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Discharging Mrs. Fox: A Team-Based Interprofessional Collaborative Standardized Patient Encounter

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Abstract

Introduction: In 2003, the Institute of Medicine recommended that interprofessional education be incorporated into the training programs of health care professionals. However, many logistical challenges hinder formal interprofessional learning in health care profession programs. **Methods:** This resource is a 3-hour interprofessional small-group session designed for health professions student teams to engage in a standardized patient encounter, each team member contributing a profession-specific perspective to create a collaborative care plan across five discharge decisions. The activity includes a simulated standardized patient encounter and debrief session wherein students discuss the role of bias and communication and create a collaborative care plan. **Results:** Following the activity, participants were surveyed about the value of the educational experience. Over 12 months, 106 students (81 medicine, nine nursing, 16 pharmacy) participated in the interprofessional activity. Eighty-four students responded to the postevent survey (79% response rate). Students were confident that the experience helped them integrate profession-specific knowledge, create a shared care plan, and understand how interprofessional collaboration contributes to quality care. The debriefing session and interprofessional interaction were an integral component of the experience. **Discussion:** This resource is a feasible interprofessional small-group activity that has been implemented without excessive faculty time or institutional resources. It is adaptable to institutional needs, local resources, level of trainee, and professions. The session provides interprofessional students the opportunity to engage with one another and with the patient in a collaborative decision-making activity focused around a critical transition of care.

Keywords

Communication, Simulation, Interprofessional, Standardized Patient, Transitions of Care

Educational Objectives

By the end of this session, learners will be able to:

1. Demonstrate effective communication with other professionals about the care of the patient, resolving conflict when necessary.
2. Compare and contrast the scope of practice for each of the professions presented.
3. Verbalize how each team member's profession-specific contribution leads to care that is safe, timely, effective, efficient, equitable, and patient centered.
4. Effectively communicate profession-specific perspectives and priorities with the interprofessional team members in developing a shared patient-centered care plan.

Introduction

Recent focus on improved safety and efficiency in the health care system has shed light on the importance of collaborative team-based interprofessional practice. The Institute of Medicine's report *Crossing the Quality Chasm* highlighted the need for improved training in team-based health care to ensure safe, efficient, effective, equitable, timely, and patient-centered health care delivery.¹ As a result, the Institute of Medicine and the World Health Organization (WHO) have called for incorporation of interprofessional education (IPE) into the educational curricula of health professionals as a way to overcome the systemic need for health care workers who are prepared for collaborative practice.^{2,3}

Appendices

- A. Standardized Patient Case Materials.docx
- B. Session Agenda.docx
- C. Participant Instructions .docx
- D. Mrs. Fox Chart Materials .docx
- E. Discharge Decision Worksheet.docx
- F. Hospitalist Role.docx
- G. Orthopedist Role.docx
- H. Charge Nurse Role.docx
- I. Physical Therapist Role .docx
- J. Pharmacist Role.docx
- K. Social Worker Role.docx
- L. Prebrief Email Communication.docx
- M. Orientation and Instructions .pptx
- N. Social Worker Video.mp4
- O. Physical Therapist Video .mp4
- P. Standardized Patient Checklist.docx
- Q. Faculty Observer Guide .docx
- R. Debrief Facilitators Guide .docx
- S. Debrief Questions and Collaborative Care Plan .docx

All appendices are peer reviewed as integral parts of the Original Publication.

Interprofessional education “occurs when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes.”² Improving interprofessional education holds the promise of improved workplace satisfaction and employee morale and most importantly, improved patient safety.²

The conceptual framework that WHO has proposed describes the interdependence between health delivery systems and health professions education.² Practice needs and improved safety in the workplace are intricately linked to a “collaborative practice-ready workforce” whose members enter prepared to impact the health care delivery systems in which they work.^{2,4} The Interprofessional Education Collaborative’s report *Core Competencies for Interprofessional Collaborative Practice* states that the goal of IPE is “to prepare all health professions students for deliberately working together with the common goal of building a safer and better patient-centered and community/population-oriented U.S. healthcare system.”⁴ Since the initial Institute of Medicine reports, IPE has become increasingly important to health profession curricula. To assist with the implementation of IPE into curricula, the Interprofessional Education Collaborative has delineated core competencies for IPE training, including four core competency domains: values and ethics, roles and responsibilities, interprofessional communication, and teams and teamwork.⁴

