Peer Led Team Learning in a Foundational IPE Curriculum

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Abstract

BACKGROUND The Peer Led Team Learning (PLTL) instructional model utilizes Peer Leaders, advanced students who mentor and guide student teams to collaborate on applied course concepts.

PURPOSE To apply a modified PLTL model in the university's foundational, longitudinal, competency-based interprofessional education (IPE) curriculum.

METHODS Twelve Peer Leaders were selected, trained, and deployed as facilitators for interprofessional teams of students during the IPE curriculum's first three large-scale learning events. Peer Leaders completed an evaluation of training, a facilitation skills survey, and participated in a semi-structured focus group interview process.

RESULTS After participating in the PLTL program, Peer Leaders reported increased confidence in their interprofessional knowledge and facilitation skills. The primary challenge for Peer Leaders in facilitating teams was lack of student engagement (n=7, 58%).

CONCLUSION PLTL is a feasible model for IPE settings. It has the potential to both increase facilitator capacity in interprofessional learning activities and have a positive impact on Peer Leaders.

Introduction

A focus of the IPE Center at a large Midwestern university has been the development, implementation, and evaluation of a longitudinal, sequenced, foundational interprofessional curriculum for health professions' students across its campuses. This curriculum is intended to teach and assess the four nationally recognized interprofessional collaborative practice competency (IPEC, 2016) topic areas (Roles and Responsibilities, Values and Ethics, Teams and Teamwork, and Interprofessional Communication) across the Schools of Dentistry, Health and Human Sciences, Medicine, Nursing, Optometry, Public Health, Social Work and Pharmacy at the university and its partner institutions. During the academic year, thousands of students at campuses statewide engage in this curriculum, and on the university's large urban campus, hundreds of students participate in a single session.

The foundational IPE curriculum is composed of a series of learning experiences called Interprofessional Learning Anchors (IPLAs). Students advance through the curriculum over the course of their respective health professions' education program. IPLAs are common across all participating health-related professions; they include affinity-based events shared by two or more professions and a capstone interprofessional practice experience. Although the focus of the IPLAs vary, they uniformly include a 1) uniprofessional preparation prior to participating in interprofessional interactions; 2) an interactive component with students of multiple professions learning with, from, and about each other; and 3) and a post-event reflection. The curriculum includes formative and summative assessment elements and moves students systematically through several knowledge and skill levels (Exposure, Immersion, Entry to Practice) across the interprofessional competency areas.

IPE learning programs such as this have several well-recognized challenges, including scalability, sustainability, and prudent use of limited faculty resources. Due to the large-scale nature of IPLAs #1–3, student teamwork is directed by a session leader and one faculty member who serves as a facilitator for several teams of students. Based on the prior success of the Peer Led Team Learning (PLTL) model, we hypothesized that a PLTL program adapted for IPE may help address some of these issues by increasing facilitator capacity while concurrently promoting learning and interprofessional skills for both the Peer Leaders and the student teams.

Literature Review

The PLTL Workshop Model has been fruitful in undergraduate education across many institutions, particularly in anatomy, biology, chemistry, and physiology courses (Hewlett, 2004; Tenney & Houck, 2003; Wamser, 2006). Introduced in the early 1990s in large chemistry courses at the City College of New York, PLTL is a collaborative learning model emphasizing student interaction. The original goal of PLTL was to create an environment, through weekly workshops, where students could work in teams without direct faculty involvement but under the guidance of a trained student Peer Leader. In the workshops, teams of six to eight students are facilitated by a Peer Leader who has previously taken and excelled in the course (Synder & Wiles, 2015). The workshops focus on problems designed by the instructor and learning specialists; students work collaboratively in an active learning format to understand and solve the problems intended to reinforce course concepts (Woodward, Gosser & Weiner, 1993; Cracolice & Deming, 2001).

Prior to facilitating workshops, Peer Leaders complete intensive training in course concepts, pedagogical methods appropriate for group settings, leadership skills, and facilitation techniques. Peer Leaders are not content experts and do not teach; instead, they serve as trained mentors and role models to help other students develop their own understanding of the material (Snyder & Wiles, 2015). As such, Peer Leaders are uniquely positioned to support learning in a nonthreatening environment (Gosser, et al, 2000). Those selected for peer leadership are individuals who were previously successful in the course, are interested in helping other students learn, and have shown communication and leadership potential (Tien, Roth & Kampmeier, 2002; Quitadamo, Brahler & Crouch, 2009; Tenney & Houck, 2004). The community that is created by peer leaders, faculty, learning specialists, and the student learners is the engine that drives the PLTL Workshop Model.

