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Effective Goals-of-Care Conversations: From Skills Training to Bedside

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Abstract

Introduction: Goals-of-care (GOC) conversations are essential to ensure high-quality care for people with serious illness. We developed a simulation experience to train internal medicine residents in GOC conversations near end of life, followed by a real-life GOC conversation as a Mini-Clinical Evaluation Exercise (Mini-CEX) including direct feedback from participating patients. **Methods:** The 3-hour simulation session trained teams of two learners each to interact with standardized patients portraying a patient with end-stage heart failure and an accompanying family member. Residents completed pre- and postsurveys regarding their self-assessed abilities and confidence in conducting these conversations. Piloted in 2016, the Mini-CEX was completed in 2017 with 28 residents 3-9 months after simulation. Patients and participating family members were invited to complete an optional, deidentified survey of their experience. **Results:** From 2015 to 2017, 84 residents completed simulation training. Ninety percent of postsurvey responders felt more prepared to conduct GOC conversations after simulation compared to 42% before training. Eighty percent or more reported confidence in discussing GOC (previously 67%), prognosis (previously 62%), and hospice (previously 49%). Analysis of Mini-CEX scores revealed that the majority of residents' skills were the same or improved compared with their performance in simulation; more than 70% demonstrated improvement in ensuring patients' comfort, displaying empathy, and recognizing/responding to emotion. Almost all patients and families reported feeling heard and satisfied with their conversation with the resident. **Discussion:** This curriculum was well received, and initial data support its effectiveness in enhancing residents' self-perceived confidence and interpersonal skills in real-world patient encounters.

Keywords

Communication Skills, Goals-of-Care Conversations, Hospice, Palliative Care, Hospice & Palliative Medicine, Internal Medicine, Clinical Skills Assessment/OSCEs, Clinical Teaching/Bedside Teaching, Simulation

Educational Objectives

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

1. Describe when to engage in goals-of-care conversations based on prognosis, persistent suffering, and illness milestones requiring decision-making.
2. Demonstrate a structured approach for goals-of-care conversations.
3. Convey a mindful presence during the conversation, utilizing active listening and empathetic behaviors.
4. Provide and accept feedback.
5. Incorporate suggestions for improvement during the conversation.

6. Recommend hospice services (if appropriate) to patient and family member.

Introduction

A key challenge in health care is to find better ways to care for chronically and seriously ill patients through progressive stages of disease and across settings of care. Numerous studies demonstrate how these patients suffer high symptom burden and recurrent hospitalizations leading to poor quality of life.[1,2] Earlier goals-of-care (GOC) conversations can help improve anxiety, depression, and quality of life as patients face turning points in their illness. Yet multiple studies show that clinicians often feel unprepared and hesitant to engage in GOC conversations due to lack of training, personal anxiety, and time constraints, among other factors.[3,4] These barriers can lead to low patient and family satisfaction, as well as costly care that is often unwanted and unnecessary. Communication skills training programs with cognitive frameworks, modeling, and skills practice with feedback are commonly used in palliative care and have been shown to be effective in some studies.[5,6] A recent study evaluating the impact

of communication skill-building interventions using the Serious Illness Conversation Guide (SICG) from the Serious Illness Care Program[7] with oncologists resulted in more, earlier, and better conversations.[8]

We created a small-group simulation-based learning experience to teach one aspect of serious illness communication—the late GOC conversation when a person is close to end of life. This training included breaking difficult news, sitting with strong emotion, matching priorities with treatment preferences, and recommending hospice care. During the training, residents reflected on why these emotional, challenging conversations matter; recognized turning points in an illness signaling the need to pause and assess a patient's goals and priorities; and understood and applied the evidence-based SICG in skills practice with standardized patients (SPs).[9] Additionally, participants learned the nuts and bolts of hospice services and a communication strategy for introducing hospice to patients and families. After simulation training, residents demonstrated their acquired skills in real-life patient encounters during their inpatient rotations using the Mini-Clinical Evaluation Exercise (Mini-CEX) format. Conceptually, we drew from best practices from VitalTalk[10] and the Serious Illness Care Program to create this experience and adapted evaluation tools from the American Academy of Hospice and Palliative Medicine (AAHPM)[11] and the Mini-CEX format of the American Board of Internal Medicine (ABIM).[12]

Several publications in *MedEdPORTAL* describe communication skills training in GOC,[13-15] but none incorporate knowledge acquisition, personal reflection, skills practice in simulation, evaluation of performance during an actual patient encounter, and real-time feedback from patients. This training has been designed to address all levels of the Kirkpatrick model,[16] including reaction, learning, behavior, and results. With adjustment of case scenarios, this training is relevant and applicable for residents across all specialties and can be easily adapted for faculty training.

