



---

September 2023

## See One, Do One, Teach One: Resident as Teacher Workshop for Communicating Challenging News

Rebecca Shafer

*Zucker School of Medicine at Hofstra/Northwell, RebeccaRShafer@gmail.com*

Gabrielle R. Goldberg

*Zucker School of Medicine at Hofstra/Northwell, Gabrielle.Goldberg@Hofstra.edu*

Stephanie Izard

*Northwell Health, sizard@northwell.edu*

Sindee Weiss-Domis

*Zucker School of Medicine at Hofstra/Northwell, sweiss3@northwell.edu*

Lauren Block

*Zucker School of Medicine at Hofstra/Northwell, lblock2@northwell.edu*

Follow this and additional works at: <https://nsuworks.nova.edu/ijahsp>



Part of the [Curriculum and Instruction Commons](#), and the [Internal Medicine Commons](#)

---

### Recommended Citation

Shafer R, Goldberg GR, Izard S, Weiss-Domis S, Block L. See One, Do One, Teach One: Resident as Teacher Workshop for Communicating Challenging News. *The Internet Journal of Allied Health Sciences and Practice*. 2023 Sep 21;21(4), Article 5.

This Manuscript is brought to you for free and open access by the College of Health Care Sciences at NSUWorks. It has been accepted for inclusion in *Internet Journal of Allied Health Sciences and Practice* by an authorized editor of NSUWorks. For more information, please contact [nsuworks@nova.edu](mailto:nsuworks@nova.edu).

---

## See One, Do One, Teach One: Resident as Teacher Workshop for Communicating Challenging News

### Abstract

Purpose: Communicating challenging news to patients is a core skill for all physicians, yet internal medicine residents have variable preparation and comfort level in this area. Lack of well-trained faculty and faculty time pressures limit resident education in communication skills. The use of near peer teachers can be used to expand the capacity of instructors for this vital skill-set. Method: Internal medicine residents participated in a communication skills workshop (Workshop A) based on the SPIKES framework facilitated by palliative-care faculty. In a follow-up session (Workshop B), eight months later, 3<sup>rd</sup> year residents acted as near peer teachers for 1<sup>st</sup> year residents. Results: Residents (Workshop A: N=82, Workshop B: N=87) completed surveys before and after each workshop. There was a significant increase in self-reported comfort, with 45.6% (52/114) of residents feeling moderately or very comfortable pre- vs. 77.2% (88/114) post-workshop (pnd and 3<sup>rd</sup> year residents felt more confident communicating challenging news after either observing or teaching workshop B. Conclusions: Following an initial workshop centered on the SPIKES framework, residents felt more confident in communicating challenging news, and were subsequently able to use these tools as near peer teachers for new 1<sup>st</sup> year residents. Using residents as near peer teachers can provide a sustainable means of integrating core communication skills into residency curricula.

---

### Author Bio(s)

Rebecca Shafer, MD, is a General Internal Medicine and Obesity Fellow in the Department of General Internal Medicine at the Zucker School of Medicine at Hofstra/Northwell.

Gabrielle Goldberg, MD, is an Assistant Professor in the Department of Science Education at the Zucker School of Medicine at Hofstra/Northwell.

Stephanie Izard, MPH, is an Assistant Biostatistician in the Center for Health Innovations and Outcomes Research at the Feinstein Institute for Medical Research.

Sindee Weiss, MD, is an Assistant Professor in the Department of Palliative Medicine at the Zucker School of Medicine at Hofstra/Northwell.

Lauren Block, MD, MPH, is an Associate Professor in the Department of Medicine at the Zucker School of Medicine at Hofstra/Northwell.



The Internet Journal of Allied Health Sciences and Practice  
*Dedicated to allied health professional practice and education*  
Vol. 21 No. 4 ISSN 1540-580X

---

## See One, Do One, Teach One: Resident as Teacher Workshop for Communicating Challenging News

---

Rebecca Shafer<sup>1</sup>  
Gabrielle R. Goldberg<sup>1</sup>  
Stephanie Izard<sup>2</sup>  
Sindee Weiss Domis<sup>1</sup>  
Lauren Block<sup>1</sup>

