

### Background

- With the integration of interprofessional education (IPE) into many different health profession accreditation standards, many health professional schools have identified the need to provide faculty development to ensure faculty are equipped to teach and evaluate IPE.<sup>1</sup>
- Experts recommend utilizing educational methods grounded in adult learning theories incorporating peer learning, reflection, and feedback. Additionally, faculty learners should be educated in interprofessional teams that model interprofessional collaboration.<sup>1</sup>
- There is limited literature describing or evaluating effective faculty development programs with learning outcomes.<sup>1,2</sup>

### Objective

- To describe the design and evaluation of interprofessional education (IPE) teaching certificate for faculty and clinicians at Temple University.

### Design of Teaching Certificate

- Members of the IPE Committee distributed a flyer with the teaching certificate announcement to faculty and clinicians within their respective colleges and departments to recruit participants.
- The teaching certificate consisted of three 2.5-hour modules (see below).
- Module content was based on the Train-the-Trainer (T3) Interprofessional Faculty Development Program presented by University of Virginia.
- Pre-reading and online learning activities were assigned in order to utilize active learning strategies during each module.
- Participants completed a reflection and evaluation survey via Qualtrics at the end of each module.
- Participants who complete all 3 modules were honored and awarded a certificate at a reception.

Pre-reading:	<ul style="list-style-type: none"> <li>Interprofessional Education Collaborative (IPEC) Expert Panel (2011 &amp; 2016). Core competencies for interprofessional collaborative practice: Report of an expert panel. Washington, D.C.: Interprofessional Education Collaborative.</li> <li>Salas E, Lazzara EH, Benishke LE, King H. On Being a Team Player: Evidence-Based Heuristic for Teamwork in Interprofessional Education. <i>Med Sci Educ</i> 2013; 23(3S): 524-531.</li> </ul>
Pre-work: create an account (free) at nexusipe.org to complete the learning modules below (account required for access)	<ul style="list-style-type: none"> <li>Introduction to Interprofessional Collaboration: <a href="http://healtheducation.umn.edu/nexus/ipintro/index.php?stamp=1461424227&amp;sig=fc6d6af91c">http://healtheducation.umn.edu/nexus/ipintro/index.php?stamp=1461424227&amp;sig=fc6d6af91c</a></li> <li>Enhancing Interprofessional Practice &amp; Education at Your Site: <a href="http://healtheducation.umn.edu/nexus/ippe/site/index.php?stamp=1461430013&amp;sig=d3b7596e5a">http://healtheducation.umn.edu/nexus/ippe/site/index.php?stamp=1461430013&amp;sig=d3b7596e5a</a></li> </ul>
Active learning strategies: Icebreaker, ZOOM Team Formation and Team-building Exercise, Interprofessional Pictionary	
Pre-reading:	<ul style="list-style-type: none"> <li>Review 10 Tips for Interprofessional Facilitation: <a href="http://healtheducation.umn.edu/nexus/ipfacilitator/index.php?stamp=1461425231&amp;sig=6886b3c4f9">http://healtheducation.umn.edu/nexus/ipfacilitator/index.php?stamp=1461425231&amp;sig=6886b3c4f9</a></li> <li>Ruiz (2013) Exploring the nature of facilitating interprofessional learning findings from an exploratory study</li> </ul>
Pre-work: complete the online module at nexusipe.org	<ul style="list-style-type: none"> <li>Interprofessional Precepting: Best Practices: <a href="http://healtheducation.umn.edu/nexus/ippreceptor/index.php?stamp=1461428658&amp;sig=b1fe6a968a">http://healtheducation.umn.edu/nexus/ippreceptor/index.php?stamp=1461428658&amp;sig=b1fe6a968a</a></li> <li>After watching examples of Interprofessional Precepting: Best Practice Tips, reflect on how you could incorporate these tips into your current practice</li> </ul>
Active learning strategies: Role Playing Facilitating Interprofessional Discussions, Assessing Core Competencies Team Activity	
Pre-reading:	<ul style="list-style-type: none"> <li>Rudolph, J. W., Simon, R., Rivard, P., Dufresne, R. L., &amp; Raemer, D. B. (2007). Debriefing with good judgment: Combining rigorous feedback with genuine inquiry. <i>Anesthesiology Clinics</i>, 25(2), 361-376. doi:10.1016/j.anclin.</li> <li>Rudolph, J. W., Simon, R., Dufresne, R. L., &amp; Raemer, D. B. (2006). There's No Such Thing as "Nonjudgmental" Debriefing: A Theory and Method for Debriefing with Good Judgment. <i>Simulation in Healthcare</i>, 1(1), 49-55.</li> <li>Pettit, A.M., Duffy, J. (2015). Patient Safety: Creating a Culture Change to Support Communication and Teamwork. <i>The Journal of Legal Nurse Consulting</i>, 26(4), 23-26.</li> </ul>
Pre-work:	<ul style="list-style-type: none"> <li>Watch video: AIR CRASH of Flight KLM 4805 &amp; Pan AM 1736: <a href="https://www.youtube.com/watch?v=MV9ZH7QILA">https://www.youtube.com/watch?v=MV9ZH7QILA</a></li> </ul>
Active learning strategies: Video demonstrations of "good" and "bad" debriefing techniques and TeamSTEPPS strategies for effective IP communication	