Methods

Development

We designed this training for second-year residents in internal medicine (IM) as a grant-funded pilot in its first year. Later, the IM residency agreed to fund the training based on positive reviews from residents and made it mandatory to help fulfill required educational competencies in communication and professionalism. The faculty facilitators involved in the training were a select group of clinicians with board specialization in palliative care and/or extensive teaching experience (primarily

hospitalists). These faculty members had taught communication skills in simulated settings and/or had received specialized training in serious illness communication. The chosen faculty were required to attend an annual faculty development meeting with video review of prior sessions in order to standardize teaching and evaluation. We adapted best practices in serious illness communication from VitalTalk and the Serious Illness Care Program as well as evaluation tools from the AAHPM and ABIM. This activity received "Not human research" status from the Investigational Review Board at the University of Massachusetts Medical School.

Environment

The training took place in our simulation center, where we reserved a conference room for large-group discussions. For each pair of participating residents, we equipped an exam room with an examination table and chairs, as well as video cameras for recording the sessions. Two SPs, one portraying the patient and another portraying the family member, waited in each exam room. The patient sat on the exam table, and the family member was seated in a nearby chair. The patient wore a hospital gown and a nasal cannula. The only other prop provided was a box of tissues, which was placed in the room in sight of the participants but not within reach of either SP. Across from the patient and family member, there were two empty chairs for residents. In the corner (and outside the area of role-play), there was an open chair for the faculty facilitator. The case scenarios were posted on the door outside each exam room, and the residents and faculty facilitators received copies of the SICG for use during the scenario.

Personnel

Simulation center personnel included the following:

- Multiple SPs who worked in pairs as patient and family member.
- An SP trainer for initial training of SPs alongside an experienced faculty facilitator.
- One member of the simulation center staff to schedule exam rooms and SPs, keep time for the simulation, set up and monitor video recordings of the encounters, and set up computer evaluations after the session.

Residency program personnel included the following:

- An administrative assistant to schedule residents and produce written materials.
- One faculty member per resident pair at each session (generally, three faculty per session).

Implementation

The residency administrative assistant scheduled residents and faculty for trainings in coordination with the simulation center staff, who scheduled exam rooms and SPs. Six residents worked in pairs during the session with one faculty member per resident pair. Each training session was 3 hours long and required three faculty facilitators and six SPs. Faculty and SP numbers were adjusted depending upon the number of learners trained in a specific session. We had a skilled group of six faculty members from hospital medicine and palliative care and a seasoned group of 10-15 trained SPs who fit the demographics for the patient and family member described in the scenarios.

The SPs prepared for the training with an SP trainer employed by the simulation center as well as lead faculty facilitators using patient history and background detailed in the patient case (Appendix A). The SPs were required to observe one or two live or prerecorded sessions followed by a 2-hour preparatory meeting to review their roles, understand the educational objectives, and review principles of effective feedback. All faculty facilitators were required to attend a 2-hour faculty development session once a year in order to standardize teaching and evaluation. The faculty reference (Appendix B), a detailed account of this GOC training, included staff roles, learning objectives, session outline, case details, SP training materials, and guidelines for faculty facilitation. It can be adapted for other institutions and educational settings.

We developed a presurvey (Appendix C) and sent it prior to each training session in an introductory email (reference Appendix D) in order to capture residents' self-assessed baseline skills and confidence in conducting GOC conversations. The email also outlined the goals and objectives of the session and shared the evaluation tool (Appendix E) we developed. We expected residents to complete the presurvey prior to the training.

