

Original Publication

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Delivering Challenging News: An Illness-Trajectory Communication Curriculum for Multispecialty Oncology Residents and Fellows

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Abstract

Introduction: Published curricula to teach communication skills for postgraduate fellows in oncology are few in number despite the fact that oncologists conduct many difficult discussions with their patients and their families. Such discussions may include disclosing initial diagnosis or relapse of a patient's cancer or relaying a poor prognosis or change to palliative care. **Methods:** An eight-module course on communication in oncology practice was delivered over 2 months for palliative and oncology fellows and radiation oncology residents. Learners were given a precourse survey in which they were asked to rate their proficiency in various communication tasks. Each learner then participated in a videotaped precourse objective structured clinical exam (OSCE) on breaking bad news with standardized patients (SPs). The course took place over 8 weeks with weekly didactics and role-play. At the end of the course, a second OSCE took place. After the course was completed, the fellows again filled out a proficiency survey.

Results: Twenty-two learners participated over 2 years of this course. Participants reported a significant increase in perceived competence in all areas on the postcourse survey. SP feedback on OSCEs pre- and postcourse indicated improvement in skills for learners. Pre- and postcourse OSCE video assessment revealed a significant improvement in global communication skills. **Discussion:** Initial data show that this course successfully improved communication skills and increased fellows' comfort level across several domains of communication. Future directions include validating our assessment tool, expanding the topic base, and investigating the impact on practice after course completion.

Keywords

Oncology, Editor's Choice, Standardized Patient, Communication Skills, Radiation Oncology, Role-Play, Pediatric Hematology-Oncology, Hospice and Palliative Medicine, End-of-Life/Palliative Care, Psycho-Oncology

Educational Objectives

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

1. Use fundamental communication skills in the practice of caring for patients with oncologic diagnoses.
2. Participate in role-play activities as part of an educational session.
3. Assess the patient with cancer as an individual, including premorbid personality, coping systems, and spirituality.
4. Demonstrate delivering difficult information (breaking bad news) using the MR. SPIKES model.
5. Incorporate details of an illness narrative/trajectory into decision making to partner with their patient.

Introduction

Communication skills in medical care are critical for the success of the doctor-patient relationship and, by proxy, health outcomes. Good communication skills have been associated with improved patient satisfaction, increased adherence, and decreased incidence of malpractice lawsuits.¹ Communication skills are now a program educational requirement according to the Accreditation Council for Graduate Medical Education's common program requirements for residents² (section IV.A.5.d: "Residents are expected to:

Appendices

- A. Fellow Pre- & Postcourse Survey.docx
- B. Adult OSCE 1.docx
- C. Peds OSCE 1.docx
- D. Peds OSCE Parent 1.docx
- E. SP Evaluation Tool.docx
- F. Faculty Evaluation Tool .docx
- G. Faculty Evaluation Tool Score Sheet.xlsx
- H. Role-Play Workshop.pptx
- I. Module 1 Fundamentals of Communication.pptx
- J. Module 2 Patient as Person .pptx
- K. Module 3 Treatment Issues .pptx
- L. Module 4 Breaking Bad News.pptx
- M. Module 5 Communicating With AYA Population.pptx
- N. Module 6 Communicating With Family.pptx
- O. Module 7 Transition to Palliative Care.pptx
- P. Module 8 Mindfulness.pptx
- Q. Role-Play Scripts.docx
- R. Adult OSCE 2.docx
- S. Peds OSCE 2.docx
- T. Peds OSCE Parent 2.docx
- U. 1-Year Postcourse Survey .docx

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

communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds”) and for fellows³ (section IV.B.1.e: “Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals”).