The PLTL model is supported by several theoretical constructs, including social constructivism, which asserts that learners construct their own knowledge through experience and social interaction, such as found in the collaborative environment of the peer led group. Additionally, social learning theory undergirds the notion

that Peer Leaders can serve as intellectual and social role models and facilitate the scaffolding of knowledge for novice learners (Wilson & Varma-Nelson, 2016).

Since its introduction, studies have documented PLTL's effectiveness. An extensive literature review of PLTL found numerous positive outcomes for learners, including: improved course grades and exam scores, enthusiasm and confidence in the subject matter, and retention in the course (Wilson & Varma-Nelson, 2016). Snyder and colleagues (2016) found that engaging in PLTL narrowed the achievement gap between students enrolled and those not enrolled in an optional laboratory component of an undergraduate biology course. In another study, failure rates for underrepresented minority students were significantly reduced by participation in PLTL (Synder, Sloan, Dunk & Wiles, 2016). In a study of graduate nursing students who engaged in PLTL, White et al. (2012) found that learners perceived that the peer-led workshops created a safe learning environment, and Peer Leaders augmented group discussion.

Furthermore, PLTL benefits such as improved knowledge and confidence, teamwork skills, teaching and communication skills, and scholastic achievement have also been reported for the Peer Leaders themselves (Snyder & Wiles, 2015; Tenney & Houck, 2004; Johnson & Loui, 2009; Gafney & Varma-Nelson, 2002, 2007; Micari et al, 2006; Blake, 2012). Despite the benefits of PLTL, this approach has not been widely applied in interprofessional education (IPE). However, we hypothesized that PLTL would synergize well with the collaborative, small group, active learning environment that is the hallmark of IPE.

A small PLTL exploratory group composed of health sciences and IPE Center faculty, university PLTL experts, and learning specialists was established to investigate the potential of adapting the PLTL program for the IPE curriculum. In spring 2016, at the university's urban campus, an informal pilot of peer led facilitation was conducted with six students who had completed IPLA #3 in the fall and agreed to serve as facilitators in the spring sessions. They underwent a brief training using resources from the exploratory group and participated in anchor-specific training along with the faculty facilitators. Feedback from students and the peer facilitators was positive, so the IPE Center moved to formally initiate a PLTL program on the urban campus in the 2017–18 academic year. The PLTL program

sought to answer the questions: 1) Is the PLTL model a reasonable and sustainable tool to support interprofessional learning? 2) What impact does serving as a Peer Leader have on the Peer Leaders?

The purpose of this paper is to describe the implementation of PLTL in the IPE curriculum and Peer Leaders' perceptions of the program. We predicted that the Peer Leaders would report: 1) satisfaction with their training and support provided for their role, 2) increased self-efficacy working in and leading student teams, 3) an intention to integrate collaboration and/or teamwork in their future career, and 4) satisfaction with the experience of serving as a Peer Leader.

Methods/Activity Design

Procedures

In the fall of 2017, an internal grant was obtained to fund the PLTL program, and a call for Peer Leaders was distributed via email to health sciences program directors and students who had participated in the university's foundational IPE curriculum during the prior academic year. A recruitment announcement was also disseminated at the fall semester campus job fair and website. The announcement specified that Peer Leader applicants should have an interest in IPE and previous experience with interprofessional learning activities.

Applications received were reviewed by the IPE Center's faculty leaders and project staff. Criteria for interview and selection as a Peer Leader included: 1) prior completion of one or more interprofessional learning events, 2) a cumulative GPA of 3.0 or above, and 3) the ability to attend the mandatory workshop and training, evaluation activities, and at least one session of all scheduled campus IPLA events during the 2017–18 academic year. In addition to these selection criteria, because the Center partners with over a dozen health professions programs, having a cadre of Peer Leaders representing a diverse group of health professions was a key consideration. Secondarily, it was desirable to achieve, if possible, some diversity in the racial / ethnic and gender composition of the Peer Leader cohort.