On the day of the session, residents and faculty gathered in a large conference room to review the training agenda. A faculty facilitator started with an interactive didactic via PowerPoint slides (Appendix F) that outlined the trajectory of chronic illness, prognostication, and opportunities for GOC conversations at a new diagnosis, milestones/turning points in an illness, and near end of life. The faculty explained that the residents would practice late GOC conversations near end of life, including discussion of hospice care. The residents were given notepads and prompted to write and reflect on the challenges and/or rewards of having these conversations, followed by group discussion. The group received pocket cards with the SICG and reviewed the guide in

depth as a conceptual framework, including reading the patient-tested language aloud.

The residents were then sorted into pairs and directed to exam rooms for simulation practice in a two-part case scenario involving SPs portraying a patient with end-stage heart failure and an accompanying family member. The faculty facilitator was randomly assigned to a pair of resident learners. The scenarios (Appendix G) were posted outside the simulation/exam rooms with details of the case and clear instructions for residents on their tasks and goals for the exercise. In the first scenario, the residents were asked to assess understanding of illness, share difficult news about poor prognosis, sit with strong emotion, and assess the patient's goals and priorities. In the second scenario (i.e., the next hospital day), they were asked to create a plan of care based on the patient's goals and practical needs at home and to introduce hospice, if appropriate.

Prior to each scenario, a pair of learners and their faculty facilitator huddled outside the room to read the written scenario, clarify any questions, and identify individualized learning goals for each resident. The faculty facilitator then entered the simulated hospital room where SPs were seated already and sat in a corner outside the area of role-play. The pair of residents knocked, entered the room, introduced themselves, sat, and asked permission to conduct a family meeting. Each resident took a turn in the "talking seat" during dedicated parts of the conversation tailored to the resident's learning goal. The faculty facilitator took notes via the learner evaluation tool and called time-outs at moments of learning opportunity linked to residents' goals (usually every 5-6 minutes) or when residents appeared stuck. The facilitator invited the resident in the talking seat to self-assess and then asked the observing resident and SPs to provide constructive feedback. The resident was given an opportunity to repeat challenging parts of the conversation, followed by more self-assessment and feedback.

In between the two scenarios, all residents and faculty returned to the conference room for a brief didactic on the nuts and bolts of hospice and communication strategies for introducing and recommending its services. This didactic was intended to prepare residents to create a concrete plan of care during the second scenario. At the conclusion of the simulation, all residents and faculty gathered in the conference to debrief, reflect upon the experience, and formulate takeaways for ongoing skills practice in real-world patient care.

At least 3 months after simulation training, residents were invited to identify a patient under their care during an inpatient rotation

who would benefit from a GOC conversation. This conversation was directly observed by one of the same pool of faculty facilitators. The bedside meeting was scheduled by the resident, and permission was obtained from the patient and family for evaluation during this encounter. No patient health information was collected during this process. Prior to the meeting, the faculty facilitator reviewed the Mini-CEX form (Appendix H) with the resident; later, the faculty facilitator completed and signed the form while debriefing the encounter with the resident. After the meeting, the faculty facilitator offered the patient/family an optional survey (Appendix I) with two questions: "Did you feel heard during this conversation?" and "Were you satisfied with the meeting?" Patients could write comments on the survey and were also invited to provide face-to-face feedback to residents.

Learner Assessment

Residents performed informal self-assessments prior to simulation through presurveys and received real-time feedback from their peers, the SPs, and the faculty facilitators during the scenarios. The faculty facilitators completed formal evaluations of resident performance during simulation via the learner evaluation tool as well as during bedside meetings with patients via the Mini-CEX tool. These evaluation tools reflected the content of the SICG and were informed by open-access tool kits from AAHPM. The learner tools' scoring system rated expected tasks as Done (2), Partially Done (1), Not Done (0), and NA (not applicable to this learner) and rated interpersonal skills as Excellent (2), Satisfactory (1), and Unsatisfactory (0). Since two residents shared the same conversation during training, NA was used for components not covered (e.g., the second resident in the talking seat may not have repeated the steps of introducing the meeting and assessing understanding of illness).