1. Zucker School of Medicine at Hofstra/Northwell
2. Northwell Health

United States

---

### ABSTRACT

**Purpose:** Communicating challenging news to patients is a core skill for all physicians, yet internal medicine residents have variable preparation and comfort level in this area. Lack of well-trained faculty and faculty time pressures limit resident education in communication skills. The use of near peer teachers can be used to expand the capacity of instructors for this vital skill-set. **Method:** Internal medicine residents participated in a communication skills Workshop (Workshop A) based on the SPIKES framework facilitated by palliative-care faculty. In a follow-up session (Workshop B), eight months later, 3<sup>rd</sup> year residents acted as near peer teachers for 1<sup>st</sup> year residents. **Results:** Residents (Workshop A: N=82, Workshop B: N=87) completed surveys before and after each Workshop. There was a significant increase in self-reported comfort, with 45.6% (52/114) of residents feeling moderately or very comfortable pre- vs. 77.2% (88/114) post-Workshop ( $p < 0.0001$ ). The majority (34/55=61.8%) of residents indicated that they had applied SPIKES between Workshop A and B. 87.3% (48/55) of the 2<sup>nd</sup> and 3<sup>rd</sup> year residents felt more confident communicating challenging news after either observing or teaching Workshop B. **Conclusions:** Following an initial Workshop centered on the SPIKES framework, residents felt more confident in communicating challenging news, and were subsequently able to use these tools as near peer teachers for new 1<sup>st</sup> year residents. Using residents as near peer teachers can provide a sustainable means of integrating core communication skills into residency curricula.

**Keywords:** challenging news, near peer teaching

---

## INTRODUCTION

Although physicians are responsible for communicating challenging news to patients regularly, most do not have formal training in this skill.<sup>1</sup> Both practicing clinicians and medical students feel uncomfortable having discussions about challenging news.<sup>2</sup>

Communicating challenging news is a core requirement for ACGME accredited internal medicine residency programs.<sup>3</sup> Internal medicine residents are responsible for communicating challenging news in both the outpatient and inpatient settings during their training, yet many have variable preparation and comfort level.<sup>4</sup> Many do not receive adequate guidance and support early on in their training.<sup>4</sup> Additionally, lack of well-trained faculty and faculty time pressures limit resident education.<sup>5</sup> In a qualitative study assessing perspectives of internal medicine residents delivering challenging news, the majority of residents noted challenges such as using wrong words and managing patients' response.<sup>6</sup> Although medical schools<sup>7-8</sup> and fellowships<sup>9-10</sup> are implementing training programs, there is a gap during residency training. During those years, internal medicine residents solidify their clinical skills and communication skills with patients and their families. Even more so in light of the COVID pandemic,<sup>11</sup> training in communicating challenging news needs to be integrated into internal medicine residency training in a sustainable manner.

Providing a framework for this skill in an initial Workshop and then utilizing residents as near peer teachers is one model to address the limiting factor of the availability of well-trained faculty. Near peer teaching has been shown to benefit both the teacher and the learner.<sup>12-13</sup> Near peer teachers appreciate receiving training in respect to a teaching role, and learners feel that near peer teachers are more approachable and create a safer learning environment.<sup>12-13</sup> Near peer teachers can extend faculty where faculty time may be limited.

The SPIKES protocol is an evidence-based and widely used framework for teaching communicating challenging news.<sup>14</sup> [Figure 1] Trainees who have been taught the SPIKES protocol reported an increased level of confidence in their ability to communicate challenging news to patients.<sup>15</sup>

**Figure 1.** SPIKES Protocol

SPIKES	
S	SETTING UP the Interview
P	Assessing the Patient's PERCEPTION
I	Obtaining the Patient's INVITATION
K	Giving KNOWLEDGE and Information to the Patient
E	Addressing the Patient's EMOTIONS with Empathetic Responses
S	STRATEGY and SUMMARY

We designed a two-part Workshop, which included training surrounding the SPIKES protocol and incorporation of near peer teaching. This training in the beginning of the first year of residency allows new physicians to feel more confident in their interactions with patients from the beginning of residency moving forward.

## METHODS

### Curriculum Development, Participants and Faculty

We developed a two-part Workshop on communicating challenging news to patients, which was delivered to all categorical internal medicine residents at one large program in New York. The palliative care faculty helped develop and facilitate the initial part of the communication skills Workshop (Workshop A) centered on the SPIKES protocol.