The present challenge for most institutions is logistical implementation of IPE into professional school curricula. Providing effective IPE, wherein students can interact with other students, has proven challenging given that professional programs have traditionally been siloed, each with its own course schedules, degree requirements, and campuses. Interinstitutional efforts at IPE often prove difficult to arrange due to challenges with synchronization of academic calendars, finding adequate classroom space for large cohorts of students, synchronization of online course delivery systems, adoption of asynchronous learning methods, and variability in student background and training level.⁵

This resource is a low-stakes team-based small-group activity that incorporates a standardized patient (SP) encounter wherein an interprofessional student team meets with Mrs. Fox, a patient nearing discharge after hospitalization for stroke and hip fracture. The case is intentionally centered on a transition of care to allow participants the opportunity to negotiate the domains of an ideal transition of care as described by Burke, Kripalani, Vasilevskis, and Schnipper.⁶

This activity is designed for advanced professional students; however, it can be adapted for pre- and postlicensure learners. Professions represented in the case scenario include nursing, medicine, pharmacy, social work, and physical therapy. Video recordings of a social worker and physical therapist can be used if fewer than six students are able to participate. Students are prepared for the simulation with a prebrief description of the activity and are assigned their roles for the case 1 week in advance. During the encounter, students meet with the SP and learn about her discharge priorities and also those of their team members. After completing the SP encounter, students collaboratively develop a discharge plan incorporating their own scripted personal and professional priorities and those of the other team members and the patient. All participating teams meet afterwards for a group debrief.

According to WHO, IPE is most effective when adult learning principles are used, learning methods reflect real-world learning experiences, and interaction occurs between students.² This resource is an interactive, interprofessional, small-group activity designed for up to six participants per SP. The activity allows for institutional flexibility, including a variety of professions and involving minimal faculty time or institutional resources.

Methods

This SP encounter is a formative learning experience for students from multiple professions to interact with and learn from each other in a simulated setting. In the SP encounter, students from interprofessional schools work together to collaboratively determine the best discharge plan for a patient. The SP, Mrs. Evelyn Fox, is a 62-year-old nearing discharge after a stroke and hip fracture that resulted from new onset

atrial fibrillation. During the session, student teams collaboratively develop a discharge plan that incorporates their own scripted personal and professional priorities and those of the other team members and patient. A debriefing session after the SP encounter explores the differing perspectives and priorities of interprofessional team members, bias, conflict, and effective team communication.

The participants may include students from medicine, physician assistant, nursing, pharmacy, social work, and physical and occupational therapy programs. Students participate in groups of four to six, depending on the total number of participants.

The purpose of this exercise is for students from a variety of professional schools to function as part of an interprofessional care team, collaboratively resolving issues and making decisions about the discharge care of a single SP. Each student, acting in his or her assigned role on the interprofessional team, discusses Mrs. Fox's discharge plans. After interacting amongst themselves and with Mrs. Fox, the team is asked to make five discharge decisions, each requiring collaboration and shared decision making.

Implementation Logistics

Each student participates in the 3-hour interprofessional interactive activity (Appendix A), comprising a 60-minute team-based SP encounter followed immediately by a 15-minute break, a 45-minute team huddle to create an interprofessional care plan and medication reconciliation, and a 60-minute large-group debrief session (Appendix B). Multiple student groups can be run simultaneously depending on available institutional resources and scheduling constraints. Sessions ideally take place in a simulation/SP center equipped with video-recording capabilities that allow for discrete faculty observation during the session. If simulation rooms are not available, it is possible to complete this activity within a classroom, conference room, or clinic setting. The total number of participants determines the number of rooms and SPs required for the session. Requirements for each interprofessional team SP encounter include the following:

- Time: 60 minutes.
- Space: one encounter room or small classroom with four to six chairs arranged in a circle.
- Medical equipment: one wheelchair.
- Audiovisual equipment: video-recording capabilities preferred, but not required.
- Staffing: one faculty observer per group; one SP; one SP educator for orientation, training, quality control, and timekeeping; and one audiovisual controller to make announcements.
- Other: name tags for all students, identifying their names and roles.

