles.

## Conclusion

This scalable, interprofessional model integrates a nationally recognized micro-credential into competency-based academic programs, promoting a shared safety culture, enhancing practice readiness, and aligning academic training with workforce expectations. It offers a replicable framework for embedding real-world credentials into health professions education.

**Samford University**  
School of Public Health

# Development and Implementation of Interprofessional Education Experiences for Students of Health Professions

Luis Torres, DHSc, ATC, PNAP, Courtney Reinisch, DNP, MSN, RN, APN-C, DCC, PNAP  
Maryrose McInerney, PhD, CCC-A, FNAP, Janet Koehnke, PhD, CCC-A, FNAP

## PROJECT ABSTRACT

- *Team Red Hawk* was developed in 2018 to foster interprofessional collaboration (IPC) among students in 7 health professions (i.e., athletic training, audiology, dietetics and nutrition, nursing, public health, social work, and speech language pathology)
- The intent was to develop a formalized, practical means to enhance our students' understanding of IPC
- Three separate learning experiences were developed over the course of three academic semesters to address the IPEC Core Competencies
- The SPICE-R2 demonstrated that health professions students agreed that all three events improved their attitudes on IPC

## NEEDS ASSESSMENT

- Collaboration of health professionals is essential due to the growing complexity of navigation within healthcare
- Since its inception, *Team Red Hawk* faculty and staff have collaborated to develop and implement interprofessional education programs for their students

## GOALS

- To describe how selective interprofessional experiences can be developed in accordance with the IPEC core competencies
- To evaluate the effectiveness of *Team Red Hawk* experiences in fostering IPC proficiency among students of various health professions as they progress through their professional programs

## INTERVENTIONS

### Event A - Spring 2024 (n = 113)

- A student-curated symposium allowed students the opportunity to recruit speakers and work through the logistics necessary to develop an interdisciplinary continuing education event as a team (for other students to attend)

### Event B - Fall 2024 (n = 131)

- This event was the first event to host two "levels" of students in which two separate activities ran concurrently
- Upper-level students engaged in group case studies, while lower-level students engaged in a teambuilding exercise within interdisciplinary groups

### Event C - Spring 2025 (n = 57)

- This event allowed upper-level students to form interdisciplinary healthcare teams and interact with a paid simulated patient
- Lower-level students were involved in an activity that illustrates the truths and myths of the scopes of practice of various health professions

## LESSONS LEARNED

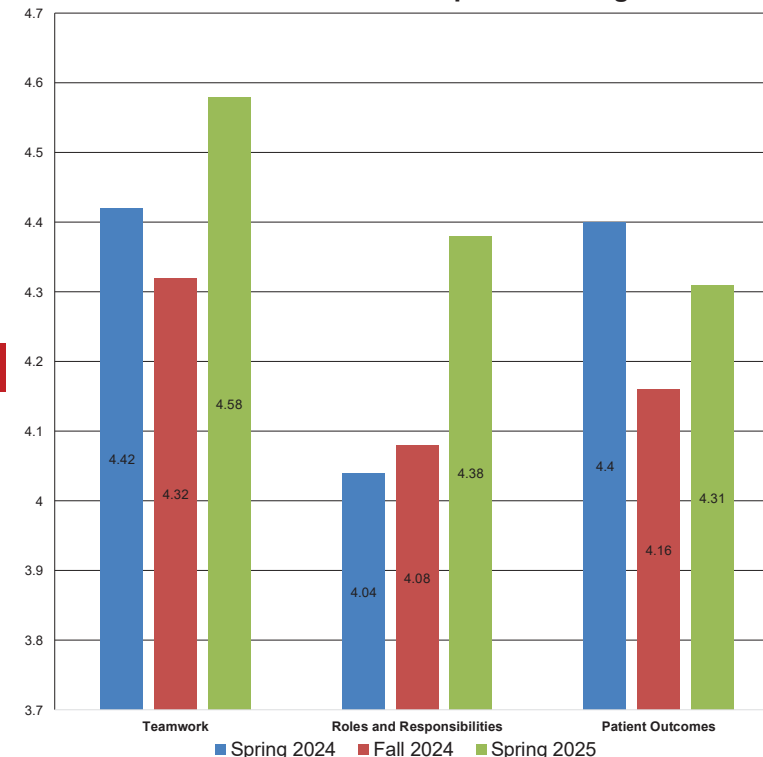
- Schedule event dates and times within the first few weeks of each semester (if not earlier) to maintain participation among health professions students
- Remind students early of interprofessional education experiences and if possible, incentivize participation within program curricula
- Health professions students who need to pass an exam that will lead to licensure should be told to expect exam questions related to interprofessional practice

## RESULTS

- Using the SPICE-R2 instrument, students agreed that Event A (n = 43), Event B (n = 124), and Event C (n = 28) were effective in improving their attitudes towards working in interprofessional teams
- SPICE-R2 Subscales
  1. *Teamwork and Team-Based Practice*
  2. *Roles and Responsibilities for Collaboration*
  3. *Patient Outcomes for Collaboration*

\*Statements are rated from strongly disagree [1] to strongly agree [5]

**SPICE-R2 Subscale Response Averages**



# Interprofessional insights: optimizing cancer epidemiology nutritional research through the lens of clinical dietetics collaborative feedback

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<sup>1</sup>Masters of Public Health Program, College of Health Professions, Grand Valley State University

<sup>2</sup>Clinical Dietetics Graduate Program, College of Health Professions, Grand Valley State University



## Introduction

- Diet and nutritional factors such as low fiber intake, lack of fruit and vegetables, and alcohol intake play a key role in the etiology and survivorship of most cancers (1-5).
- Interprofessional collaboration between epidemiologists and clinical dietitians can inform research and public health practice at the intersection of nutrition and cancer epidemiology.
- Team-based interprofessional educational experiences that incorporate interprofessional educational collaborative (IPEC) core competencies and support the use of complementary expertise can help prepare students for future interprofessional collaboration in the workplace.
- OBJECTIVE:** We designed a semester-long educational collaboration with multiple learning activities to provide teamwork and communication skill development for graduate students in two disciplines- public health epidemiology and clinical dietetics-focused on addressing a public health problem in cancer and nutritional epidemiology.
- Collaboration between the Master of Public Health Program and Clinical Dietetics Program in the School of Interdisciplinary Health in the College of Health Professions at Grand Valley State University.

## Project Goals

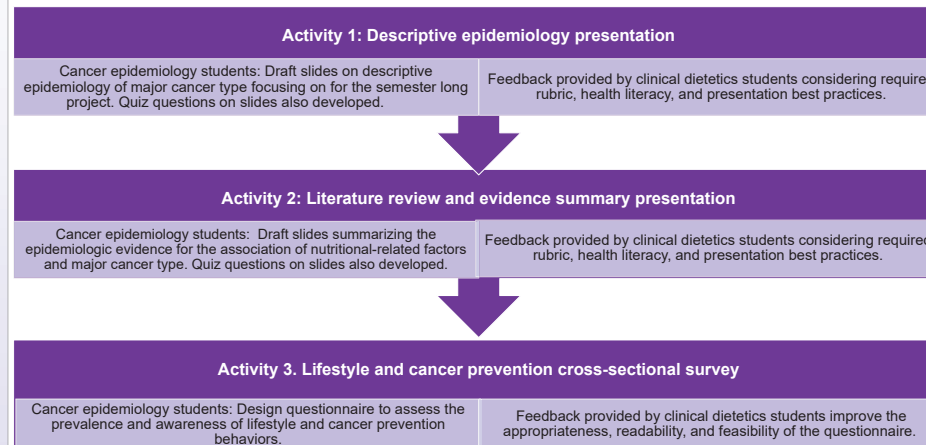
- Primary goal:** To pilot an interprofessional collaboration between cancer epidemiology and clinical dietetics graduate students across one-semester in Winter 2025 to provide the opportunity for students to gain experience in IPEC core competencies, while addressing a public health issue at the intersection of nutritional and epidemiology, requiring expertise from both disciplines.
- Secondary goal:** As a secondary in progress goal, we are planning formal evaluation of the developed learning activities and educational experiences when implementing the project again in Winter 2026.

References and contact information:



## Educational Strategies

Figure 1. Cancer epidemiology products informed by clinical dietetics feedback



### Feedback Questions for activity 1, describe above in Figure 1

#### Feedback on meeting rubric:

- Does the presentation meet the requirements for the Global results - Part 1 in the rubric? The rubric is provided at the above link. Provide justification for this in 2-3 sentences considering the requirements of the assignment.
- Does the presentation meet the requirements for the U.S. results- Part 2? The rubric is provided at the above link. Provide justification for this in 2-3 sentences considering the requirements of the assignment.

#### Feedback on visual appeal and clarity in presentation:

- Provide feedback on visual appeal and best practices in presentations: clear and accurate figure title, visually appealing slides (not stretched figures, readable font, slides not too busy or too much text) and citation for each data visualization.

#### Feedback on multiple choice practice questions for content on slides:

- Were the two multiple choice questions answerable based on the slide set provided? Where they clear questions. Provide feedback, if any, to improve.

#### Assessment of what was learned:

- Summarize what you learned about the U.S. morbidity/mortality of the major cancer type from the presentation in 2-3 sentences.
- Summarize what you learned about the global morbidity/mortality of the major cancer type from the presentation in 2-3 sentences.

## Educational Strategies Continued

### Piloting and providing feedback on the lifestyle and cancer prevention cross-sectional survey developed by cancer epidemiology students

- Clinical dietetics students were asked to complete the questionnaire as a practice study participants.
- They were also asked to answer four questions to provide epidemiology feedback to epidemiology students.

Questions for feedback answered by Clinical Dietetics students:

- Assess the questions for health literacy considering the target population in the specific aims. Any questions too difficult? Unclear? Inappropriate?
- Assess whether the questions on prevalence will answer specific aim 1. Any lifestyle factors missing from the questionnaire?
- Assess whether the questions on awareness will answer specific aim 2. Any lifestyle factors missing from the questionnaire?
- Considering the study aims and target population- are any data of interest missing from the questionnaire? Would you add or remove any questions?

Scan QR code for lifestyle and cancer prevention example survey:



## Future Plans and Formal Evaluation

- We did not formally evaluate the pilot project, and focused efforts on the development of the team-based learning activities.
- We are currently planning a formal evaluation, which will be implemented in Winter 2026.
  - This will include a student survey implemented in Qualtrics after each of the collaborative learning activities to obtain feedback from students, as well as a formal end of semester reflection.
  - We will also include a knowledge assessment of concepts learned in cancer epidemiology and nutrition after each presentation.





SAINT LOUIS UNIVERSITY  
INTERPROFESSIONAL EDUCATION

# Impact of Structured IPE Curriculum on Student Collaboration Skills, Self and Team Efficacy

## Interprofessional Education Program, Saint Louis University

Anthony Breitbach PhD, ATC, FSAHP, FNAP; Sarah Liebowitz M.A.; Kim Levenhagen, PT, DPT, WCC, CLT, FNAP;  
Maegan Roper, M.S.N., RN, CMSRN, CNL, CNE; Selena Washington, PhD, MSPH, OTR/L



### ABSTRACT

This presentation offers data-driven strategies from Saint Louis University for enhancing interprofessional student collaboration and efficacy in the health professions. We present findings from a recent study evaluating a novel IPE initiative involving students from diverse health professions engaged in a structured Concentration in Interprofessional Practice.

By examining meta-perception across four efficacy-related constructs, we reveal how, compared to novice learners, more advanced IPE students have increased confidence in collaboration skills after completing the program. We will provide insights into the study's design, execution, and outcomes that can be utilized to inform IPE curriculum development.



### CONTEXT

Interprofessional Education (IPE) has evolved as a strategy to prepare health professionals for collaborative practice. However, many IPE efforts focus on awareness over skill development. To address this, we developed a three-course Concentration in Interprofessional Practice, aligned with six attributes of the University's Undergraduate Core Curriculum, to foster collaborative behaviors and strengthen students' readiness for team-based clinical care.

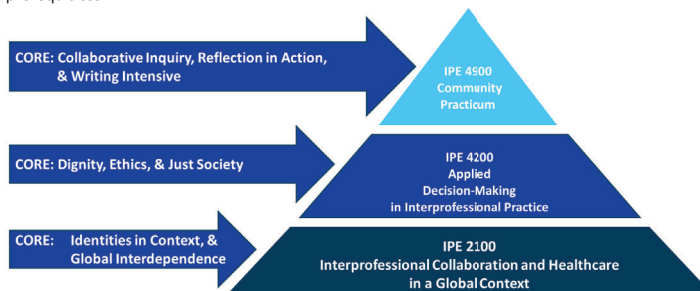
### GOALS

The goals of the SLU's IPE curriculum include:

- Build students' confidence and competence in interprofessional collaboration.
- Enhance self-efficacy in teamwork across healthcare disciplines.
- Evaluate how IPE courses shape perceived collaboration and peer-assessed competency.
- Explore meta-perception, how individuals believe they are perceived, and its influence on motivation, performance, and professional behavior.

### EDUCATIONAL INTERVENTION

The **Concentration in Interprofessional Practice** includes IPE 2100, IPE 4200, and IPE 4900, designed to build students' confidence, collaboration skills, and self-efficacy in interprofessional teamwork. Students in the higher-level IPE courses are considered to have greater experience because they are required to complete the lower-level IPE courses as prerequisites.



### MAPPING IPE COURSES TO IPEC CORE COMPETENCIES AND BSN ESSENTIALS

Entry-Level Professional Nursing Education (BSN Essentials) <i>Sample of 10 Domains for BSN</i>	SLU IPE 2100 Interprofessional Collaboration and Healthcare in a Global Context (3 cr)	SLU IPE 4200 Applied Ethical Decision Making in Interprofessional Practice (3cr)	SLU IPE 4900 Interprofessional Community Practicum (3cr)
1.1 Demonstrate an understanding of the discipline of nursing's distinct perspective and where shared perspectives exist w/ other disciplines IPEC: RR 2.1, TT4.3 1.1c Demonstrate social responsibility as a global citizen who fosters the attainment of health equity for all.	Introduce: Global health assignment, video presentation, live panel, CR; Policy development, Assignment, and Zoom discussion with Federal Legislative Assistant	Develop: Skills to identify barriers and inequities in healthcare delivery as an IP team.	Achieve: 15-week community practicum with IP team addressing health promo & wellness projects with assigned Comm Agency Partner
IPEC: VE 1.3, TT 4.3 1.2d Examine influence of personal values in decision making for nursing practice.	Introduce: Clarification of factors that form personal and professional identity, Bias, personal and professional socialization, and decision making.	Develop: Work as a member of an IP team to examine how each profession considers and engages in applied ethical decision making with clinical cases.	Achieve: Individual and team-based critical reflections on SDOH, Bias, Racism, and address these in the context of engagement in service learning with under-resourced comm.
IPEC: TT 4.3 1.2a Demonstrate ethical decision making.		Develop: Apply framework to determine type of ethical decision; focus on Applied EDM in clinical cases; work cases as IP team; 3x CBL with embedded ethical issues/SDOH; 3 x Standardized (live) Patients	Achieve: Students must demonstrate team-based practice, address complex health needs, and strive for improved autonomy, respect for person, health literacy and health communications in the context of day-to-day choices and barriers to resources.
IPEC: VE 1.3, CC 3.8			

### EVALUATION

#### IPEC Core Competencies Addressed

- Work with team members to maintain a climate of shared values, ethical conduct, and mutual respect. (Values and Ethics)
- Apply values and principles of the science of teamwork to adapt one's own role in a variety of team settings. (Teams and Teamwork)

#### Self-Assessed Collaboration Skills (SACS)

Developed at SLU in 2017 in response to a need to assess collaboration-related behaviors. The SACS includes 3 dimensions: Information Sharing, Team Support, and Learning.

#### Interprofessional Self and Team Efficacy Measure (ISTEM)

In development and testing at SLU to measure meta-perception in interprofessional learning activities. (based on Litrico & Choi, 2013) The ISTEM includes 4 dimensions: Self-Efficacy, Team Efficacy, Reflected Self-Efficacy and Reflected Team Efficacy.

### OUTCOMES

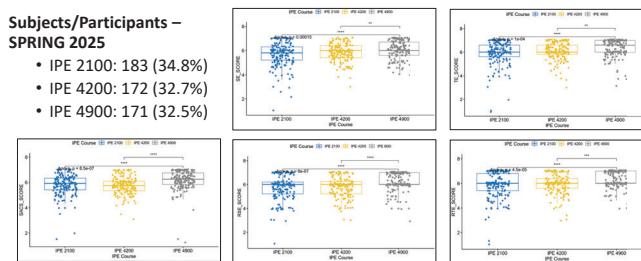
**SACS scores showed significantly higher scores** for students as they completed the IPE course progression. ( $p < 0.001$ )

**ISTEM scores showed significantly higher scores Self and Team Efficacy** for students as they completed the IPE course progression. ( $p < 0.001$ )

**SACS, Self-Efficacy (SE), Team Efficacy (TE), Reflected Self-Efficacy (RSE) and Reflected Team Efficacy (RTE) all showed a significantly positive relationship** ( $p < 0.001$ ) with greatest reported confidence in collaboration skills after completing all 3 IPE courses.

#### Subjects/Participants – SPRING 2025

- IPE 2100: 183 (34.8%)
- IPE 4200: 172 (32.7%)
- IPE 4900: 171 (32.5%)



WEBSITE: <https://www.slu.edu/interprofessional-education/>

EMAIL: [ipe@slu.edu](mailto:ipe@slu.edu)

SOCIAL MEDIA: Instagram and Twitter/X - @SLU\_IPE, Facebook and LinkedIn - SLU Interprofessional Education



# Interprofessional Workshop on How to Engage Responsibly with Artificial Intelligence Tools

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Nasuti College of Osteopathic Medicine

School of Pharmacy

John G. Rangos, Sr. School of Health Sciences

## OBJECTIVE

**Project Goal:** Assess change in knowledge from an interprofessional seminar focused on teaching students to critique and utilize Artificial Intelligence (AI) tools with care in the health care setting

### Key Learning Objectives

Define artificial intelligence and describe its healthcare applications

Discuss the limitations, risks and ethical considerations of AI tools in healthcare

Discuss the role of AI used in the context of an interprofessional team

Recognize that clinicians are responsible for all patient care decisions and exercise judgment in applying AI-generated recommendations

## METHODS

### Overview of Seminar

Facilitated discussion on AI and FDA approved AI tools

Develop differential diagnosis for patient case with and without Microsoft CoPilot™

Critique ChatGPT™ responses to drug information question

Perform faculty overview of bias in AI tools

Have student groups respond to prompts on automation bias in AI

### Assessment method:

- Pre- and post- seminar assessment
- Faculty scored items compared using paired Wilcoxon signed rank test
- Thematic Analysis of student responses to open ended prompts assisted by Microsoft Copilot™<sup>±</sup>

## RESULTS

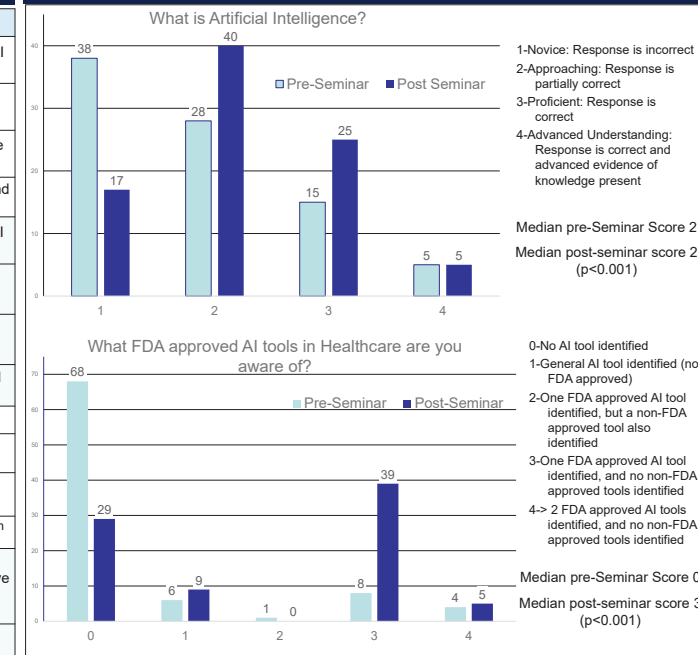
AI Spring Seminar Participants			Pre- and Post- Workshop Student Self-Assessed Items (1-5 Likert scale)		
School	Attended Seminar	Consented to be included in data analysis	Question	Median Pre-Score	Median Post-Score
SOP	68 (35%)	42 (48%)	What is your current familiarity regarding the usage, benefits and risks of AI in healthcare?	3	4*
COM	90 (46%)	30 (34%)	What is your current confidence in assessing the appropriate use of AI tools in healthcare?	3	4*
DPAS	36(19%)	15 (17%)	How important is it for healthcare providers to be knowledgeable about AI tools in healthcare?	4	4"
Total	194	87	*Statistically significant increase ( $p<0.001$ ) for pre- vs post- workshop, "Statistically significant increase ( $p<0.014$ ) for pre- vs post- workshop		

### Thematic Analysis of Student responses to open-ended prompts using Microsoft Copilot™<sup>±</sup>

Prompt	Theme/Aspect	Pre-Survey	Post-Survey
What knowledge should clinicians have about AI to practice in healthcare effectively?	Understanding AI Functionality	Basic awareness, vague understanding	More detailed understanding of AI mechanisms and limitations
	Critical Evaluation	Skepticism, need for verification	Emphasis on critical thinking and source validation
	Clinical Integration	Uncertainty about clinical use	Clearer view of AI as a supportive tool
	Ethical and Legal Awareness	Limited mention of ethics	Increased awareness of ethical and legal implications
Describe risks or ethical considerations when using an AI tool in healthcare.	Accuracy and Reliability	Concern about misinformation	Stronger emphasis on verifying AI outputs
	Privacy and HIPAA Compliance	General concern about data security	More specific concerns about compliance and breaches
	Over-Reliance and Human Judgment	Fear of dependency	Emphasis on maintaining human oversight
	Bias and Ethical Implications	Limited awareness of bias	Recognition of systemic bias and ethical risks
How do you envision AI changing how a member of the patient's care team is utilized?	Tone	Cautious, speculative	More confident, informed
	Focus	Efficiency, job loss, ethical risks	Integration, support, informed use
	AI Role	Tool for menial tasks, potential replacement	Consultant, second opinion, workflow enhancer
	Concerns	Job displacement, misuse	Over-reliance, maintaining human touch
What is the role of AI in the clinician's decision-making process?	Role Definition	AI's role was vague or uncertain; often described as a "jumping off point" or "maybe helpful."	AI is clearly defined as a supportive tool, not a decision-maker.
	Knowledge and Interpretation	AI seen as potentially helpful but not well understood	AI seen as data-driven, requiring human interpretation
	Diagnostic Support	Occasional mention of AI helping with differential diagnosis.	Frequent and confident use of AI to broaden differential diagnosis.
	Trust and Limitations	Skepticism and lack of clarity about AI's reliability and limitations.	Clear understanding of AI's limitations (e.g., lack of empathy, need for verification).