The second part of the curriculum (Workshop B) was given eight months later, during the subsequent academic year. Current 3<sup>rd</sup> year residents, who completed the first Workshop, acted as near peer teachers for 1<sup>st</sup> year residents. 2<sup>nd</sup> year residents acted as observers of both the teaching skills of the 3<sup>rd</sup> years and communication skills of the 1<sup>st</sup> years and provided real-time feedback. (Figure 2)

### Setting and Delivery of the Curriculum

Sessions were integrated into protected resident didactic time during ambulatory care weeks. Workshop A was given in an 80-minute time frame, and Workshop B was given in a 60-minute time frame. Categorical residents participated in each session in groups of 16-18. Both Workshops ran for five consecutive weeks to ensure that all categorical residents would have an opportunity to participate in the small group Workshop.

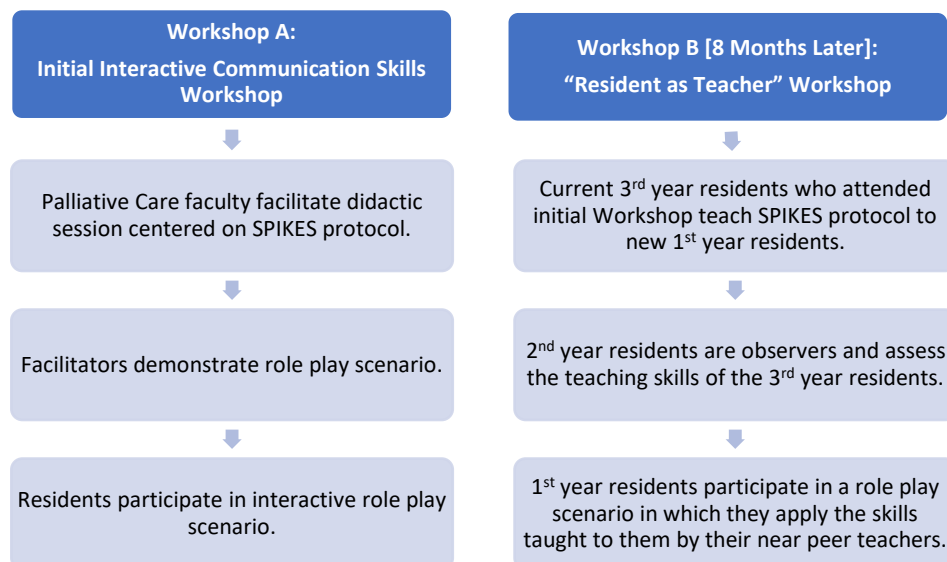
Workshop A was facilitated by palliative care and internal medicine faculty:

- 1) **Discussion** [10 minutes] The Workshop began with an interactive discussion about the challenges faced when approaching difficult conversations with patients and their families.
- 2) **Didactic** [15 minutes] The didactic portion covered the six steps of the SPIKES protocol.
- 3) **Role Model Case** [10 minutes] Facilitators role-modeled an example clinical scenario, in which a health care provider communicated challenging news to a patient, and debriefed with the large group about observations and feedback.
- 4) **Role Play Case** [25 minutes] Residents were divided into groups of three and randomly assigned to one of three roles: a) Health care provider b) Patient c) Observer. They were given a clinical scenario in which the health care provider communicated challenging news to a patient. The observers used a communication checklist to provide real time feedback.
- 5) **Debrief** [20 minutes] Participants reconvened for a final debrief. The debrief allowed for learners to reflect on their individual roles and identify take home points.

Workshop B was facilitated by the near peer 3<sup>rd</sup> year residents (faculty was also present to answer any further questions):

- 1) **Near Peer Didactic** [20 minutes] 3<sup>rd</sup> year residents acted as near peer teachers and taught the skills learned in the initial Workshop to train the new 1<sup>st</sup> year residents. Prior to the session, the 3<sup>rd</sup> year residents were provided a refresher on the SPIKES protocol via the original PowerPoint presentation. 2<sup>nd</sup> years observed the teaching skills of the 3<sup>rd</sup> year residents, and used an observer checklist to provide real time feedback to the near peer teachers after the didactic.
- 2) **Role Play Case** [25 minutes] Residents were split up into groups of 3. 1<sup>st</sup> years acted as health care providers and applied the skills taught to them by their near peer teachers. 2<sup>nd</sup> years acted as observers and used an observer checklist to provide real time feedback to the 1<sup>st</sup> years on their communication skills. 3<sup>rd</sup> years acted as patients.
- 3) **Debrief** [15 minutes] The final debrief allowed for learners to reflect on their individual roles in the case scenario and identify take home points.