Appendix B outlines the agenda for the SP session, team huddle, and debrief session. The activity begins with a brief orientation and introduction, proceeds with the SP encounter, and concludes with a large-group debrief session. A large-group meeting room, adequate to seat all the participating interprofessional students, faculty, and staff, is also required for the debrief session.

Similarly, faculty observers are assigned to each group to observe its simulation exercise. Faculty observers are prepared using the materials available in Appendix Q. They should be given access to Appendices A, B, D, E, M, R, and S before the session.

Faculty facilitators should be designated for the debrief session; should familiarize themselves with all the case materials, including Appendices A, B, D, E, M, R, and S; and should be prepared to lead the debrief large-group session, as outlined in Appendix R.

Student Preparation

Prior to the session, students are provided with the participant instructions (Appendix C), their individually assigned roles, the chart materials (Appendix D), the discharge decisions worksheet (Appendix E), and the list of prereadings below.

Students prepare for the simulated SP encounter by learning about interprofessional roles and safe transitions of care within their own institutional curriculum. The following articles about interprofessional team roles and safe discharge practices are provided as a reference; participants are able to complete this activity without completing any prereading.

- Askin and Moore, *The Health Care Handbook: A Clear and Concise Guide to the United States Health Care System*, pp. 190-223.⁷
- Burke, Kripalani, Vasilevskis, and Schnipper, "Moving Beyond Readmission Penalties: Creating an Ideal Process to Improve Transitional Care."⁶
- Mueller and MacKinney, "Care Across the Continuum: Access to Health Care Services in Rural America."⁸

Mrs. Fox's chart materials are made available prior to the session (Appendix D), and participants are expected to familiarize themselves with the chart notes from each team member. Each student is assigned an individual role for the encounter, either as a hospitalist, orthopedic surgeon, charge nurse, or inpatient pharmacist. Students are provided with an outline of the discharge decisions (Appendix E) along with the corresponding role outlines (Appendices F-K), which provide information regarding what each participant knows about the patient and the other interprofessional team members, as well as dictating profession-specific priorities for the five discharge decisions. Students are instructed to memorize their roles and not to discuss them with any other participant before the encounter. We have included a standardized email communication as an introduction and prebrief to the activity (Appendix L).

Team SP Encounter

The agenda for the encounter is outlined in Appendix B. Students arrive having completed the preparatory work and with their roles memorized. Students are assigned to their teams, briefly meet one another and receive instructions (Appendix M), and then are directed to the classroom where the simulation takes place. Students introduce themselves in character and describe briefly what they have done for the patient. The SP arrives in the encounter room, and the team begins discussing its discharge decisions with her and learning about her patient-centered preferences (outlined in Appendix A). Some simulations may require prerecorded videos with the information for the social worker and physical therapy recommendations if fewer than six students are participating (Appendices N & O). After the SP leaves, the student teams discuss and finalize their discharge decisions and complete the discharge decisions worksheet (Appendix E). The SP completes the postencounter checklist (Appendix P), and the faculty observer prepares feedback for the team using the feedback form found in Appendix Q.

Large-Group Debrief

Following the SP encounter and a 15-minute break, teams are given 45 minutes to complete the interprofessional collaborative care plan and medication reconciliation (Appendix S) based on their completed discharge decision worksheet (Appendix E).

Students then reconvene in a large-group setting to discuss their experience in a 60-minute faculty-facilitated debrief. The purpose of the debrief is to discuss roles and responsibilities of each profession, address challenges students had in communication, and address the role of personal and professional bias, communication, and respect. Faculty facilitators from the interprofessional schools should be present and contribute to the discussion. To help facilitate active participation in and targeted feedback to the interprofessional student teams, we suggest that the large groups be no larger than 15 to 20 students. If more students participate in the activity simultaneously, it would be beneficial to divide into multiple large-group debrief sessions, each with at least one faculty facilitator. A facilitator's guide that outlines the agenda (Appendix R) is included. Students participate initially in small-group discussion using the debrief questions (Appendix M), and then each small group discusses its experience with the large group. Facilitators should draw comparisons and provide context whenever appropriate. Student teams then

review feedback from the SP (Appendix P), and faculty provide in-person feedback to the teams based on their observations.