<sup>±</sup>all AI derived data was verified by study authors for accuracy)

### Faculty Scored Survey Responses



## CONCLUSIONS

- A two-hour interprofessional seminar focused on the use of AI in healthcare improved student understanding of AI in each learning objective
- Student attitudes on AI shifted from themes of caution and trepidation to that of use of AI as a support tool that needs verification.

# Fostering Interprofessional Learning Through Multi-Institutional Partnerships: Outcomes of a Student Workshop

Heidi Cheerman, DPT, EdD, FNAP<sup>1</sup>; Michael Bessette, MD<sup>1</sup>; Janet Dewan, PhD, NS CRNA<sup>1</sup>; Savanna DiCristina, PharmD, MPH, BCPS<sup>1</sup>; Margarita DiVall, PharmD, MEd, FNAP, BSPS<sup>1</sup>; Heather H. Miselis, MD, MPH, FAAFP<sup>2</sup>; Nancy Mizzoni, DNP, RN, CPNP<sup>1</sup>; DPT, NCS, Aimee Perron, PT, FNAP<sup>1</sup>; Lynn Reede, DNP, MBA, CRNA, FNAP<sup>1</sup>; Dawn C. Swain, PharmD, RPh<sup>1</sup>; Kisha Thompson, PhD, MS, CRNA<sup>1</sup>; Jennifer Kirwin, PharmD, BCPS<sup>1</sup>

<sup>1</sup>Bouvé College of Health Sciences, Northeastern University, Boston, MA; <sup>2</sup>Chobanian & Avedisian School of Medicine, Boston University, Boston, MA

## Background & Significance

- Health professions accreditation standards require interprofessional learning to prepare students for collaborative care (WHO, 2023; National Academies, 2021).
- The Chobanian & Avedisian School of Medicine at Boston University and Bouvé College of Health Sciences at Northeastern University possess strong faculty commitment, a multi-institutional partnership, and experience running a large scale annual IPE workshop.
- Similarly to national challenges, gaps remain, such as limited faculty development, variability in learner preparation, and scarce longitudinal evidence of sustained impact. (Reeves et al., 2016; Gonzalo et al., 2020).

## Objectives

- Assess the impact of a multi-institutional interprofessional collaborative workshop on student attitudes and readiness for teamwork using the Interprofessional Socialization and Valuing Scale (ISVS).
- Compare ISVS results across 5 participating health professional programs and different demographic groups.
- Quality improvement and to inform IPE curricula to prepare students for collaborative team-based practice.

## Workshop Activities

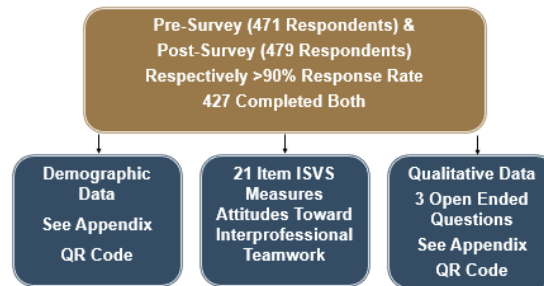
**3 Hour IPE Workshop**  
Medicine, Nursing, Pharmacy, Physician Assistant, and Physical Therapy  
518 Students; 15 Faculty (Co-developed Activities)  
Curriculum Objectives Mapped To Four IPEC Core Competencies  
3 Zoom Classrooms

**Discipline Elevator Pitch**  
Scope of practice  
Curriculum  
Licensure and post graduate training  
Health care team common stereotype

**Case-Based Activity**  
67 small break out rooms  
Representation from all disciplines  
Interprofessional management of care  
Clinical decision making

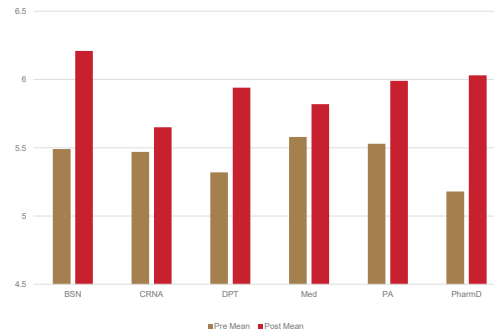
**Large Group Debriefs**  
Faculty facilitated Question prompts  
Focus on values and ethics, roles and responsibilities, communication, and team / teamwork.

## Methods



## Results

- Statistically significant improvements were observed across all ISVS items for the total sample.
- Significant differences existed among disciplines in both pre- and post-ISVS scores, suggesting profession-specific patterns in interprofessional readiness and development.
- Five themes emerged from qualitative data (See Appendix QR code).



## Discussion

- Impact on students' attitudes and values toward interprofessional teamwork
- Differing baseline experiences and exposure to teamwork across disciplines
- Multi-institutional collaboration model
- Virtual format benefits
- Faculty sustainability

## Conclusions

- A large-scale, collaborative virtual IPE experience can meaningfully advance interprofessional socialization and readiness for teamwork across multiple health professions.
- Profession-specific patterns suggest the need for targeted IPE scaffolding within each discipline's curriculum.
- Multi-institutional partnerships offer a viable and efficient model for delivering high-impact IPE while optimizing resources and faculty expertise.

**Table 1. Pre-Post ISVS Score Changes by Discipline and Item Categories**

ISVS Domain	Representative Items	Mean Change (Post - Pre) by Discipline					
		BSN	CRNA	DPT	Med	PA	PharmD
Self-Awareness & Professional Identity	Items 1, 3, 5, 15	+0.79**	+0.55*	+0.61**	+0.37**	+0.35*	+0.85**
Team Communication & Participation	Items 2, 4, 7, 8, 10	+0.81**	+0.52*	+0.69**	+0.32*	+0.41*	+0.73**
Leadership & Initiative	Items 6, 18	+1.12**	+0.90**	+0.87**	+0.37*	+0.93**	+0.88**
Collaborative Decision Making	Items 12, 13, 19	+0.68**	+0.55*	+0.73**	+0.29*	+0.39*	+0.79**
Team Appreciation & Understanding	Items 9, 11, 16, 20, 21	+0.85**	+0.35	+0.67**	+0.25*	+0.45*	+0.81**

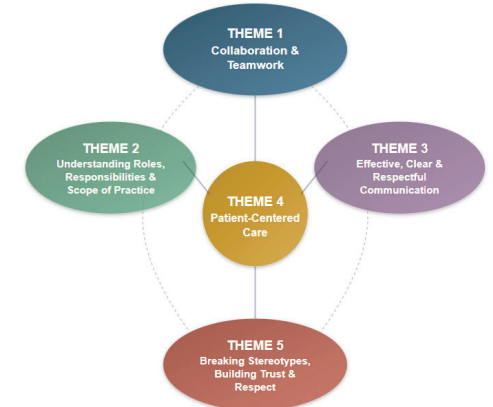
Large Effect ( $\geq 0.6$ ) Green

Medium Effect (0.4-0.59) Yellow

Small Effect ( $< 0.4$ ) Blue

\*\* $p < 0.001$ , \* $p < 0.05$ . BSN = Nursing, CRNA = Nurse Anesthesia, DPT = Physical Therapy, Med = Medical Students, PA = Physician Assistant, PharmD = Pharmacy

## Qualitative Student Data Key Themes



Themes derived from qualitative analysis of open-ended responses

## Lessons Learned / Next Steps

- Faculty development
- Curricular integration
- Program evaluation
- Equity and inclusion
- Sustainability
- Impact on current curriculum



QR Code  
Appendix / References



# Hands-On Training: Non-Pharmacological Strategies for Rheumatoid Arthritis For Student Pharmacists Involving Rehab Disciplines

**SCHOOL OF MEDICINE  
HEALTH PROFESSIONS**

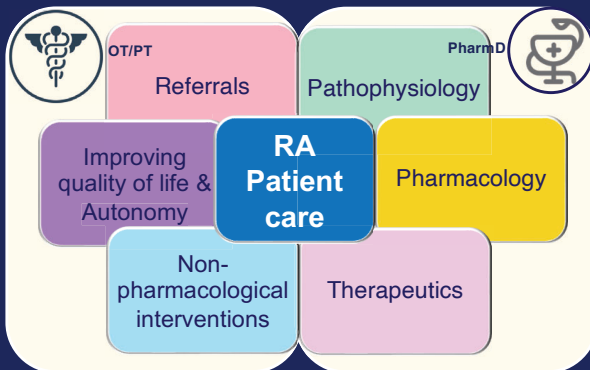
Marina Gálvez-Peralta, PharmD, PhD<sup>1\*</sup>; SueAnn R. Woods PhD, MOT, OTR/L, CHT<sup>2\*</sup>; Kimeran W. Evans PT, DPT, PhD<sup>3\*</sup>;  
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**West Virginia University**  
School of Pharmacy

<sup>1</sup>West Virginia University (WVU) School of Pharmacy, Department of Pharmaceutical Sciences; <sup>2</sup> WVU Division of Occupational Therapy, West Virginia University School of Medicine; <sup>3</sup>WVU Division of Physical Therapy, West Virginia University School of Medicine; <sup>4</sup>WVU School of Pharmacy, Departments of Clinical Pharmacy and Family Medicine  
*\*All authors contributed equally to this project*

**STEPS**

## NEEDS ASSESSMENT



## PROJECT GOALS

Expose PharmD students to hands-on workshop with rehab professionals (PT & OT) and prepare them to recommend mobility aids, self-care aids, non-pharmacological interventions, and referrals.

## EDUCATIONAL INTERVENTION



"This was very informative and I liked how they related it back to Pharmacy. I hope this session is continued in the future!"

"I really liked the physical examples, the demonstrations on how the aids work."

"Learning what length a cane should be!"

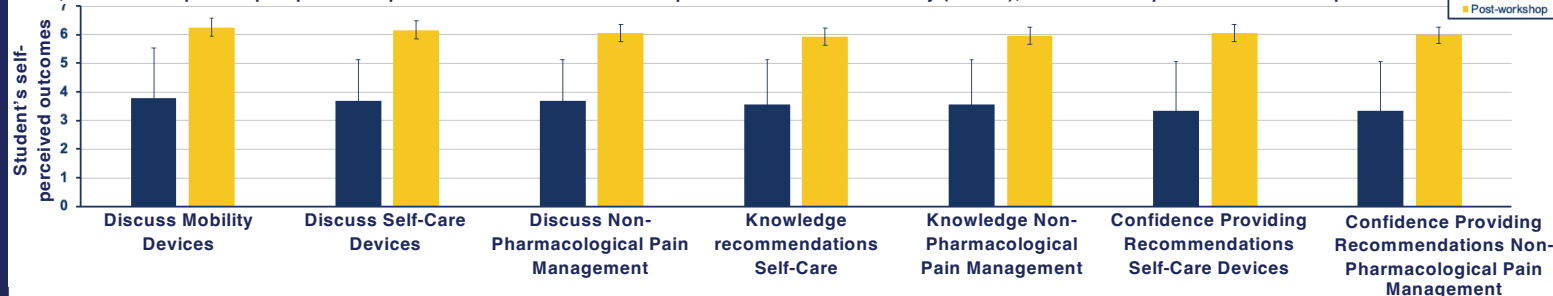
"woohoo!"

## CONCLUSION AND IMPLICATIONS

This formative educational intervention will continue to be offered and expanded in future iterations of the course.

## EVALUATION

N=43, 100% Retrospective pre-/post- Interprofessional Collaborative Competencies Attainment Survey (ICCAS); Paired-T-test  $p < 0.0001$  for all comparisons



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## CONTACT

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# Enhancing Maternal Team Coordination: Integrating Doulas into an Interprofessional Education Collaborative Program

Nina Favor, MSN.Ed, RN, CHSE, DNP Student; Arthur Ko, Ph.D. (DNP Project Chair)



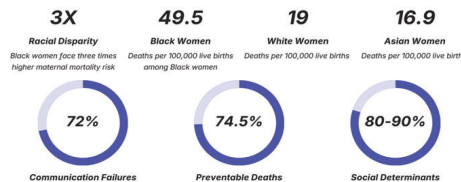
McAuley School of Nursing, University of Detroit Mercy



## Introduction

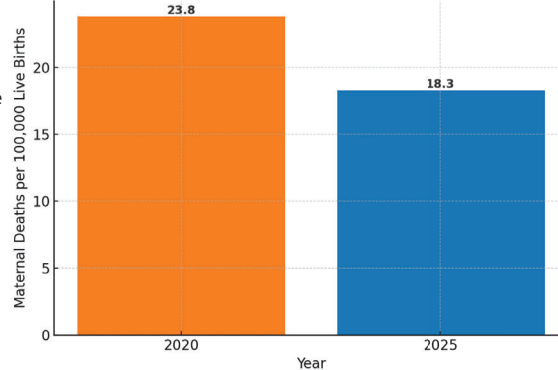
- The maternal mortality ratio refers to the death of a woman during pregnancy or within 42 days of termination due to related causes, excluding accidents. Maternal mortality remains a critical health crisis in the U.S., disproportionately affecting marginalized populations, especially women of color. This highlights the need for innovative maternal care approaches.
- One strategy is to integrate doula care into healthcare settings, as doulas offer emotional, physical, and informational support that can improve outcomes. However, their roles are often underutilized.
- This project applies the Interprofessional Education Collaborative (IPEC) framework to enhance team coordination and communication between doulas and healthcare providers, thereby improving patient-centered care.

## Background



- Maternal Mortality (U.S., 2025):** 18.3 deaths per 100,000 live births (↓ from 23.8 in 2020).
- Racial Disparities:** 49.5 deaths per 100,000 among Black women vs. 19 among White women.
- Preventable Deaths:** 74.5% linked to communication and system failures.
- Doula Impact:** Associated with 47% fewer cesarean deliveries and 29% fewer preterm births.
- IPEC Framework:** Values/Ethics, Roles & Responsibilities, Communication, Teams & Teamwork.

## U.S. Maternal Mortality Rate (2020 vs 2025)



## Clinical Question

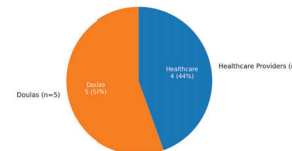
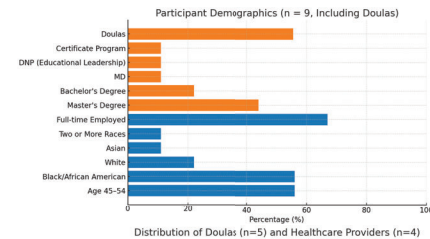
"How does implementing a workshop utilizing the IPEC core competencies as a framework enhance partnerships, cooperation, and coordination with doulas and healthcare providers?"

## Objectives

- Develop and implement a structured IPEC workshop to enhance the understanding of team coordination and collaborative practices in maternal care.
- Demonstrate shared decision making and mutual respect by discussing and applying IPEC competencies to encourage teamwork and trust.
- Improved understanding of roles and accountability by analyzing team member expertise to achieve patient outcomes.
- Increased number of doula referrals and their level of integration into the pregnancy and delivery process post-works.

## Methodology

- Design:** Quality Improvement (QI) project using pre- and post-workshop evaluation.
- Framework:** IPEC Core Competencies (Version 3, 2023).
- Setting:** Virtual workshops hosted by a community hospital and a doula organization.
- Participants:** 28 recruited; 14 attended; 9 completed both surveys.
- Instruments:**
  - Assessing Interprofessional Team Collaboration Scale (AITCS-II)
  - IPEC Institutional Assessment Tool
- Analysis:** Descriptive and inferential statistics (paired t-tests,  $p < .05$ ). Qualitative data thematically coded.
- IRB Exempt**
- Inclusion:** Community doulas and maternal healthcare providers working at the host hospital (Physician Assistants, Nurse Practitioners, Labor and Delivery, postpartum nurses, physicians, social workers).
- Exclusion:** Healthcare providers not working at the community hospital



## Outcome Measures

- Achieve an **80% overall AITCS-II composite score**, indicating strong interprofessional collaboration and team effectiveness.
- Enhanced Team Coordination-** ≥20% increase in AITCS-II Partnership Domain scores (pre- vs. post-workshop)
- Improved Shared-Decision-Making-** ≥20% increase in AITCS-II Cooperation Domain scores
- Clear Role Understanding-** ≥20% increase in AITCS-II Coordination Domain scores
- Increased Doula Referrals:** Self-reported post-workshop survey responses
- Strengthened Trust & Teamwork** Qualitative data from post-workshop surveys and discussions

## Results

- Pre-Workshop Scores:** Range 89–114 (M = 102.75, SD = 8.21)
- Post-Workshop Scores:** Range 88–115 (M = 103.44, SD = 8.28)
- Mean Change:** +0.68% — a slight improvement, below the 1.8-point benchmark goal

## Paired t-tests (n = 9):

- Partnership:  $t(8) = 0.29$ ,  $p = 0.39$
- Cooperation:  $t(8) = 0.32$ ,  $p = 0.38$
- Coordination:  $t(8) = 0.16$ ,  $p = 0.44$

**Qualitative Findings:** Participants described the workshop as interactive, engaging, and collaborative, highlighting the value of shared dialogue between doulas and healthcare providers.

## Interpretation

No statistically significant differences; likely affected by a "ceiling effect" — participants began with high baseline collaboration scores.

## Conclusion

- This project intervention has a positive direct clinical impact. The workshop fostered mutual respect, open dialogue, and enhanced awareness of how doulas can complement traditional healthcare roles.
- Participants demonstrated greater empathy and team coordination in qualitative reflections.
- Findings highlight the need for institutional support, policy updates, and ongoing interprofessional education for sustained doula integration.

## References



# Nourishing Collaboration: Culinary and Clinical Skill-Building Through Interprofessional Education

Libby MacQuillan, PhD, RDN, CHSE; Randalynn Hajek, MPH, RDN; Jennifer Ford, EdD, RDN

## Background

The value of interprofessional education (IPE) is recognized by ACEND and IPE experiences are required in all ACEND-accredited dietetics programs. Additionally, ACEND is a member of the Interprofessional Education Collaborative (IPEC), and requires dietetics programs to demonstrate student attainment in each of the four IPEC domains, Values/Ethics, Roles/Responsibilities, Interprofessional Communication, and Teams/Teamwork. However, research shows that more time spent on IPE is associated with increased student satisfaction and confidence.

## Methods

The goal of this project was to develop an IPE event engaging dietetics and nursing students in a hands-on, experiential workshop on culinary skills and medical nutrition therapy (MNT) for metabolic syndrome (MetS). Students were surveyed before and after the event using a validated instrument (SPICE-R2) designed to measure IPEC competencies and students' knowledge and skill.

## Results

Sixteen students (10 nursing, 6 dietetics) participated in the two-hour event, which included practicing blood pressure measurement, completing a case study on a MetS patient, and preparation of vegetable/whole grain bowls and low/no-oil dressings. Students reported increased understanding of roles within the two disciplines (from 44% pre-test to 100% post-test). Student confidence in culinary skill increased overall (most among nursing students), while confidence at performing blood pressure measurement increased overall (more among dietetics students) from pre-test to post-test.

## Conclusion

A hands-on, workshop-style event incorporating a flipped-classroom approach with students teaching and learning from those in other disciplines is an effective method that dietetics programs can implement to meet IPE competencies while also teaching interdisciplinary skills and promoting student confidence in required knowledge elements.

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## Enhancing Interprofessional Collaboration Between Nurse Practitioner and Physician Assistant

### Students through Structured IPE Activities

**Humberto Reinoso, PhD, FNP-BC; Lisa Dickerson, MD; Amanda Clark, MMSc, PA-C**

Mercer Health Science Center, Mercer University, Atlanta, Georgia

## BACKGROUND

Nurse practitioners (NPs) and physician assistants (PAs) share parallel roles in expanding healthcare access yet often train in isolation, leading to limited understanding of each other's educational background and scope of practice. This project introduces interprofessional education (IPE) between NP and PA students at Mercer University to enhance collaboration, communication, and teamwork aligned with IPEC Core Competencies.