**Figure 2.** The individual components of the two-part Workshop: Workshop A – Initial Communication Skills Workshop and Workshop B – “Resident as Teacher” Workshop.



## Assessment Instruments

### Workshop A

Before and after Workshop A, residents completed a survey assessing their perceived levels of comfort, competency and knowledge base in the skills involved in communicating challenging news. (Figure 3, Appendix A)

### Workshop B

First year residents in Workshop B filled out the same pre- and post-Workshop surveys that all residents (1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> years) had filled out in Workshop A. [Figure 3] 2<sup>nd</sup> and 3<sup>rd</sup> years, who participated in the original Workshop, filled out a different pre-Workshop survey that also served as an eight-month follow-up survey. (Figure 4, Appendix B) This survey included assessing learner comfort in communicating challenging news and use of the SPIKES protocol since the completion of the initial Workshop.

The post Workshop B survey for the 2<sup>nd</sup> and 3<sup>rd</sup> years (Figure 5, Appendix C) also differed and focused on how acting as either near peer teachers (3<sup>rd</sup> years) or as observers of the teachers (2<sup>nd</sup> years) impacted their confidence in the communication skills.

### Data Analysis

Characteristics were summarized using descriptive statistics. Pre- and post-Workshop outcomes of knowledge, comfort, and competence were summarized using frequency and percentage. The Wilcoxon signed-rank test was then used to determine if there was a difference between the pre- and post-Workshop outcomes. Generalized linear mixed models were then used to determine if the change in knowledge, comfort, or competence over time differed by history of interactive training and role played during the Workshop. Workshop A participants (1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> years) and Workshop B participants (1<sup>st</sup> years) were combined for analysis since they all received the Workshop intervention.

Study data were collected and managed using REDCap electronic data capture tools hosted at Northwell Health. All statistical analysis was performed using SAS Studio version 3.8 (SAS Institute, Cary, NC), with a p-value <0.05 considered statistically significant.

### Institutional Review Board

This project was deemed exempt by our institution's IRB.

## RESULTS

Eighty-two (82) residents took part in Workshop A, and 87 residents took part in Workshop B. All participants completed surveys before and after each Workshop. The majority of Workshop A participants were male (57.3%), had prior interactive Workshop training (52.4%), and played the patient or observer role during the Workshop (59.8%). The majority of 1<sup>st</sup> year (PGY-1) participants in Workshop B were also male (65.6%) and had prior interactive Workshop training (56.3%).

There was a significant increase in self-reported knowledge in Workshop A (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> years) and Workshop B (1<sup>st</sup> years) (Total N=114), with 38.6% (44/114) of residents feeling moderately or very knowledgeable pre- vs. 87.7% (100/114) post-Workshop ( $p<0.0001$ ). There was a significant increase in self-reported comfort, with 45.6% (52/114) of residents feeling moderately or very comfortable pre- vs. 77.2% (88/114) post-Workshop ( $p<0.0001$ ). There was a significant increase in self-reported competence, with 41.2% (47/114) of residents feeling moderately or very competent pre- vs. 79.8% (91/114) post-Workshop ( $p<0.0001$ ). (Table 1).

**Table 1.** Summary of Workshop A (1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Year Residents) and Workshop B (1<sup>st</sup> Year Residents) [N=114].

	Pre-Workshop	Post-Workshop	p Value
Self-reported Knowledge [Moderately or Very]	38.6 % (44/114)	87.7% (100/114)	$p<0.0001$
Self-reported Comfort [Moderately or Very]	45.6% (52/114)	77.2% (88/114)	$p<0.0001$
Self-reported Competence [Moderately or Very]	41.2% (47/114)	79.8% (91/114)	$p<0.0001$

There was no statistically significant association between prior training or role played during the Workshop and self-reported knowledge, comfort, and competence over time.