Local Adaptations

Local adaptations to the case may be necessary based on resources and availability of learners from a variety of professions or trainee levels. This case was written for third- and fourth-year undergraduate-level professional students; it can easily be adapted for graduate trainees.

One option for adaptation includes assigning learners to play a role outside their own profession. This allows learners to view the case through the lens of a different profession. Learners must be prepared to suspend their own professional viewpoint for the interprofessional team communication to be effective.

Another option is to use the virtual team member videos (Appendices N & O). Videos are available for social worker and physical therapy roles and can be used in cases where those roles are not available or student teams are smaller. This type of adaptation is not ideal because those professionals will not be adequately represented in the team discussion and decision-making process; however, it often is a reality that decisions are made among professionals with only remote input in the form of chart notes or personal conversations with primary team members.

Additionally, faculty or staff providers can be assigned to professional roles. Some institutions may not have students from a variety of professional schools nearby to partner with; however, use of faculty or staff providers from those professions may also allow for profession-specific education to occur. For example, without social work students available, one may consider using social workers from the hospital to participate with students in the SP encounter.

SP Recruitment and Training

SPs are recruited from a pool of experienced SPs and are provided with the complete case materials (Appendix A). Specialized SP trainers are available to answer questions and provide quality control. Depending on how often the session is run and how many SPs are required on a single day, the SP involvement is minimal and can reasonably rely on a small group of well-trained individuals familiar with the complex details of this case. After the encounter, SPs are asked to provide team feedback using the SP checklist in Appendix P.

Results

Over a 12-month period during the 2015-2016 academic year, 106 professional students participated in this activity (76% from medicine, 8% from nursing, and 15% from pharmacy). Following each session, participants completed a 15-item survey about the value of the curricular objectives, the realism of the scenario, and the overall educational experience. Surveys were collected anonymously, and data were stored on a secure online data-management system as part of the routine educational experience. Of the participants, 79% responded to the survey. Ninety-two percent (77 out of 84) indicated they were somewhat or highly confident that the experience helped them integrate profession-specific knowledge to appropriately assess the needs of the patient. Ninety-three percent (78 out of 84) felt confident in effectively communicating to create a shared patient-centered care plan. Ninety-five percent (80 out of 84) understood how interprofessional collaboration helps provide quality care. Finally, 77% of participants agreed that the allotted length was appropriate. On a 5-point Likert scale from *strongly disagree* to *strongly agree*, participants rated the value of the prereadings on transitions of care as being relevant (3.68) as well as helpful to furthering their understanding of the importance of transitions of care (3.56). SP checklist results were reviewed and showed consistency in scoring between SPs and also over time (data not shown).

Students also responded to open-ended questions about the most valuable and least valuable portions of

the experience. The student experience was variable, depending on the number and variety of interprofessional students participating. At the beginning of the year, during the pilot phase, when student participation was lowest, students tended to express a desire for more robust interaction with other students. However, as the year progressed, comments and feedback improved, citing the interprofessional interaction as one of the highlights of the experience. Students appreciated discussing patient care with students from other professions and commented that the joint debriefing session was an integral component of the activity.

The open-ended questions and a selection of representative responses follow.

What was the most helpful part of the SP encounter?

- “The opportunity to take the time to step away from the bedside nursing role, and future nurse practitioner role; and realize the importance of working together as a team. It allowed me to see, that although we each have our own agenda, that if we as a team can communicate and come to a common agreement that patients will ultimately benefit in the end.”
- “As medical students we don’t have much direct exposure to other members of the care team and interprofessional meetings, so it was helpful to hear examples of what kind of information various providers might bring to the table.”
- “The experience was well structured to offer a realistic setting with standardized patient and well-defined roles for each person.”
- “Realizing that patient input is very important.”
- “The in-person discussion in the simulation center, especially with a standardized patient, was the most helpful.”

What was the least helpful part of the SP encounter?

- “There was a significant amount of prereading.”
- “This session seemed far removed from how transitions of care take place within the hospital setting.”
- “It was difficult to role play as another profession, as I wanted to interject my medical knowledge because I am not as knowledgeable about the other professions.”
- “The recorded video of the social worker as it limited our ability to engage that important team member in simulated conversation.”