In the field of oncology, communication skills are paramount, as the life-threatening or life-limiting nature of the conditions encountered in this field create multiple challenges for practitioners, both those in training and seasoned oncologists. The ability to talk to patients about a new diagnosis, poor prognosis, relapse, imminent death, or death itself is not innate, nor is it commonly taught at any level of training. Kissane and colleagues⁴ identified eight key communication skills that should be emphasized when training oncology professionals: breaking bad news, discussing prognosis and risk, shared decision making, responding to emotions, dealing with recurrence, transition to palliative care, running a family meeting, and discussing death and dying. In 2016, the European Society for Medical Oncology and the American Society of Clinical Oncology published their updated recommendations for a global curriculum in medical oncology, which feature communication as a competency to be included in medical oncology training.⁵ More recently, a systematic review by the American Society of Clinical Oncology (with Walter F. Baile as the senior author) was published with more specific recommendations for communication training.⁶ Recommendations 9.1 and 9.2 are as follows:

9.1. Communication skills training should be based upon sound educational principles and include and emphasize skills practice and experiential learning using role-play scenarios, direct observation of patient encounters, and other validated techniques.

9.2. In order for communication skills training to be most effective, it should foster practitioner self-awareness and situational awareness related to emotions, attitudes, and underlying beliefs that may impact communication, as well as awareness of implicit biases that may affect decision making.⁶

Curricula in oncology communication skills do exist, with emphasis on most, if not all, of these areas; better-known curricula include EPEC-O, VITALtalk, and I*CARE. Modules on communication skills not specific to oncology can be found in *MedEdPORTAL*—notably, most of these modules use similar pedagogies of objective structured clinical exams (OSCEs) or modified OSCEs, standardized patients (SPs), and role-play.⁷⁻¹³

In addition to quality curricula in communication, tools for remembering key skills in communication, such as delivering challenging news, have been created. One of the most well-known and commonly used tools in oncology is SPIKES, a mnemonic to help learners plan patient encounters when bad news needs to be given.¹⁴ The acronym stands for Setting up the interview, assessing the patient’s Perception, obtaining the patient’s Invitation, giving Knowledge and information to the patient, addressing the patient’s Emotions with empathetic responses, and Strategy and Summary. This tool was designed with oncology patients in mind and has been adapted for use with pediatric oncology patients (changing Invitation to Involvement).¹³ As a communication tool, it provides a framework for breaking bad news in a structured format, with the intent of having the bearer of bad news be organized, prepared, and empathetic.

Putting such tools as SPIKES into practice does not come naturally for practitioners and perhaps comes even less easily for learners with comparatively little experience. Allowing learners to practice breaking bad news away from the stressful clinical setting and separate from actual patients, with potentially volatile or emotionally impactful encounters, theoretically can decrease learner stress, create a safe learning environment, and improve real-life experiences. The ultimate goal for improving communication education is better patient care by delivering accurate information, ensuring comprehension, navigating emotional responses, setting up follow-up, and monitoring adherence. Creating a learning experience to prepare for these stressful communication encounters requires mindfulness of both the fidelity (how closely the

program mirrors reality) and the psychological safety of the program. Simulation—whether it be via role-play, SPs, or simulation technology—can achieve this goal. Most communication curricula use some form of simulation, primarily scripted or semiscripted role-play or SPs.⁷⁻¹³ Several use OSCEs or modified OSCEs as a teaching or evaluation tool. Similar to role-play and SPs, OSCEs approximate real-life experiences with a high-fidelity, low-stakes method. The main disadvantages of SPs or OSCEs tend to be access and cost—not every training program or hospital has immediate access to the facilities or personnel needed to build a curriculum around simulation, and the cost and time needed to train SPs can be prohibitive to some training programs. This does not rule out role-play as a training or evaluation pedagogy, however. Leaders seeking to create faculty development programs emphasizing role-play can certainly find a wealth of opportunity in communication courses for breaking bad news in the field of oncology.

Courses, modules, and training programs centered on communication, difficult conversations, and breaking bad news exist for oncology fellows, pediatric oncology fellows, and palliative care fellows. However, few programs report a multispecialty learning and practice environment, more specifically one combining adult oncology, pediatric oncology, radiation oncology, and palliative care fellows. In addition, support from multispecialty faculty crossing all subspecialties of oncology is not reported in other course modules.