In Workshop B pre-survey (given to 2<sup>nd</sup> and 3<sup>rd</sup> year residents who participated in Workshop A), 58.2% (32/55) residents recalled at least four items of the SPIKES acronym. The majority of residents reported having used SPIKES since the previous Workshop (34/55=61.8%) and either strongly agreed, agreed or were neutral about being more comfortable with the skill since the previous Workshop (54/55=98.2%). (Table 2)

In Workshop B post-survey, 85.7% (24/28) of the 3<sup>rd</sup> year subjects agreed or strongly agreed that they were more confident in their communication skill after acting as near peer teachers. 88.2% (24/27) of the 2<sup>nd</sup> year subjects agreed or strongly agreed that they were more confident in the communication skill after acting as observers of the teaching skills of the 3<sup>rd</sup> year near peer teachers and communication skills of the 1<sup>st</sup> year learners.

**Table 2.** Summary of Workshop B: Teacher (3<sup>rd</sup> Year Resident) and Observer (2<sup>nd</sup> Year Resident) Questionnaires [N=55].

<b>Pre-survey</b>	<b>(n, %)</b>
SPIKES 6 Steps Recall:	
0-3 Correct	23 (41.8%)
4-6 Correct	32 (58.2%)
Did you use the SPIKES protocol since the previous Workshop?	
Yes	34 (61.8%)
No	18 (32.7%)
No Response	3 (5.5%)
More comfort since previous Workshop:	
Strongly Agree and Agree Neutral	54 (98.2%)
Disagree and Strongly Disagree	0 (0%)
No Response	1 (1.8%)
<b>Post-survey</b>	<b>(n, %)</b>
By observing/teaching SPIKES, now more confident:	
Strongly Agree, Agree, and Neutral	51 (92.7%)
Disagree and Strongly Disagree	1 (1.8%)
No response	3 (5.5%)

## DISCUSSION

Residents agree that the manner in which physicians communicate challenging news can affect patient outcomes, yet physicians are not adequately trained to discuss challenging news with patients.<sup>4</sup> There are few internal medicine programs that have training integrated into their curriculum. One of the factors that might contribute to this is the availability of well-trained faculty to teach this vital skill.<sup>5</sup>

After the initial interactive Workshop centered on the SPIKES protocol, internal medicine residents perceived a significant increase in self-reported knowledge, competency and comfort level in the skills involved in communicating challenging news to patients. Having the palliative care faculty act as facilitators and role models in a clinical scenario was a helpful resource for the residents. Most residents who participated in the original Workshop recalled 4-6 of the components of the SPIKES acronym and reported having applied the SPIKES framework to clinical situations during the eight months between the first and second Workshop. Additionally, they reported increased comfort in the skill since participating in the initial Workshop.

The use of near peer teachers sets this curriculum apart from previously published curricula. Our near peer teachers were able to use the skills taught to them in the original Workshop to teach new 1<sup>st</sup> year residents, allowing them to participate in this integral training early on in their residency. This aspect of our curriculum allowed the 3<sup>rd</sup> year residents to take on the role of "faculty." Our near peer teachers endorsed increased confidence in their own skill after having the opportunity to teach the skill. The 2<sup>nd</sup> year observers also had an increase in their confidence by observing the teaching skills of the 3<sup>rd</sup> year observers and will hopefully use this Workshop as a guide when they take on the role of near peer teacher the following year.

## Limitations

This curriculum has several limitations. This program was implemented at one institution. The primary evaluation was limited to residents' self-reported knowledge, comfort, and competence in the skill. We tried to mitigate this by collecting objective data about knowledge through assessing SPIKES recall in the post Workshop survey. Future work may include an Objective Structured Clinical Examination after the two-part Workshop to assess residents' competency in this communication skill.

Workshop B was given in a shorter time frame due to availability of protected didactic time in the resident schedule. Workshop B therefore did not include the initial large group discussion about the difficulties faced when approaching conversations with patients and their families and did not include a demonstrative role model case. In the future, we may want to have 2<sup>nd</sup> year residents act out the demonstrative role model case as a way to play a more active role in Workshop B.

Through an initial Workshop centered on the SPIKES protocol and a subsequent Workshop utilizing near peer teachers, we were able to train internal medicine residents in the skill of communicating challenging news to patients. Our curriculum allowed residents to feel more knowledgeable, confident and competent in this important skill. Additionally, the use of near peer teachers addresses the barrier of faculty time and training, allowing for a sustainable way for the skill to be taught early on in residency training.