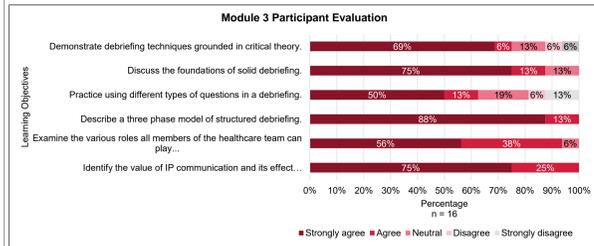
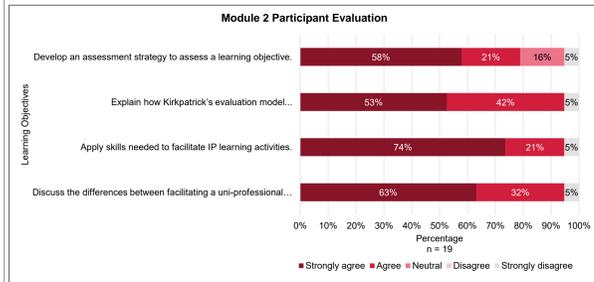
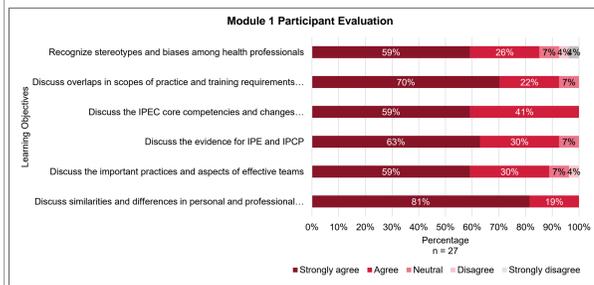
### Assessment & Evaluation of Teaching Certificate

#### Data Collection and Analysis

- Participant reflections and feedback for each module were collected via question prompts with essay responses.
- A qualitative thematic analysis was conducted on narrative responses to identify themes in the data.
- Two authors independently coded the narrative responses and then met to discuss themes that emerged utilizing a consensus process to crystallize thematic statements.

#### Assessment

- 33 participants (14 pharmacists, 5 nurses, 3 PTs, 2 athletic trainers, 2 dentists, 2 physicians, 2 OTs, 1 certified therapeutic recreation specialist, 1 social worker, 1 podiatrist) completed the teaching certificate.



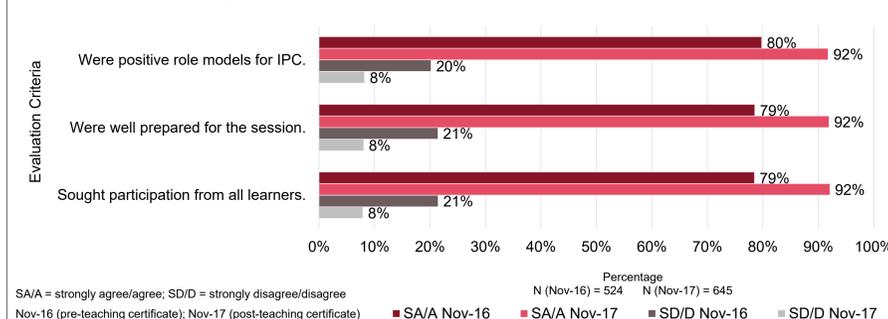
Module 1 Emergent Themes	Supporting Statements
<b>Icebreaker</b> Professions share more similarities than differences Fostered collaboration Effective activity for student learners	"Professions are all much more alike than we are different. (We are more alike, my friends, than we are unlike -Maya Angelou)" "...acknowledging those similarities in each fosters collaborative and comprehensive patient care." "I think it is important to have students realize that health professionals have common goals- will use it in a practical situation with learners from different professions."
<b>ZOOM</b> Shared leadership Shared values and ethics Seeing the forest AND the trees Team-building Communication	"This activity actively demonstrated how leadership, and most importantly shared leadership, can effectively lead to collaboration to solve a problem. I also found it interesting to see how at different moments different leaders stepped up to progress the solving of the problem." "...everyone needs to share the vision!" "Another concept was looking at a task/situation through a dual lens- one must focus on the details of the problem without losing sight of the big picture." "I found it most interesting that when our professional roles were taken out of the equation, the team work and listening skills were so successful! It reinforces the need to take "step" or professional aside out of interprofessional interactions." "I think the biggest take home from the ZOOM activity would be the importance of effective communication accompanied by active listening. Both are essential aspects of a productive, efficient team." "I learned that it's important to broaden your horizon and not maintain a myopic view when treating patients. You need to be aware of our unique role in patient management while ensuring that you engage other health care professionals with distinct roles that will improve patient outcomes." "I think it would be great to do with students so they really see how there's always a bigger picture."
<b>Roleplay</b> Effective activity for student learners	"I learned that it's important to broaden your horizon and not maintain a myopic view when treating patients. You need to be aware of our unique role in patient management while ensuring that you engage other health care professionals with distinct roles that will improve patient outcomes." "I think it would be great to do with students so they really see how there's always a bigger picture."
<b>Interprofessional Pictionary</b> Stereotypes Gained knowledge of other healthcare professionals Valuable experience Teamwork Impact on practice Effective activity for student learners	"There are stereotypes for all of our professions. It is important for students to be aware of other professions roles and scope of practice." "...learned about scope of practice and makes me more aware of the training and capabilities of other health professionals" "The Pictionary activity was a really fun way to end the day." "Everyone in the group was a contributor, utilizing their talents and knowledge in one form or another." "This should be applied in practice also, by appreciating everyone's strengths." "I realized many individuals did not know my profession's scope of practice; reiterated the importance of educating all of our students to advocate for their respective professions"