## PURPOSE

The purpose of this quasi-experimental study was to assess the effectiveness of an educational session on the knowledge, perception, and attitudes of NP and PA students to each other, and to increase future interprofessional understanding and collaboration.

## FRAMEWORK



Figure 1. Theoretical framework adapted from Kolb's (1984) Experiential Learning Theory

## INTERPROFESSIONAL COLLABORATION

On November 7, 2024, faculty from Georgia Baptist College of Nursing (GBCN) and the College of Health Professions, Department of Physician Assistant of Mercer University in Atlanta successfully facilitated a study designed to increase interprofessional collaboration between Nurse Practitioner (NP) and Physician Assistant (PA) students.

- The study involved 14 NP students and 71 PA students, engaging them in a structured IPE activity aimed at fostering collaboration and mutual understanding between these advanced practice provider (APP) groups.
- The IPE initiative featured three core components: a keynote lecture, an expert interprofessional panel discussion, and guided table discussions over a shared lunch.
- These structured activities were designed to offer immersive, reflective opportunities for students to develop a deeper appreciation for the unique and complementary roles of NPs and PAs within the healthcare system.



## INTERVENTION

### 1. Keynote Lecture:

A former president of the American Academy of Physician Assistants who also founded the APP journal *Clinician Reviews*, delivered a one-hour lecture that traced the historical and professional evolution of the NP and PA roles. His presentation also addressed the educational pathways, licensing, and scope of practice of the two professions, and emphasized the value of interprofessional collaboration. His talk was followed by an interactive Q&A session.

### 2. Expert Panel Discussion:

A panel of seven professionals—three NPs, three PAs, and one healthcare executive—provided insights into team-based care, hiring expectations, and the shared values that unify NP and PA providers. Students actively engaged in open dialogue, deepening their understanding of each discipline's strengths.

### 3. Guided Table Discussions:

Students were assigned to interprofessional focus groups during lunch to participate in facilitated conversations using predefined prompts focused on collaboration, communication, and role delineation. Focus group responses were entered into Qualtrics, providing qualitative data for analysis.

## RESULTS

- ✓ Summarized results from the qualitative data collected from student focus groups included:
- ✓ Both NP and PA students recognized distinct educational paths to their degrees, but highly overlapping clinical roles following graduation.
- ✓ NPs are viewed as having strengths in autonomy, patient communication, and more specialized training, while PAs are noted for broad medical training, more lateral flexibility across specialties, and procedural / surgical competence.
- ✓ NP and PA students recognized the common goal of becoming APPs who provide quality, team-based patient care.

## TAKE AWAYS

- ✓ Early interprofessional engagement enhances awareness and readiness for collaborative clinical practice for NPs and PAs.
- ✓ Integrating IPE supports institutional goals to embed teamwork into health professions education.
- ✓ This model provides a framework for expanding APP interprofessional learning at other institutions.

## REFERENCES



## ACKNOWLEDGEMENT

Funding for this project (\$3,000) was provided by the Mercer University Interprofessional Education (IPE) Committee Grant.

# Evaluating Interprofessional Team Performance in Clinical Encounters: Patient Care Across Different Races

Yulia A. Murray, PharmD, BCPS, Michelle Webb, MPAS, PA-C; Spencer Casella, PharmD; Carolyn Hall, PharmD, BCPS; Nancy Stern, BA, BS, RPh; Jennifer Prisco, PharmD; Rita Morelli, PharmD, BCACP



## Background

- Team observed structured clinical encounters (TOSCEs) allow students from multiple disciplines to collaborate on standardized patient cases and utilize their own discipline-specific skills.
- Students from pharmacy, physician assistant, dental hygiene, and nursing schools are included in the TOSCEs with 2-3 disciplines per each structured standardized patient (SP) interaction.
- Paid actors are employed as SPs and there are five different cases. Each case was further divided to have a social determinant of health (SDOH) variable.
- Students are assigned a 30 min peer-evaluated SP case, which includes a student huddle, patient interaction, and verbal feedback from the SP, peers, and facilitator.

## Objective

- This study evaluates how incorporating an element of SDOH into interprofessional TOSCEs impacts team performance, collaboration, and communication.

## Methods

- Pharmacy physician assistant, and nursing students were assigned medication reconciliation case.
- Case presented as 2 versions :
  - Case A: Black SP
  - Case B: White SP
  - All other case aspects were identical
  - Each case was run 16 times
- An 8 question ICAR survey was utilized and means were quantified for each question:
  - Not observable=1; Minimal=2; Developing=3; Competent=4; Mastery=5.
- Facilitator evaluations were compared for overall team performance and by discipline utilizing means.

## Results

Table 1: ICAR Evaluation Questions 1-4, Discipline-Specific Contributions

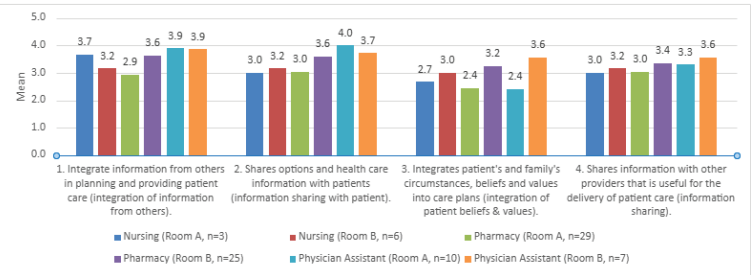
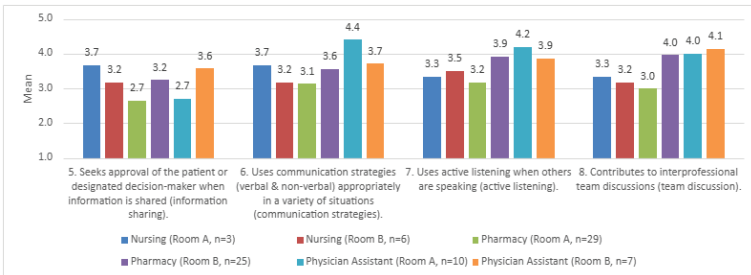


Table 2: ICAR Evaluation Questions 5-8, Discipline-Specific Contributions



## Discussion

- The findings indicate that teams assigned Case B: White SP demonstrated more effective interprofessional communication and patient-centered care behaviors across the majority of evaluated domains.
- Teams assigned Case A: Black SP demonstrated lower scores in information sharing with other providers, seeking patient approval when conveying information, and active listening.
- No differences were demonstrated in the scores related to the use of communication strategies.

Table 3: Team Performance on ICAR evaluation

Interprofessional Collaborator Assessment Rubric (ICAR) Statements Evaluated, Mean	Team performance Case A (n=42)	Team performance Case B (n=38)
1. Integrate information from others in planning and providing patient care (integration of information from others)	3.2	3.6
2. Shares options and health care information with patients (information sharing with patient)	3.3	3.6
3. Integrates patient's and family's circumstances, beliefs and values into care plans (integration of patient beliefs & values)	2.5	3.3
4. Shares information with other providers that is useful for the delivery of patient care (information sharing)	3.1	3.4
5. Seeks approval of the patient or designated decision-maker when information is shared (information sharing)	2.7	3.3
6. Uses communication strategies (verbal & non-verbal) appropriately in a variety of situations (communication strategies)	3.5	3.5
7. Uses active listening when others are speaking (active listening)	3.4	3.8
8. Contributes to interprofessional team discussions (team discussion)	3.2	3.9

## Conclusion

- Findings suggest that when caring for a Black patient, teams were less likely to incorporate patient beliefs and values and less likely to seek patient approval when sharing information.
- These disparities highlight potential biases in interprofessional communication and the need for enhanced SDOH training.
- Some differences in scores can also be attributed to individual facilitator scoring as different facilitators were assigned Case A vs Case B.

# Enhancing Rural Health Access through Integration of Community Health Workers into Rural Outreach Clinic Operations

Benjamin Smith, Madi Hammargren, Dainen Parry, Daniel Spogen, MD  
University of Nevada, Reno School of Medicine

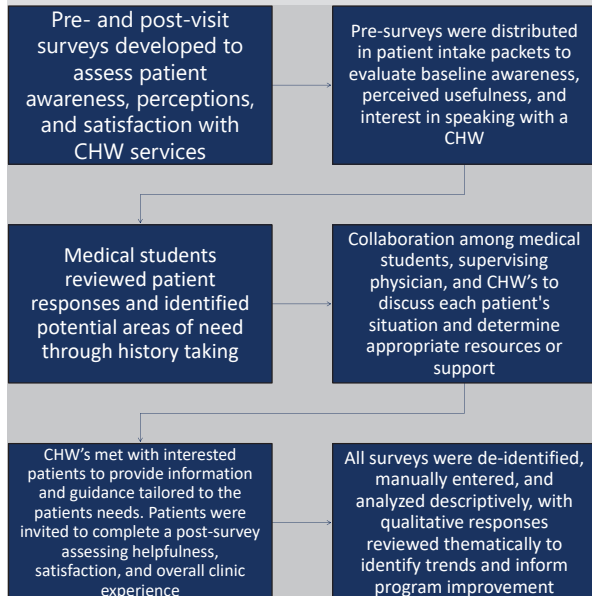


University of Nevada, Reno  
**School of Medicine**

## INTRODUCTION

Rural Communities in Nevada experience significant barriers to healthcare access. The University of Nevada, Reno School of Medicine's Rural Outreach Clinic (ROC) is a student-run, interprofessional clinic that provides free primary care to underserved rural populations. In April 2024, ROC launched a pilot program integrating Community Health Workers (CHWs) into clinic operations to enhance patient education, care coordination, and linkage to community resources. CHWs serve as trusted liaisons between patients and the healthcare team, addressing social determinants of health that influence outcomes and continuity of care. This project aims to evaluate the impact of CHW integration on patient understanding of CHW roles, perceived usefulness of CHW support, and satisfaction with the care experience, while fostering interprofessional teamwork and learning among student participants.

## Methods



## Results

Prior Awareness of Community Health Workers by Language

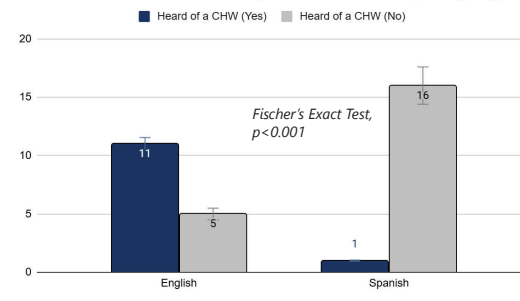


Figure 1. Prior awareness of CHW existence between English and Spanish speakers. Fischer's Exact Test,  $p < 0.001$

Patient Identified Support and Resource Needs

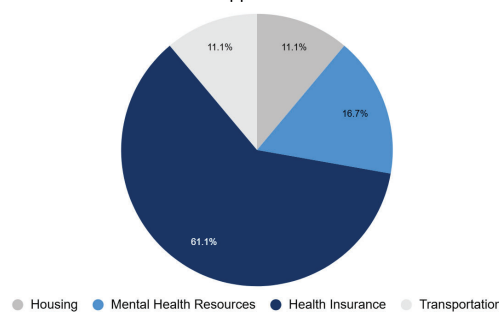


Figure 2. Pre-survey responses on services reported as most helpful for the patient today.

Perceived Helpfulness of Speaking with a CHW

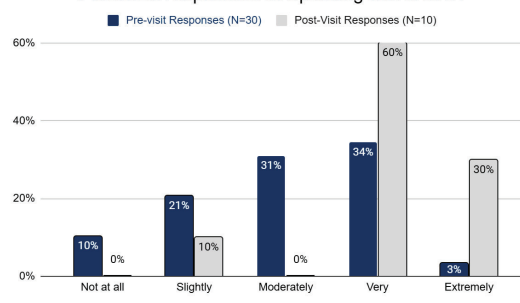


Figure 3. Pre-survey responses on perceived CHW conversation helpfulness and post-survey responses on reported CHW conversation helpfulness.

## Results

- From August to October 2025, 33 pre- and 10 post-survey responses were collected.
- 64% and 79% had no prior knowledge** of a CHW's existence and role, respectively.
- 90%** of post-survey respondents marked their clinic experience as **moderately or greatly improved**.
- 80%** indicated **desire to speak to a CHW again** in the future.

## Conclusion

Integration of Community Health Workers into the Rural Outreach Clinic resulted in greatly improved patient satisfaction and perceived helpfulness of the information and support provided. In rural Nevada, access to community resources is often limited, and even when programs exist, awareness and navigation remain barriers. CHWs help bridge this gap by connecting patients with services they might not have otherwise known about. Collaboration between medical students and CHWs has also increased student awareness of social and resource-based barriers to care that extend beyond the medical visit. Surveys will continue to be administered till March 2026 to expand the dataset and strengthen evaluation of patient and student outcomes over time. Future research will survey medical students to evaluate the perceived usefulness of working alongside CHWs for their own education in community resources and the impact this collaboration has on patient care quality within the ROC model.

## Acknowledgements

The authors thank the Community Health Workers, volunteers, interpreters, and physicians who contribute to the success of the Rural Outreach Clinic. We also acknowledge the ongoing support of Dr. Daniel Spogen and the University of Nevada, Reno School of Medicine for their guidance and commitment to advancing interprofessional rural healthcare. This project was funded by the Student Outreach Clinic Summer Improvement Grant. Additional appreciation is extended to the patients and community members who participated and shared their experiences.



# Learning by Serving: An Interprofessional Community Health Education Initiative With Graduate Nursing and Pharmacy Students

Alexandra Hubley, MSN, RN, CHSE; Mariette Sourial, PharmD; Diane Esposito, PhD, APRN

## BACKGROUND

- Service-learning participation enhances students' leadership, teamwork, and community engagement skills.<sup>1</sup>
- Implementing community-based IPE can foster skills in communication, care coordination, and shared decision-making, improving both education and patient care outcomes.<sup>2,3</sup>
- IPEC Core Competencies highlight shared values, defined roles, clear communication, and teamwork which are foundational for effective collaborative, community-based care.<sup>4</sup>

## PROJECT GOALS

**Enhance Interprofessional Collaboration:** Develop skills for nursing and pharmacy students to work as a cohesive team, integrating their expertise to provide holistic care to underserved populations.

**Address Health Disparities:** Equip students with the knowledge and skills to address complex health needs, including substance use disorders, mental health challenges, chronic illnesses, and social determinants of health, prevalent among residents of The Lord's Place programs.

**Promote Patient-Centered Care:** Train students to create personalized care plans in collaboration with case managers and life coaches, aligning with the supportive services offered at the community centers.

**Foster Cultural Competence:** Build cultural sensitivity and awareness to effectively serve diverse populations, including families, single women, men, seniors, veterans, and individuals with disabilities or histories of incarceration.

## RESULTS

Table 1. Service-Learning Results

Statistic	ICCAS-R
N	6
Pre-Test Median	3.825
Post-Test Median	4.9
p-value	0.0625
HL Estimator	1
Cohen's d	1.85
Cronbach's alpha	0.98

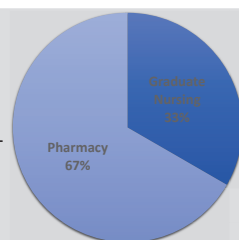
Note: Interprofessional Collaborative Competency Attainment Scale-Revised (ICCAS-R)

Table 2. Service-Learning ICCAS-R Subscale Results

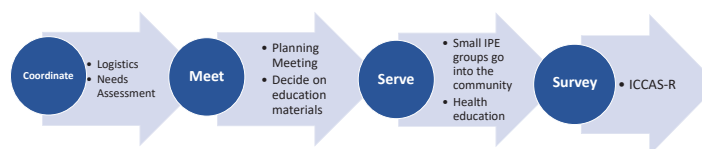
Measure	Group	Pre-Median	Post-Median	HL	Cohen's d	p value
ICCAS-R	Communication	3.8	5.0	1	1.85	0.06
ICCAS-R	Collaboration	4.0	4.83	1	1.93	0.06
ICCAS-R	Roles & Resp.	4.0	4.75	0.88	1.46	0.06
ICCAS-R	Patient/Family-Centered	3.8	4.8	1	1.95	0.06
ICCAS-R	Conflict Mgmt.	4.0	5.0	0.83	1.58	0.06
ICCAS-R	Team Function	4.0	5.0	1	1.22	0.125

## PARTICIPANTS

- Mean age = 27.7
- Age range = 22 to 42 years
- Gender: Female (83%, n=5); Male (17%, n=1)
- Ethnicity: Hispanic (33%, n=2); Non-Hispanic (67%, n=4)
- Race: White (83%, n=5); Black/African American (17%, n=1)



## METHODS



## CONCLUSION

- Positive Trend:** ICCAS-R scores increased from pre-test (median = 3.83) to post-test (median = 4.9).
- Statistical Result:** Change approached significance ( $p = 0.0625$ ) using the Wilcoxon signed-rank test ( $n = 6$ ).
- Effect Size:** Large practical effect indicated (Hodges-Lehmann = 1.0; Cohen's  $d = 1.85$ ).
- Reliability:** High internal consistency of ICCAS-R (Cronbach's  $\alpha = 0.98$ ).
- Limitations:** Small sample size

## ACKNOWLEDGEMENT/REFERENCES

**Acknowledgment:** This project was supported by a Quality Improvement Grant from Palm Beach Atlantic University



## Introduction

The health workforce needs training in health literacy communication techniques to be most effective in caring for patients and performing on interprofessional teams. We developed an innovative training opportunity: a team-based interprofessional Objective Structured Clinical Examination (iOSCE) that focuses on skill development of the top three health literacy practices deemed most important for health professionals: teach-back, avoiding use of medical jargon, and using a patient-centered approach for questions.<sup>1</sup>

### Objectives:

- 1) Create a Health Literacy iOSCE based on best practices identified in the literature
- 2) Prepare students to participate in the OSCE in small interprofessional teams
- 3) Assess impacts on participants' skills, attitudes, and confidence in health literacy communication techniques and beliefs, skills and attitudes in interprofessional teamwork.



Fig.1 Health Literacy iOSCE

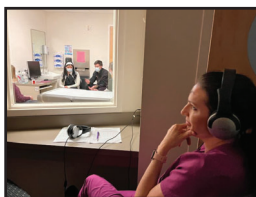


Fig.2 Faculty observing an encounter

## Methods

### Prior to OSCE:

- Case development: adult with Type 2 Diabetes needing medication refill, experiencing barriers to follow-up care
- All students received same two-hour introductory health literacy session and review of interprofessional teamwork
- Student pre-survey: (1) 6-item Likert scale health literacy confidence survey and (2) attitudes towards interprofessional teamwork (Performance Assessment of Communication and Teamwork or PACT)
- Assigned interprofessional teams (3-4 students) engaged in activities to understand each other's professional training and plan patient encounter

### During OSCE:

- Over 3 sessions (2021, 2022, and 2024), 45 student teams completed videotaped 20-minute encounter with Standardized Patient (SP) that included debrief and feedback
- SP completed Health Literacy Checklist, 19-item assessment of health literacy and patient communication skills adapted from published study
- Faculty observers (2 per team) completed Team Observed Structured Clinical Encounter (TOSCE) measure to assess teamwork

### After OSCE:

- Students completed post-survey and reflected on experience

## Results

Table 1. Demographics of Student OSCE Participants

Variable	n
n	138
Gender (%)	
Female (%)	101 (74.8)
Male (%)	34 (25.2)
Race (%)	
American Indian or Alaska Native	1 (0.8)
Asian	33 (25.0)
Black or African American	4 (3.0)
White	36 (27.3)
Other	2 (1.5)
Ethnicity (%)	
Hispanic or Latino	56 (42.4)
Health Profession (%)	
2nd Year Dental Hygiene Student	58 (42.6)
2nd Year OT Student	19 (14.0)
4th Year Medical Student	38 (27.9)
8th Semester Nursing Student	21 (15.4)
Additional health literacy education = Yes (%)	115 (85.2)

"One of the things that I enjoyed most about this experience was actually getting to talk to my group members about our professions and how we would treat a patient – because we don't get a lot of that information."

### Comparison of Pre-Post Tests (Wilcoxon rank sum test):

- Statistically significant improvement for all health literacy questions concerning confidence  $p < 0.05$  (Table 2).
- PACT sections with consistently significant improvements were "Learning and performance", "Learning environments", and "Confidence in skills".
- All items in PACT self-assessment section of understanding of interprofessional teamwork were highly significant for improvement ( $p < 0.001$ ).

### Health Literacy Checklist:

- No statistically significant differences among three professions across mean scores.
- Most commonly missed item on checklist was "Normalizes Teach-Back or puts burden on him/herself."

