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# Evaluation of palliative care training and skills retention by medical students

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ABSTRACT

*Background:* Training in palliative and end-of-life care has been introduced in medical education; however, the impact of such training and the retention of skills and knowledge have not been studied in detail. This survey study examines long-term follow-up on end-of-life communication skills training, evaluation, and skills retention in medical students.

*Materials and methods:* During the surgical clerkship, all third-year medical students received communication skills training in palliative care using simulated patients. The training involved three scenarios involving diverse surgical patients with conditions commonly encountered during the surgical clerkship. The students used web-based best practice guidelines to prepare for the patient encounters. The following communication abilities were evaluated: (1) giving bad news clearly and with empathy, (2) initiating death and dying conversations with patients and/or their family members, (3) discussing DNR status and exploring preferences for end-of-life care, and (4) initiating conversations regarding religious/spiritual values and practices. All students were surveyed after 1 year (12-24 mo) to ascertain: (1) the retention of skills and/or knowledge gained during this training, (2) application of these skills during subsequent clinical rotations, and (3) overall perception of the value added by the training to their undergraduate medical education. These results were correlated with residency specialty choice.

*Results:* The survey was sent to all graduating fourth-year medical students ($n = 105$) in our program, of which 69 students responded to the survey (66% response rate). All respondents agreed that palliative care training is essential in medical school training. Seventy percent of the respondents agreed that the simulated encounters allowed development of crucial conversation skills needed for palliative/end-of-life care communications. The most useful part of the training was the deliberate practice of "giving bad news" (85%). Most of the respondents (80%) indicated retention of overall communication skills with regard to approach and useful phrases. Forty-five percent claimed retention of communication skills surrounding death and dying, and 44% claimed retention of end-of-life preferences/advance directives/DNR. Relatively few respondents (16%) retained skills regarding religious/spiritual values. There was no correlation between training evaluation/skill retention and the area of residency specialty the students pursued on graduation.

*Conclusions:* Early training in palliative and end-of-life care communication is feasible and effective during the surgical clerkship. Students highly valued the simulated patient and/or



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family discussions and retained most of the skills and knowledge from the experiential simulated encounters. However, students felt the skills developed could be reinforced with opportunities to observe their attending physicians or residents leading such discussions and involving students in such discussions as and when appropriate.



## Introduction

Since the Liaison Committee on Medical Education (LCME) announced the requirement for didactic and experiential training in palliative and end-of-life care in 2001, novel and innovative programs have been introduced to numerous medical school curricula.[1,2] One essential element of palliative care is effective communication skills. Studies show that better physician–patient communication improves patient satisfaction with palliative care.[3] Our previous work demonstrated that experiential training during the surgical clerkship is feasible and helps future physicians gain the communication skills necessary to engage in palliative and end-of-life care discussions with confidence.[4,5] By providing students with an opportunity for deliberate and repetitive practice, coupled with immediate feedback, lasting skill can be learned.

At present, simulation-based training is widely used to develop medical trainees' communication skills in palliative and end-of-life care and to assess the skills learned.[4-7] However, studies of procedural and surgical simulation trainings suggest that the skills learned through simulation deteriorate significantly over time.[8,9] To our knowledge, studies of skills and knowledge retention following palliative care communication training are limited.[10,11] Although educators recognize that simulation training is beneficial, further study of the effectiveness of the training and retention of learned skills is needed.[12-14] Moreover, in addition to objective measures, assessments of medical trainees' subjective perception of the value of communication skills training for subsequent patient encounters may be informative.

This study assessed the retention and perceived value of a simulation-based training in end-of-life communication provided to third-year medical students during their surgery clerkship. After at least 1 year of training (12-24 mo from the end of the surgery clerkship), these same students were surveyed to determine the extent to which they had retained the knowledge and communication skills learned in this experience, whether they had used these skills during subsequent clerkships, and how they rated the overall value of the training. The data were assessed for any correlation of skills retained, and value of the training with the residency specialties students were going to pursue.

## Materials and methods

During the academic year of 2013-2014, all third-year medical students in the surgery clerkship participated in a single, 2-hour palliative/end-of-life care training session during each surgical rotation. Participation in this portion of the surgical clerkship was mandatory but did not contribute to the students' final clerkship grade. The training included three palliative/end-of-life care scenarios using standardized patient encounters (SPEs) for common surgical palliative/end-of-life care scenarios that mirror situations commonly encountered during the surgical rotation. Students prepared for stated goals and objectives of each clinical encounter using designated web-based resources.[4,5] The encounters required students to demonstrate the ability to perform the following: (1) openly discuss death and dying with patients and/or family members, (2) explore patients' end-of-life preferences including DNR status, (3) give bad news clearly and with empathy, (4) discuss specific aspects of palliative care, and (5) explore patients' religious/spiritual values as they contribute to end-of-life care. Although designed in the Objective Structured Clinical Examinations format, the trained evaluators of the SPEs provided immediate qualitative and quantitative feedback regarding communication effectiveness, body language, and professionalism.

To study the efficacy of this training over the long-term, including students' perception of their skill retention, an IRB-approved survey was sent to all fourth-year students shortly before they graduated in 2015. The cover letter, including an invitation to participate, explained the focus of the survey was the simulated palliative/end-of-life care training they received during their third-year surgery clerkship. The survey included 11 questions (Appendix A) exploring the following issues: (1) recall of specific skills sets retained over time, (2) deliberate use of training skills during other clinical rotations, (3) students' evaluation of the training provided, and (4) students' residency specialty choice. A four-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree) was used for the survey. Students were asked to provide narrative comments recalling the training experiences and to provide examples of where they used the skills they learned during this training. These comments were then analyzed using the constant comparative method of analysis to identify dominant themes.[15]

To identify any patterns or correlation of students' residency choice and evaluation of training or skill retention, the specialties were divided in to the following groups:

(i) Primary care: internal medicine, family medicine, and pediatrics
(ii) Emergency medicine
(iii) Surgical specialties: general, plastic or orthopedic surgery, ophthalmology, urology, neurosurgery, and obstetrics and gynecology
(iv) Other: anesthesiology, psychiatry, radiology, pathology, academic/industry research