Module 2 Emergent Themes	Supporting Statements
<b>Need to Enhance IP Facilitator Skill</b> Student-driven vs. facilitator-driven discussions Facilitators feeling unprepared to answer questions Finding the right words Setting the stage and creating a safe environment Responding to group dynamics	"Encouraging students to learn from each other and to just facilitate discussion. I find that hard to do because I'm so used to leading, that now I need to just facilitate the student's discussion and have them lead the conversation." "Dropping my high expectations of myself to know more in other disciplines, especially deep medical knowledge; my medical knowledge is more narrow and specific to my profession. So, not "feeling stupid" by not having all the answers with students." "Finding the right words to use in different situations while facilitating: "I tend to either avoid situations that may be potentially confrontational or approach them head-long without reflecting on the situation first." "Identify the different professions that are represented prior to starting an IPE event and create an environment of mutual respect for the roles and expertise each brings to the table." "Responding to the group dynamics and encouraging input from the quiet students. I feel it can be difficult to do this in a large group."
<b>Activity with Most Impact on Future Teaching/Practice</b> Kirkpatrick's model for assessment Practicing real-life scenarios Student-driven vs. facilitator-driven discussions	"I feel that the Kirkpatrick Model of assessment is very pragmatic and has great application to the health professional. I feel like it would be a great model to adapt even in a non-professional course or curriculum." "The "finding the right words" portion of the module will most impact my practice. I found it stimulating and challenging to actually verbalize the exact words I would use in each of the various situations. This was the most helpful part of the module." "Encouraging student-driven discussions during workshops I learned that student-driven interactions improve learning and learn-work during workshops as compared to facilitator controlled or driven workshops."
<b>Intentions for Enhancing IP Precepting</b> Improving facilitator skills (e.g. preparation, respect, co-facilitation, participation from all, etc.) and ensuring appropriate phases of facilitation (e.g. expectations, introductions, reflection, debriefing and summary) Student-driven vs. facilitator-driven discussions	"The tips that I found most valuable were the following: 1) Understand and respond to group dynamics: I feel that I will better be able to monitor the situation and identify students that may be more or less likely to voice their opinions. Now that I am able to recognize cultural dynamics of different groups, I will be able to facilitate in a more effective manner, by encouraging the active participation of all group members. 2) Encourage diplomacy and allow for various opinions: I now feel better prepared to effectively monitor the situation and assess the appropriate time to "intervene" if necessary. Overall, there are effective ways to help guide the conversation and maintain respect, while also allowing the conversation to be student-driven, instead of facilitator-driven. 3) Allow for various opinions, maintain neutrality and sensitivity: I am now more aware of my own tendency to "jump in" and defend my own profession, or to voice my own insights, vs. encouraging discussion amongst the group. I practiced phrasing my own input in a way that encourages students to share their insights without fear of repercussions, while also ensuring that all students feel heard and respected." "Instead of "preaching" about what should be done how we should approach things, pose questions and/or create conversation that facilitates discussion."