Eighteen applications were received, and they were reviewed through an initial screening process, conducted by the IPE Center's faculty leaders and project staff. Five applications were eliminated because the applicant did not meet one or more of the criteria (e.g. no prior IPE

experience, low GPA).   Following the initial screening, the 13 remaining candidates were interviewed to ensure that they were available for all required elements of the program and that they had adequate interpersonal skills suitable for the position. One applicant was eliminated from consideration following the interview process. Thus, of the 18 applicants, 12 were selected for participation in the Peer Leader program. Of the nine women and three men selected, two were African American, four were Asian American and six were Caucasian. Those selected represented the following professions: Physical Therapy (1), Biology (1), Pharmacy (3), Public Health (1), Health informatics (2), Physi-

cian Assistant (1), Medicine (2) and Nursing (1).

The implementation of the PLTL program was modified slightly from the Workshop Model described by Gosser et al. (2000) to be compatible with the discrete nature of the IPLAs. The selected individuals attended a two-hour Peer Leader orientation, which included a brief history of and theoretical basis for PLTL, goals of the Peer Leader program, Peer Leader and student expectations and responsibilities, an overview of the IPE curriculum and schedule of learning events for the academic year, and logistics and remuneration information. The Peer Leaders were provided with a schedule of their activities throughout the academic year. (Table 1)

Timeline	Anchor Event	Peer Leader Activity
October 2017		Peer Leader Program Orientation
October 2017	IPLA 2	Peer Leader Debriefing Session IPLA 2 (as student)
November 2017		Peer Leader Training Workshop & Evaluation Survey
January 2018	IPLA 1 Training	Facilitator Training
January 19, 2018	IPLA 1	Facilitation of IPLA 1 Peer Leader Debriefing Session—IPLA 1
February 2018	IPLA 2 Training	Facilitator Training
February 9, 2018	IPLA 2	Facilitation of IPLA 2 Peer Leader Debriefing Session—IPLA 2
February 2018	IPLA 3 Training	Facilitator Training
March 7, 2018	IPLA 3	Facilitation of IPLA 3
March 2018		Peer Leader Program Assessment
May 2018		Peer Leader Focus Group

Table 1. *Peer Leader Program Schedule*

Subsequently, using PLTL materials tailored toward interprofessional (IP) learning, the Peer Leaders engaged in an intensive two-hour interactive workshop to prepare for facilitating interprofessional teams of six to eight students. The workshop included information on IPE and the foundational curriculum IPLAs, the facilitators' role and expectations, key skills needed for effective IP facilitation, common facilitation challenges in IP teams, and role-playing of techniques to address potential facilitation challenges. Following the workshop, Peer Leaders completed a survey evaluating their training.

 Along with faculty facilitators, prior to each of the first three large-scale IPLAs, each Peer Leader participated in anchor-specific one-hour training sessions, one for each IPLA: IPLA # 1 (Introduction to Interprofession-

al Collaboration), IPLA # 2 (Introduction to Team Science), and IPLA # 3 (Application of Interprofessional Teamwork Skills). Peer Leaders then facilitated teams of students during multiple sessions of these events held on the urban campus throughout the academic year.

Immediately following each session in which they served as facilitators, the Peer Leaders also participated in a 30-minute debriefing. The debriefing aimed to glean their perception of the event and any challenges they encountered; it served as ongoing training to identify and discuss ways to address the challenges and enhance their facilitation and leadership skills. The debriefing session also provided a mechanism to obtain Peer Leaders' suggestions for improving future sessions of the event.

At the conclusion of the PLTL program, Peer Leaders completed a Peer Leader program facilitation skills survey and subsequently participated in a one-hour focus group session conducted by the Center's Director of Evaluation. Survey data were reviewed and collated for descriptive statistics and qualitative analysis. The focus groups were recorded with permission of the participants. The recording was transcribed and responses to interview discussion questions were collated, reviewed, and categorized into themes. Due to the small sample size, the qualitative responses were coded by the Director of Evaluation to conduct a themed analysis. The codebook used for the analysis was created prior to coding by the director of evaluation, program coordinator, and director of the PLTL program. The qualitative responses were utilized to provide context to the quantitative methodology in the program evaluation based on themes present in the responses. The university IRB (#1707269622) approved the project with exempt status.