Importantly, current curricula teach difficult communication scenarios (such as discussing relapse and transition to supportive care) as discrete, unconnected tasks. Thus, such curricula do not replicate the complicated evolving longitudinal doctor-patient relationship associated with the illness continuum. For example, the emotional impact on a learner from discussing relapse of disease in a patient with whom the learner has simulated an ongoing relationship is greater, and the tailoring of wording communication more context based, than discussing relapse in an isolated scripted scenario with an SP. As such, our curriculum has very high fidelity.

Methods

Needs Assessment

Our needs assessment consisted of a review of the curricula currently offered by our institution as well as the most current relevant literature on the topic of communication in oncology and end-of-life care. We found that our institution did not already offer a formal course in communication for residents or fellows in any specialty. While curricula exist for communication in oncology and end-of-life care, we did not find any curricula with an illness-trajectory focus. The current literature emphasized the need for quality communication in medical care.¹⁻⁵

Faculty and Participants

Twelve participants who were trainees in hematology and oncology, pediatric hematology and oncology, and hospice and palliative care programs were selected for the course based on training year. The following year, the course included radiation oncology residents in addition to the subspecialties listed earlier; 10 participants were selected for this second course (five hematology and oncology, two pediatric hematology and oncology, one hospice and palliative care, and two radiation oncology), and one session was added to the curriculum. Radiation oncology trainees were residents; all others were fellow trainees. Trainee level ranged from PGY 1 to PGY 6. Faculty members were primarily attending physicians in the hematology and oncology, pediatric hematology and oncology, and hospice and palliative care programs.

Setting and Delivery of Content

Education took place in two primary settings. First, an interactive presentation focusing on key illness-pertinent communication challenges (45-60 minutes) was held in the classroom with the whole group. Then, immediately following the didactic session, learners and faculty broke out into small groups for hot-seat role-play. Each small group consisted of two to three fellows, a faculty facilitator, and faculty, as actors playing the patient and family members. One faculty member within each group role-played the fictitious patient throughout the 8-week course. The other faculty member was the facilitator for the group.

Three role-play scenarios were enacted in each session, and after each scenario, 360-degree feedback was given. After receiving feedback, learners were given the option, if time permitted, to rewind and do a portion of the encounter again.

Curriculum

Institutional review board approval was obtained before the first year of the curriculum (the curriculum was deemed exempt from full review as an educational intervention). Prior to the didactic portion of the course, faculty attended a faculty development workshop focusing on role-play as an educational pedagogy (Appendix H) to prepare them to facilitate small-group role-play scenarios. Following the workshop, weekly face-to-face sessions began for a total of 8 weeks the first year and 9 weeks the second year. Faculty met just before each session for orientation to the session and to review learner outcome objectives and the role-play scenario, practice difficult portions of the role-play, and reach consensus on mandatory discussion points to ensure as much standardization across the small groups as possible. The weekly 2-hour sessions included an initial larger-group didactic presentation given by faculty members (Appendices I-P) followed by small-group active learning via role-play. The didactic session topics and role-play scenarios were longitudinally anchored to the illness trajectory of a fictitious patient, Mary Jones, from her initial diagnosis of advanced ovarian cancer to her ultimate death. A subtext of a pediatric patient with relapsed lymphoma was used to teach difficult conversations with adolescents/young adults.