On the day of training, the residents completed a postsession self-assessment as well as a program evaluation (Appendix J) that we created to encourage self-reflection and solicit feedback. All of the evaluations were safely stored in a password-protected online repository in the simulation center. Only the lead faculty facilitators and simulation center coordinator had access to the resident data; the residents could ask to see the written evaluations as well as video recordings of the session.

At 1, 3, 6, and 12 months after the session, the participants received email invitations to complete postsurveys (Appendix K) to evaluate their perception of the training's impact on their everyday practice and to track any changes in their self-assessed skills, confidence, and frequency of GOC conversations. These emails also contained communication tips and web-based resources for further self-study. The pre- and postsurveys were

anonymous, and the data were stored electronically for review and analysis.

Starting at 3 months after simulation training, residents received reminders to identify a patient under their care during an inpatient medicine rotation for an observed GOC conversation as a Mini-CEX. The Mini-CEX evaluation tool scored all skills as Yes/Done (2), PD/Partially done (1), and No/Did not do (0). The tool was shared with residents prior to the GOC conversation in order to make expectations transparent and reinforce the communication framework. After the patient encounter, the faculty facilitator completed the Mini-CEX in paper form in the presence of the resident, and patients were offered optional feedback surveys on paper (without use of a patient's name or identifying information). The faculty facilitators entered the Mini-CEX results into a password-secure REDCap survey tool. The paper forms were kept under lock and key until entered into REDCap and then were shredded. We generated an analysis comparing each resident's performance during the Mini-CEX to their own during simulation. Of note, the residents first gave permission or could opt out of participating in this analysis.

Debriefing

There were two debriefings during the simulation experience. We concluded the session with a large-group debriefing and reflection among all residents and faculty, using guiding questions from the PowerPoint presentation. The group discussed a variety of themes, including being present with suffering, cultural aversion to death and dying, navigating uncertainty and strong emotion, clinician grief, and meaning/purpose in medicine. The faculty led discussion of strategies for mindful presence and self-care, including examples from their own lives and clinical practice. Finally, each resident and faculty shared a take-home point and skill to practice in real-world patient care. We conducted the second debriefing with simulation center staff and faculty as needed to discuss any technical issues and adjustments to the SP portrayals.

The Mini-CEX was followed by real-time debriefing between the resident and observing faculty. If other team members were present during bedside conversation (attending of record, students etc.), the observing faculty also solicited feedback from them.

Results

We completed 15 simulation sessions for 84 second-year IM residents in academic years 2015-2017. We developed and piloted the Mini-CEX in 2016 with a limited number of participants (six) and implemented it for all 28 residents in 2017.

Presurveys

Almost 90% (76 out of 84) residents completed anonymous presurveys. Only 42% (32 out of 76) reported feeling adequately prepared by prior training to conduct GOC conversations.

Simulation Session Evaluations

On the day of training, all participants completed a program evaluation (which was not anonymous). More than 95% reported that the sessions were organized and relevant and that the patient portrayal was realistic.

Review of learner evaluations showed that fewer than 40% of the residents were assessed by faculty facilitators as being independently capable of leading GOC conversations without supervision; in presurveys, more than 60% of residents had rated themselves highly in sharing prognosis and confidence with GOC conversations (Table 1).

Postsurveys

The response rate for anonymous postsurveys was less than 50% (Table 1). Among those who responded, 90% or more reported feeling the simulation training improved their ability to conduct GOC conversations. Eighty percent or more also reported greater confidence in discussing hospice (49% previously), communicating prognosis (62% previously), and navigating GOC conversations in general (67% previously). Finally, 60%-70% of respondents stated they were having GOC conversations early in the disease course compared with 47% previously.

Mini-CEX Evaluations

During the pilot phase in 2016, seven residents completed the Mini-CEX, and there was a trend towards improvement in recognizing/responding to emotion, using silence, and displaying empathy compared to their own performance during simulation. In 2017, all 28 second-year residents completed the Mini-CEX as a requirement at least 3 months after simulation training. Analysis of Mini-CEX scores (Tables 2 and 3) showed that the majority of residents' communication skills were the same (for components done well by residents in simulation—mostly scores of 2) or had improved (from a score of 0 to 1 or from 1 to 2) at the bedside

as compared to simulation, with significant improvement (more than 70% residents) in interpersonal skills of ensuring patients' comfort, displaying empathy, and recognizing and responding to emotion. Analysis was limited by the fact that residents worked in pairs and had done only certain components of the GOC conversation in simulation, resulting in no baseline data (NA designation) for parts of the evaluation. Of note, fewer than 25% of residents received a "needs supervision" designation after the Mini-CEX compared to more than 60% during simulation.