Peer Leader training evaluation survey* items	Mean
The session was well organized.	4.9
The overview/theory was helpful and contributed to my learning about IP facilitation.	4.8
The role-plays helped me build IP facilitation skills.	4.7
The videos helped me engage with the workshop learning objectives.	4.7
The whole group debrief was helpful and contributed to my learning about IP facilitation.	4.8
This workshop helped me identify key skills needed for effective IP facilitation. (Training Objective 1)	4.5
This workshop helped me understand common facilitation challenges in IP teams (Training Objective 2)	4.7
This workshop helped me identify effective strategies for facilitation and for overcoming challenges in facilitating of IP teams. (Training Objective 3)	4.7

Table 2. *Peer Leader Program Schedule*
Items are based on a 5-point scale: Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, Strongly Agree = 5

Survey Item	Peer Leader Responses (no. responses)
Please share one thing you learned today that you plan to apply in your future practice or career.	Prompting techniques (4) Redirecting techniques (3) Using the parking lot method to deal with talkative team members (1) Allowing and empowering those with differing opinions to share their thoughts (1) The information on the challenges we might face as facilitators and ways to combat and handle the challenges was very helpful! (1) Helping others to solve their own problems and answer to their questions (1) NA (1)
What suggestions do you have for improvement of this workshop?	None (5) Larger groups for the role plays (1) More videos should be incorporated to better depict the challenges that can be faced (1) Better description of the role plays before beginning (1) Play cases sooner in presentation (1) Being actively participated in each organized event, using more of it (1)

Survey adapted from the University of Washington's Center for Health Sciences Interprofessional Education, Research, and Practice Faculty Development Facilitation Skills Training Evaluation (2019).

Assessments

By completing the training evaluation survey, Peer Leaders provided feedback on the quality of the intensive workshop that prepared them for their role. Using a retrospective pre/post design, an assessment of Peer Leaders' change in self-rating of knowledge, skills, and abilities was obtained through a facilitation skills survey and critical reflection at the end of the program. Results from this survey formed the basis for a semi-structured focus group interview to further probe into select aspects of their Peer Leader experience.

The Peer Leader training evaluation survey was a slightly modified version of the University of Washington (UW) Center for Health Sciences Interprofessional Education, Research, and Practice's Faculty Development Facilitation Skills Training Evaluation (University of Washington, 2019). As the UW survey was geared toward faculty IP facilitators, one item pertaining to use of faculty development resources was eliminated from the survey completed by Peer Leaders. As utilized with the Peer Leaders, the evaluation consisted of eight scaled response items (Strongly Disagree = 1 to Strongly Agree = 5), and two open-ended items concerning the quality of the Peer Leader training materials and workshop content, and PL's understanding of concepts and skills related to facilitating interprofessional teams of students.

The Peer Leader facilitation skills survey was based on items from the Interprofessional Facilitation Scale (Sargeant, Hill & Breau, 2010), and the W(e) Learn Interprofessional Program Assessment (MacDonald et al, 2009). The Interprofessional Facilitation Scale (Sargeant, Hill & Breau, 2010) provides an assessment of IPE facilitation skills with 18 items measured on a 4-point scale from 1 to 4 (1 = poor and 4 = excellent). Items are meant to measure participants' self-reported ability to perform each item. Sample items include, "Describe why interprofessional education is important," and "Use effective communication skills to clarify and resolve misunderstanding and conflict, if applicable." The internal consistency of the scale (Sargeant, Hill & Breau, 2010) is classified as excellent with a Cronbach's alpha at .94 (α=.94). The W(e) Learn assessment (MacDonald et al, 2009) is a self-report questionnaire that is focused on IP online training satisfaction, with items covering four aspects of learning: 1) structure, 2) content, 3) service, and 4) outcomes. All items were measured on a 7-point Likert scale ranging from

1 = Strongly Disagree to 7 = Strongly Agree. The original instrument is 30 items in length with all subscales representing each aspect, providing evidence of high internal reliability of .90 or higher ($\alpha > .90$).