The course schedule was as follows:

- Precourse survey (Appendix A)—Week 0.
- Precourse OSCE (Appendices B-D; evaluation tools in Appendices E-G)—Week 1.
- Role-play workshop (Appendix H)—Week 2.
- Module 1: Essentials of Good Communication (Appendix I)—Week 4.
- Module 2: Hoping, Coping, and Spirituality (Appendix J)—Week 5.
- Module 3: Communication Issues During Treatment (Appendix K)—Week 6.
- Module 4: Delivering Bad News (Appendix L)—Week 7.
- Module 5: Communicating With the Adolescent and Young Adult Population (Appendix M, added as a new session in the second year of the course)—Week 8.
- Module 6: Communicating With Families (Appendix N)—Week 9.
- Module 7: Communicating in the Palliative Care Setting (Appendix O)—Week 10.
- Module 8: Mindfulness and Burnout (Appendix P)—Week 11.
- Postcourse OSCE (Appendices R-T; can be held prior to or after Module 7; we held it prior to Module 7 as our simulation patient, Mary Jones, dies in that module and is alive in this OSCE)—Week 13.
- Postcourse survey (Appendix A)—Week 14.
- One-year postcourse survey (Appendix U)—Week 52.

As part of the didactic sessions, guest lecturers discussed certain topics: A psychologist discussed the coping spectrum, a member of the clergy spoke about the role that religion/spirituality may play in the support/coping of the patient with cancer, and a sex therapist raised the topic of sexuality of the patient with cancer. Following each session, we selected several cognate topics for emphasis during role-play. For example, in the first session, learners were asked to start forming a therapeutic relationship with their patient, Mary Jones, by inquiring about her illness narrative; then, they were asked to explore, recognize, and reorient her perspective on her condition and, finally, to assess her strengths and support systems to begin the foundations of their therapeutic relationship. All role-play scripts, as well as our bio for our fictional character and handout materials for Module 3, can be found in Appendix Q.

For our session on breaking bad news, we modified Baile's SPIKES protocol into a broadened MR. SPIKES protocol: Mindfulness before encounter; Rehearse conversation beforehand; Set up the interview; assess the patient's Perception; obtain the patient's Invitation; give Knowledge to the patient; address all the patient's Emotions/Empathic response; and Summarize the discussion, discuss Strategy going forward,

Solicit all concerns, Support coping, Sustain hope, and affirm continuing Support. This mnemonic was printed, laminated, and given to learners as a quick reference tool.

Personnel involved in the design and implementation of the curricular content included six faculty or adjunct members who created the didactic sessions and presented them over the course of 8 weeks. The course itself was staffed by four of the content creators and five other faculty members (one acting as facilitator and four acting as role-play actors) for a total of five facilitators and four actors. All actors and facilitators met weekly for 30-60 minutes prior to the didactic session to pick up role-play materials/scripts and train or work out logistics for the specific scenarios for the module. There were four role-play groups with a 2:3 staff-to-learner ratio with the exception of one group that included a fellow as facilitator. The didactic portion took place in a large conference room, and the role-play portion took place in the same room for two groups and smaller meeting rooms for the other two groups.

Assessment Instruments

Prior to starting and then again upon finishing the program, learners completed an online attitudinal survey assessing their perceived levels of readiness and comfort with 15 or 16 topics (depending on which year the survey was taken) featured in the curriculum, rating their comfort level on a scale of Poor, Average, Above Average, and Very Proficient. The full survey can be found in Appendix A.

The program began with a videotaped OSCE that required learners to break bad news to an SP about a cancer diagnosis. There were two clinical scenarios: an adult patient (Appendix B) and a pediatric patient with a parent (Appendices C and D). The scenarios were emailed to participants 1 week prior to the OSCE. These OSCEs were held at the Center for Learning and Innovation (CLI) in Lake Success, New York. CLI staff prepared SPs over several weeks with scripts for the OSCEs and use of the assessment tool in Appendix E. CLI is hosted in a facility that allows for video monitoring and video/audio recording of simulated encounters with SPs or simulation manikins, and the OSCE sessions were implemented under the supervision of at least three key CLI staff members. Owing to the size of the class, two OSCE sessions were held each testing day (before and after the course), with five or six learners being tested each session. During the OSCE, door prompts were given to participants to describe the patient behind the door as well as the goal for the encounter; encounters lasted up to 30 minutes. At the end of the precourse OSCEs, learners received written evaluations (Appendix E) but not verbal feedback from SPs for each encounter. These evaluations were created by faculty based on the major headings of SPIKES in the following domains: a preencounter domain (agenda setting, anticipating patient's concerns), an emotion/empathy domain, an optimization of physical setting domain, a pre-news delivery domain (perception, invitation, and preparation), a delivery of bad news domain, and a post-news delivery domain consisting of strategy, summary, soliciting all concerns, sustaining realistic hope, assessing and affirming coping, and affirming ongoing partnership. These written evaluations were not given to the fellows. This first OSCE was an assessment exercise to establish learners' baseline communication skills for comparison across time.

