Abstract

Introduction: Physicians need to be able to communicate the myriad of management options clearly to patients and engage them in their health care decisions, even in the fast-paced environment of the emergency department. Shared decision making (SDM) is an effective communication strategy for physicians to share diagnostic uncertainty, avoid potentially harmful tests, and solicit patients' preferences for their care. Role-playing with just-in-time feedback is an effective method to learn and practice SDM before having these conversations with patients. Methods: This flipped classroom workshop featured precourse materials and an in-class session incorporating a short lecture outlining a framework for SDM, followed by role-playing through patient scenarios. Learners took turns playing the physician or patient role and received feedback on their communication skills while in the physician role. A faculty examiner subsequently assessed skill attainment using a simulated patient encounter and checklist of critical actions. Results: The workshop was an interactive and effective way to teach SDM to 28 PGY 1 and PGY 2 emergency medicine residents. Two months after attending the workshop, over 75% of the first-year residents were able to complete all the elements of the SDM process in a simulated patient encounter; four residents required no prompting by the examiner. Discussion: A communications workshop that incorporates role-playing with different patient encounters is an interactive way to teach SDM for the emergency setting. Residents early in their clinical training can benefit from learning and practicing SDM in a simulated setting.

Keywords
Shared Decision Making, Emergency Care, Patient-Centered Communication, Communication Skills, Emergency Medicine, Case-Based Learning, Flipped Classroom, Simulation

Educational Objectives
By the end of this activity, learners will be able to:

1. Describe the elements of shared decision making that are relevant to the emergency care setting.
2. Perform shared decision making by role-playing in simulated patient encounters.
3. Communicate risk and diagnostic options using a simulated patient scenario.

Introduction
As emergency care becomes more complex and patients have more options for evaluating or managing their medical conditions, emergency physicians need to be familiar with those options and able to communicate them clearly to patients. Shared decision making (SDM) is an effective way for emergency physicians to engage patients, understand patient values and preferences, and collaborate to make optimal patient-centered health care decisions.1 Even in the fast-paced, chaotic environment of the emergency department (ED) with unfamiliar providers, most patients still wish to be involved in their care.2 Moreover, some practicing emergency physicians, including those who have not heard of the concept of SDM, are already using SDM techniques with patients, primarily to share diagnostic uncertainty, avoid potentially harmful tests, and counteract a defensive approach of overtesting and overtreatment.3,4

While both patients and physicians view the SDM approach to patient care positively, it is not currently identified as a core entrustable professional activity for students entering residency or a core competency for milestone attainment for emergency medicine (EM) residents.5,6 In the ED, residents have limited opportunities to acquire and practice this skill due to rising patient volumes, limited patient contact time, and the complex
relationship between patients, residents, and attendings. To increase adoption of SDM techniques in the clinical environment, SDM should be taught, practiced, and assessed, akin to any other procedural skill. To our knowledge, there is no EM-focused SDM curriculum or assessment tool for residents. Previously published SDM curricula target the use of SDM in nonemergency settings or do not include a skills assessment tool. Within the EM community, some experts have recommended specific scenarios where it would be appropriate for physicians to engage in SDM, such as low-risk chest pain or advanced imaging for pediatric patients with minor head injury. Other academic physicians have highlighted the importance of humanism and effective communication as the central tenet of SDM, rather than teaching to specific clinical issues, because of the rapidly changing nature of medical science. Without agreement on SDM content or best practices, assessment of skill attainment is also lacking at all learner levels.

We developed this workshop after conducting a needs assessment of our early PGY 3 EM residents and discovering there was no EM-focused SDM curriculum or assessment tool available for us to use. Following a one-on-one instructor-to-trainee simulated patient encounter (Appendix D), we discovered that some of our PGY 3 EM residents struggled with several elements of SDM for a common, straightforward pediatric head injury case. To fulfill this curricular need, we created an educational workshop to teach the elements of SDM most appropriate for the emergency care setting and to allow the learners to practice this patient-centered communication skill in a low-stakes learning environment. Prior research has shown that educational programs incorporating active learning strategies with real-time instructor feedback are more effective at teaching communication skills than modeling or large-group teaching. The cases used for role-play in our workshop were adapted from recommendations of SDM experts and leading researchers within EM and incorporated data from a needs assessment of a cohort of emergency physicians. We created a multimodal approach to teach the essential elements of SDM and an assessment tool modeled after the EM oral board exam case format. We also refined the simulated patient encounter and assessment tool based on examiner and learner feedback.