Patient Surveys and Direct Feedback

Immediately after completion of the Mini-CEX, patients and families were given an optional two-question survey on whether they felt heard and if they were satisfied with the meeting. In 2017, all 28 patients and families responded to the survey and answered yes to both questions, with the exception of two patients who were not satisfied with the meeting.

Qualitative Feedback

Comments from program evaluations and postsurvey responses illustrated the following themes:

- Structure of simulation and GOC conversations:
  - "I have learned useful phrases and techniques to start goals of care conversations. Observing and practicing on standardized patients was very helpful."
  - "I appreciated the 'time-outs' and ability to go back and try a new technique."
- Practice of balancing honesty with empathy:
  - "Being direct with the patient and family allows for a more meaningful conversation."
  - "These situations are hard for everyone, but the patients seem to appreciate honesty more than sugar coating—learned that I have to be more comfortable with the reality of dying and our role."
- Increased comfort and confidence:
  - "I think I have a better framework for these difficult conversations and more confidence that I will know what to say."

Table 1. Results of Pre- and Postsurveys of Residents (2015-2017)

Statement	Presurvey	1-Month Postsurvey	3-Month Postsurvey	6-Month Postsurvey	12-Month Postsurvey
Response rate	91% (76/84)	39% (33/84)	37% (31/84)	48% (40/84)	36% (30/84)
Simulation improved my ability to conduct GOC conversations	NA	100% (33/33)	100% (31/31)	98% (39/40)	90% (27/30)
Comfort discussing hospice	49% (37/76)	91% (30/33)	84% (26/31)	80% (32/40)	90% (27/30)
Comfort communicating prognosis	62% (47/76)	85% (28/33)	87% (27/31)	83% (33/40)	90% (27/30)
Confidence with GOC discussions	67% (51/76)	85% (28/33)	90% (28/31)	93% (37/40)	93% (28/30)
Have GOC conversations early in disease course	47% (36/76)	64% (21/33)	71% (22/31)	73% (29/40)	70% (21/30)

Abbreviations: GOC, goals of care; NA, not applicable.

Table 2. Changes in Skill Level of Residents in Mini-CEX Compared to Prior Performance in Simulation (Components of Conversation Guide)

Communication Skill	Same or Improved	Worse
Greet	100%	0%
Purpose	100%	0%
Understanding	92%	8%
Describe	89%	11%
Address questions	100%	0%
Sharing prognosis	65%	35%
Values/priorities	72%	28%
Making a recommendation	70%	30%

- "It was a great practice experience explaining an illness to a patient and telling them their prognosis. Parts were difficult, and it is definitely something we should practice before doing it regularly on the wards."
- Improved knowledge about hospice:
  - "I feel much more comfortable about my knowledge of hospice and ability to explain its role to patients."

Discussion

At our institution, we developed this training for IM residents by leveraging local resources (i.e., an internal grant to kick off the program, support of the IM residency for sustainable funding, and the expertise of our medical school's simulation center) and national, open-access, evidence-based tool kits of best practices. In the early phase, we faced challenges with recruiting residents and faculty to participate in this new, voluntary educational experience. We identified and collaborated with influential early adopters, including chief residents, senior hospitalists, and the IM residency program director, who agreed to participate in a videotaped simulation session. He allowed us to share his video encounter with the SP as we presented and disseminated our early work at grand rounds within our institution. We utilized the positive feedback and testimonials from early adopters, and the IM residency program director agreed to fund and require the sessions for all PGY 2 residents after our grant ended. As an official program of the IM residency, we were able to access administrative support for scheduling the sessions and collecting evaluation data. However, the biggest and ongoing challenge

remains the lack of protected time for faculty facilitators and leaders to organize, conduct, and refine the program each year. These faculty use their administrative and/or off-duty time to volunteer for this program based on its mission and the chance to hone their own communication skills and their academic portfolio for promotion. We believe this training can be adapted by other institutions and educational settings with modifications based on local resources (e.g., using staff to portray patients rather than trained SPs, or small conference rooms for role-play in lieu of a simulation center).