After completing the majority of the teaching sessions, learners participated in a second OSCE, a scenario involving breaking bad news of a cancer relapse (Appendices R-T). These OSCEs added immediate verbal feedback from the SPs to the structure of the precourse OSCEs based on the SPs' checklist. Pre- and postcourse OSCE checklists were the same, but SPs were randomly assigned to learners. SPs and learners were not intentionally paired for the precourse and postcourse OSCE; thus, if learners encountered the same SP in both OSCEs, it was not intentional. After these OSCEs, the entire group spent 30-45 minutes debriefing from the encounter with course faculty.

Following the final didactic session, a postintervention attitudinal survey (identical to the preintervention survey) was emailed to the fellows. Finally, 1 year after the course, a follow-up satisfaction survey was sent to the first cohort (a year had not passed at the time of writing to report data for the second year's cohort). The survey asked one question regarding how helpful the learners felt the course was in improving their

communication skills and 13 questions regarding proficiency in various communication skills or areas as well as two open-ended short-answer questions. See Appendix U for the full text of the survey.

Videos from both the first and second OSCEs were securely stored by the CLI. These videos were evaluated by several faculty members as well as oncologists not connected to the course. Evaluators were given a 23-item scoring instrument (Appendix F) assessing proficiency in each of the items in the MR. SPIKES protocol similar to the one used by the SPs to evaluate the videotaped encounters between SP and learner. This instrument assessed the domains discussed earlier with the exception of the pre-encounter functions. There were two assessment questions devoted to setting, six for emotion and empathy, four for pre-news delivery, five for delivery of bad news, and one each for summary, strategy, concerns, hope, coping, and partnership. We used a scoring instrument (Appendix G) to aid in the evaluation process. Gwet's AC1 was used to measure agreement among assessors. Cronbach's alpha was used to measure the internal consistency of the assessment tool. A paired-samples *t* test was used to analyze differences in pre- and postcourse scores.

Results

Twelve learners (five adult subspecialty and seven pediatric subspecialty) participated in this course during the first iteration. Ten learners (eight adult subspecialty and two pediatric subspecialty) participated in the second year of the course.

Pre- and Postcourse Attitudinal Surveys

Participants' self-reported data on the pre- and postcourse surveys (Table 1) showed a significant increase ($p < .001$ in the first year, $p < .0001$ in the second year) in comfort level in all areas. Based on responses from all 12 participants on the pre- and postcourse surveys, the mean score (1 = *Poor*, 2 = *Average*, 3 = *Above Average*, 4 = *Very Proficient*) increased from 1.85 precourse to 2.90 postcourse in the first year; based on responses from seven respondents precourse and eight postcourse in the second year, the mean score increased from 1.99 to 2.78.

Table 1. Comparison of Pre- and Postcourse Attitudinal Surveys^a

Year	Precourse <i>M</i> (<i>SD</i>)	Postcourse <i>M</i> (<i>SD</i>)	<i>p</i>
First	1.85 (0.35)	2.90 (0.33)	<.001
Second	1.99 (0.34)	2.78 (0.32)	<.0001

^aSurvey questions were answered on a 4-point scale (1 = *Poor*, 2 = *Average*, 3 = *Above Average*, 4 = *Very Proficient*). The first year's survey had 15 questions, and the second year's had 14 questions. Twelve people responded to the first year's surveys; during the second year, seven responded to the precourse survey and eight to the postcourse survey.

