

“The Safety Dance”: A Faculty Development Workshop Partnering IPE and Patient Safety Initiatives Using Simulation-Based Education

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Abstract

Interprofessional collaboration (IPC) is important for improving patient outcomes and patient safety; however, interprofessional education (IPE) is required to develop skills necessary for successful IPC. IPE is resource intensive and requires advance planning and negotiation of logistical challenges. The goal of this faculty development workshop is to train administrators and educators from academic health care institutions to address potential challenges faced during design and implementation of IPE programs. This educational module presents best practices for implementing simulation-based IPE to enhance patient safety through an interactive workshop. We utilize hands-on practice with coaching through a facilitated small-group tabletop simulation followed by a large-group discussion driven by the case-based method to maximize learning and engage a diverse audience. The materials associated with the module include a workshop outline, a PowerPoint slide show, and a summary handout for the participants. To facilitate the tabletop simulation and the subsequent large-group discussion, we have included two versions of the small-group prompts, a worksheet for the participants to complete during the tabletop exercise, and a facilitator guide. We have received positive feedback regarding the learning value of the module from faculty attendees at a regional simulation conference as well as the International Meeting on Simulation in Healthcare in January of 2016. Implementing simulation-based IPE curricula to address patient safety initiatives comes with a unique set of challenges that require prior training and knowledge. We provide insight and evidence-based strategies in this module to help interested parties successfully implement their own programs.

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Introduction

Interprofessional collaboration (IPC) has been defined as “the process in which different professional groups work together to positively impact health care.”¹ This process “involves a negotiated agreement between professionals which values the expertise and contributions that various healthcare professionals bring to patient care.”¹ Successful IPC requires thoughtful consideration of issues that may crop up when providers from different professions work together, including power dynamics, poor communication patterns, lack of understanding of roles and responsibilities, and conflicts arising from different approaches to caring for patients.^{1,2} Multiple studies have illustrated that problems with IPC can negatively impact health care

and patient safety.^{1,3,4} Interest in interprofessional education (IPE) as a means to cultivate collaborative practice continues to grow among administrators, educators, and researchers given the increasing complexity of the organization and delivery of health care.⁵ IPE encourages different professionals to meet in a joint learning environment with the goal of improving collaborative practice and patient care.

As the field of health care simulation originally evolved from the need to address lapses in patient safety, hospital administrators and clinical educators alike have increasingly adopted simulation-based IPE to ensure that providers will effectively function in patient-centered, collaborative health care teams.⁶ Advantages of simulation-based IPE are multifaceted, including flexible and dynamic structures to meet diverse learner needs, experiential learning for higher degrees of engagement, incorporation of structured debriefing to promote peer-to-peer reflection and dialog, and opportunities to reveal cognitive frames

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around professional and cultural hierarchy and divisions.⁷ For instance, crisis resource management simulation training focuses on communication skills and accentuates the role played by human factors, including interprofessional relationships and hierarchy, in clinical environments that are high in both stress and risk.⁸ Indeed, simulation-based education (SBE) has resulted in increased interprofessional communication and augmented team knowledge.⁹

Implementation of simulation-based IPE carries a unique set of challenges. The development and delivery of IPE can require significant resources and may fail without careful consideration and advance planning.¹⁰ This workshop facilitates a multistep experiential process to assist clinicians, health care administrators, and patient safety experts in developing their own simulation-based IPE programs. We have constructed the core elements of the module using our actual experiences in creating a curriculum to address workplace violence in the emergency department.

The workshop begins with a brief discussion of IPC challenges experienced by participants. Our intention is that participants from diverse backgrounds will generate a multifaceted discussion regarding the challenges of IPC. Next, a didactic session highlights the best practices and frameworks in creating successful IPE programs. To allow participants to apply these best practices and engage them in active learning principles, they are asked to immerse themselves in a small-group tabletop scenario to develop a simulation-based IPE program addressing workplace violence in the emergency department while acting in a scripted professional role and character. Finally, participants come back together to share each cohort's examples and solutions through a facilitated large-group discussion to cement concepts discussed during the didactic. The workshop ends by summarizing lessons learned and distributing a summary handout.