### TOSCE:

- Average of two observer ratings of TOSCE Global Rating Score = 2.26 (SD 0.44, range 1.5-3)
- Lowest average subscore was Collaborative Patient Family Approach at 2.08 (SD 0.55)

Table 2. Health Literacy Pre-Post Survey Confidence Questions (N=138)

Question	Time	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree	p
Q2. I am confident in my ability to use teach-back (ask patients to explain key information back in their own words.)	Pre	43 (31.2)	51 (37.0)	29 (21.0)	8 (5.8)	1 (0.7)	-	-	< 0.001
	Post	57 (43.5)	60 (45.8)	12 (9.2)	1 (0.8)	0 (0)	-	-	
Q4. I am confident in my ability to avoid medical jargon in a patient encounter.	Pre	43 (31.2)	53 (38.4)	24 (17.4)	10 (7.2)	1 (0.7)	-	-	< 0.001
	Post	64 (48.9)	49 (37.4)	15 (11.5)	2 (1.5)	0 (0)	-	-	
Q6. I am confident in my ability to use effective questioning techniques.	Pre	35 (25.4)	45 (32.6)	36 (26.1)	13 (9.4)	4 (2.9)	-	-	< 0.001
	Post	59 (45.0)	52 (39.7)	14 (10.7)	5 (3.8)	0 (0)	-	-	

## Conclusion / Future Directions

This was a 3-year study of a novel interprofessional OSCE focused on health literacy practices and which accomplishes two goals: (1) students have a safe simulated learning environment to practice and receive feedback on health literacy communication and (2) students have an opportunity to engage in interprofessional teamwork. The Health Literacy iOSCE demonstrates that a mix of types and levels of health professional learners can significantly gain confidence in their health literacy skills and improve beliefs and confidence with interprofessional teamwork. It should be replicated as a training tool for advancing health literacy skills.

"I learned that slowing down when you're talking can make a big difference in whether the patient understands, especially on those medical jargon words."

## Acknowledgements

We are grateful to the UT Health San Antonio Linking Interprofessional Networks for Collaboration (LINC) for seed grant funding. Diane Ferguson was instrumental in her role as director of the clinical skills center. We appreciate Dr. Jonathan Gelfond and Martin Goros for assisting with data analysis. We thank the following faculty who have been part of the OSCE during this time period: Dr. Oralia Bazaldua, Dr. Adelita Cantu, Dr. Kristy Kosub, Dr. Bridgett Piernik-Yoder, Dr. Temple Ratcliffe and Rebeka Sculley.

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# Exploring the Role of Social Drivers of Health in Interprofessional Team-OSCEs: Insights from Diabetes Case Simulations

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## Background

- Team Observed Structured Clinical Encounters (TOSCEs) provide an interactive, team-based learning experience where students from diverse health professions collaborate with standardized patients to build interprofessional competencies and apply discipline-specific skills in a clinical setting.
- TOSCEs are a method for teaching and assessing interprofessional skills, helping students strengthen teamwork, communication, and readiness for clinical practice through team-based problem-solving
- TOSCEs use multi-source evaluation—faculty, standardized patients, and peers assess each student's contribution to team-based care.
- Meaningful data enables programs to assess insights into interprofessional and discipline-specific competencies supporting curriculum enhancement and interprofessional education efforts

## Objective

The study aims to evaluate the impact of incorporating Social Drivers of Health (SDOH) into interprofessional Team Observed Structured Clinical Encounters (TOSCEs) using facilitator evaluations and how SDOH considerations influence interprofessional team dynamics

## Methods

- Students from pharmacy, physician assistant, dental hygiene, and nursing programs participated, and standardized patients were utilized
- Students were assigned peer-evaluated interprofessional cases focused on medical interviewing involving diabetes; 30-minute cases were run 16 times over 8 hours, with 2-3 interprofessional learners per case
  - Case A involved a native English speaker
  - Case B involved an English language learner
- All other aspects of cases were identical. Facilitators evaluated participants on 8 IPE-related areas using the validated Interprofessional Collaborator Assessment Rubric (ICAR)
- Means were quantified for each question: not observable=1, minimal=2, developing=3, competent=4, and mastery=5
- Mean comparison was conducted for overall team performance

## Results

Table 1: Interprofessional Competency Part 1: ICAR Questions and Results (Mean by Discipline)

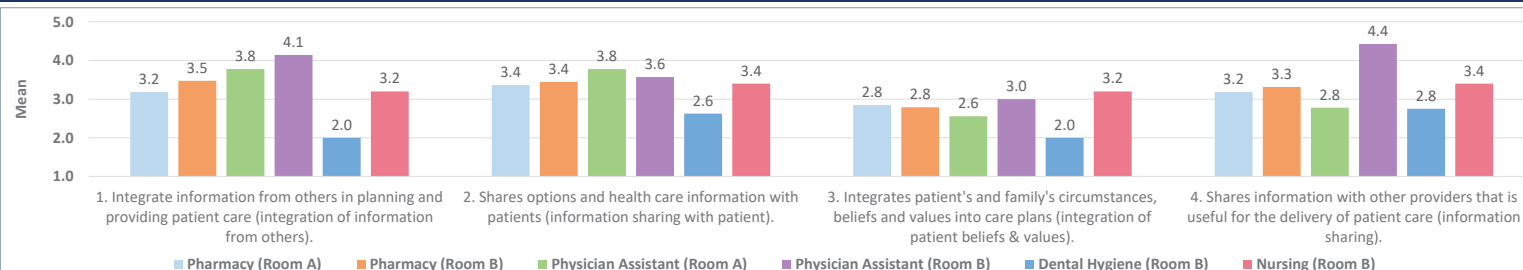
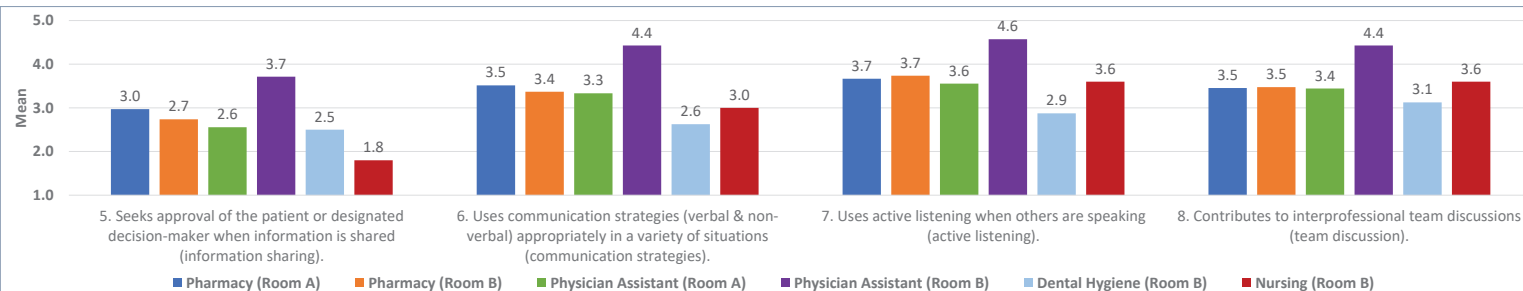


Table 2: Interprofessional Competency Part 2: ICAR Questions and Results (Mean by Discipline)



## Discussion

- Eighty-one students completed the TOSCE session: **Case A** had 42 total participants **Case B** had 39 participants.
- ICAR results indicated higher mean scores for
- Case A** in 50% of the evaluated domains including sharing of information with the patient (Mean Case A:3.5/5, Case B:3.3/5), greater integration of the patient's circumstances, beliefs and values (A:2.8/5, B:2.7/5), seeking patient approval when sharing information(A:2.9/5, B:2.7/5) and greater use of communication strategies (A:3.5/5, B:3.4/5)
- Case B** evaluations were higher for provider information sharing (B:3.4/5, A:3.1/5), active listening (B:3.7/5, A:3.6/5) and team discussion contributions (B:3.6/5, A:3.5/5)
- Both cases showed equal integration of information from others (3.3/5)

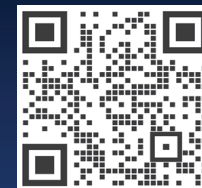
## Implications/ Conclusion

- Team Observed Structured Clinical Encounters (TOSCEs) can be used to evaluate team dynamics and the impact of SDOH. Using the ICAR, differences between teams managing a case with explicit SDOH components and a case without were compared
- Interprofessional Team Observed Structured Clinical Encounters (TOSCEs) with Standardized Patients (SPs) effectively support the teaching and assessment of core interprofessional competencies
- Discipline-specific performance data from TOSCEs can guide targeted curricular improvements in health professions education



# "[I] would've been at a deficit without my colleague": A Thematic Analysis of an Interprofessional Health Equity Simulation with Nursing Students and Residents

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1. University of Michigan School of Nursing; 2. Johns Hopkins School of Nursing; 3. Johns Hopkins School of Medicine



## INTRODUCTION

### Health Inequity in the U.S.

- Health inequities are systematic, avoidable and unfair differences in health outcomes that can be observed between populations.<sup>1</sup> They have a devastating impact on individuals and communities, and clinicians from all professions must be trained to mitigate them.

### Addressing Inequity Through Education

- Simulation-based training can (1) improve clinical outcomes, (2) increase patient safety, and (3) enhance communication and teamwork abilities.<sup>2</sup>
- Interprofessional education (IPE) consists of learners from two or more health professions who create and foster a collaborative learning environment.<sup>3</sup> IPE ensures that future healthcare professionals are well-equipped to collaborate in teams.<sup>4</sup>
- Despite these known benefits, there are few publications describing the use of simulation-based health-equity curriculum that incorporates interprofessional training.

## OBJECTIVE

To explore perceptions of working with an interprofessional (IP) colleague among 5<sup>th</sup>-semester nursing students and PGY-1 residents at Johns Hopkins University.

## METHODS

### Population

- 5<sup>th</sup>-semester nursing students and PGY-1 residents at Johns Hopkins University participated in a health-equity simulation integrated into required curriculum.
- Participants comprised three groups: (1) **NS-R**: nursing students working with residents [n=58], (2) **R-NS**: residents working with nursing students [n=65], and (3) **R-SOLO**: residents who participated in the simulation alone [n=54].

### Simulation

- Participants engaged in a pre-briefing, completed a simulated encounter relevant to health-equity with a standardized patient, and concluded with a post-encounter group debriefing.

### Data Collection

- Participants completed a narrative post-simulation reflection focused on perceptions of working with an IP colleague, using the Qualtrics platform.

### Data Analysis

- Data on participant perspectives was analyzed by two study members (PL and NM) using thematic analysis with an exploratory constructivist approach in Microsoft Excel, with a third (KB) available to resolve any disagreements.

## RESULTS

**NS-R** = nursing student working with a resident [n=58] **R-NS** = resident working with a nursing student [n=65] **R-SOLO** = resident who participated alone [n=54]

### Five major themes were identified across responses of 177 participants:

Simulation-based interprofessional education is perceived as a positive experience.

- "It was wonderful to work with someone who has some experience and knowledge about SDOH and applying it in a clinical setting. I got great feedback from her." **NS-R**
- "It helped me feel like I had a team! [It] made me less nervous to address the multifactorial issues the patient was facing." **R-NS**
- "It was refreshing. My colleague was right there to help guide me whenever there was something I might've been doing wrong." **R-NS**
- "I think it is very beneficial to have another person in the team to share their thoughts and work toward common goals of delivering effective and non-bias[ed] care to our patient." **R-NS**



Created by Meghan O'Brien  
from Neph Project

Interprofessional collaboration can enhance patient care.

- "Combining the perspective of in-depth medicine with the holistic lens of nursing allowed for a robust discussion of care for the patient." **NS-R**
- "I think it was helpful to have a provider to bounce off during the encounter. He was able to provide a resource such as the free resident clinic that I was not able to." **NS-R**
- "My colleague provided much more empathy toward the patient, offered tissues which helped comfort the patient, and spoke in a non-judgmental tone. I probably would not have been as comforting to the patient if alone." **R-NS**
- "[It] improved it substantially [and] helped elucidate other issues/patient concerns that hadn't crossed my mind. [I] would've been at a deficit without my colleague." **R-NS**



Created by Anne-Kristen Lay  
from Neph Project

Interprofessional collaboration does not always enhance provider performance.

- "I don't think the encounter would have been different if done alone." **NS-R**
- "If I was alone, it could have been more of a two-way conversation where we could have maybe elicited more information." **NS-R**
- "I still led the majority of the conversation so I think it would have gone the same way if I was with the patient alone." **R-NS**
- "I think interactions like this are better one on one with a patient because it lessens the feeling of 'us versus them' in an interaction." **R-SOLO**
- "If it was a colleague that held these biases that the patient was concerned about, the experience would've gone a lot worse. I imagine the patient would have felt uncomfortable opening up about her experience and assumed I felt the same way about her that others did." **R-SOLO**
- "I think I would have tried to handle it exactly the same." **R-SOLO**



Created by Anne-Kristen Lay  
from Neph Project

Navigating interprofessional teamwork can evoke discomfort and challenge.

- "I thought it was kind of distracting to know when to chime in and not talk over each other. The roles were a little unclear." **NS-R**
- "I think it went okay. It felt like we were stepping on each other's toes a bit." **R-NS**
- "I think it would have biased me to the nurse's point of view. I think being by myself allowed me to form my own impressions." **R-SOLO**
- "If I'd been with a nursing colleague, I worry they may have blamed the situation on doctors not listening to patients or promised to do something that we couldn't actually do." **R-SOLO**



Created by Elyse Roberts  
from Neph Project

Interprofessional education fosters camaraderie across different healthcare roles.

- "I was very inspired by the doctor, and she did an amazing job at treating the patient with respect and really hearing what she has to say." **NS-R**
- "I liked hearing about the plan from a doctor's point of view." **NS-R**
- "Our nursing colleagues have such a great 'get things done' perspective which is amazing!" **R-NS**
- "I think presenting as a unified team front was very important." **R-NS**
- "I've found that nurses have been powerful advocates for patients." **R-SOLO**



Created by Elyse Roberts  
from Neph Project

## DISCUSSION

### Interprofessional Collaboration

- NS-R and R-NS enjoyed working with an IP colleague and thought the simulation was a positive educational experience.
- Some NS-R felt awkward, noting a resident-led dynamic. R-NS agreed about taking more initiative.
- NS-R and R-NS noted that working with an IP colleague expanded their skillset and resources.
- R-SOLO expressed varying beliefs on the impact of working with an IP colleague in the simulated scenario. Some believed it could enhance patient care, while others expressed concerns that an IP colleague could introduce bias and hinder care, which contrasts from the experience of R-NS.

### Simulation Experience

- Recommendations for improvement included better alignment of clinical experience level between participants.
- Participants expressed interest in future IPE.

## CONCLUSIONS & IMPLICATIONS

Implementing health-equity based simulations which incorporate IP collaboration is feasible and acceptable to IP learners, as participants noted positive perceptions of the simulation experience and the positive impacts of IP patient care. Residents who did not participate in the IP encounter expressed concern about the potential drawbacks of IP care related to bias, suggesting that actual and continued exposure to IPE may be required for clinicians to translate its positive benefits to clinical care.

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# Advancing Cultural Competence and Interprofessionalism Through an Integrated Theoretical Framework

Quentin Conkle, PhD & Yovanna Pomarico, PhD, MBA, CMA



## Needs Assessment

Patients with limited English proficiency (LEP) continue to face persistent healthcare disparities. Although patient diversity is increasing, interprofessional teams often lack unified, ethical, and theory-based models to guide culturally responsive, equitable care.

This project addresses that gap through a theoretical framework integrating cultural, social, and caring theories to promote empathy, equity, and shared accountability in interprofessional practice.

## Foundational Theories

The framework integrates four complementary theories that shape cultural competence, empathy, and ethical behavior in team-based care:

- **Bandura's Social Learning Theory:** Learning through observation and building self-efficacy
- **Leininger's Transcultural Nursing Theory:** Delivering culturally congruent care through continuous learning
- **Purnell's Model for Cultural Competence:** Promoting understanding of self and others' cultural identity
- **Watson's Theory of Human Caring:** Centering empathy, trust, and dignity as the foundation of humanistic and ethical care

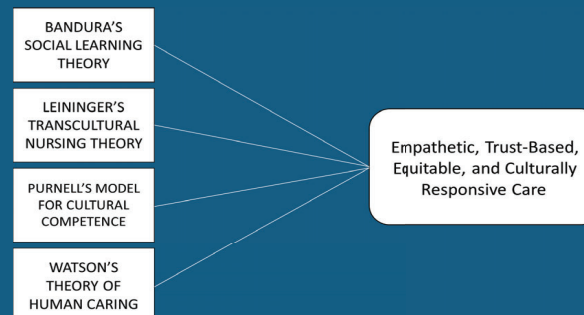
## Educational Strategies

The proposed educational strategies include:

- Self-reflection
- Case-based simulations
- Interprofessional discussions on culture and ethics

## Theoretical Framework

The framework provides a unified, ethical foundation to guide future interprofessional education and practice. It supports the design of learning experiences that foster empathy, cultural humility, and collaboration, while offering a structure for evaluating culturally responsive interventions in education and clinical care.



## Evaluation Plan

Evaluation will focus on learner growth in empathy, cultural awareness, and interprofessional collaboration, particularly when caring for underserved or LEP populations.

Planned measures include:

- **Self-Reflection:** Assessing growth in empathy and cultural awareness
- **Patient Feedback:** Evaluating perceptions of communication, respect, and trust
- **Outcome Metrics:** Measuring care quality, equity, and inclusivity

## Implications

The integrated framework supports:

- Alignment with the IPEC core competencies
- Advancement of the Quadruple Aim by promoting culturally responsive and empathetic care that has the potential to improve the patient experience, reduce disparities, and strengthen provider well-being
- The creation of inclusive, trust-based, and equitable care environments
- The establishment of a foundation for future research, curriculum innovation, and collaborative practice models

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# The Impact of Community-Based Interprofessional Collaboration on Preventing Diabetes Mellitus in age 50 and above

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Texas Woman's University



IPEC

## Background

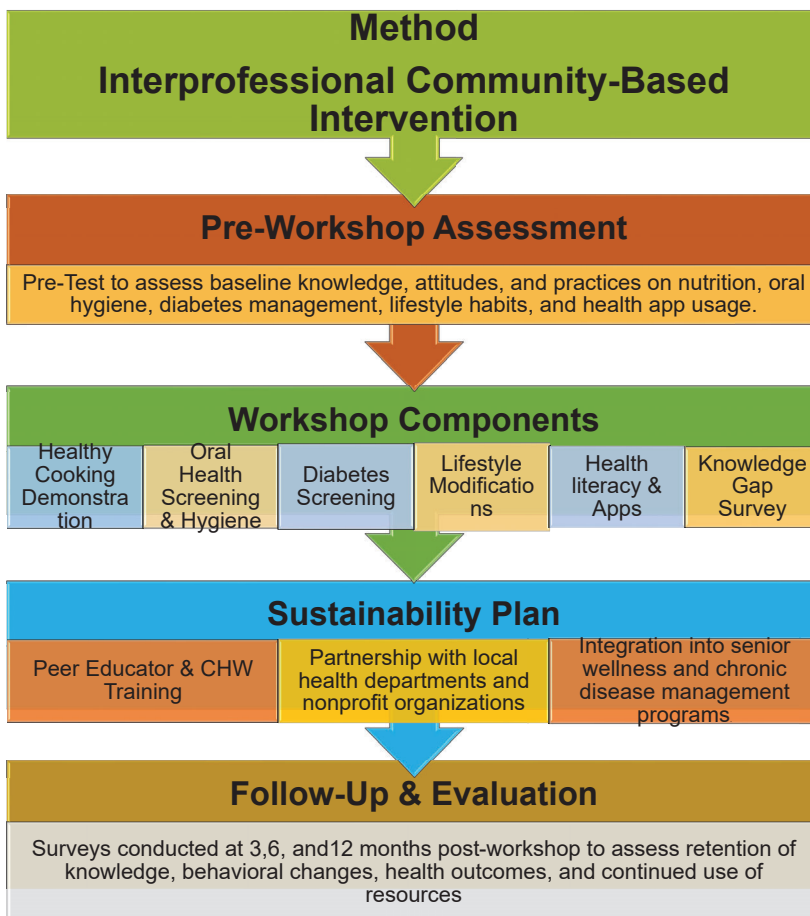
- The prevalence of Type 2 Diabetes Mellitus (T2DM) is rapidly increasing among adults aged 50 and older, making it a significant public health concern worldwide.
- T2DM increases risk for cardiovascular disease, kidney failure, and disability (Berger et al., 2025).
- One objective of Healthy People 2030 is to reduce the number of diabetes cases yearly
- Nearly 1 in 3 U.S. adults aged 50+ has diabetes or prediabetes (CDC, 2024).
- Over 2.55 million adults live with diagnosed DM, 11.1% of Texas's adult population.
- Approximately 135,300 new cases are diagnosed annually (ADA, 2024).

## Purpose

The purpose of this proposal is to evaluate the effectiveness of interprofessional, community-based interventions in reducing the risk of T2DM among adults aged 50 and older.

## Aim and Objectives

- To reduce the risk of Type 2 diabetes among community-wellbeing adults aged 50+ through a collaborative, interprofessional prevention program.
- Increase awareness of diabetes risk factors and effective prevention strategies.
- Promote behavioral changes in diet, physical activity, oral health, and medication adherence
- Foster interprofessional collaboration for sustained community health impact



## Interprofessional competencies

Slusser et al., 2018, pp. 342-366 )

- Values and Ethics - VE1,VE3,VE4,VE5
- Team work -TT1,TT4,TT7
- Roles and Responsibilities- RR1,RR4,RR6
- Interprofessional Communication

## Framework – Collaborative Care Model

- ❖ Teamwork & Coordination (Valaitis et al., 2022; Northwood et al., 2023)
- ❖ Self-Management Support:(Smith et al., 2019)
- ❖ Community Engagement & Partnerships (Northwood et al., 2023)

## Conclusion

- Interprofessional collaboration enhances
- program effectiveness
- Community-based delivery ensures accessibility and cultural relevance
- Follow-up and peer engagement support lasting health impact
- Model is scalable and adaptable for broader aging populations



Scan Me



# The Effects of Mediterranean Diet Adherence on Muscle Strength and Functional Performance in Older Adults: A Review of the Evidence

Peter Duong MPH SPT, Adrian Escusa SPT, Christopher Rogers SPT  
University of St. Augustine for Health Sciences, Dallas Campus

## Background

With the global population of adults over 65 expected to double by 2050, maintaining physical function into older age has become a major healthcare priority<sup>2</sup>. One of the most critical concerns is the age-related loss of muscle strength and mass, which can lead to reduced mobility, impaired balance, and decreased independence in daily activities. In more advanced stages, this can lead to sarcopenia which is a condition strongly associated with frailty, falls, and functional disability<sup>2</sup>. Sarcopenia has also been linked to broader declines in physical performance and mobility, especially in older adults with chronic conditions like depression<sup>9</sup>.