Although there are several existing and validated surveys to evaluate IP facilitation skills and training, none specifically address the Peer Leader population or aim to evaluate PLTL programs. The use of Peer Leaders to facilitate IPE is a current gap in the field, thus existing instruments were modified to fit the program context (Roni, Merga & Morris, 2020). In accordance with measurement theory protocols, analyses of validity and reliability were conducted on the modified instruments as used here.

The modified assessment included 24 scaled items determined to be most relevant to the Peer Leader context based upon the item topics in the aforementioned published instruments (e.g., keep discussions on track, promote collaboration among learners, etc.). A retrospective pre/post design was used: The Peer Leaders only completed the survey at the end of the academic year following completion of facilitation at the last IPE event. Participants were asked, "How confident are you in your abilities to do each of the following?" Each item that followed represented interprofessional facilitation competencies. Both pre and post scales provided evidence of high reliability with the pre-scale Cronbach's Alpha at .97 (α=.97) and the post-scale Cronbach's Alpha at .95 (α=.95). The items from the original scales were modified to represent the participants' self-reported confidence in their skills and experience with facilitation both retroactively before they began the program and at the conclusion. Their self-rated confidence in their abilities was measured on a 5-point Likert scale (1 = Not at all confident to 5 = Very confident). Sample items included, "role model positive interactions with other health professionals," and "promote collaboration among students."

The evaluation also included a question about the Peer Leaders' future intentions to lead or participate in interprofessional practice. The instrument also provided evidence of internal reliability through a Pearson's R test. The pre and post items were moderately, positively correlated with data collected from the Sargent Interprofessional Facilitation Scale ($r(10)$=.695, p=.05).

In addition, the Peer Leader facilitation skills survey contained five open-ended questions that focused on

their perceptions of what they learned as a Peer Leader, challenges in facilitating IP teams, potentially useful information that wasn't provided during training, and their most and least valued aspects of the Peer Leader experience.

Program Analysis

Evaluation of Training

Evaluation results indicated that immediately following training but prior to facilitating teams, Peer Leaders were very satisfied with their orientation, intensive training workshop, and the resource materials provided to prepare them for their role. The overall mean score across the evaluation was 4.73 on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree), indicating that participants consistently reported agreement or strong agreement with each aspect of the training. The results also suggested that the learning objectives of the training were met. The Peer Leaders indicated they were most satisfied with the organization of the training (M=4.90).

Interprofessional Facilitation, Leadership, Knowledge, and Skills Development

As a result of participating in the program, there was an increase in all categories of Peer Leaders' self-reported confidence in their interprofessional knowledge and facilitation skills. Results from the Peer Leader program facilitation skills survey (Table 3) showed that Peer Leaders frequently indicated that they were more confident in their interprofessional facilitation skills and competencies after the experience. Significant statistical differences in retrospective pre/post confidence were examined using a paired-samples t-test. Results indicated a significant change from pre-test to post-test scores of confidence in interprofessional facilitation skills and abilities (t(10)=-3.83, p=.027). Retrospectively, participants reported having more confidence in their facilitation skills after their participation in the Peer Leader program (M=4.58, SD=0.40) than before their participation (M=3.72, SD=0.94).

In response to the question, "After the Peer Leader experience, I plan to lead or be involved in interprofessional collaboration in future practice," nearly all participants (90.9%) indicated agreement (M=4.55, SD=.69) that they would continue involvement with interprofessional collaboration.

Peer Leaders reported the following learning outcomes most frequently: IP team facilitation skills (n=4, 33%); an appreciation for the differences in perspective across professions (n=3, 25%); the value/importance of IPE (n=3, 25%); the importance of effective interprofessional communication (n=1, 8%); and that individuals from other professions can be a valuable resource (n=1, 8%).

The primary challenges faced by Peer Leaders when facilitating interprofessional events were cited as: lack of student engagement (n=7, 58%), lack of professional diversity in the IP teams (n=2, 17%), inadequate experience as a facilitator (n=2, 17%), and logistical issues (n=1, 8%), such as coordinating their schedules around the dates and times of the IPLA sessions and/or Peer Leader training. Retrospectively, while most indicated that they were appropriately trained (n=5, 42%), others suggested the following improvements: dry-run/more event-specific information before facilitating teams (n=3, 25%), more information about managing difficult students (n=2, 17%), and more information on the educational experiences/knowledge level of the participating learner groups (n=2, 17%).