The ideal context for implementing this workshop is at a conference targeted at interprofessional groups or at an institutional seminar for leadership from diverse professions. We created the workshop with a simulation educator audience in mind. The ideal participant would have some basic experience and understanding of SBE. The goal of the session is to help faculty members create meaningful programs in IPE and patient safety using SBE, so ideally, attendees would have interest in this topic, but prior training or knowledge of the topic is not necessary. A diverse group of participants from various professions (physi-

Educational Objectives

At the end of this course, learners will be able to:

1. Determine challenges of interprofessional collaboration in the design and implementation of a patient safety initiative.
2. Apply best practices in designing simulation-based interprofessional education (IPE) programs using a small-group tabletop simulation exercise.
3. Generate strategies to implement IPE interventions.

cians, nurses, administrators, simulation technologists/technicians) attended our workshops, and the workshop is designed to engage a broad range of backgrounds and interests within health care simulation.

Methods

Educational Approach/Rationale

The foundation of this workshop utilizes principles from the case-based method,¹¹ where a facilitator engages a larger group of audience members (30 or more) in a meaningful and guided dialog towards key teaching points that the participants derive with coaching and assistance from the instructor(s). The core activity of the workshop is an immersive tabletop simulation, based on a very detailed IPE case that includes realistic challenges faced by educators looking to implement IPE programs. Each participant takes on the role of a key stakeholder, and the case is worked through in depth, first in the small group and then with issues and challenges being discussed in a large-group format, with facilitation from the instructor(s). The goal is an experiential process where participants have an opportunity to practice IPE development. This process not only encourages discussion of challenges related to IPE development but also allows participants to experience potential IPC challenges in a small-group setting. The theoretical underpinning for using the case-based method is Kolb's experiential learning theory,¹² a four-stage cycle proposing that learning occurs through experience, reflection, conceptualization, and active experimentation. Kolb's model has been previously described as an effective strategy to maximize learning and engage a large group of participants with diverse learning styles.¹³

Facilitator Preparation

Two to three facilitators are required to run this workshop with adequate support. We highly recommend an interprofessional team to reinforce the concept of this course. Our facilitation team consisted of two nurses and two physi-

cians and would have been made more robust by including facilitators from additional professions. Facilitators for this workshop must have a foundational understanding of the importance of IPC in promoting patient safety and outcomes and recognize the link between good IPC and IPE. A foundational understanding of IPE concepts is desirable for all facilitators, but at least one facilitator must have some expertise in this area. This facilitator is responsible for covering the PowerPoint presentation content. At least one facilitator should have experience leading large-group discussions.

Logistics/Implementation

This workshop consists of three activities using various instructional methods that appeal to the variety of ways in which people learn. The time line of the workshop is as follows:

- Welcome, introductions, objectives, road map of session, and disclosures (10 minutes).
- Discussion and didactic (20 minutes).
- Tabletop simulation (30 minutes).
- Discussion, summary, and takeaways (30 minutes).

Total time is 90 minutes. For a more detailed time line, see Appendix B.

A facilitator guide for the workshop is provided in Appendix C. While 90 minutes is enough time to conduct the workshop if used efficiently (particularly during activity transitions), the workshop could also be conducted over a longer period of time allowing for more depth of discussion. In our experience, there is no shortage of participant engagement in the small-group activity or the large-group discussion.

In preparation for the workshop, be sure to collect the following resources:

- Computer and ability to display PowerPoint presentation.
- Whiteboard or flip chart with markers.
- Pens for participant use during the tabletop simulation.
- Appropriate number of printed copies of worksheets and prompts (Appendices D, E, & F).