Despite resistance training being the most tried and tested method for preventing muscle loss, nutrition has also become a key modifiable factor in preserving healthy muscles. The Mediterranean diet consists of foods eaten traditionally around the countries along the mediterranean sea. The diet prioritizes plant based foods, fruits, vegetables, legumes, whole grains, fish, poultry, and healthy fats like olive oil which has been linked to many health benefits, including reduced inflammation and improved metabolic function<sup>3,4</sup>.

Recent research has also suggested that adherence to the Mediterranean diet may also support muscle strength and functional performance in older adults, which can potentially reduce the impact of age-related physical decline<sup>1,5</sup>. This growing body of evidence gives an opportunity for physical therapists and other healthcare providers to explore ways to combine movement and nutrition to optimize outcomes for older adults together.

## Purpose

The purpose of this literature review is to explore the effects of the mediterranean diet on the muscle strength and functional performance in the older adult over aged 65 and older across various settings including community, clinical, and residential environments.

## Methods

A scoping review was conducted using databases including PubMed, ResearchGate, ScienceDirect, and other academic databases.

### Inclusion/exclusion criteria:

- Adults aged 65 years and older
- Published 2015 and later
- Assessed the Mediterranean diet as a primary variable
- Included outcomes related to strength or physical performance (e.g. grip strength, leg strength, gait speed, 5 times sit to stand, SPPB, ADLs)
- Study designs: randomized clinical trials, cohort studies, cross-sectional studies, systematic reviews, and meta-analyses

We aimed to determine if higher adherence to the Mediterranean diet was effective in improving outcomes like strength, mobility, and overall physical performance when compared to standard dietary habits in aging populations.

## Description

This literature review examined the impact of The Mediterranean diet adherence on muscle strength and functional performance in adults aged 65 and older. The Mediterranean diet which is rich in anti-inflammatory and antioxidant nutrients has been associated with musculoskeletal and metabolic health benefits that may reduce age-related functional decline<sup>1,3</sup>.

### Key Topics Reviewed:

- **Mediterranean Diet Overview**
  - The Mediterranean diet emphasizes whole, plant-based foods such as fruits, vegetables, legumes, whole grains, nuts, and olive oil along with limited intake of red meats and processed foods<sup>9</sup>.
- **Outcomes for Muscular Strength**
  - Functional outcomes evaluated in the included studies were:
    - **Gait speed** (as a measure of mobility and fall risk)
    - **Chair stand performance** (as an indicator of lower-body strength)
    - **SPPB scores** (Short Physical Performance Battery)
    - **Handgrip strength** (representing overall muscular strength)
  - Greater diet adherence was associated with better strength, especially when paired with physical activity<sup>4,5</sup>.
- **Functional Performance:**
  - Tests like gait speed, TUG, chair rise, and SPPB were frequently used. Adherence to The Mediterranean diet was associated with better performance across multiple studies<sup>2,3</sup>.
- **Populations Studied:**
  - Older adults from community, institutional, and clinical settings
  - Has increasing applicability across physical therapy contexts
- **Diet Measurement Tools:**
  - Across the studies, adherence to The Mediterranean diet was commonly assessed and validated using The Mediterranean Diet Adherence Screener (MEDAS) food score or food frequency questionnaires.

### Mediterranean Diet food list

Vegetables and tubers	Fruits	Grains	Nuts, seeds, and legumes
Acorn squash Artichokes Asparagus Beets Bell peppers Broccoli Brussels sprouts Butternut squash Cabbage Carrots Celery Cucumber Eggplant Kale Lettuce Okra Potatoes (red, white, sweet) Radishes Zucchini	Avocado Apples Apricots Bananas Blackberries Cantaloupe Cherries Clementines Dates Figs Grapefruit Grapes Honeydew Olives Oranges Peaches and nectarines Pears Pomegranate Raspberries Strawberries Tomatoes Watermelon	Barley Brown rice Buckwheat Bulgur Couscous Durum Farro Quinoa Millet Oats Polenta Whole-grain bread Whole-grain pasta Wild rice	Almonds Brazil nuts Chia seeds Chickpeas Fava beans Green beans Flaxseeds Hazelnuts Hemp seeds Kidney beans Lentils Pine nuts Pistachios Sesame seeds Sunflower seeds Walnuts

Cleveland Clinic

## Results/Outcomes

### Muscle Strength:

- Greater adherence to the Mediterranean diet was significantly found to be associated with higher handgrip strength, especially in older women<sup>1,2</sup>.
- A randomized clinical trial found that combining the Mediterranean diet with physical activity significantly improved lower extremity strength, as measured by chair rise tests<sup>5</sup>.

### Functional Performance:

- Adherence to The Mediterranean diet was linked to faster gait speed, improved balance, and higher SPPB scores<sup>2,3</sup>.
- One systematic review reported that greater adherence correlated with better functional independence and reduced disability risk in older populations<sup>3</sup>.

### Population Diversity:

- Benefits were reported across **community-dwelling, clinical, and assisted-living** populations, suggesting wide applicability for physical therapists working with aging adults<sup>1,2</sup>.

### Limitations / Mixed Findings:

- Not all studies found statistically significant improvements. For example, some observational studies reported only modest or non-significant effects of Mediterranean diet adherence on strength or physical function<sup>2</sup>.

Study	Measured Outcomes	Key Findings
Barrea et al. (2018)	Handgrip strength in elderly women	Higher diet adherence - stronger grip strength
Silva et al. (2023)	Gait speed, SPPB, balance	Mediterranean diet improved functional performance
Papadoulou et al. (2023)	Grip strength, TUG, SPPB	Diet adherence associated with stronger strength and better mobility
Couto et al. (2025)	Chair rise test, LE strength	Diet + exercise improved lower body strength
Calvani et al. (2022)	sarcopenia risk markers	Mediterranean diet reduced age-related decline



## Conclusion

- Based on the evidence, The Mediterranean diet can lead to meaningful improvements in muscle strength and functional performance in adults 65 and older, especially for handgrip strength, gait speed, and lower limb mobility<sup>1,2,3</sup>.
- These benefits found are not limited to community-dwelling older adults and have been found across other settings such as those in clinical care and assisted living<sup>4,5</sup>.
- Clinically, this suggests that The Mediterranean diet could be a valuable non-pharmacological tool for reducing fall risk, slowing age-related physical decline, and helping older adults stay independent longer<sup>4</sup>. This is further supported by research linking Mediterranean diet adherence with lower frailty index scores among older adults, indicating a broader impact on physical resilience and independence<sup>6</sup>.
- This indicates that PTs may be able to benefit from partnering with dietitians, giving patient education, and including diet discussions in order to provide a broader wellness and fall prevention program<sup>8</sup>.
- Despite the positive correlations between the Mediterranean diet and strength, not every study showed major changes. A few studies reported more modest or non-significant results which could be attributed to differences in how adherence was measured, study length, or underlying health conditions<sup>2</sup>.
- For future studies, more research is needed to better understand the long-term effects, how much adherence is needed to see change, and whether dietary changes should be adjusted to frailty or chronic conditions<sup>4</sup>.
- Benefits of the Mediterranean diet have also been observed when combined with other interventions like protein and vitamin D supplementation in frail or clinical populations<sup>7</sup>.

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# Innovating at Scale: Mitigating Logistical Challenges in Interprofessional Education Through Community Action Plans

Stephanie Au DNP, MSN, APRN, FNP- C, RN

## INTRODUCTION

### Background:

- Interprofessional Education and Practice (IPEP) initiatives are increasingly prioritized within healthcare and healthcare education nationwide.
- Despite widespread support, a significant lack of frameworks and increasing logistical difficulties to cultivate effective and robust IPEP programs persists resulting in fragmented IPEP experiences.

### Project Aim:

To provide a scalable, structured framework for large-scale IPE by:

- Engaging all COHS programs in collaborative community health projects;
- Empowering students to explore their interests while addressing real-world social issues;
- Strengthening IPEC core competencies; and
- Reducing logistical barriers through flexible, coordinated implementation.

### IPEC Core Competencies Addressed

Roles/Responsibilities, Interprofessional Communication, Teams/Teamwork, Values/Ethics

## METHODS

### Educational Strategies / Intervention

1. Formed **57 small interprofessional teams** with students from all four COHS schools
2. Used **guided templates** and **faculty mentorship** to support structured project development
3. Teams conducted a **needs assessment**, identified a **vulnerable population**, and designed a **Community Action Plan (CAP)**
4. Project spanned **two academic quarters**, with **virtual + in-person meetings** to maximize flexibility and participation

### Evaluation

1. CAP proposals assessed using a **faculty rubric** and **peer evaluation**
2. Conducted **pre/post surveys** measuring IPEC competencies, role clarity, and perceived impact
3. Set engagement benchmarks: **≥90% proposal completion** and representation from all four programs
4. Results showed **strong interprofessional collaboration**, increased **confidence in team-based care**, and **actionable community health initiatives**

## OUTCOMES

### Evaluation

- Faculty rubric scoring of proposals
- Peer feedback for project refinement
- Pre/post surveys
- Benchmarks met: **≥90% proposal completion**
- Representation from all four COHS programs

### Outcomes:

- Strong interprofessional collaboration
- Increased confidence in team-based care
- Actionable, community-focused plans

### Key Qualitative Themes

- Better understanding of **professional roles**
- High value placed on **real-world, community impact**

**329**

**Students**

engaged across all four schools in the Susan & Henry Samueli College of Health Sciences

**57**

**Interprofessional groups**

formed to work collaboratively

**2+**

**Academic quarters**

project span to address pressing health issues affecting vulnerable populations

“

By leveraging their diverse perspectives and expertise, these students created practical, community-centered solutions which move beyond conventional approaches.

### Top three project teams:

**Areen Andreasian, Vivian Dinh, Bianca Flores, Chandan Pearce and Trinh Woolridge**

Project on reducing social isolation in low-income elderly communities.

**Stephanie Blanco, Megan Jung, Peidian Li, Christopher Liu, Victoria Nguyen and Uyen Truong**

Project on mental health among unhoused Los Angeles residents.

**Sean Nathan Chen, Catherine Tan, Femitan Titilayo Ajayi, Tiffany Van Ho and Zaki Zeidan**

Project on enhancing healthcare access for unhoused individuals in Los Angeles County.

### Semi-finalist project teams:

**Hannah Jung, Jamie Kesten, Justin Liao, Hien Nguyen and Chi Vo**  
Project: "Salud on barriers"

**Jaime Duarte Fernandez, David Henry Georgy, Natalie Grace Montoya, Shivan Aulubumar Patel, Emily Ruff and Princess Hannah Liegen Santillan**  
Project on the impact of Urban Heat Islands on people with disabilities and chronic illnesses in Orange County.

**Alycia Edquilang, Sandy Georges, Ronak Nakh, Sakhi Patel, Aspen Ruo and Sari Saleem**  
Project on understanding mental health barriers for Asian Americans and tailoring effective workshop interventions.

**Varya Fayer, Kevin Gramajo-Aponte, Katie Nguyen, Grace Ortiz, Shreya Pawan and Samantha Yasuda**  
Project on caring for African American individuals with Alzheimer's disease.

**John Carlos Bahena, Isia Dose-Wassily, Perita Keemia, Hemet Catherine Khawh Cahu Nguyen, Richard Nguyen, Richard Nguyen and Irma Montague Ramos**  
Project on addressing hypertension disparities in African American communities through a comprehensive, culturally tailored approach.

**Nathan Cahu, Nadia Fierros, Veronica Lopez, Hannah Manio, Noa Seaton and Tyler Wong**  
Project on environmental health disparities in Los Angeles, focusing on collaborative strategies for asthma and pulmonary disease prevention.

**Nancy Choa, Julie Huynh, Grace Lim, Johannah Martinez, Malsam Nehme and Bianca Sierra**  
Project on substance use disorders and homelessness among unhoused youth in America.

**Jennifer Catalan, Ryan Kwok, Emily Navarrete Soto, Anagha Batagi, Thiagarajan and Weichen Zhao**  
Project on food insecurity and chronic health conditions in rural California.





# Development of Interprofessional Educational Module for Medical Emergencies Management for Undergraduate Healthcare Students

SWET NISHA<sup>1</sup>, Lorie B. Sigmon<sup>2</sup>, Shannon H. Ford<sup>3</sup>

<sup>1</sup>Associate Professor, Department of Dentistry, ESIC Medical College & Hospital, Ranchi, India, AIHC Mentee 2025

<sup>2</sup>PhD, DNP, RN, FNAP, <sup>3</sup>PhD, APRN, CPNP-PC, CNE, School of Nursing, University of North Carolina Wilmington, USA



## Introduction

- Interprofessional education fosters healthcare professionals a **team based approach** to optimize patient-centered care.
- Medical Emergencies is dental practice requires Interprofessional collaboration.

### Objectives

- A team of faculty including dentists, physicians and nurses collaborated to develop a series of interprofessional simulation based medical emergencies management in dental practice, assessing its impact on students learning outcomes and skill acquisition.

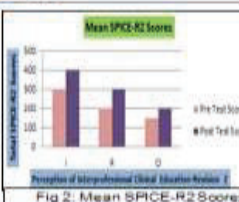


## Methods

Design	Mixed method study- Qualitative + Quantitative
Location	Interprofessional Collaborative Unit, Haldia, India
Inclusion Criteria	Individuals >= 18 years, Third year students, attending medical, dental and nursing schools. (n=85)
Method	23 in-depth interviews were conducted post program induction to evaluate students experience. Pre and post test survey

**Preimplementation:** permissions, lessons plan development;  
**Implementation:** 10 sessions- 60 mins, Convenience sample, Debrief/Feedback; Faculty members. Pre-post survey correlations  
**Post implementation:** Data Analysis and Summary.

## Results



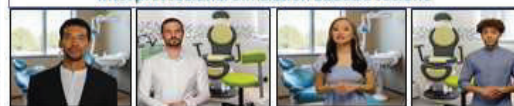
## Team Members and Activities

	Dr. Savan SR Periodontist	
	Dr. A Mukherjee Anesthesiologist	
	Dr. Debjani B Medical Practitioner	
	Dr. Svet Nisha Principal Investigator	
	Dr. Pritish CP Dental Surgeon	
	Smt. Supriya De Dental Nurse	
	Smt. Sukanya Sen Medical Nurse	
	Nirmala Das Dental Subject	

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### Interprofessional simulation based sessions



### Pender's Health Promotion Model-based program



## Discussion

- 1.Message:** Creating awareness regarding medical emergencies in dental practice.
  - 2.Enabling Factors:** Committed IP team, mentors support.
  - 3.Obstacles:** In-depth Interviews of the participants, Time management for module implementation, students active participation-"Breaking the Siloes"
  - 4.Impact:** Good learning experience, teamwork and collaborations, student self awareness
- Future:** Promote continual on-campus and off-campus collaborations for sustainable IPE learning programs.

## Conclusions

Across all interventions, students showed increased learning and positive attitudes for IP collaboration in interprofessional simulation based medical emergencies management in dental practice.

It was a really interactive & excellent session. One to one communication & individual attention.

Such sessions are required frequently to enrich our knowledge.

**Acknowledgement:** My mentors, IPE team members, study participants, students, HIDSAR, ESIC MCH



# Interprofessional Education in Times of War: Navigating Uncertainty and Cultural Diversity



Tal Hadar MD, Cohavit Levy-Mazaki MSc.OT, Ruth Stalnikowicz MD, Keren Bluth M.S.W, Naama Karniel MSc.PT, Alex Gural MD, Lilach Haim-Eli RN  
Hadassah Medical Center, Faculty of Medicine, Hebrew University, Jerusalem

## Background

The ongoing conflict in our region has created unprecedented challenges for healthcare education.

The diversity of our institution's faculty and of students' cultural, ethnic and religious backgrounds have always presented practical and ethical dilemmas, these became more pronounced and extreme during wartime.

## Needs Assessment

1. Cultural diversity in crisis context – creating methods to engage students from diverse cultural and religious backgrounds during heightened tensions and crises.
2. Difficulty in scheduling and planning of educational activities due to unpredicted events and schedule uncertainty.
3. Remote education – continuity of learning during safety driven restrictions on gatherings which may postpone educational activities for relatively long periods.
4. Unavailability of students and faculty.

- Poster G2
- Correspondence: talh@hadassah.org.il

## Goals

- To adapt IPE methods and content in order to create a safe learning environment that respects all perspectives.
- To continue planned IPE activities and program development: introduction of new activities and enlargement of student population participating in the program.
- To assess feasibility and learner outcome measurement



## Evaluation

Pre– and post– each activity using validated questionnaires:

1. Readiness for Interprofessional Learning Scale (RIPLS).
2. Students' Perceptions of Interprofessional Clinical Education-Revised (SPICE-R2).

Free text feedback was also encouraged.

## Methods

1. Planned structured activity protocols emphasizing shared professional values.
2. Practice of increased sensitivity around cultural and political differences being discussed, while allowing all opinions under supervised discussion.
3. Maximum flexibility of dates and personnel, allowing the students to join various activities when available.

## Student reports:

**"I usually don't tend to speak up, but I really appreciated how everyone respected one another and allowed each person the freedom to express themselves. It created a sense of safety and ease to speak without the fear of saying something 'wrong'"**

**"More of a personal experience with students from other professions — because they are human beings before the title of their profession"**

## Conclusion

Interprofessional education in periods of conflict and crisis is possible when practicing diversity awareness and respect.

Flexible teaching methods are critical.

Core  
competencies:



# BARRIERS AND FACILITATORS TO THE IMPLEMENTATION OF PHARMACOTHERAPY FOCUSED INTERPROFESSIONAL EDUCATION IN FOUR EUROPEAN INSTITUTES

T.A. PHAN, S. EL ABDOUNI, N. PICARD, F. LEMAITRE, L. MATHIESEN, J. VERSMISSEN, F. VAN ROSSE, M. VAN DER HEIJDEN

## BACKGROUND

- Interprofessional collaboration key to **prevent medication errors**
- **PREP-TEAM project:** interprofessional workshop on **pharmacotherapy**
- For students of **Medicine, Nursing, & Pharmacy**
- Pilots at Erasmus Medical Center, University of Rennes, University of Limoges, University of Oslo in 2024
- Research aim to determine **implementation factors** of the workshop at these four centers

## METHODS

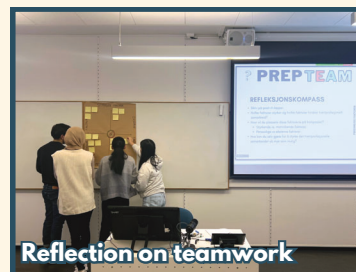
- **Semi-structured interviews** in person or over Teams
- **17 stakeholders (NL, FR, NOR)** involved in teaching & curriculum design
- **Directed content analysis**  
Consolidated Framework for Implementation Research



Pilot ErasmusMC

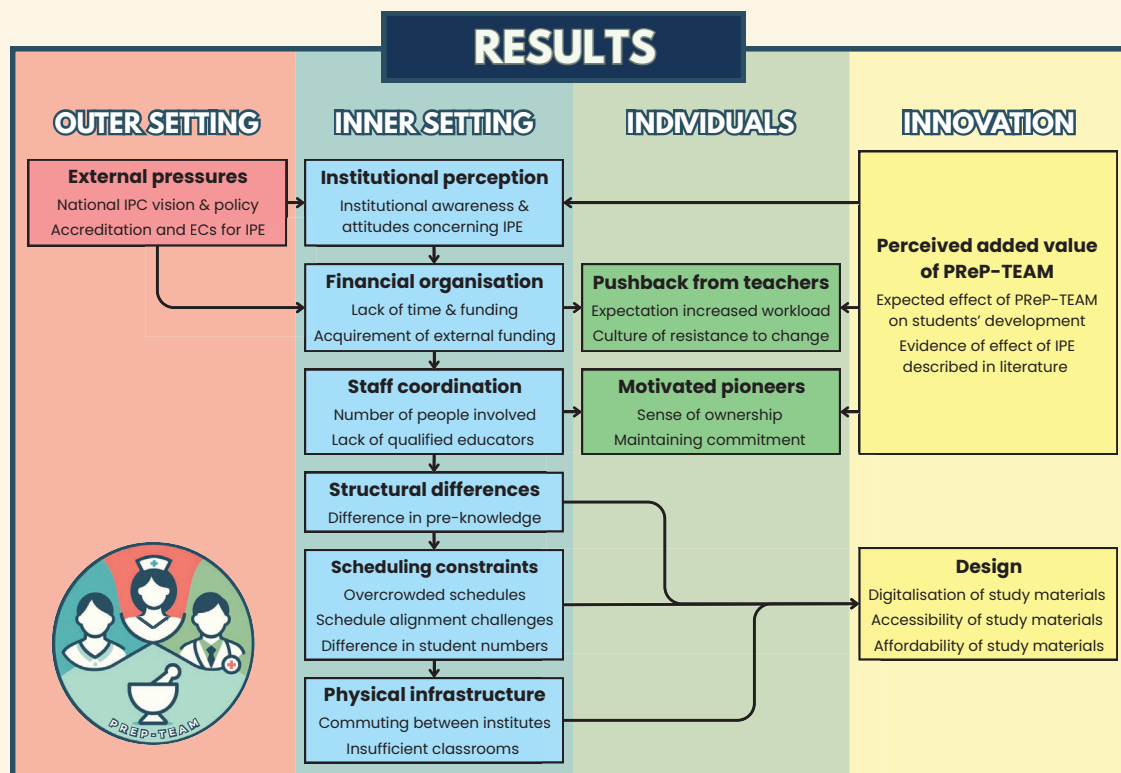


Team Up! simulation



Reflection on teamwork

## RESULTS



## DISCUSSION

- **CFIR appropriate tool** to determine implementation factors of IPE
- Facilitators originate from the **societal need** for interprofessional collaboration
- Barriers are predominantly of **financial & logistical** nature
- Overcoming implementation barriers follows a certain **sequentiality**
- Results offer means to **operationalize** implementation **strategies** of IPE in general

## CONCLUSION

Convincing key stakeholders, from high-level leaders to implementation deliverers, supported by pioneers is important to ensure successful implementation.