Peer Leaders' most valued aspect of their experience included: facilitating interprofessional collaboration (n=9, 75%); watching students learn and develop collaborative skills (n=1, 8%); learning from other professions (n=1, 8%), and attaining a sense of belonging from having made connections with individuals in other professions (n=1, 8%). Four (33%) Peer Leaders reported no least-valued aspect of their experience, while an equal number of them cited session timing and logistics. Other least-valued aspects noted included managing program commitments with their academic work (n=2, 17%), IPLA session content (n=1, 8%), and managing disengaged student participants (n=1, 8%).

Semi-Structured Focus Group Interview

Table 4 shows the focus group interview questions, along with a sample of Peer Leaders' responses and key themes that emerged from the focus group. Overall, Peer Leaders echoed that while facilitating learner engagement and communication was a challenge at times, they truly enjoyed interacting with individuals in other professions. The focus group also delved into ways that the IPE curriculum and the Peer Leader program might be further improved.

Peer Leader program facilitation skills survey* items

How confident are you in your abilities to…	Before Program Mean(SD)	After Program Mean(SD)
Promote an open atmosphere in which all participants can be heard.	4.18(0.9)	4.73(0.45)
Promote collaboration among learners.	3.82(0.9)	4.73(0.65)
Provide useful feedback to learners.	3.27(1.01)	4.45(0.93)
Knowledgeable about interprofessional education.	3.27(1.47)	4.64(0.51)
Engage learners in the interprofessional learning experience.	3.45(1.21)	4.27(0.91)
Responsive to the learners needs.	3.55(1.21)	4.36(0.51)
Role model positive interactions with other health professionals.	4.36(0.92)	4.82(0.41)
Facilitate a learning environment where principles of IP are clearly demonstrated.	3.36(1.43)	4.64(0.51)
Encourage participants from different professions to learn with, from, and about each other.	3.55(1.51)	4.73(0.47)
Invite other professions' learners to comment and share their experiences/ perspectives as questions or comments are made in the group.	3.91(1.3)	4.82(0.41)
Use appropriate facilitator skills to keep discussion topics on track.	3.27(1.56)	4.64(0.51)
Acknowledge and respect others' experiences and perceptions.	4.64(0.51)	4.91(0.3)
Encourage members of all professions to contribute to decisions during case or patient discussions and decisions.	4.09(0.81)	4.73(0.47)
Listen to and acknowledge participants' ideas without judgement.	4.27(0.91)	4.91(0.3)
Ask questions/use prompts to encourage participants to consider how they might use each other's professional skills, knowledge and experiences.	3.45(1.44)	4.36(0.51)
Mentor participants through IP experiences.	3.36(1.36)	4.45(0.69)
Help participants work through differences in a collaborative way.	3.27(1.19)	4.27(0.79)
Use effective communication skills to clarify and resolve misunderstanding.	3.91(1.14)	4.27(0.79)
Help students understand how IP experiences relate to future practice.	3.73(1.27)	4.45(0.52)
Model how IP experiences relate to future practice.	3.82(1.33)	4.55(0.52)
Facilitate practice of IP collaborative approaches to patient-centered care.	3.82(1.25)	4.55(0.52)
Take into account the learners' previous experiences and knowledge.	3.27(1.1)	4.45(0.69)
Discuss how IP situations are encountered in practice.	3.55(1.13)	4.45(0.52)
Promote mutual trust and respect among learners.	4.09(1.14)	4.73(0.47)

Table 3. *Self-Reported Change in Interprofessional Small Group Facilitation Skills (N=12)*
Items are based on a 5-point scale: Not at all confident = 1, Somewhat confident = 2, Neutral = 3, Confident = 4, Very confident = 5
*Based on the Interprofessional Facilitation Scale (Sargeant, Hill & Breau, 2010) and the W(e) Learn Interprofessional Program Assessment (MacDonald et al, 2009).