Our program was embedded in the beginning of the second year of IM residency to support residents' changing role into team leaders at that time, including the expectation that they would be leading these difficult conversations on their inpatient rotations. We created layers of individual and group-based learning in this experience, including an interactive didactic, concrete skills practice in a safe simulated setting, direct observation of peers, reflection and analysis, and finally a unique opportunity to receive feedback on a real-life serious illness conversation from a patient.

Overall, the training was well received, and residents rated the simulation sessions as highly useful and effective. However, measuring its longer-term impact was challenging due to several barriers and confounding factors.

First of all, the response rate for postsurveys was very low. The residents who did respond rated themselves as improved, but this could be a self-selected group that embraced difficult conversations in general, thereby creating a positive bias. Unfortunately, the anonymous nature of the pre- and postsurveys made it impossible to compare individual residents' attitudes and confidence over time or evaluate the cause behind poor postsurvey response. A very small percentage of the residents (less than 5%) reported in program evaluations that the simulation felt artificial and that it was therefore difficult for them to sound or act genuine with SPs.

Second, many residents did not complete the Mini-CEX until 6 months or more after the simulation training, as this evaluation was dependent on residents' inpatient schedules and faculty availability. In addition to simulation training, residents' improvements in interpersonal skills may have been due to their professional maturation over time. Some residents may have completed a monthlong elective and/or worked closely with palliative care team, which may have enhanced their skills. The hospitalist-faculty facilitators from simulation also worked on the wards and continued to model and practice these

Table 3. Changes in Skill Level of Residents in Mini-CEX Compared to Prior Performance in Simulation (Interpersonal Skills)

Communication Skill	Improved	Unchanged	Worse
Open posture	28% (8/28)	72% (20/28)	0% (0/28)
Assuring comfort	72% (20/28)	28% (8/28)	0% (0/28)
Interpersonal distance	39% (11/28)	61% (17/28)	0% (0/28)
Use of silence	43% (12/28)	46% (13/28)	11% (3/28)
Responding to emotion	75% (21/28)	25% (7/28)	0% (0/28)
Displaying empathy	82% (23/28)	18% (5/28)	0% (0/28)

skills with residents; in addition, these faculty may have been biased towards seeing improvement when conducting Mini-CEX evaluations.

Finally, residents chose the patients for Mini-CEX evaluation, which introduced selection bias and may have influenced the overwhelmingly positive survey responses from patients and families. Despite these limitations, the positive skill development of residents translating into positive patient and family experiences at bedside is encouraging.

We regularly solicited feedback from our learners and made modifications to the training. For example, we added a brief interactive didactic on hospice eligibility in the middle of the two-part encounter after residents reported that they did not how to introduce or explain hospice in the second scenario. Later, per resident feedback, we combined the two scenarios into a single encounter to offer a smoother transition and more time for skills practice.

Our next steps are to find ways to objectively evaluate residents' skills and retention of simulation training at the bedside as well as to measure patients' and families' experience of these conversations. These steps should further address the gap in understanding the downstream impact of simulation training on the quality of serious illness care and patient satisfaction. We aim to train more hospitalists in order to expand our bench of faculty who can teach these skills in simulation sessions and model them at the bedside with patients. This curriculum has been very well received at our institution and already has been adapted for other residents, fellows, and practicing clinicians, including hospitalists, neurology residents, and nephrology fellows. We hope this simulation and Mini-CEX experience can inform similar efforts and clinician training outside our institution.

Appendices

A. Patient Case.docx

B. Faculty Reference.docx

C. Presurvey.docx

D. Emails.docx

E. Learner Evaluation Tool.docx

F. PowerPoint Presentation.pptx

G. Case Scenarios.docx

H. Mini-CEX Form.docx

I. Patient and Family Survey.docx

J. Program Evaluation and Self-Assessment.docx

K. Postsurvey.docx

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

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