The first activity is a large-group discussion of IPC challenges experienced or perceived by the participants. We provide a discussion prompt (within the PowerPoint

Didactic Presentation, Appendix A) describing a situation of managing an agitated patient in the emergency department and ask that participants either reflect on this case or describe IPC challenges experienced in their own clinical areas. Presenting this real-world IPC case helps to demonstrate the importance of IPE for clinical practice. According to Knowles' adult learning theory,¹⁴ adult learners are motivated by the relevancy of the content to personal situations or challenges.

The second activity is a didactic session using PowerPoint slides to present foundational IPE and IPC information (see Appendix A). Depending on the experience level of the audience, the information may be quite rudimentary; however, for groups with mixed IPE/IPC experience, this didactic helps to ensure all participants have the same basic understanding of IPE/IPC concepts and definitions before engaging in the small-group activity. We incorporated simple graphics that we found via an online search to make the slides more dynamic, but this is not necessary for the purposes of the didactic.

In the final activity, a tabletop simulation, participants are broken up into groups, and each participant is assigned a role on an interprofessional team that has been convened to develop a simulation-based IPE program for staff in the emergency department to learn about managing violent patients. The roles are nurse manager, attending physician, director of security, and patient safety administrator. There are also two different cases (Bottom Up and Admin), so that groups are faced with different challenges of working with an interprofessional team (Appendices D & E). This adds to the realism of the IPE/IPC challenge and to the depth of the subsequent large-group discussion. Participants receive a worksheet for this session, provided in Appendix F.

After the tabletop simulation, the group reconvenes for a large-group discussion of the process (see the Facilitator Guide, Appendix C). The focus of this discussion is the metacognitive examination of the groups' processes rather than a presentation of the programs they have developed. If there is time at the end of the discussion, it is interesting to hear some groups share their ideas for the IPE simulation curriculum itself. At the end of the session, participants are asked to share a take-home point from the session. Determining whether participant takeaways align with workshop learning objectives is helpful for instructors to assess the effectiveness of the workshop. Finally,

the Workshop Handout (Appendix G) can be distributed at the end of the course. We recommend distributing a course evaluation (Appendix H) either at the end of the course in person or via email at a later date.

Results

This workshop came from our personal and anecdotal experiences developing and implementing simulation-based IPE programs to address patient safety issues (Ambrose Hon-Wai Wong and Maureen Gang on workplace violence in the emergency department, Halley Ruppel and Grace Ng on interprofessional pediatric in situ simulations). In order to share the strategies that were successful with our colleagues, we presented this module at two conferences: (1) a regional simulation conference¹⁵ and (2) an international simulation conference.¹⁶ Approximately 15 and 13 participants attended each session, respectively. After each presentation, we solicited feedback and evaluations through an online evaluation form (see Appendix H). We felt that time was better spent on the actual content of the workshop within the time constraints mandated by the conferences, but this evaluation form could also be printed and filled out by participants at the end of the workshop to increase response rates. Using phone-based audience response systems like Poll Everywhere (<https://www.poll Everywhere.com/>) or informal oral qualitative feedback from the participants may enrich the evaluation process as well.

We received a total of 12 responses to our survey. The survey used a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*). Overall, the feedback was very positive. The score for the overall session was 4.6 out of 5 for the statement “The session overall was useful for my future practice.” The large-group discussion was particularly well received, averaging a 4.8 out of 5 response.

Some of the positive written comments were as follows:

- “Enjoyed the active learning format.”
- “Valued the session, liked the video to start things up, and role play helped us relate to others’ circumstances, just enough didactic! Thanks!”
- “The format and content is excellent. Well designed workshop.”

We also received some critical feedback as well:

- “The small group discussion for my group was a bit challenging . . . one person in our group had difficulty

understanding her role due to English being her second language. She may have been more comfortable in a different, less challenging role.”