## CONTACT

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# Integration of interprofessional education in a multiprofessional educational unit in Mexico

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FES Iztacala, Universidad Nacional Autónoma de México.



## Background

The interprofessional education program that is carried out at the Facultad de Estudios Superiores Iztacala of the UNAM, which is a multidisciplinary unit that brings together students of medicine, nursing, psychology, dentistry, and optometry. The course is offered twice a year. It has shown to provide adequate improvement in knowledge and skills related to interprofessional competences, in addition to providing data of high satisfaction of the students with the program.

## Project Goals

- Sensitize students about the importance of interprofessional collaboration in health care.
- Apply interprofessional competencies in simulated cases that require joint solutions with a patient-centered vision.

## Method

- Sample: 42 participants of the 2024 winter course.
- Sociodemographic: 21 students of psychology, 18 of medicine, and 3 of dentistry. 33 females and 9 males. 10 students of first semester, 11 of third, 12 of fifth, 9 of seventh.

## Assessment

Pre-post intervention assessment

- Questionnaire on Perception of Competencies for Interprofessional Practice. 26 items with a 5-point Likert scale ranging from "I do not master this skill" to "I completely master this skill". Identify 4 factors: interprofessional teamwork, interprofessional communication, interprofessional ethics and values, and interprofessional self-assessment.
- Course satisfaction evaluation.
- Assessment of knowledge on interprofessional competencies.

## Intervention

The course uses case-based learning strategies, simulation, debriefing, and role playing. The duration is thirty-two hours, in eight sessions of four hours each. Evaluation is carried out based on the Kirkpatrick's model.

## Outcomes

- Statistically significant improvement was obtained in interprofessional competencies, and in knowledge after the intervention (Table 1).
- The students reported an average satisfaction score of 56.44 SD (2.99) with the course, out of a 60-point scale.
- In knowledge they went from an initial score of 21.73 to 32.02 ( $t = -13.73$ , 41gl,  $p < 0.01$ ).

Table 1.  
Interprofessional competencies mean differences

	Pre-test	Post-test	Difference test
Interprofessional team work	28.11 (5.12)	34.3 (1.65)	$t = -4.62$ , 41gl, $< .01$
Interprofessional communication	22.50 (3.56)	26.12 (1.76)	$t = -2.58$ , 41gl, $< .01$
Interprofessional values & ethics	23.5 (2.73)	26.09 (1.64)	$t = -5.53$ , 41gl, $< .01$
Interprofessional self-assessment	9.78 (2.07)	11.61 (.66)	$t = -5.67$ , 41gl, $< .01$

## Conclusion

The effectiveness of the interprofessional education course was demonstrated in terms of knowledge level, reaction, and behavior of Kirkpatrick's model.



## Beyond Silos: Fostering Collaborative Practice

Katie Camden DNP, RN, CHSE, ACUE | Mitzi Scotten MD, RN

ARKANSAS STATE UNIVERSITY | JONESBORO, AR

### BACKGROUND

Interprofessional education remains inconsistently integrated across health professions curricula, despite endorsement from accrediting bodies and widespread recognition of its importance. A needs assessment identified communication, professionalism, teamwork, and collaboration as key areas for growth.

### INTERVENTION

Simulation Scenarios:

- Communication
- Conflict resolution
- Collaborative decision-making

### AIMS

- Strengthen role clarity
- Enhance communication, teamwork
- Train faculty in evidence-based simulation facilitation
- Integrate Sim-IPE experiences
- Evaluate outcomes, efficacy
  - Expand across disciplines, campuses
  - Address workforce needs
  - Embed collaborative culture

### EVALUATION

A formative, mixed-methods approach will be used to assess learning, scenario effectiveness, and readiness for interprofessional practice, while informing ongoing quality improvement.

- Pre- and post-intervention ICCAS
- Qualitative reflections

### COMPETENCIES IN ACTION

Outcomes	Domains
Learners will employ effective communication and collaborative problem-solving strategies during the simulation.	<ul style="list-style-type: none"> <li>➤ Values and Ethics</li> <li>➤ Communication</li> <li>➤ Teams and Teamwork</li> </ul>
Learners will clarify professional roles to enhance team functioning during conflict resolution in simulated scenarios.	<ul style="list-style-type: none"> <li>➤ Values and Ethics</li> <li>➤ Roles and Responsibilities</li> <li>➤ Communication</li> <li>➤ Teams and Teamwork</li> </ul>
Learners will prioritize safety when planning interprofessional, patient-centered care.	<ul style="list-style-type: none"> <li>➤ Values and Ethics</li> <li>➤ Roles and Responsibilities</li> <li>➤ Teams and Teamwork</li> </ul>

### CONTACT

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# Development of an IPE Simulation on Malnutrition to Bridge the Nutrition Gap Across Disciplines and Curriculum

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## Purpose/Background

01

**Purpose:** To develop an IPE simulation integrating malnutrition care into the curricula of nursing (RN), dietetics (RD), and physician assistant (PA) programs to enhance interdisciplinary communication, clinical reasoning across disciplines, and strengthen teamwork.

**Background:** The topic of malnutrition is lacking in simulation and IPE literature. Additionally, RN and PA programs often lack the integration of nutrition topics in their advanced course curriculum. This experience aims to bridge the nutrition gap across disciplines and curricula.

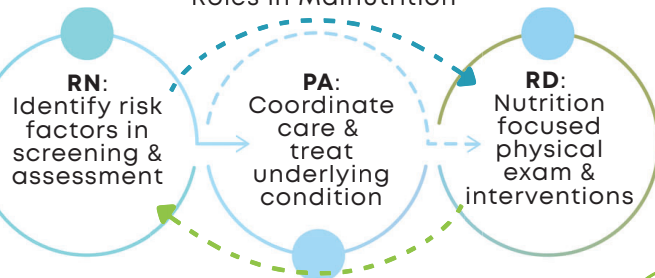
**Goal:** Students will acquire practical, transferable skills to provide comprehensive, team based care for patients with malnutrition.

This project is in the early planning stages.

## Collaborations

02

### Roles in Malnutrition



## Planning Timeline

03

Identify key contributors: who should help plan?

Create benchmarks by identifying curriculum gaps using the Jeffries Simulation Framework

Determine educational strategies using IPEC core competencies

Subcommittee to create malnutrition case study patient

Develop evaluation tools & strategies

Consider scheduling availability

Determine student involvement: which cohorts does this benefit?

Utilize the multi-institutional partnership with local simulation center

Develop methodology

Gather sim center feedback and adjust parameters

Develop any pre-education pieces

Schedule Pilot



## Challenges/Opportunities

04

### Challenges:

- Aligning case complexity with each discipline's level of student knowledge
- Four hours of subcommittee work to determine case study alone, therefore time-consuming
- Collaborating with the busy sim center means feedback is delayed, and pilot/launch timeline is impacted by the center's availability

### Opportunities:

- Very few examples of malnutrition IPE simulation outside of dietetics, so this project builds a framework for others
- Creation of a simulated multidisciplinary learning environment for students focused on malnutrition helps close nutrition gaps and provides a memorable team experience

**Conclusion:** Thoughtful planning by a dedicated multidisciplinary team is necessary to overcome barriers of time and other challenges.

05

## Next Steps

**Pilot:** Test IPE with small, representative student cohorts

**Launch:** Coordinate with Sim Center to secure staffing and capacity for comprehensive implementation

**Evaluate & Cement:** Determine viability of long-term integration into curricula

Contact:



# Influence of Patient Insurance Status on Interprofessional Team Performance in Simulated Clinical Encounters

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## Background

Team Observed Structured Clinical Encounters (TOSCEs) provide a team-based simulation where students from multiple disciplines work together with standardized patients. These encounters support the development and assessment of interprofessional competencies while allowing students to apply discipline-specific skills. TOSCEs enhance learning, confidence, and readiness for clinical practice. Evaluation by facilitators, peers, and standardized patients offers comprehensive feedback, giving programs valuable insight into students' team and clinical performance.

## Objective

Evaluate team-based competencies and discipline-specific contributions in interprofessional teams utilizing (TOSCEs) and evaluate the impact of incorporating Social Determinants of Health (SDOH) into (TOSCEs).

## Methods

**Assessment Tool:**

- Interprofessional Collaborator Assessment Rubric (ICAR)
- Aligned to IPEC core competencies
- Formative assessment with feedback for learners
- 8-question ICAR rubric
- Scale:
  - Not Observable = 1
  - Minimal = 2
  - Developing = 3
  - Competent = 4
  - Mastery = 5
- Means calculated per question
- Comparison by team and discipline
- Discipline-Specific Evaluation:
  - Analytical checklist used
  - Options: Yes, No, Not Applicable

- **TOSCEs included Standardized Patients (SPs):** Professional actors
- Transitions of Care case with one (SP)
- **Participants: Students**
  - Case A: 26 Pharmacy, 9 PA, 2 Nursing = 37
  - Case B: 27 Pharmacy, 2PA, 7 Nursing =36
- Case A: Insured SP
- Case B: Uninsured SP
- 2-3 students per interdisciplinary group
- Each case was run 16 times

All other case elements identical

## Results

Table 1: Interprofessional Competency Part 1: ICAR Questions and Results (Mean by Discipline)

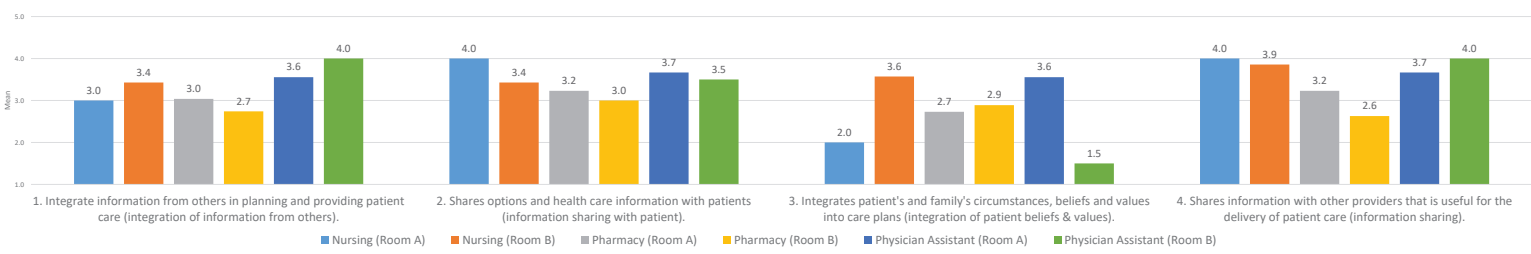
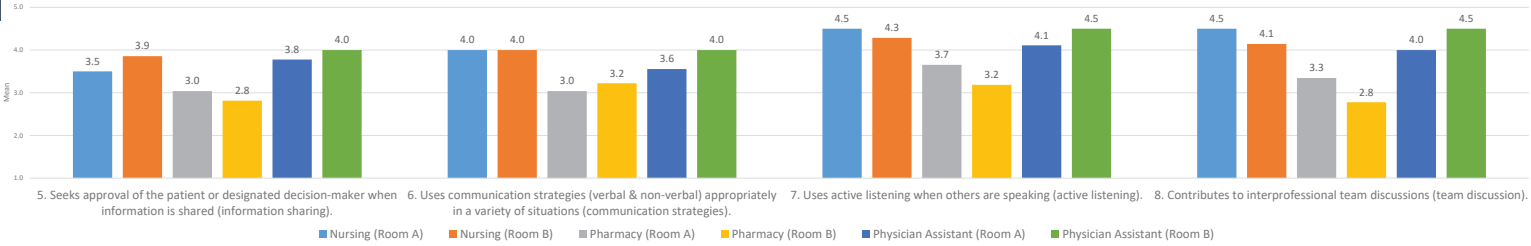


Table 2: Interprofessional Competency Part 2: ICAR Questions and Results (Mean by Discipline)



## Discussion

□ Case A had 37 participants, and Case B had 36 participants.  
□ Our findings indicate that a patient's uninsured status negatively impacts various aspects of interprofessional team dynamics and communication.  
□ Being uninsured adversely affected the team's ability to plan for and provide care by impairing information sharing with the patient and other team members. This may be due to fewer care options available for the uninsured patient.  
□ Being uninsured impaired team discussions. It made the team less likely to seek patient approval before sharing patient information and decreased active listening. These findings may be due to unconscious bias that marginalizes the uninsured.  
□ PA Students had the highest average scores on the 8 questions followed by nursing then pharmacy. Reasons for these differences are unclear but may relate to where the students were in their education.

## Implications/ Conclusion

- Incorporating Standardized Patients (SPs) to the TOSCEs and addressing SDOH provides a method for teaching and providing formative assessment of interprofessional competencies to students.
- Findings suggest patient insurance status had a significant impact on interprofessional team dynamics.
- To better prepare students for addressing healthcare needs of an uninsured patient, targeted training on patient-centered communication and collaborative decision-making may be beneficial.
- Future research should explore strategies for enhancing SDOH integration in team-based clinical education.



# SBAR Simulation Helps Enhance Communication Between Osteopathic Medical Students and Bachelor's Nursing Students

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<sup>1</sup>Tom & Julie Wood College of Osteopathic Medicine, Marian University, Indianapolis, IN; <sup>2</sup>Leighton School of Nursing, Marian University, Indianapolis, IN



## Background

- Inadequate communication contributes to 60% of medication-related errors.<sup>1</sup>
- Situation, Background, Assessment, and Recommendation (SBAR) is a communication framework shown to reduce the frequency of medical errors.<sup>2</sup>
- Simulation-based interprofessional education (Sim-IPE) allows medical and nursing students to practice communication and conflict resolution in a safe environment.<sup>3</sup>
- Sim-IPE emphasizes collaboration, trust, and accountability amongst students from different professional backgrounds.

## Project Goals

- Enhance communication between medical and nursing students.
- Foster respect and understanding of professional roles.
- Build teamwork skills to prevent future clinical errors.
- Prepare students for clinical practice by providing feedback from faculty and peers in a low-stake environment.

## Project Educational Intervention

### BSN STUDENTS

#### Preparation:

- Reviewed patient case study.
- Completed SBAR prep tool.

#### Sim-IPE:

- Delivered patient status change via phone call and in-person exchange in SBAR format.

#### Student Feedback:

- Learned to deliver clear and concise information.
- Requested more data in case study.

### DO STUDENTS

#### Preparation:

- 3-hour SBAR prep session.
- Reviewed charts and medications.

#### Sim-IPE:

- Received SBAR data, clarified discrepancies, and provided verbal orders for appropriate intervention.

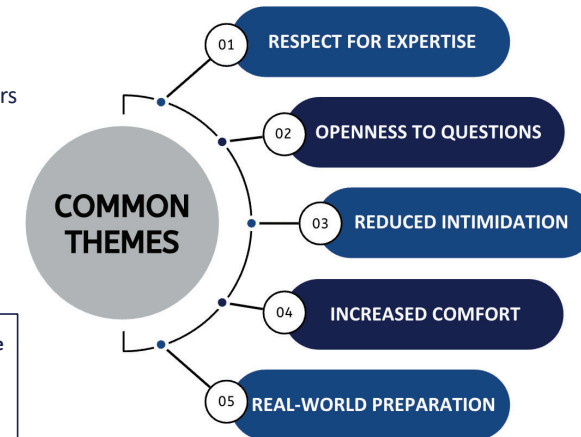
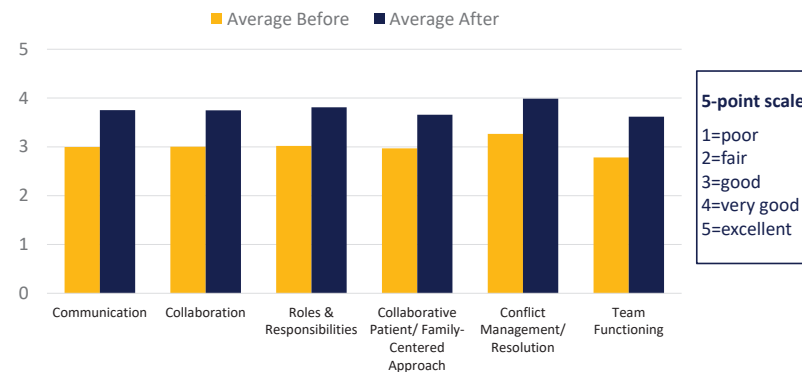
#### Student Feedback:

- Learned importance of clear communication and respect.
- Requested SBAR prep before SIM.

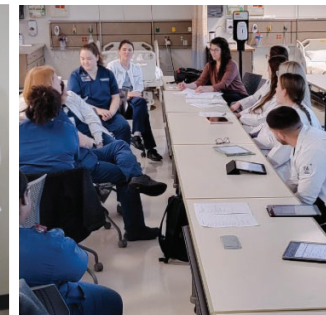
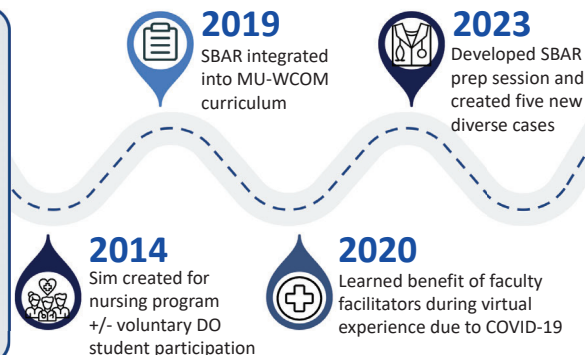
## Project Evaluation

- Statistically significant increase in all 20 Interprofessional Collaborative Competency Attainment Survey (ICCAS) questions across all 6 ICCAS Constructs ( $p < 0.001$ )<sup>4</sup>
- Application of this simulation may address communication and medical errors between nursing and physicians
- Further research is needed to assess objective improvement in skills

Average Self-Perceived Change in ICCAS Constructs



“Learned to work as a team and to always ensure clear lines of communication”



For references and the full data set, please use the following QR Code:



# The Effect of an Interprofessional Collaboration Between Physical Therapist and Nursing Students Using Simulation

CSUN

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College of Health and Human Development, California State University Northridge

## Background

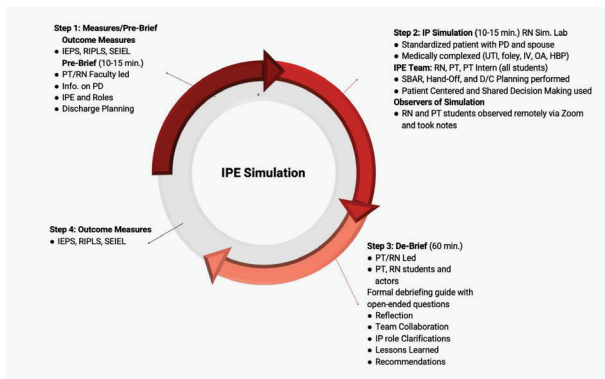
- Interprofessional Simulation Education (IPSE) is advocated to improve patient care and patient outcomes.<sup>1</sup> IPSE improves prelicensure healthcare students' communication and helps students gain a better appreciation of others' roles and responsibilities in patient care.<sup>2</sup>
- While IPE is required by accrediting agencies, there remains a paucity of research exploring IPSE, particularly with respect to the experiences and outcomes of observers. This gap is even more pronounced in the context of physical therapist students (PTS) and nursing students,

## Purpose/Hypothesis

To determine the effect of physical therapist and nursing student's self-efficacy, readiness and perception for interprofessional learning following a remote human simulation. We hypothesize an improvement in all self-reported measures.