## CONCLUSIONS

Following an initial Workshop centered on the SPIKES framework, residents felt more confident in communicating challenging news, and were subsequently able to use these tools as near peer teachers for new 1<sup>st</sup> year residents. Using residents as near peer teachers can provide a sustainable means of integrating core communication skills into residency curricula.

## CONFLICTS OF INTEREST

All authors declare that there are no conflicts of interest, financial or other.

## REFERENCES

1. Barnett MM, Fisher JD, Cooke H, James PR, Dale J. Breaking bad news: consultants' experience, previous education and views on educational format and timing. *Med Educ.* 2007;41(10):947-956. doi:10.1111/j.1365-2923.2007.02832.x
2. Tam V, You JJ, Bernacki R. Enhancing Medical Learners' Knowledge of, Comfort and Confidence in Holding Serious Illness Conversations. *Am J Hosp Palliat Care.* 2019;36(12):1096-1104. doi:10.1177/1049909119857988
3. Vergo MT, Cullinan A, Wilson M, Wasp G, Foster-Johnson L, Arnold RM. Low-Cost, Low-Resource Training Model to Enhance and Sustain Serious Illness Conversation Skills for Internal Medicine Residents. *J Palliat Med.* 2022;10.1089/jpm.2022.0247. doi:10.1089/jpm.2022.0247
4. Orlander JD, Fincke BG, Hermanns D, Johnson GA. Medical residents' first clearly remembered experiences of giving bad news. *J Gen Intern Med.* 2002;17(11):825-831. doi:10.1046/j.1525-1497.2002.10915.x
5. N. Junod Perron, J. Sommer, P. Hudelson, F. Demaurex, C. Luthy, M. Louis-Simonet, M. Nendaz, W. De Grave, D. Dolmans & C.P.M. van der Vleuten (2009) Clinical supervisors' perceived needs for teaching communication skills in clinical practice, *Medical Teacher*, 31:7, e316-e322. doi: 10.1080/01421590802650134
6. Lawton AJ, Eldam A, Tulsy JA, Ramani S. Perspectives of internal medicine residents on approaching serious illness conversations. *Clin Teach.* 2022;19(5):e13508. doi:10.1111/tct.13508
7. Cvengros JA, Behel JM, Finley E, et al. Breaking Bad News: A Small-Group Learning Module and Simulated Patient Case for Preclerkship Students. *Mededportal: the Journal of Teaching and Learning Resources.* 2016 Nov;12:10505. DOI: 10.15766/mep\_2374-8265.10505.
8. Van Zuilen M, Caralis P, Granville L. Breaking bad news: a small group session teaching communication skills for delivering bad news. *MedEdPORTAL.* 2013; 9:9604. [https://doi.org/10.15766/mep\\_2374-8265.9604](https://doi.org/10.15766/mep_2374-8265.9604)
9. Cannone D, Atlas M, Fornari A, Barilla-LaBarca ML, Hoffman M. Delivering Challenging News: An Illness-Trajectory Communication Curriculum for Multispecialty Oncology Residents and Fellows. *MedEdPORTAL.* 2019;15:10819. Published 2019 Apr 24. doi:10.15766/mep\_2374-8265.10819
10. Back AL, Arnold RM, Baile WF, et al. Efficacy of communication skills training for giving bad news and discussing transitions to palliative care. *Arch Intern Med.* 2007;167(5):453-460. doi:10.1001/archinte.167.5.453
11. Back A, Tulsy JA, Arnold RM. Communication Skills in the Age of COVID-19. *Ann Intern Med.* 2020;172(11):759-760. doi:10.7326/M20-1376
12. Knobloch AC, Ledford CJW, Wilkes S, Saperstein AK. The Impact of Near-Peer Teaching on Medical Students' Transition to Clerkships. *Fam Med.* 2018;50(1):58-62. doi:10.22454/FamMed.2018.745428
13. Benè KL, Bergus G. When learners become teachers: a review of peer teaching in medical student education. *Fam Med.* 2014;46(10):783-787.
14. Baile WF, Buckman R, Lenzi R, Globler G, Beale EA, Kudelka AP. SPIKES-A six-step protocol for delivering bad news: application to the patient with cancer. *Oncologist.* 2000;5(4):302-311. doi:10.1634/theoncologist.5-4-302
15. Baile WF, Lenzi R, Kudelka AP, et al. Improving physician-patient communication in cancer care: outcome of a Workshop for oncologists. *J Cancer Educ.* 1997;12(3):166-173. doi:10.1080/08858199709528481