- “Would have liked to see more differentiation in the discussion as to how we can work with quality and patient safety in simulation.”

A majority of the critical feedback comments from the first session were focused on the small-group prompts being too lengthy and detailed for the participants to process. As a result of the critique, we condensed the handouts and placed some of the information in the PowerPoint slides instead. The prompts were much better received in the second session. After the workshops, two participants requested copies of the materials in order to implement a similar workshop for their faculty members (at Dalhousie University in Halifax, Nova Scotia, Canada, and Brooke Army Medical Center, San Antonio, TX). At 6-month follow-up, three of the participants had plans to implement this workshop as part of their faculty development programs for this upcoming academic year.

Discussion

When we originally decided to implement simulation-based IPE programs, we were surprised to discover very scant literature and resources on this topic. As a result, we decided to create this interactive workshop for our simulation and patient safety colleagues as a potential permanent resource and faculty development program for institutions elsewhere. As mentioned above, some fundamental understanding of the utility and practice of SBE in the target participant population is helpful but not absolutely necessary.

Logistically, it took us multiple time points in planning, conference calls, and adjustment of materials over several months in advance of the workshop dates to ensure success. In addition, it was useful to have a senior faculty member well versed in IPE language and literature/background to answer detailed IPE-related questions during the workshop. However, our handout (Appendix G) contains the core references that we cited and reviewed in preparation for this workshop.

Because there was a 90-minute time limit at the conferences, we spent some time considering multiple ways to expedite activity transitions and explain the tabletop simulation. Initially for the regional conference, we had decided to preassign seating for all participants who had

signed up and ask them to introduce themselves to each other as part an icebreaker activity at the beginning of the session. However, we found that this took a lot of time and appeared to be ineffective in engaging them to discuss in a large-group format. Instead, the first large-group discussion was a much more conducive solution to securing peer-to-peer dialog. Secondly, we tried out several methods of disseminating the content for the small-group tabletop simulation, including an additional handout rather than the display of a slide for the case prompt that we have described in this module. We recognize that this workshop requires a significant amount of reading, note taking, and communicating with group members. Our materials are prepared in English, so this may present a limitation for groups in which participants are not proficient in English. We recommend tailoring the workshop according to the individual preferences at your local institution and audience group.

Finally, we had originally planned on including a small didactic component related to change implementation. We believed that this would help frame the strategies addressed during the large-group discussion. Specifically, John Kotter's eight steps to successful change from his seminal work in change management¹⁷ describe best practices in the context of implementing successful change in organizational culture, a key concept in any strategic business practice. Due to time constraints, we decided to forgo this segment, but we recommend that interested parties address Kotter's work for further information.

IPE is not only a timely and high-profile issue in health care education today but is also logistically challenging. We provide here an exemplar workshop to help address some of these challenges. Overall, this workshop was well received by participants anecdotally and according to the limited number of evaluation forms we received. We plan to continue to refine the workshop based on participant feedback. We intend to implement it for interprofessional groups at our current institution in addition to assisting others to implement the workshop at their institutions. An additional or extended workshop focused on change implementation and organizational transformation related to IPE is also warranted, to be provided in conjunction with this workshop.

Keywords

Interprofessional Education, Patient Safety, Simulation, Health Care Simulation, Patient Simulation, Team Training, Continuing Medical Education

Appendices

- A. PowerPoint Didactic Presentation.pptx
- B. Workshop Outline.docx
- C. Facilitator Guide.docx
- D. Small-Group Prompts - Admin.docx
- E. Small-Group Prompts - Bottom Up.docx
- F. Tabletop Exercise Worksheet.docx
- G. Workshop Handout.pdf
- H. Evaluation Form.docx

All appendices are considered an integral part of the peer-reviewed MedEdPORTAL publication. Please visit www.mededportal.org/publication/10440 to download these files.

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IRB/Human Subjects: This publication does not contain data obtained from human subjects research.

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