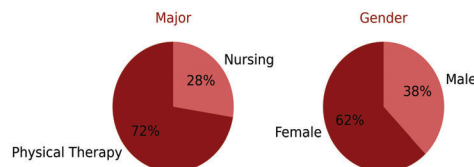
## Methods

- Participants completed pretest and posttest surveys: 1. **Interdisciplinary Education Perception (IEPS)** 2. **Readiness for Interprofessional Learning (RIPLS)** 3. **Self-Efficacy in Interprofessional Learning (SEIEL)** before and after an IPE simulation intervention.
- Simulation Activity:** Pre-brief with PT/RN faculty providing information on Parkinson's Disease (PD). Standardized Patient Simulation: actors were provided scripts on treatment, d/c planning, and IP communication. Participants observed remotely via Zoom platform. Debrief by PT/RN faculty using pre-scripted open-ended questions.
- Data Analysis:** Paired-samples t-tests were conducted to examine changes in scores and internal consistency of each scale was evaluated at pretest and posttest using Cronbach's alpha. Gain scores (Post – Pre) were computed to compare improvements between Physical Therapist and Nursing students using independent-samples t-tests, with Hedges' g reported as the measure of effect size.



## Results

### Demographic Characteristics



Age: 24–45 years (M = 28.7, SD = 5.3)

**Table 1. Pretest–Posttest Comparisons Using Paired-Samples t-Tests: Improvements in Perceptions, Readiness, and Self-Efficacy**

Scale	Mean Difference	t(df)	p-value	Hedges' g [95% CI]
IEPS	-9.97	-4.56 (28)	< .001	-0.824 [-1.232, -0.404]
RIPLS	-4.14	-2.80 (28)	.009	-0.506 [-0.879, -0.124]
SEIEL	-7.10	-4.42 (28)	< .001	-0.798 [-1.203, -0.382]

Significant improvements from pretest to posttest on all scales ( $p < .01$ ), indicating enhanced attitudes, readiness, and self-efficacy toward interprofessional learning following the intervention.

**Table 2. Independent-Samples t-Test Results for Gain Scores by Major (Physical Therapy vs. Nursing)**

Scale	Major	N	Mean Gain	SD	t(df)	p-value	Hedges' g
IEPS	Physical Therapy	21	7.81	10.42	-1.65 (27)	.111	-0.67
	Nursing	8	15.63	13.9			
RIPLS	Physical Therapy	21	2.48	8.19	-2.25 (18.5)	.037*	-0.77
	Nursing	8	8.5	5.66			
SEIEL	Physical Therapy	21	5.62	8.96	-1.53 (27)	.137	-0.62
	Nursing	8	11.0	6.85			

- Nursing students consistently showed greater mean improvements than Physical Therapist students across perceptions, readiness, and self-efficacy.
- Differences were moderate in magnitude (Hedges'  $g = -0.62$  to  $-0.77$ ).
- Only readiness (RIPLS) reached statistical significance,  $t(18.51) = -2.25$ ,  $p = .037$ , with Nursing students reporting larger gains.

**Table 3. Internal consistency at both time points**

Scale	Pretest $\alpha$	Posttest $\alpha$
IEPS	.911	.397
RIPLS	.868	.840
SEIEL	.952	.966

Internal consistency: High on all scales at pretest and remained strong at posttest for the readiness (RIPLS) and the self-efficacy (SEIEL), though the IPE perception (IEPS) showed poor posttest reliability.

## Conclusion/Clinical Significance

- Results demonstrated an IPE simulation intervention significantly improved students' perceptions, readiness, and self-efficacy for collaborative practice.
- Supports 2023 IPEC core competencies with IPE a required criterion for PT/Nursing academic programs and essential to improve students' clinical experience and patient outcomes.

**References:** 1. Marion-Martins, A.D., Pinho, D.L.M., 2020. Interprofessional simulation effects for healthcare students: a systematic review and meta-analysis. *Nurse Educ. Today* 94, 104568. <https://doi.org/10.1016/j.nedt.2020.104568>. 2. Oxelmark L, Amoroe T, Carlzon L, Rystedt H. Student's understanding of teamwork and professional roles after interprofessional simulation- a qualitative analysis. *Adv Simul.* 2017;2(1):1–8. doi:10.1186/s41077-017-0041-6.

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# BUILDING BETTER TEAMS:

## INCORPORATING SIMULATION-BASED TRAINING INTO INTERPROFESSIONAL EDUCATION



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### INTRODUCTION

- IPE immersion has been conducted annually since 2013, with over 250+ trainees participating since its inception
- INACSL's Healthcare Simulation Standards of Best Practice (HSSOBP®) were incorporated into 2025 training curriculum

### IMMERSION PROCESS

#### DAY 1

- Professional roles/roles clarification
- Social communication styles
- IPE communication/SBAR/CUS
- Mindfulness and burnout
- Assumption of goodwill

#### DAY 2

- Provider wellness and resilience
- Faculty modeling of written cases
- Written case practice
- Giving and receiving feedback

#### DAY 3

- Patient simulation pre-briefing
- Patient visits 1, 2, and 3
- Debrief as a larger group and disciplines

### Immersion Participants

Doctor of Pharmacy	5
Doctor of Nursing Practice	3
PhD in Counseling Psychology; MA in CMHC	5
Masters of Social Work	2



### NEEDS ASSESSMENT

- Southern New Mexico region experiences healthcare deserts and limited access to care
- IPE not taught across advanced HCP programs consistently
- Using HSSOBP® promotes integration of evidence-based practices and achievement of shared objectives

### APPLICATION OF HSSOBP®

- Use best practices in development and design of simulated IPE
- Basic Assumption: assumption of goodwill
- Decrease in cognitive load
  - Intentional redesign of standardized patient cases
  - Prebriefing
  - Intentional debriefing
- Faculty trained prior to IPE immersion

### CONCLUSION

- Faculty agreed that the inclusion of HSSOBP® created more intentional opportunities for check-ins and psychoeducation, alleviating some of the stress that comes with patient simulations
- Trainees reported the standards also allowed for more empathy and community building
- Recommendations for future IPE immersion to expand debriefing time to allow students opportunities for further exploration of IPE team communication



# Empathy in Action: Student Insights from the Community Action Poverty Simulation (CAPS)

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## Background

- The Community Action Poverty Simulation (CAPS) is designed to simulate the experiences of individuals and families living in poverty (Missouri Community Action Network, 2022)
- The objectives of the CAPS are:
  - **Promote Poverty Awareness** - During the simulation, role-play a month in poverty and experience low income families' lives.
  - **Increase Understanding** - After the simulation, you will unpack your learning and brainstorm community change.
  - **Inspire Local Change** - Together, you can be a voice to end poverty in your family, friends, and community.
  - **Transform Perspectives** - The ultimate goal is to shift the paradigm about poverty away from being seen as a personal failure and toward the understanding of poverty as structural, a failure of society.
- Students are tasked with interacting with various community agencies, students from other disciplines, and managing all financial and health related obligations for the "month." (Greenfield et al., 2024)
- The CAPS provides a pre- and post-simulation survey for students to complete
- Students from various disciplines across the campus participate each semester for different class requirements.

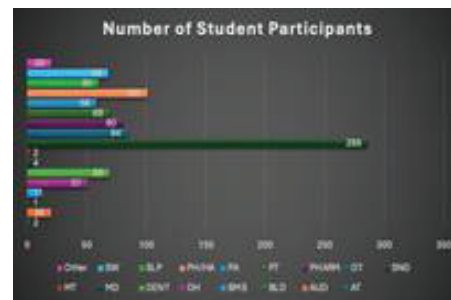
## Purpose

- To gauge student knowledge and perceptions following the simulation.
- To determine the extent to which knowledge gained aligns with the objectives of the simulation.



## Methods and Data Analysis

- Previously post-survey data collected from CAPS sessions from Spring 2023 through Spring 2025 were analyzed
- Question of interest: *What insights did you glean from the simulation?* (open-ended responses)
- A total of 987 responses included in qualitative analysis from students in 17 different disciplines
- Researchers initially reviewed responses to brainstorm descriptive codes and subsequently met to establish consensus of coding



## Preliminary Results

Table 1. Thematic Codes Derived from Open-Ended Responses to *What insights did you glean from the simulation?*

Code	Example Response
General difficulties of living in poverty	"It's a tough life"
Complexities of poverty	"Poverty is not simply having a low income, it's having difficulty managing every aspect of life with no feeling of relief."
Financial difficulties	"That it is very challenging to have to balance so many things to spend money on. There are also times in life that you get unexpected things you have to pay for like medical emergencies."
Psychological or emotional difficulties	"Poverty is all-encompassing and emotionally draining."
Lack of time	"Even once working and getting funds there is not enough time in a day to efficiently provide for family."
Empathy or compassion	"I learned to empathize and appreciate the struggles that people experiencing poverty face and to treat them with compassion & no differently than anyone else."
Better knowledge of resources available to help	"That as healthcare providers we can play a role in helping with poverty and educating on resources available in the community. I also gleaned that I will never be able to fully understand the struggles that someone in poverty actually goes through. For us this was a simulation but for others this is their life."
Crime or unlawful behavior	"I got great insight into the life of crime poverty could create."
Other	"Poverty cannot be simulated in an hour."

## Discussion

- Initial qualitative coding has shown that students have varying insights after participating in the CAPS
- Initial codes range from recognizing the difficulties and complexities of poverty to feelings of empathy and compassion and knowing more about resources to assist future patients
- Open-ended responses appear to show alignment with the CAPS objectives
- Next steps: 1) Search for initial themes; 2) Review themes; 3) Define and name themes
- Further analyses could explore themes by student discipline and could incorporate quantitative data from pre- and post-surveys to better understand the impact of the CAPS on student learning



## REFERENCES:

- Greenfield, J. T., Phillips, B., Hoffman, K. L., & Baugh, G. M. (2024). Enhancing Health Professions Students' Attitudes and Self-Efficacy to Care for Unhoused Populations. *Journal of Occupational Therapy Education*, 8 (3). <https://doi.org/10.26681/jote.2024.080306>
- Missouri Community Action Network. (2022). The community action poverty simulation. <https://www.povertysimulation.net/>



# Simulating Interprofessional Collaboration Across Time and Space: An Asynchronous Online Discussion Board Approach

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## BACKGROUND

- Interprofessional education (IPE) has often been criticized for both logistical complexity and disconnection from real-world clinical practice.
- This discrepancy between IPE and real-world practice creates an opportunity to explore novel educational interventions that support online asynchronous collaborations.
- However, little is known about how these teaching methods simulate real-world clinical practice.

## OBJECTIVES

- To implement and evaluate the feasibility of a novel asynchronous IPE intervention, which intentionally separated students both physically and temporally, relying on remote communication.
- To determine whether students experienced this form of collaboration, as a realistic simulation of the challenges intrinsic to interprofessional collaboration (IPC).

## METHODS

- A 4-week asynchronous activity centered around a clinical case was conducted with 339 pre-clinical medical, dental, and pharmacy students in 36 interprofessional teams.
- Using Miro®, students responded to weekly case-based questions.
- A post-activity survey assessed the feasibility of simulating IPC, exploring strengths, limitations, and challenges of asynchronous collaboration
- Thematic analysis leveraging word cloud generation was conducted using OpenAI ChatGPT-4o.

## PARTICIPATION

- 330/339 students participated (97%)
  - 134 medical students
  - 33 dental students
  - 173 pharmacy students
- 240/330 completed the survey (73%)

Sample Miro board:



**Week1 (9/11-9/12)**

**Case 1-1**  
Learning Objectives:  
By the end of this case, students will be able to:  
Review the various roles of the multidisciplinary healthcare team during an admission on the inpatient floor.  
Case Date: Complete by September 12th 7pm

**Case 1-1:**  
This case involves a resident physician - this is a physician-in-training who has graduated medical school but is still being supervised by an attending physician, who may or may not be physically present.  
Molly is an 8-year-old with a complex past medical history involving extensive care for pneumonia, due to her mother, who speaks Spanish. Molly was in the ER for 16 hours before she was able to get to the inpatient floor. During that time, she was started on IV antibiotics.

**Post Case Question:** Please answer the following question. Use the sticky notes to add your response below. Please put your name on each sticky note. All students are expected to post at least 1 response and at least 1 comment to other student's responses. You can help your team by contributing knowledge or details that may be specific to your professional training as a pharmacist or a medical student.

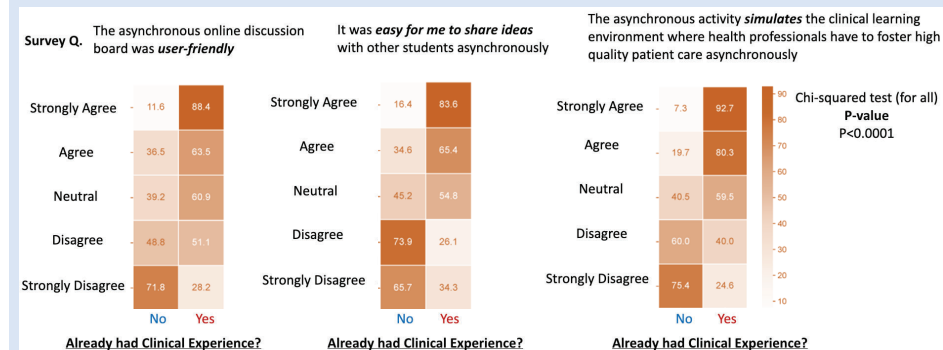
**Q. How do different health care professionals contribute to admitting Molly and how do their roles overlap? Consider professionals with and without direct patient contact.**  
Put your comment to other students' responses by clicking on the sticky note on the left and click again on the sticky note you want to comment.

**Example:** There are several different health care professionals that involve with patient admission - John Smith

**After finishing up the history and physical notes, the resident needs to be seen promptly to complete the admission. Since it is the middle of the night, she has to use the dual Spanish interpreter to complete the history with Molly's mother. The resident knows that Molly has trouble reading, so she gets all her medications and books on her parent's role. The resident notes in also in the exam during the majority of the admission and completes the admission medication reconciliation with the mother while the resident continues Molly's**

## RESULTS

### Influence of clinical experience on perceived feasibility + authentic simulation of IPC:



### Student Reflection: Strengths and challenges of an asynchronous curriculum:



## CONCLUSIONS

- This intervention was **feasible**, and qualitative data revealed that **learners gained practical insights into real-life collaboration and inherent communication challenges** when working on interprofessional teams.
- An asynchronous IPE intervention **effectively simulated** real-world interprofessional care, making it a valuable tool for educators across healthcare discipline.

# Using CUS to Speak Up: Interprofessional Simulation Across Three Health Care Professions

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## Needs Assessment

- ➔ This initiative aimed to design and implement a structured IPE program that brings together learners from three professional schools to engage in collaborative learning activities, enhance mutual understanding of roles, and build core competencies in team-based care.
- ➔ Early data tells us its highly rated by students/faculty and fully addresses objectives. However, created an unanticipated consequence of hierarchical bias.
- ➔ Due to its heavily resourced needs (1 hr of contact time over 18 sessions, 25 faculty and staff) Changed format and structure.

## Goals

Enhance Collaborative Practice Competencies

Develop Effective Communication Skills

Foster Mutual Respect and Professional Identity

Improve Patient-Centered Care Through Teamwork

Reduce Hierarchical Bias

Evaluate and Reflect on Team Performance

## Tool-CUS

I Am Concerned

I Am Uncomfortable

This is a Safety Issue

Generalizable across healthcare systems  
Common communication strategies across professions

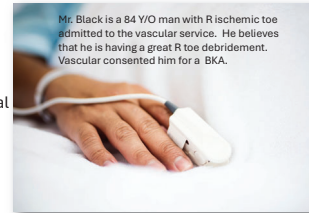
## Program Intervention

In a one-hour, scenario-based encounter, Medical, Nursing and PA students utilize common communication techniques used in the national TeamSTEPPS curriculum.

The CUS tool (keywords are Concern, Uncomfortable, Safety) is showcased to address a patient safety issue in a supportive learning space.

Resident “actors” portray distracted, dismissive, and hurried scripts to encourage students to “speak up” about a patient safety concern.

Students debrief at conclusion of scenario to discuss team performance and effective use of the tool to address safety concern.



Mr. Black is a 84 Y/O man with R ischemic toe admitted to the vascular service. He believes that he is having a great R toe debridement. Vascular consented him for a BKA.

- There has been an error in the patient's understanding of the informed consent.
- You are the PA/Intern/Nurse caring for Mr. Black, but you are not part of the surgical team.
- You have just witnessed the consent process (video).
- You just paged the surgery team to discuss the error and ask them to re-consent the patient. They will meet you in your workspace



Distracted Resident

Sim Round 1 – 1-2 minutes

Debrief with team and faculty



Dismissive Resident

Sim Round 2 – 1-2 minutes

Debrief with team and faculty



Hurried Resident

Sim Round 3 – 1-2 minutes

Debrief with team and faculty

## References:

<sup>1</sup> Interprofessional Education Collaborative national guidelines accessed 15 Sept 2024: <https://www.ipeducollaborative.org/ipeduc-core-competencies>

<sup>2</sup> Reeves SA, Denault D, Huntington JT, Ogline G, Southard DR, Vebell R. Learning to Overcome Hierarchical Pressures to Achieve Safer Patient Care: An Interprofessional Simulation for Nursing, Medical, and Physician Assistant Students. *Nurse Educ*. 2017 Sep-Oct;42(5S Suppl 1): S27-S31. doi: 10.1097/NNE.0000000000000427. PMID: 28852459.

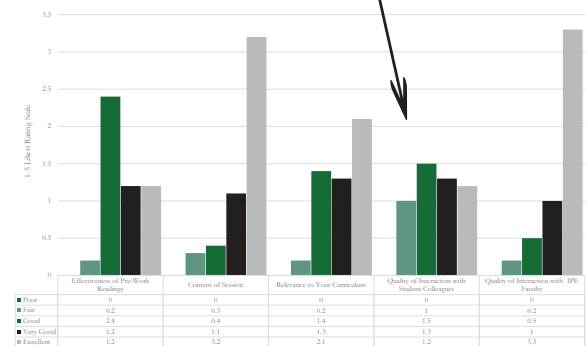
<sup>3</sup> Agency for Healthcare Research and Quality (AHRQ) TeamSTEPPS accessed 15 Sept 2024: <https://www.ahrq.gov/teamstepps-program/index.html>

## Project Evaluation

- ➔ 10 Q Formative Pre-Scenario Quiz regarding CUS/TeamSteps principles administered to measure initial knowledge
- ➔ Qualitative: Small group debrief for all participants addresses goals of scenario. Teamwork, Communication, Mutual Respect.
- ➔ Course evaluation poses three q's on participant satisfaction of scenario.

*Anecdotal comments suggested an unanticipated consequence of Hierarchical Bias.*

## Data N=1,168 Learners



## IPEC Core Competencies

FIGURE 7. IPEC CORE COMPETENCIES FOR INTERPROFESSIONAL COLLABORATIVE PRACTICE: VERSION 3 (2023)

- ➔ **Values and Ethics**  
Work with team members to maintain a climate of shared values, ethical conduct, and mutual respect.
- ➔ **Roles and Responsibilities**  
Use the knowledge of one's own role and team members' expertise to address individual and population health outcomes.
- ➔ **Communication**  
Communicate in a responsive, responsible, respectful, and compassionate manner with team members.
- ➔ **Teams and Teamwork**  
Apply values and principles of the science of teamwork to adapt one's own role in a variety of team settings.





# Determining the Effect of a Virtual Interprofessional Education Experience on Knowledge of Health Profession Students

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## SOUTH UNIVERSITY IPE

The IPE Committee consists of at least one rotating faculty member from each of the following programs: Nursing, Public Health, Pharmacy, Psychology, Clinical Mental Health Counseling, Anesthesia Science, Physician Assistant, Medical Assisting, Occupational Therapy Assistant, Physical Therapy Assistant, Healthcare Management.

## LITERATURE REVIEW

Literature supports interprofessional education (IPE) to promote collaborative practice, more successful patient outcomes<sup>1,4</sup> and caregiver satisfaction.<sup>2</sup> IPE is a requirement for many education healthcare accrediting bodies<sup>5</sup>, however, coordinating multiple healthcare professions (HP) for IPE can be challenging.<sup>5,6</sup> Virtual learning environments (VLE) are a growing part of healthcare education.<sup>7</sup>

## PURPOSE

The purpose of this study was to evaluate the effectiveness of multiple HP providing an orientation to their education, role in collaborative patient-centered care, and intervention plan for a case-scenario patient via a VLE. The study is significant because literature typically describes experiences with two to seven professions or utilizes a blend of asynchronous-synchronous methods to deliver content.<sup>7</sup> This research created a novel condition of combining students and faculty from up to 11 HP at the associate, bachelors, masters, and doctoral levels via a synchronous VLE.

## METHODS/DESCRIPTION

A convenience sample of South University system students were surveyed. Students were surveyed before (N=52) and after (N=23) the VLE via a Likert scale and free text survey inquiring knowledge of healthcare provider role (1-no knowledge, to 5-complete knowledge) and check-box of perceived education level (Associate to Doctorate) of ten South University HP programs. The 90-minute VLE, held at both a mid-day and evening session, included an introduction, pre-test survey completion, presentation including lecture of interdisciplinary terms, HP faculty representative videos explaining role and education, case discussion by all HP to demonstrate interdisciplinary care coordination and profession-specific treatment, chat room and video conference discussion of reflective questions, and post-test survey.

Following collection of pre- and post-test data, a two-tailed two-sample Z proportion test (unpooled) was used to determine students' knowledge of each HP education. A two-sample t-test assuming unequal variances due to pre- and post-test sample size was used to determine students' knowledge of scope. For both tests, students' values were removed for students of each discipline of inquiry if they were enrolled in that discipline of inquiry, and a p-value of 0.05 was used to determine significance.