This communications workshop targets learners familiar with the EM approach to common chief complaints, prognostication of illness, and empathetic communication strategies. The at-home preparatory materials and a brief in-class interactive lecture provide a framework for SDM so that in-class time can focus on application of the techniques using role-play.

Methods

We piloted this 60-minute flipped classroom role-play workshop with 14 PGY 2 EM residents. One week prior to the session, we emailed the participating residents a journal article to read so that they would have the basic conceptual framework for using SDM in the emergency care setting.

During the in-class session, we highlighted the important elements of SDM from the article with a brief lecture (Appendix A) for 10 minutes. These slides described SDM techniques that were most pertinent to the emergency care setting. We demonstrated these SDM techniques using case 2 from Appendix B (5 minutes).

After the lecture and demonstration, we divided the residents into pairs and asked them to pick a scenario to role-play (Appendix B). Each resident took turns playing the role of the physician or the patient after spending the first 2 minutes reading his/her respective parts. After about 5 minutes of role-play, the person playing the patient role provided just-in-time feedback to the person playing the physician role on his/her use of SDM in the scenario. Then, the residents switched characters and role-played with a different scenario. Each scenario took about 10 minutes to complete. The instructors walked around the classroom, observed each group's role-play, and encouraged learner pairs to try out different scenarios.

After 30 minutes of role-play, we led a debriefing discussion with the entire group during the last 10-15 minutes of the session (using the last slide of Appendix A for debriefing questions). We asked the residents to reflect on their conversations, discuss the elements of SDM that were easy or difficult to verbalize, and then articulate how they would use this skill on their next clinical shift. We also gave the residents our own observations and highlighted the areas that we perceived were missing from a few of the conversations.

Learner Assessment

Since the initial pilot, we have implemented this same workshop with 14 PGY 1 EM residents in the middle of their first year of training. While the workshop format remained the same, we added a skills assessment that was administered 2 months after the workshop. We developed a simulated patient encounter using the EM oral boards case format featuring a pediatric patient with minor head injury during which the resident would be required to engage with the examiner acting as a parent to decide collaboratively whether to observe the child or perform a computed tomography of the head (Appendix D). A similar oral board case was implemented during our needs assessment with
PGY 3 residents prior to developing the curricular content for this course. This was a tabletop exercise conducted in a small classroom with one faculty examiner acting as the standardized patient, nurse, paramedic, or family member (Appendix C). To begin the case encounter, the examiner would give the ED intake form to the resident, and the resident would interact with the examiner-as-patient by asking historical questions, perform a thorough exam, and then direct the examiner-as-ancillary staff to perform procedures and provide treatment. The examiner would also play the parental role. The one-on-one case encounter (Appendix D) was completed in 20 minutes with each of the 14 PGY 1 residents. The faculty examiner completed the assessment tool during the case (Appendix E) and provided direct feedback to each resident on the critical actions of the case (5 minutes). The assessment form was completed for each intern, collected, and kept in the intern's resident folder.

Examiners received the entire case with assessment tool about a week prior to the session. They were asked to review the American Board of Emergency Medicine oral board candidate video prior to the session.15 (This video review is optional.) All examiners met for breakfast 30 minutes prior to their encounters to discuss any questions about the case details or critical actions. All interns received instructions on the oral boards simulated patient encounter during their intern orientation with a live role-play and demonstration by a faculty instructor and a senior resident. The role-play was similar to the oral board candidate video referenced above.