SP Scoring of OSCEs

For SPs' assessment tool scoring, each fellow was rated by a separate SP in the precourse OSCE and the postcourse OSCE (Table 2); the rating tool used by the SPs was scored out of 36 possible points and was the same pre- and postcourse. Data were assessable for 10 of the 12 fellows in the first year (two fellows did not participate in the postcourse OSCE), and nine of those improved their scores from the precourse OSCE to the postcourse OSCE; one fellow's score dropped in the postcourse OSCE. Overall, the fellows, as an aggregate group, improved their mean score from 26.7 to 31.5 out of 36 total points ($p = .044$). Eight of 10 learners' scores were available for evaluation in the second year (one fellow did not take the postcourse OSCE, and one fellow began the course after the initial OSCE). Six fellows' scores increased, one's was stable, and one's decreased from the precourse to the postcourse OSCE. The mean aggregate score improved from 38.6 to 40.9 out of 46 total points from pre- to postcourse ($p = .5$).

Table 2. Average OSCE Scores as Assessed by Standardized Patients^a

Year	Precourse <i>M (SD)</i>	Postcourse <i>M (SD)</i>	<i>p</i>
First	26.7 (4.88)	31.5 (5.04)	.044
Second	38.6 (5.93)	40.9 (5.69)	.5

Abbreviation: OSCE, objective structured clinical exam.

^aFirst-year score is out of 36 points total; second-year score is out of 46 points total. First-year data are based on 10 learners; second-year data are based on eight learners. Additional learner data points in both years were not usable because learners did not complete both pre- and postcourse OSCEs.

Faculty Scoring of OSCE Videos

Gwet's correlation coefficients (based on Landis-Koch) were all either moderate or substantial. In particular, there was substantial agreement on six of the eight postcourse videos (Table 3). Coefficients were higher for the postvideo assessments, likely reflecting more familiarity with the instrument. With regard to internal reliability, Cronbach's alpha for the assessment tool was .88, indicating good internal consistency. Results of the paired *t* tests for the different domains were as follows: For both emotion and empathy, there was a positive change; for the pre-news delivery domain, there was a positive change in the preparation function; for the delivering of bad news domain, there was an overall positive change; for the post-news delivery domain, positive change was seen in the assessment of coping function; and finally, postcourse global assessment exhibited a significant positive change with a *t* value of -3.69 ($p = .0077$).

Table 3. Faculty Assessment of OSCE Videos^a

Preassessment		Postassessment	
No. of Assessors	Gwet's AC1 (95% CI)	No. of Assessors	Gwet's AC1 (95% CI)
5	.531 (.390-.671)	5	.695 (.566-.824)
5	.605 (.458-.753)	4	.728 (.599-.857)
5	.595 (.450-.741)	4	.479 (.318-.639)
5	.525 (.372-.678)	5	.613 (.453-.774)
5	.512 (.357-.666)	5	.611 (.478-.745)
5	.721 (.592-.850)	5	.740 (.612-.869)
5	.656 (.520-.793)	5	.741 (.624-.857)
3	.443 (.262-.624)	3	.744 (.592-.896)

Abbreviations: CI, confidence interval; OSCE, objective structured clinical exam.

^aAgreement between raters of OSCE videos was assessed using a 23-item tool. A score of .600-.800 correlates with substantial agreement; a score of .400-.600 correlates with moderate agreement. Each row represents a different learner.

One-Year Postcourse Survey

From the initial cohort, six of 12 learners responded to the 1-year postcourse survey. In response to the question "Over the last year, how helpful was the course in enhancing communication with your patients?," two learners responded "a moderate amount," and four responded "a significant amount." Questions 2-14 asked learners to rate their proficiency in various communication areas after the course using a scale of Not Proficient, Poorly Proficient, Proficient, and Very Proficient. No learners responded with Not Proficient or Poorly Proficient; there were 21 responses of Very Proficient and 57 responses of Proficient. Learners identified clinical trials and discussions around prognosis as two areas that they felt needed to be emphasized more in the course and stated that the course was "very structured and helpful" and "assisted a lot for difficult conversations that arise in clinic as well as on service."