**Table 1**  
*Pre- and Post-Test Means for Understanding Scope of Practice*

Discipline	Pre-test means for knowledge of SCOPE	Post-test means for knowledge of SCOPE	P-value for Pre-Post t-Test (two-tail) for SCOPE
Clinical Mental Health Counselor	1.9	3.33	0.000002526*
Physical Therapist Assistant	2.26	2.88	0.0223789618024382*
Occupational Therapist Assistant	2.04	2.91	0.000605735248186866*
Physician Assistant	2.75	2.96	0.484768581470022
Anesthesiologist Assistant	1.71	2.84	0.000543892*
Medical Assistant	2.31	3.09	0.00504720532765059*
Nurse	3.41	3.36	0.85395248708661
Pharmacist	3.1	3.39	0.274099066
Public Health	1.65	2.91	0.000008126*
Healthcare Management Administrator	1.75	2.83	0.000004341*

\*Denotes an increase that is statistically significant and not due to chance

## RESULTS

Statistical significance for increasing knowledge of scope was achieved for seven of ten HP presented. Values for increasing knowledge of each HP level of education was not significant.

## DISCUSSION

Information on education level may best be delivered via written means versus video explanation to increase student knowledge. With over two-thirds of referring practitioners reporting no academic education of interdisciplinary team roles, dissemination of this information is greatly needed.<sup>3</sup> Additional limits of this study include a small sample size and decreased participation in the post-test survey. The increase in knowledge of scope concurs with Showstark et. al.<sup>7</sup> This research can serve as a model for future studies and for creating VLE focusing on interprofessional collaboration with many HP for understanding roles and scope of practice and can be extended into best patient care practices.

## REFERENCES





## BACKGROUND

- To emphasize the importance of including patients as active members of the interdisciplinary healthcare team, Touro University (TU) integrated standardized patients (SPs) into Interprofessional Education (IPE) events.
- Over the past year, IPE leaders across medical disciplines have developed IPE case discussions where students collect patient information via SP interviews, "order" labs and other diagnostic data from faculty, obtain results, and develop a unified interdisciplinary treatment plan.

## NEEDS ASSESSMENT

- IPE planning sessions revealed a key gap in the interdisciplinary healthcare team: the patient perspective.
- Students need more practice in patient-centered communication.
- Studies show that the Interprofessional Standardized Patient Experience improved teamwork and role clarity.<sup>1</sup>
- To address this need, SPs were added to IPE events to simulate realistic care.

## OBJECTIVES

- Demonstrate how SPs can be effectively integrated into interprofessional health education to simulate realistic, collaborative care encounters.
- Illustrate how SP-based learning experiences enhance communication, empathy, and teamwork among students from diverse health professions.
- Highlight the role of SP encounters in fostering patient-and caregiver-centered care, emphasizing respect for values, preferences, and shared decision-making.
- Share lessons learned and best practices for designing, implementing, and assessing SP scenarios within interprofessional curricula.

## INTERVENTION

- Multi-version patient cases; facilitator guide and SP scripts developed by IPE lead instructors
- Cases are missing key information that students are expected to ask or inquire about with the patient and caregivers
- Students are instructed to discuss the cases using their unique perspectives prior to conducting clinical interviews with SPs
- As a last step, students discuss assessment and treatment with the SP



## RESULTS

- After each IPE event, faculty and SPs debrief for qualitative insight into the event's effectiveness and areas for improvement.
- SPs consistently report improvement in communication skills across the event.
- Students state the experience feels realistic and builds empathy and patient-centered communication skills.
- Evaluation is formative (post-event debriefs and student reflections) and summative (term-end surveys).
- Benchmarks include SP feedback and ≥80% positive student responses.

## SAMPLE ITINERARY

- |                  |  |
|------------------|--|
| <b>1:30-2:00</b> | Welcome and Introductions to Small Group Teams + Ice Breaker |
| <b>2:00-2:30</b> | Discuss Patient Case   |
| <b>2:30-3:15</b> | Move to Assigned Small Group Room to Interview Patient       |
| <b>3:15-3:45</b> | Finalize Assessment/Plan                                     |
| <b>3:45-4:00</b> | Communicate Assessment/Plan with Patient                     |
| <b>4:00-4:30</b> | Small Group Feedback   |
| <b>4:30-5:00</b> | Return to Main Room for Large Group Debriefing               |

## LESSONS LEARNED AND FUTURE DIRECTIONS

- Need quiet environment for small group discussion
- Incorporate discussion time without patient present
- Allow time for feedback from faculty facilitator and SP
- Facilitator and SP meetings are helpful to explain materials, answer questions, and set expectations
- Incorporate SPs in virtual IPE events to simulate telemedicine

## FEEDBACK FROM STUDENTS AND FACULTY

- From pharmacy student: "Working with a [SP] made the experience feel more realistic than just reading a case. It pushed me to practice my communication skills and think on my feet. I had to adjust the way I spoke to make sure the patient could understand me, and that helped boost my confidence in both collaboration and patient interaction"
- From faculty facilitator: "Having realistic patient interactions adds significant value to the learning experience and better prepares students for real-world practice."

## REFERENCES

1. Van Hooser, J., Harden, R. M., Vail, M., Friedrichsen, S., Lieberz, D., Mattson, S., & Onello, E. (2024). The Interprofessional Standardized Patient Experience: An Effective Interprofessional Education Activity for Prelicensure Health Professional Students. *MedEdPORTAL: the journal of teaching and learning resources*, 20, 11410. [https://doi.org/10.15766/mep\\_2374-8265.11410](https://doi.org/10.15766/mep_2374-8265.11410)



Development and Assessment of a Capstone Interprofessional Education Experience Incorporating a Simulated Patient Representative

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Introduction

- Challenges exist in creating and assessing a quality interprofessional education (IPE) cumulative activity that simulates a diverse care team with inclusion of a patient or patient representative.
- This project sought to address this challenge by creating a competency-based IPE capstone simulation that integrates a variety of care team members, including a patient's family member.

Methodology

- Simulation development
  - Learners were assigned to an interprofessional team tasked with reviewing a transition-of-care patient case.
    - Case A: Stroke
    - Case B: Respiratory failure secondary to COVID-19
  - Learners met as a team, including a simulated family member role-played by a standardized patient, to develop goals and a patient care plan.
- Assessment
  - Faculty evaluated competence:
    - Team and individual learner performance was evaluated using a rubric (QR-code) derived from the 2016 Interprofessional Education Collaborative (IPEC) competency statements.<sup>1</sup>
    - Standardized patients provided verbal feedback to teams on patient perceptions of care inclusion.
  - Learner rated self-efficacy:
    - Individual self-efficacy was rated post activity, using the Interprofessional Education Collaborative Competency Self Efficacy Tool 9<sup>2</sup> (IPECC-SET 9), modified to a 10-point Likert scale.
- Data collection and analysis
  - Project was reviewed as exempt by VCOM (2024-201) and USC Upstate (STUDY00000201) IRBs.
  - Longitudinal data collected from three consecutive years, from 2022-2024, was de-identified for analysis.
  - Exact chi-square, Wilcoxon signed-rank and Kruskal-Wallis tests were used for analyses.



Integrating a family member as a part of the care team within a multi-institutional IPE capstone simulation fostered collaboration and enhanced learner outcomes within interprofessional competencies.



Figure 1: IPECC-SET 9 Learner Self-Efficacy Ratings<sup>1</sup>  
(mean ± standard deviation)

- Teams and Teamwork (TT)**
- TT11: Perform effectively on teams and in different team roles in a variety of settings (9.19 ± 1.14)
  - TT3: Engage other health professionals appropriate to the specific care situation in shared patient-centered problem-solving (9.32 ± 1.05)
  - TT7: Share accountability with other professions, patients, and communities for outcomes relevant to prevention and health care (9.34 ± 1.03)
  - TT2: Develop consensus on the ethical principles to guide all aspects of patient care and teamwork (9.41 ± 1.03)

- Interprofessional Communication (CC)**
- CC7: Recognize how one's own uniqueness, including experience level, expertise, culture, power, and hierarchy within the healthcare team, contributes to effective communication, conflict resolution, and positive interprofessional working relationships (9.35 ± 1.01)
  - CC3: Express one's knowledge and opinions to team members involved in patient care with confidence, clarity, and respect, working to ensure common understanding of information and treatment and care decisions (9.32 ± 1.01)
  - CC5: Give timely, sensitive, instructive feedback to others about their performance on the team, responding respectfully as a team member to feedback from others (9.25 ± 1.11)
  - CC2: Organize and communicate information with patients, families, and healthcare team members in a form that is understandable, avoiding discipline-specific terminology when possible (9.21 ± 1.18)

- Roles and Responsibilities (RR)**
- RR2: Recognize one's limitations in skills, knowledge, and abilities (9.33 ± 0.98)

Table 1: Factors Associated with Learner Competency Achievement				
Variable	Level	Achieved All Competencies (n=841)	Did Not Achieve ≥ 1 Competency (n=30)	p-value*
Case Subject	COVID-19	385 (95.06 %)	20 (4.94 %)	0.026
	Stroke	456 (97.85 %)	10 (2.15 %)	
Group Size	5-6	122 (96.06 %)	5 (3.94 %)	0.791
	7-8	719 (96.64 %)	25 (3.36 %)	
Learner Educational Institution	MBCON	136 (93.79 %)	9 (6.21 %)	0.047
	PCSP	75 (98.68 %)	1 (1.32 %)	
	VCOM	468 (97.7 %)	11 (2.3 %)	
	WUSOP	162 (94.74 %)	9 (5.26 %)	
Moderator Educational Institution	MBCON	153 (97.45 %)	4 (2.55 %)	0.576
	PCPA	32 (94.12 %)	2 (5.88 %)	
	PCSP	196 (97.03 %)	6 (2.97 %)	
	VCOM	296 (97.05 %)	9 (2.95 %)	
Time of Participation	WUSOP	164 (94.8 %)	9 (5.2 %)	0.099
	Morning	439 (97.56 %)	11 (2.44 %)	
	Afternoon	402 (95.49 %)	19 (4.51 %)	

MBCON = Mary Black College of Nursing; PCSP = Presbyterian College School of Pharmacy; VCOM = Edward Via College of Osteopathic Medicine; WUSOP = Wingate University School of Pharmacy; PCPA = Presbyterian College Physician Assistant Program  
\*Exact Chi-square

Results

- 871 participants over 3 consecutive years
  - Participants included 479 osteopathic medical students, 145 nursing students, and 347 pharmacy students.
- Faculty evaluated competence
  - 841 participants (96.6%) displayed achievement across all four IPEC competencies.
  - Factors associated with failure to achieve at least one competency included clinical case assigned and educational institution (Table 1).
- Learner rated self-efficacy
  - 676 learners provided self-efficacy reflection data (77.6%), with mean confidence levels for each assessment item indicating high self-efficacy (Figure 1).
  - Statistically significant variance between self-efficacy scores was also seen based on clinical case assigned (Figure 2) and institution (Figure 3).

Figure 2: Clinical Case and Self-Efficacy Scores

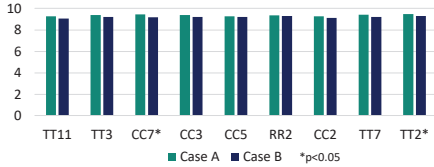
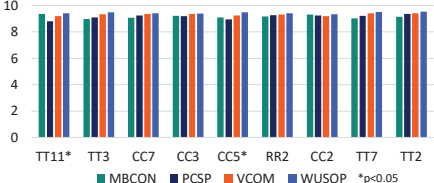


Figure 3: Learner Institution and Self-Efficacy Scores



Discussion

- This simulation highlights the importance of incorporating a patient or patient-representative as a part of the healthcare team to allow learners to practice inclusion of these members in the development of patient-centered care plans.
- Assessment tools utilized in this project have inherent limitations.
- Point of progression in training and case-related factors may impact interprofessional competence and self-efficacy.
- Data indicates opportunities for improvement in clinical case content and assessment tools.

References  
1. Interprofessional Education Collaborative. (2016). Core competencies for interprofessional collaborative practice: 2016 update. Washington, DC: Interprofessional Education Collaborative.  
2. Kottorp, A., Keehn, M., Hasnain, M., Gruss, V., & Peterson, E. (2018). Instrument Refinement for Measuring Self-Efficacy for Competence in Interprofessional Collaborative Practice: Development and Psychometric Analysis of IPECC-SET 27 and IPECC-SET 9. *Journal of Interprofessional Care*, 33(1), 47–56. <https://doi.org/10.1080/13561820.2018.1513916>

## Being Stroke “SMART” Through Interprofessional Education: Supporting Multidisciplinary Assessment, Recovery, and Treatment

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### Background

Stroke care requires rapid, coordinated decision-making due to its significant impact on patient function and quality of life. Despite the interprofessional nature of stroke management, health professions curricula are often delivered with a discipline-specific focus that limits opportunities for shared clinical decision-making and collaborative learning. As a result, learners may enter their professions without adequate exposure to team-based scenarios where role clarity and effective communication directly impact patient outcomes. To address this educational gap, an asynchronous interprofessional simulation was developed to mirror the real-world collaboration required in acute stroke care, from emergency evaluation and thrombolytic decision-making, post-treatment monitoring, medication management, and discharge planning. This activity enhanced learners’ preparedness for being an active member of a patient care team.

### Objectives

1. Promote interprofessional collaboration and role understanding in acute stroke management.
2. Reinforce structured communication using the situation, background, assessment, recommendation (SBAR) framework.
3. Enhance clinical decision-making and care coordination from emergency to post-acute care settings.
4. Develop patient centered discharge plans with emphasis on follow up and secondary prevention.
5. Increase student confidence in interdisciplinary teamwork and communication.

Figure 1: Methods

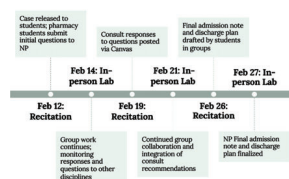


### Phase 1: Needs Assessment

- Barriers such as scheduling between disciplines and campus space limit synchronous interprofessional education (IPE) opportunities.
- An asynchronous, simulation-based IPE activity provided opportunities among four disciplines for interprofessional learning with emphasis on reinforcing role clarity, promoting communication using the SBAR framework, and preparing students to deliver patient-centered care.

### Phase 2: Simulation Design

Figure 2: Timeline for PharmD Students



- Students from pharmacy, acute care NP, PT and nursing programs participated in a simulated complex case involving a 76-year-old patient with an acute left MCA stroke.
- Students were placed into 10 groups in a shared course in the learning management system (Canvas) utilizing a discussion board for communication. Nursing students reviewed the case and correspondence to learn more about other roles.
- Each profession asked clinical questions to the other disciplines and provided written progress notes. See figures 3 and 4.
- The simulation followed a stepwise timeline from initial emergency assessment to post-thrombolytic monitoring and discharge planning.
- The asynchronous format allowed groups to research clinical questions and make evidence-based recommendations.

Figure 3: Group #1 NP and PharmD Q+A Example

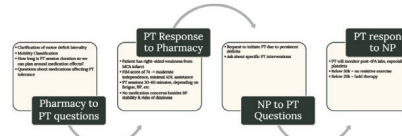
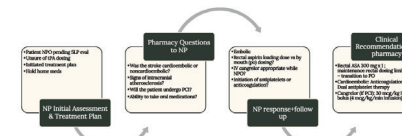


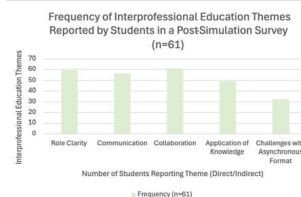
Figure 4: Group #2 PT/NP, PT/PharmD Q+A Example



### Phase 3: Data Collection

- At the conclusion of the simulation, students completed structured reflections and a post-activity survey measuring confidence in interprofessional teamwork, understanding of roles and responsibilities, and perceived readiness for collaborative practice.
- Learning management system (LMS) analytics and discussion board metrics were used to quantify interaction patterns and response frequency.
- Pharmacy students were also evaluated by peers on their group work participation using an AI-assisted feedback tool.

Fig. 5: Frequency of IPE Themes reported by PharmD Students



### Phase 4: Data Analysis

Figures 6 and 7: PT/PharmD/NP Survey Results

The project provided a realistic view of interprofessional teamwork in clinical practice.

Strongly AGREE	22 respondents	23 %	
Agree	51 respondents	54 %	
Neutral	17 respondents	18 %	
Disagree	3 respondents	3 %	
Strongly DISAGREE	1 respondent	1 %	

I feel more confident in collaborating with healthcare professionals from different disciplines.

Strongly AGREE	20 respondents	21 %	
Agree	58 respondents	62 %	
Neutral	13 respondents	14 %	
Disagree	3 respondents	3 %	
Strongly DISAGREE		0 %	

### Conclusions

This IPE simulation involving acute care NP, PT, pharmacy and nursing students resulted in improvements in teamwork, clinical reasoning and communication skills. Participants reported a greater appreciation of other roles and increased confidence in collaborating in clinical decision-making. While asynchronous discussion supported realistic scenarios, students recommended incorporating hybrid or live components to simulate real-time collaboration. Overall, findings support the use of IPE models to prepare future healthcare professionals for team-based practice, especially in high-acuity disease states.

Scan the QR Code for figures and references.



# Finding True North Through Shared Journeys: Travel Consults as a Pathway to Interprofessional Education

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## Background

The Pitt Vaccination and Health Connection Hub (The Hub) has a dual mission - to instill the value of interprofessional practice among learners from all six health sciences schools at the University of Pittsburgh while providing high-quality preventive health services to our community.

At The Hub, students are involved in all aspects of patient care with the oversight of precepting pharmacists. Vaccinations comprise most patient encounters, with more experienced students teaching newer learners injection technique, needle safety, and patient interaction skills. Wellness screenings for Pitt staff and faculty are also performed by students of varying levels.

Most recently, travel consults have proven to be a unique learning opportunity by which students from different health science schools work together to provide often complex patient-centered care. Standardized cases are also used, and preceptors can adjust patient travel, medical needs, vaccine history, and medications details to match the clinical complexity to the level of participating learners.

We aim to evaluate the students' competency perception in multiple dimensions of interprofessional team-based care. We are also evaluating patient motivation to seek complex clinical care at an interprofessional learning site.

Table 1: Health services completed at The Hub.

Hub Services	Encounters April-Oct 2025
Travel consultations	116
Wellness screening	180
Vaccinations	8,900

## Methods

Student complete exit surveys at The Hub to evaluate their interprofessional efficacies at the end of their time at the Hub.

Patients are asked to complete satisfaction surveys after they receive care in The Hub.

## Results: Students

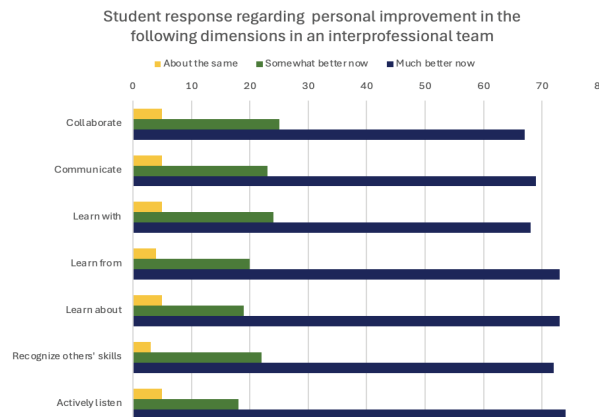


Figure 1: Student responses in exit survey regarding their perception of growth in interprofessional traits.

Ninety-seven student exit surveys were completed between April - October 2025. Nearly half of the students (42%) who participated in travel consults described them as the most meaningful Hub learning experience, and nearly all students consistently rated their interprofessional team dimensions higher after their time at The Hub (Figure 1).

***"My experience will definitely make me better prepared to work on an inter-professional healthcare team."***

## Results: Patients

200 patient surveys were completed between April - October 2025. 152 patients (77%) chose to come to the Hub for their care because they like being part of the student learning experience (Figure 2).

***"The students are kind and great [to] work with. I love that [The Hub] has created an environment where aspiring clinicians can learn how to build patient rapport and administer injections."***

Patients feel that having a student present in their care adds value to their own experience as they provide students a learning opportunity in a well-structured environment such as a travel consult.

***"Having pharmacists...and pharmacy students as well as all the support staff...was [a] timely, convenient and comprehensive [experience]"***

## Conclusion

Early, structured interprofessional experiences as provided through The Hub's travel consultation and other services enhances collaboration skills, clinical reasoning, and appreciation of professional roles—preparing students to be members of a high functioning interprofessional patient-centered care without reducing patient satisfaction.

Table 2: School affiliations of students who spent time at The Hub and completed an exit survey since April 2025.

Health Sciences School	Number of Students (n = 97)
Arts and Sciences	3 (3%)
Dental Medicine	9 (9%)
Medicine	13 (13%)
Nursing	17 (18%)
Pharmacy	28 (29%)
Public Health	7 (7%)
Health and Rehabilitation Sciences	17 (18%)
Did not disclose	3 (3%)

## Survey quotes

Patients who chose to utilize services with the Hub because they like being a part of the student learning experience while receiving a service

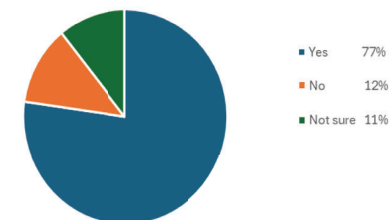


Figure 2: Patient responses about their choice to use The Hub based on student presence.