Interview Question	Theme	Sample Peer Leader Responses
Summarize Your Experience as a Peer Leader	• Facilitating interprofessional communication • Leadership development	• It was a positive experience, learning how to facilitate people to talk and come together and work as a group—a really useful skill going forward. • It was really good—it was fun and completely doable and nice in terms of developing your own leadership skills in different ways through your career. We had so many opportunities to do that as anchors changed and we got more involved.
What was you most favorite part of the Peer Leader program?	• Interprofessional engagement	• Getting to learn about the professions while in school • Interacting with those in other professions
How do you think we could do more to foster engagement between Peer Leaders and IP teams?	• Table facilitators • Roaming facilitators	• You already do have a lot of engagement in the activities. But if you could get facilitators at each table from the beginning (IPLA1). But I liked how it slowly built into that. The direction that was given, resources wise, was very good. • Going into the ones I hadn't done as a learner, I was nervous I wouldn't be able to answer questions, but I did, which for my development, was very good. I facilitated best when I floated between the tables. Students seemed better when I wasn't there the whole time, I would just listen and pop in and ask a couple of questions.
What would you suggest for relationship and team-building activities, if any, among Peer Leaders?	• Social interaction	• A fun event, not a forced icebreaker • Social events—several people in our PL group wanted a social gathering with just us. [Peer Leaders)
What was your least favorite part of the Peer Leader program?	• Poor learner attitudes and behaviors	• Student participation was a challenge. We were given strategies to help, but more practice would be helpful. • Being the tough guy with some students—dealing with conflict, but that's the point.
Why do you think that some team members have difficulty staying engaged in the event tasks, or are afraid to appear like they care more about the activity than other students in their team? What can the Center do to help?	• Lack of professional diversity • Event timing • Event structure	• Timing of the sessions—evening sessions were hard—students wanted to study for exams, etc. • Those who know each other talk amongst themselves and disengage. Diversity in teams would help. Also—make sure people sit next to someone they don't know—assign seats in teams.
Having been through the PL program, if you had to design an ideal training workshop or program for Peer Leaders, what would the sessions look like?	• Train close to anchor events • Include simulation and relevant resources • Post event debriefing	• Debriefing right after each event was good—get good raw info, and the sheet we write stuff down on during the anchor was good.
Of events you facilitated, do you have any specific suggestions for improvement with regard to content or activities that the teams engage in that would improve engagement and/or meeting learning goals?	• More interactive events • Relevant content	• Make IPLA 1 more experiential, not as dry, more interaction—missing the application piece.
Going forward, to expand the PL program, what are your suggestions for Peer Leaders with regard to incentives and recognition?	• More social activities to develop team spirit among PLs	• Felt recognized, just have more social event within the PL program to make us feel more like a team. • Yes, adequately rewarded and recognized.
Final Thoughts?		• I benefitted personally from being a PL in communication (research lab) skills and leadership skills; confidence to facilitate engagement in the workplace. • The PL program was a positive experience, and I hope the program grows.

Table 4. *Peer Leader Focus Group Responses and Emerging Themes*

Discussion

We implemented the PLTL program to answer two basic questions: 1) Is the PLTL model a reasonable and sustainable tool to support interprofessional learning? 2) What impact does serving as a Peer Leader have on the Peer Leaders? Based on outcomes of the program evaluation we posit that the PLTL model is a reasonable and potentially sustainable tool for IPE. Utilizing trained Peer Leaders as facilitators for IP learner teams can be of benefit for the Peer Leaders, while at the same time, extend facilitator capacity in interprofessional learning activities. The inaugural program was partially supported by an internal grant which helped cover costs associated with program development and implementation and the compensation for Peer Leaders. Arguably, continued sources of funding would assist with long-term sustainability. However, once the program is established, providing Peer Leaders with academic credit or other non-monetary forms of compensation and/or recognition would also promote program sustainability.

As with PLTL programs in other academic disciplines (Snyder & Wiles, 2015; Gaffney & Varma-Nelson, 2007; Blake, 2012) our experience suggests that serving as a Peer Leader in IPE has a positive impact on Peer Leaders. They reported satisfaction with their training and support, and overall, enjoyed the Peer Leader experience. Peer Leaders reported improved self-confidence in their leadership skills and interprofessional small group facilitation skills, and nearly all intended to participate in interprofessional collaborative practice (ICP) in their future careers.