Discussion

Communication is a key component of quality patient care across medical practice and one that is emphasized in oncology, palliative care, and hospice settings. Our goal was to improve communication skills in trainees by providing a safe environment to learn and practice these requisite skills. Simulation

and role-play best approximate real-life situations, decreasing learner stress while avoiding the use of practice patients. Evaluating the efficacy and success of a role-play-centric course should ideally be done by observing the skills that were taught in the course being implemented in an actual patient encounter. However, given our resources and time, the next-best option was to observe these skills in a structured, simulated patient clinical encounter or OSCE. We believe that this course is ideal for first-year residents or fellows but can be used at any point in training.

This curriculum successfully increased level of comfort in 16 areas covered, based on pre- and postcourse surveys. In fact, each individual area was scored higher in the postassessment in both years, giving us some confidence that our course benefited the learners in being more confident in their communication skills, which could lead to better communication in the clinical environment.

Our needs assessment focused on the dearth of education in communication and the lack of a communication course at our institution. In hindsight, however, we realized that fellows had many questions throughout the course that could have become incorporated into our sessions. In designing the course, we chose topics that were both clinically relevant and challenging for learners. In retrospect, we did not do a thorough needs assessment with our own learners in that we did not ask them which topics they found most challenging or were most interested in learning about in the course. Additionally, there were other sessions that could have been created, such as a session on cross-cultural communication, that we did not take advantage of in this iteration of the course.

When evaluating the success of the course, our data demonstrate significant short-term improvement in learners' comfort levels across multiple domains. We did not repeat the attitudinal survey at later intervals after the initial postcourse survey, which was sent out very shortly after the final session. In hindsight, this may have been beneficial to repeat at regular intervals to assess continued satisfaction and change in attitude. Additionally, almost all learners improved their scores from the pre- to postcourse OSCE as assessed by the SPs involved in the encounters.

The degree of improvement in OSCE scores as assessed by SPs was significant in the first year but not the second, despite a significant increase in comfort in both years. Possible explanations include that our learners ranged from PGY 1 to PGY 6, with varying levels of patient experience and proficiency in communication. Additionally, there may be a bias in which physicians with better empathic and communication skills enter these fields. The small number of learners precluded an analysis based on training levels or training program. Of note, most learners had a high starting score on the precourse OSCE, and SPs did not have access to their precourse scores when assessing learners in the postcourse OSCE. Having high scores left little room for improvement, but by blinding SPs to precourse data, we hoped to remove some bias to give better postcourse scores to demonstrate improvement. This improvement over baseline scores suggests that our interventions—didactic sessions and weekly role-play—were at least moderately successful in catalyzing skill acquisition and behavioral change.

When considering the assessment of the OSCE videos by faculty members and other medical professionals, we developed a tool to measure multiple communication functions involved in the delivery of bad news. The tool was designed to closely measure the domains and curriculum of our training program. This SPIKES-based assessment tool was found to have moderate to substantial interobserver reliability and good internal consistency. In our application of the tool, we were able to detect a global significant change in communication proficiency after an educational intervention ($p = .0077$). Moderate to substantial agreement between course faculty and senior oncologists broadens the tool's applicability in fellowship settings in which there is no specific faculty expertise. Our hope is that this tool can be used in the future not only in this course but as a stand-alone tool both in learning scenarios such as our communication course and when observing learners (medical students, residents, and fellows in

particular) breaking bad news in the clinical environment. An objective, structured, reliable tool such as ours can then be used to give learners specific feedback on areas of strength or areas that need improvement and can be incorporated into rotation evaluations and individual learning plans.