Results

We implemented the workshop with 14 PGY 1 and 14 PGY 2 EM residents. They all had spent at least 1 month working in our ED and had experience caring for pediatric patients. An informal assessment at the beginning of each workshop showed that all the residents had previously heard of SDM and most had used some elements of SDM to communicate with their patients. Informal feedback from the two sessions showed that the prereading was helpful for framing the discussion and the exercise. While most of the residents did read the preassigned article, the ones who did not were still able to participate in the role-play exercise. A standard online conference evaluation form was sent to all 28 residents after the workshop, although only seven residents completed the optional form. They rated the education value of the workshop as a 5 (with 5 being the highest score) and specifically commented that they would use some of these tools in their next shift and that they enjoyed having time to practice this skill using the common scenarios. Overall, the mock oral boards patient encounters were rated highly by our residents, scoring an average of 4.64 (out of 5).

Two faculty instructors administered the simulated patient encounter to the group of 14 PGY 1 EM residents 2 months after the workshop in a series of one-on-one encounters. These instructors were experienced with the EM oral board–style simulated patient encounter. Four interns completed all five critical actions and used all the elements of the SDM tool in their simulated patient encounter without any prompting. They scored 21 points (out of 21). Seven interns completed all five critical actions after some prompting from the faculty examiner. Of these, six interns scored 21 points, and one scored 19 because she did not articulate two specific downsides of using CT imaging. The remaining three interns who missed at least one critical action either did not solicit preferences from the parent or did not incorporate parental preferences into their decision making (critical actions 3 and 4). Unfortunately, we do not have a similar assessment of the PGY 2 residents who participated in our initial pilot.

Discussion

We describe an effective method for teaching and assessing SDM for emergency care practitioners that is comprehensive and requires very few resources. One faculty instructor can lead the entire workshop in an hour and perform an individual learner assessment in 25 minutes. While originally designed for EM residents early in their training, this workshop can also be used for fourth-year medical students and other residents who provide care in an urgent care setting (e.g., family medicine, internal medicine, pediatrics). The ideal learner should have some clinical experience with undifferentiated patients and communicating risk to patients and their families. Similarly, the ideal instructor should have clinical experience in an acute care setting and be familiar with the resources provided for this workshop. In our experience, the PGY 2 residents were more engaged in the large-group discussion about the successes of and barriers to implementation than the PGY 1 residents were, possibly because the PGY 2 residents had had more opportunities to use SDM with patients. We found that residents with more clinical experience asked more questions and could draw upon and reflect more extensively on their own challenges and successes with SDM.

Moreover, we learned from our large-group debrief that unfamiliarity with using patient decision aids was a challenge in the role-play exercise for both PGY 1 and PGY 2 residents, as we did not routinely use decision aids in the clinical environment. Even though we modeled the use of the chest pain decision aid during our teaching session, the residents found it awkward.
to use the unfamiliar tool. We believe that decision aids can improve patient understanding, but since this was not a primary objective for the workshop, we did not focus on their use. We would still recommend showing residents that these tools exist and encouraging them to use them at least once during the role-play. In future workshops, we may spend some additional time reviewing available decision aids for the emergency setting as a resource for improving communication with patients.

Our assessment tool showed that this format was an effective way to teach SDM. Most of our PGY 1 residents were able to apply the concepts from the teaching session and use all the elements of SDM in a simulated patient encounter. The few residents who did not solicit or incorporate parental preferences into their decision making responded positively to the direct feedback they received after the assessment. During future teaching sessions, we plan to highlight the findings from our resident assessments and stress the importance of soliciting patient or family preferences during an SDM conversation.

There are several limitations to this resource. Very few learners completed an evaluation form for the workshop, although several residents remarked informally how helpful it was to go through the SDM process systematically and learn to use decision aids. In addition, the learners needed to be comfortable with role-playing as an educational tool and to actively participate in the activity. They also needed to be comfortable with providing and receiving feedback from a peer. The instructor should set these expectations at the beginning of the workshop and pair learners with similar clinical experiences.

Finally, the simulated patient encounter with assessment tool requires faculty time to administer individually to each learner. We were able to assess 14 learners with two faculty instructors over a 4-hour period and provide them with direct feedback using the critical actions checklist. However, a larger number of learners would require more faculty time.

In summary, we have found our SDM communications workshop to be an interactive and effective teaching tool for our EM learners. We were able to teach the SDM framework applicable for the acute care setting and engage residents in role-play using a variety of clinical scenarios.

**Appendices**

- A. Shared Decision Making Lecture.pptx
- B. SDM Clinical Scenarios.docx

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