Providing effective and positive IP learning experiences during students' training can affect both their abilities and their intentions to lead or engage in interprofessional collaboration in future practice. Peer Leaders may contribute to the learning experience by being supportive mentors that serve as intellectual and social role models and facilitate the scaffolding of knowledge for student teams as they progress through each IPLA.

Peer Leaders experienced most of the same challenges reported by the faculty IPE facilitators. Not surprisingly, a common challenge cited was the lack of student engagement; this is an issue for even the most seasoned facilitators. Although this was addressed during the Peer Leaders' intensive training workshop and role-plays were used to practice techniques for preventing and managing lack of student engagement, encountering it during a live session proved to be daunting for some of the Peer Leaders. That said, Peer Leaders also offered ideas for enhancing student engagement. More emphasis on this issue during training, including simulation exercises, may better prepare both future Peer Leaders and faculty facilitators for managing engagement in student teams. The Peer Leaders' experiences will be used to help other facilitators recognize potential issues and identify and practice implementing solutions prior to live events.

Due to the curricular schedules of the participating students and/or variances in the class size of student cohorts, at some IPE sessions teams were represented by only two or three professions. This likely contributed to the challenge reported as "lack of professional diversity" in the teams, which may have hindered student interaction and stretched the skills of the Peer Leaders to promote learner engagement.

Despite the challenges noted, IPE-based PLTL programs benefit Peer Leaders in multiple ways which could be of value to them as future educators and practitioners. As such, PLTL programs should be considered as an integral part of interprofessional education. Peer Leader programs enable participating students to develop leadership skills. As a leader, for example, helping team members stay engaged, develop trust, and be accountable to each other are critical to promote effective teamwork. Peer Leaders had to learn how to navigate these challenges, and the knowledge they gained can be applied in future interactions with students. The Peer Leader experience can positively impact Peer Leaders confidence in facilitating student teams and may encourage them to work with students in the future as full-time, adjunct, or volunteer faculty.

By facilitating teams and teaching others, Peer Leaders develop a deeper appreciation for the skills required to effectively promote interprofessional collaboration and communication. They can continue to practice these skills which will help them better communicate in future interactions not only with students and residents but also with patients / clients. After graduation, Peer Leaders may be more likely to seek positions that involve team care, and / or advance opportunities for interprofessional practice within the healthcare system. Thus, Peer Leaders may become "IPE Champions",

avid promoters of IPE who advocate for changing their institutional culture to support interprofessional education and /or practice initiatives.

This project was limited by the small number of Peer Leaders in the program and the self-reported nature of the assessments. That said, Peer Leaders' facilitation challenges and successes echoed anecdotal comments received from faculty facilitators. The project was not intended to generalize to a larger population of learners, but rather to describe the experience of the Peer Leaders in this program. Their experiences will be used to continue to refine the PLTL program to support IPE and the development of Peer Leaders as IPE champions. Although the sample was limited to one university campus, during the academic year, the Peer Leaders interacted with dozens of IP student teams in multiple sessions of different IPLAs, which provided a broad perspective of their experience. Their wide-ranging experiences with many professions and students provide evidence that the results can be used to design continuous quality improvement for preparing both Peer Leaders and faculty facilitators to engage in interprofessional collaboration.

Further study is needed to fully define the role of Peer Leaders toward increasing student engagement, development of Peer Leaders' interprofessional leadership and skills, and the long-term impact of peer leadership on the acquisition and retention of interprofessional collaborative competencies. Future directions for this work will be to 1) continue to refine the preparation and training for Peer Leaders and 2) measure students' reactions and perceptions of the value that Peer Leaders bring to their learning experience. We will also aim to determine the longitudinal perceptions and long-term outcomes of participating as a Peer Leader, such as engagement in collaborative practice and leadership in interprofessional education and practice, while utilizing a larger sample to begin generalizability to the larger population.

Conclusion

Utilizing trained Peer Leaders as facilitators in large-scale interprofessional learning activities improved Peer Leaders' self-reported confidence and skills in interprofessional collaboration and facilitation. This may amplify interprofessional learning for those who participate as Peer Leaders and for members of the inter-

professional teams they facilitate. Additionally, while preparing students for collaborative practice in their future careers, incorporating Peer Leaders can help increase the number of capable facilitators, thus lessening the resource burden on academic programs offering interprofessional learning experiences throughout their curriculum.

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