The most innovative aspect of this curriculum is that the presentation topics and cognate role-plays are anchored around a longitudinal course of a cancer patient's illness. Within each role-play group, the same faculty member acts as the patient. For the learners, this overall heuristic generates powerful context-based learning. Each role-play segment corresponds to the patient's positioning within the trajectory, and most of the role-play scripts have been based on real-life encounters from faculty members' experiences, which we hope adds to the realism of the role-play. The initial segment involves teaching fundamental communication skills embedded in the challenge of getting to know a patient in the first consultation. In another module, the patient is undergoing treatment, and the trainees learn how to manage communication challenges, such as discussing sexuality and assessing for depression. Finally, learners communicate the change from curative to palliative intent. Learning this way is thus context based and replicates the communication challenges in a longitudinal doctor-patient relationship—instead of learners having to introduce themselves at each role-play encounter, they are able to approximate a more realistic, long-term therapeutic relationship. We chose faculty members to portray the SPs in our curriculum. Alternatively, in institutions with SP programs, SPs could be used as patients with the provision that they have sufficient expertise or receive training in the methodology of hot-seat role-play.

Another aspect of our curriculum that we did not find commonly represented in other curricula is the multispecialty nature of the learning environment: While all of the learners had contact with oncology patients, their roles in those patients' care as well as the characteristics of the patients they cared for were widely disparate, which added to the quality and richness of discussions around patient care. The curriculum is inclusive and adaptable to different practitioners who care for oncology patients and could be easily modified for other specialties (e.g., nephrology with a patient progressing to dialysis, geriatrics with a patient with progressive memory impairment). While designed to follow an illness trajectory, each module is a stand-alone session. Certain topics will be more relevant to different learners. Finally, we include in our appendices our faculty development session for role-play (Appendix H). Many programs may not have access to SPs for OSCEs on an annual basis or for multiple sessions; thus, the role-play pedagogy is a valuable resource that makes this curriculum feasible.

Our future directions will include continued improvement of the current didactic sessions, more sessions designed around learner feedback, and, importantly, continued faculty development regarding role-play and facilitation. Knowing how to effectively facilitate a role-play session and how to willingly suspend reality to be a patient or family member for a few minutes takes skills that are beyond the scope of the course but are necessary to be successful developers in communications training. Additionally, we will continue to fine-tune our evaluation tool and validate it as a reliable instrument for widespread use. In terms of evaluation of the course, we realize in hindsight that we did not ask learners to evaluate the delivery methods for the course (e.g., hot-seat role-play), and we did not include more objective components beyond evaluations of OSCE videos using our faculty assessment tool. We will seek to include more-thorough course assessment methods and objective learner assessments. Finally, our number of participants was relatively small (22 learners over 2 years); we will need several more years of implementing this curriculum to better analyze the efficacy of our educational intervention.

Ultimately, the goal of this and other communication curricula is to give learners a skill set with which to be able to effectively communicate with their patients. Obtaining feedback from actual patients in some manner attesting to the learner's communication proficiency would be an important means of validation. In the short term, because the same faculty member plays the patient in all role-plays in our curriculum, a formative and summative assessment from that faculty member using an established satisfaction measure

would be a good initial surrogate for an actual patient's experience with an individual learner. We plan to use this approach to learner assessment in the future. Designing a way to integrate the impact of our intervention on actual patient satisfaction is an important objective in developing subsequent iterations of this course.

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Prior Presentations

Cannone DC. An interdisciplinary communication skills curriculum for oncology fellows. Poster presented at: American Society of Pediatric Hematology/Oncology Conference; May 2-5, 2018; Pittsburgh, PA.

Hoffman M. Development and implementation of an instrument for assessing proficiency of oncology fellows in the delivery of bad news. Poster presented at: American Society of Clinical Oncology Annual Meeting; June 3-7, 2016; Chicago, IL.

Ethical Approval

Northwell Health Institutional Review Board approved this study.

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