What was the most useful part of the activity/debrief session after the encounter?

- “It was helpful to have multiple professions represented. This really helped elucidate hidden biases. When we do these classes only with other students in our own profession, we can think theoretically about things but it was incredibly useful to actually hear real perspectives.”
- “I found it helpful to talk out loud about how this experience might change how I practice medicine and work with other professionals in the future.”
- “I took away from it that there are no small or insignificant roles on the patient care team, and that it really does take several different perspectives to manage a complex patient case in an effective and patient-centered manner. We talked a little in the session about there being a power differential between the professions, and that sometimes this leads to people backing down on things they feel strongly about or even not speaking up at all. I left thinking I need to make sure I remember to voice my opinions about the treatment of my patients and not just assume that someone else knows better. I think it was helpful for me to hear how the medical students felt that the patient encounter went, and their opinions on the treatment and discharge decisions selected because I don’t know anything about their training and how it may or may not differ from my own.”

This activity is feasible to implement with minimal faculty time, preparation, and resources. It can be implemented in a single session with multiple simultaneous groups (each with four to six students and a single SP) or on a rotating basis with one to two groups of interprofessional students at a time, requiring fewer SPs, fewer faculty observers, and fewer resources such as classroom space or wheelchairs. This allows for flexibility in overcoming scheduling constraints and resource limitations.

Discussion

This resource is a 3-hour interprofessional session wherein students engage in interprofessional education by creating a collaborative care plan for an SP undergoing a critical transition of care. The experience has been successful at meeting interprofessional curricular goals. Students valued the interprofessional interaction and especially the debrief discussion about their experience. They specifically gained insight into profession-specific perspectives and expertise, considering this one of the most important components of the learning experience.

In evaluating the utility of any interprofessional exercise or simulation, logistic considerations are paramount. However, this resource overcomes many of the typical barriers for interprofessional learning because of its ease of adaptability. Participants from a variety of professions can be involved, and use of prerecorded videos for social work and physical therapy assist in providing these team roles when members of those professions cannot be physically present. Furthermore, monthly sessions with smaller groups of students have been feasible, requiring minimal faculty time and institutional resources. The session is adaptable to institutional needs, local resources, level of trainee, and professions. The debrief session was an integral part of the learning process and allowed students to step out of their roles and examine their experiences and feelings toward bias, communication barriers, and negotiating priorities.

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Ethical Approval

This publication contains data obtained from human subjects and received ethical approval.

References

1. Institute of Medicine, Committee on Quality of Health Care in America. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academies Press; 2001.
2. Health Professions Network Nursing and Midwifery Office, Department of Human Resources for Health. Framework for Action on Interprofessional Education & Collaborative Practice. World Health Organization Web site. <http://apps.who.int/iris/handle/10665/70185>. Published 2010. Accessed July 16, 2016.
3. Institute of Medicine, Board on Health Care Services, Committee on the Health Professions Education Summit. *Health Professions Education: A Bridge to Quality*. Washington, DC: National Academies Press; 2003.
4. Interprofessional Education Collaborative. *Core Competencies for Interprofessional Collaborative Practice: 2016 Update*. Washington, DC: Interprofessional Education Collaborative; 2016.
5. Sunguya BF, Hinthong W, Jimba M, Yasuoka J. Interprofessional education for whom?—Challenges and lessons learned from its implementation in developed countries and their application to developing countries: a systematic review. *PLoS One*. 2014;9(5):e96724. <https://doi.org/10.1371/journal.pone.0096724>
6. Burke RE, Kripalani S, Vasilevskis EE, Schnipper JL. Moving beyond readmission penalties: creating an ideal process to improve transitional care. *J Hosp Med*. 2013;8(2):102-109. <https://doi.org/10.1002/jhm.1990>
7. Askin E, Moore N. *The Health Care Handbook: A Clear and Concise Guide to the United States Health Care System* 2nd ed. St. Louis, MO: Washington University in St. Louis; 2014:190-223.
8. Mueller KJ, MacKinney AC. Care across the continuum: access to health care services in rural America. *J Rural Health*. 2006;22(1):43-49. <https://doi.org/10.1111/j.1748-0361.2006.00010.x>

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