---

**APPENDIX A****Figure 3.** Pre- and Post-Workshop A Survey

1. Please indicate your level of training.
    - a. Medicine PGY – 1
    - b. Medicine PGY – 2
    - c. Medicine PGY – 3
    - d. Other; please specify \_\_\_\_\_
  
  2. Please indicate the gender with which you identify.
    - a. Female
    - b. Male
    - c. Do not wish to specify
    - d. Other; please specify \_\_\_\_\_
  
  3. Have you had any training in communicating challenging news? (Check all the apply)
    - a. Formal lecture
    - b. Interactive workshop
    - c. Observed clinicians delivering challenging news to patients.
    - d. I received no training in this skill
    - e. Other; please specify \_\_\_\_\_
  
  4. Please rate your knowledge in the skills involved in communicating challenging news to patients.
    - a. Not knowledgeable
    - b. Minimally knowledgeable
    - c. Somewhat knowledgeable
    - d. Moderately knowledgeable
    - e. Very knowledgeable
  
  5. Please rate how comfortable you feel communicating challenging news to patients.
    - a. Not comfortable
    - b. Minimally comfortable
    - c. Somewhat comfortable
    - d. Moderately comfortable
    - e. Very comfortable
  
  6. Please rate how competent you feel with communicating challenging new to patients.
    - a. Not competent
    - b. Minimally competent
    - c. Somewhat competent
    - d. Moderately competent
    - e. Very competent
-

---

**APPENDIX B****Figure 4.** Pre-Workshop B Survey for 2<sup>nd</sup> and 3<sup>rd</sup> Year Residents

1. Please indicate your level of training.
    - a. Medicine PGY – 2
    - b. Medicine PGY – 3
    - c. Other; please specify \_\_\_\_\_
  
  2. Please indicate the gender with which you identify.
    - a. Female
    - b. Male
    - c. Do not wish to specify
    - d. Other; please specify \_\_\_\_\_
  
  3. What does S.P.I.K.E.S. stand for?  
S:  
P:  
I:  
K:  
E:  
S:
  
  4. Did you apply the SPIKES protocol or any of the communication skills taught during the previous workshop to any interactions you have had with patients since the workshop?
    - a. Yes
    - b. No
  
  5. Please identify which role you played in the role-play scenario during the last workshop.
    - a. Patient
    - b. Health Care Provider
    - c. Observer
    - d. I do not remember
  
  6. Please rate your level of agreement regarding the following statement: ***I have felt more comfortable communicating challenging news to patients since the previous workshop.***
    - a. Strongly Disagree
    - b. Disagree
    - c. Neutral
    - d. Agree
    - e. Strongly Agree
-

---

**APPENDIX C****Figure 5.** Post-Workshop B Survey for 2<sup>nd</sup> and 3<sup>rd</sup> Year Residents.

1. Please indicate your level of training.
    - a. Medicine PGY – 2
    - b. Medicine PGY – 3
    - c. Other; please specify \_\_\_\_\_
  
  2. Please indicate the gender with which you identify.
    - a. Female
    - b. Male
    - c. Do not wish to specify
    - d. Other; please specify \_\_\_\_\_
  
  3. Answer **ONLY** if you acted as a **TEACHER** in the workshop. Please rate your level of agreement regarding the following statement: ***By teaching the SPIKES protocol to 1<sup>st</sup> year residents, I feel more confident in the skill of communicating challenging news to patients.***
    - a. Strongly Disagree
    - b. Disagree
    - c. Neutral
    - d. Agree
    - e. Strongly Agree
  
  4. Answer **ONLY** if you acted as an **OBSERVER** in the workshop. Please rate your level of agreement regarding the following statement: ***By observing the SPIKES protocol being taught to 1<sup>st</sup> year residents, I feel more confident in the skill of communicating challenging news to patients.***
    - a. Strongly Disagree
    - b. Disagree
    - c. Neutral
    - d. Agree
    - e. Strongly Agree
  
  5. Will you use SPIKES protocol in your future interactions with patient?
    - a. Yes
    - b. No
-