Module 3 Emergent Themes	Supporting Statements
<b>Enhance Debriefing Skill</b> Process/structure of debriefing Debriefing with good judgement- par advocacy with inquiry Student-driven vs. facilitator-driven discussions Challenges encountered	"I like the idea of dividing debriefing into emotional reactions, content analysis, and summary phases. This structure gives credibility to all phases, especially the emotional reactions which are important and often overlooked. I want to practice deliberately highlighting these aspects." "I would like to more effectively be able to use "advocacy and inquiry" as a debriefing technique. I connected with the notion that often the Socratic method of inquiry leads learners to become confused yet it is the method that I most often learn while precepting and teaching in the didactic setting. It was a technique that was often used by my teachers/preceptors so I feel the most comfortable using it. I see the value in using the advocacy/inquiry approach and would like to practice using this model." "Allow students to take control of debriefing session by talking less as the facilitator." "I would like to enhance the skill of keeping participants on track and contributing to the group. Sometimes it can be difficult to redirect students especially if they are not in your discipline."
<b>Activity with Most Impact on Future Teaching/Practice</b> Debriefing template for structured approach Skills translate to other teaching/precepting settings Introduction to TeamSTEPPS Reflection	"I plan on using the 3 stage debriefing model in the future to ensure to ensure that I keep things structured as well as reflective." "Learning about debriefing skills and effective ways to carry this out will help me not only in IPE but in many of my interactions with students on a smaller scale whether during a topic discussion or in recreation." "I really enjoyed the introduction to the STEPPS program and some of the different tools to aid in communication. These are easy strategies to incorporate into clinical practice (and even everyday life) and can immediately improve communication." "I have a professional interest in self-reflection and have read multiple theories/techniques but have not yet come across her theory of debriefing with good judgement/using advocacy inquiry. Know that I was introduced to Rudolph's theory. I plan to read more and try to apply it to my teaching and precepting."

Participant Feedback	Module 1	Module 2	Module 3
What went well?	<ul style="list-style-type: none"> <li>Engaging active learning reinforced concepts</li> <li>Great discussion and facilitation</li> <li>Created a safe environment</li> </ul>	<ul style="list-style-type: none"> <li>Great discussion and facilitation</li> <li>Interactive and engaging</li> </ul>	<ul style="list-style-type: none"> <li>Facilitator's stories and expertise</li> <li>Detailed slides/handout</li> </ul>
What could be improved?	<ul style="list-style-type: none"> <li>Time management</li> <li>Larger space/room for activities</li> <li>Clearer goal and debrief for Pictionary</li> </ul>	<ul style="list-style-type: none"> <li>Time management</li> </ul>	<ul style="list-style-type: none"> <li>More active learning</li> <li>Technology issues</li> <li>Time management</li> </ul>

#### Aggregate Student Evaluations of Facilitators for IPE Workshops



#### Evaluation of Outcomes

- Of the participants who completed the program, 82% volunteered to be facilitators for subsequent IPE workshops which are part of the IPE curriculum that is delivered to dental, nursing, medical, pharmacy, PT, OT, and podiatry students.

### Discussion

- We designed an IPE teaching certificate for faculty and clinicians at Temple University that included foundational knowledge and skills for teaching IPE.
- To assess and evaluate the teaching certificate, we asked participants to complete surveys after each module to reflect on key learnings and provided feedback.
- A majority of participants indicated that the learning objectives were achieved for each module.
- Participants' key learning included: professions share many similarities; team-building fosters shared leadership, facilitates communication and role clarity; important skills for facilitating include enabling student-driven discussions, creating safe environments, and responding to group dynamics; and debriefing with good judgement.
- Overall feedback for the teaching certificate was positive with many participants enjoying the active learning strategies, facilitation, and engagement of the audience; areas for improvement included better time management by possibly dividing the content to include a 4<sup>th</sup> module.
- Aggregate student evaluations indicated the teaching certificate improved faculty facilitation of IPE Workshops.
- Limitations
  - Results from our IPE teaching certificate may not be generalizable to other institutions or with different health professions
  - Survey response rates decreased with each module 81%, 58%, 48% and as a result the findings may not reflect the thoughts and opinions of all participants
  - Coders were both pharmacists which may affect the interpretation of the results
  - Aggregate student evaluations were of all facilitators for the workshops, some of which did not complete the teaching certificate

### Conclusions

- After completing this teaching certificate, participants gained important knowledge and skills for teaching and evaluating interprofessional groups.
- Aggregate student evaluations for IPE Workshops of faculty facilitators were more positive after implementation of the IPE teaching certificate.
- Implementing faculty development to ensure faculty are equipped to teach and evaluate IPE is critical to delivering a successful IPE curriculum.

### References

1. Abu-Rish Blakeney E, Pfeifle A, Jones M, Hall LW, Zierler BK. (2016). Findings from a mixed-methods study of an interprofessional faculty development program. *Journal of Interprofessional Care*, 30(1), 63-89. DOI: 10.3109/13561820.2015.1051615.  
 2. Raika A, Zorek JA, Meyer SM. (2017). Overview of faculty development programs for interprofessional education. *American Journal of Pharmaceutical Education* 2017; 81 (5) Article 96.

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