Breaking bad news: a communication competency for ophthalmology training programs

Sarah M. Hilkert, MD, MPH[a,c], **Colleen M. Cebulla, MD, PhD**[a,*], **Shelly Gupta Jain, MD**[a,*], **Sheryl A. Pfeil, MD**[b], **Susan C. Benes, MD**[a], and **Shira L. Robbins, MD**[c]

[a]Department of Ophthalmology and Visual Science, Havener Eye Institute, The Ohio State University Wexner Medical Center, Columbus, Ohio

[b]Department of Internal Medicine, The Ohio State University Wexner Medical Center, Columbus, Ohio

[c]Department of Ophthalmology, University of California San Diego/Ratner Children's Eye Center, La Jolla, California

Abstract

As the ophthalmology accreditation system undergoes major changes, training programs must evaluate residents in the 6 core competencies, including appropriately communicating bad news. Although the literature is replete with recommendations for breaking bad news across various non-ophthalmology specialties, no formal training programs exist for ophthalmology. There are many valuable lessons to be learned from our non-ophthalmology colleagues regarding this important skill. We examine the historic basis for breaking bad news, explores current recommendations among other specialties, and then evaluate a pilot study to teach breaking bad news to ophthalmology residents. The results of this study are limited by a small number of residents at a single academic center. Future studies from multiple training programs should be conducted to further evaluate the need and efficacy of formal communication skills training in this area, as well as the generalizability of our pilot training program. If validated, this work could serve as a template for future ophthalmology resident training and evaluation in this core competency.

Correspondence: Shelly Gupta Jain, MD, Department of Ophthalmology and Visual Science, Havener Eye Institute, The Ohio State University Wexner Medical Center, 915 River Rd, Suite 5000, Columbus, OH 43212, Ph: 614-293-8116, Fax: 614-293-5207, Shelly.Jain@osumc.edu.
*CMC and SGJ contributed equally to this manuscript

I. Introduction

In 1999 the Accreditation Council for Graduate Medical Education (ACGME) established the 6 core competencies in resident medical education.[17] As a joint initiative of the American Board of Ophthalmology (ABO) and the ACGME, the Ophthalmology Milestone Project was implemented last year, outlining specific goals that ophthalmology residents must demonstrate by each level of training.[18] Communication is a core competency, and one of the most important and challenging aspects of communication is the delivery of bad news. In the Milestone Project, programs must evaluate residents on use of an "appropriate technique for 'breaking bad news.'"[A]

We will review the literature on breaking bad news, consider whether ophthalmologists would benefit from formal training in this competency, and describe a pilot training program for ophthalmology residents.

II. Literature review

A. What is bad news?

As defined by oncologist Robert Buckman, bad news is any diagnosis that "negatively alters the patient's view of his or her future."[7] This includes any situation in which there is "a feeling of no hope," or "a message is given which conveys to an individual fewer choices."[27] Certainly, a blinding condition or an ocular malignancy would alter a patient's view of his or her future. What about patching a child to treat amblyopia or simply recommending glasses? Bad news is inherently subjective, and each patient's past experiences and own perceptions determine whether a particular diagnosis qualifies as bad news.[27,37]

B. Should physicians receive training in breaking bad news?

Historically, physicians sheltered patients from bad news. Hippocrates recommended "concealing most things from the patient," as many "have taken a turn for the worse … by forecast of what is to come."[16] In the original Code of Ethics, the American Medical Association echoed this sentiment and advised physicians to "avoid all things which have a tendency to discourage the patient."[1] This approach persisted through the mid-20th century when surveys revealed that most physicians would avoid disclosing a cancer diagnosis unless specifically asked.[13,25]

While the principle of non-maleficence likely motivated this practice, justification for nondisclosure depends on two key assumptions: 1) that patients do not want the truth, or 2) that patients cannot handle the truth.[12,37] These assumptions, however, have never been validated. In fact, patient surveys have indicated that they would prefer to know the truth about a difficult diagnosis.[4,24] Withholding information may exacerbate confusion or delay treatment and is often counterproductive.[5,13] Improvements in medical technology, clinical trials requiring informed consent, and increased societal emphasis on patient autonomy forced physicians to reconsider their approach to bad news.[13,24] In recent years, attitudes toward disclosure of medical details have evolved dramatically to emphasize patient autonomy without compromising the desire to avoid psychological harm.[13,37]

Although we now recognize the importance of breaking bad news, such conversations are stressful for both the physician and patient.[11,27] The manner in which physicians deliver bad news can have a profound impact on patients' ability to understand and adjust to their medical reality.[37] Ineffective delivery of bad news increases patient anxiety and risk of depression, while a thoughtful approach decreases patient stress, improves patient satisfaction, and may even improve health outcomes.[27,31,35,38] Some individuals are more naturally empathetic than others, yet breaking bad news is a skill that can improve with practice.[7] Given the pivotal role of communication at this important time in patients' lives, formal training may help us better care for our patients as well as ourselves as physicians.[7,11]

C. How are physicians trained in the competency of breaking bad news?

Various protocols have since been described to help guide physicians through this challenging process.[4,5,20,23,37] Perhaps the most widely known is the SPIKES protocol developed by oncologists Robert Buckman and Walter Baile.[4,8,9] This strategy deconstructs the bad news encounter into 6 steps:

1. Setting (arrange for privacy, sit down, avoid interruptions)

2. Perception (inquire how much the patient already knows)

3. Invitation (discuss how much the patient wants to know)

4. Knowledge (avoid terminology, allow moments of silence)

5. Empathy (acknowledge and validate patient emotions)

6. Summary (confirm understanding, address patient-specific goals)

Empiric evidence from studies conducted before and after formal training in breaking bad news shows that learning the SPIKES method improves both confidence and skills for oncologists and oncology fellows.[2,4] This protocol has since been adapted to other areas of medicine, including obstetrics-gynecology, radiology, emergency medicine, and critical care.[14,15,26,32] SPIKES is now taught in many medical schools and has even been translated to other languages.[30, 36]

In addition to learning a protocol for breaking bad news, a systematic review of formal training programs also found that the most effective programs combine selection of a protocol with simulated practice in the form of standardized patient exercises or role-playing activities.[30] A few programs also report highly favorable reviews regarding use of volunteer patients or parents in role-play exercises or panel discussions.[3,21,29]

D. How does ophthalmology training measure-up?

In a 1991 video produced by the Institute of Families for Blind Children, Kenneth W. Wright reflected on the irony of our situation in ophthalmology: "It's probably one of the most important parts of our job that we have as a physician; it's just unfortunate that we are probably the least prepared for that aspect of the job."[B]

Fifteen years later, a survey among subspecialty surgeons in Southern California that included ophthalmologists found that 90% of surgeons recognized a need for training in breaking bad news.[33] Zakrzewski *et al.* also reported that 88% of ophthalmologists in the Canadian Ophthalmologic Society recognized that formal training would be beneficial, and 95% felt that this should take place during residency.[39]

In 2012 an editorial in *Archives of Ophthalmology* illuminated the deficiency of articles on breaking bad news in the ophthalmology literature compared to other areas of medicine. This concluded that the "logical next step" would be to develop a structured approach to evaluating ophthalmologists in this important area.[22] Later that year *EyeNet* interviewed Rosa Braga-Mele, Susan Day, and Ivan Schwab and offered 9 suggestions to more effectively deliver bad news.[34]

To the best of our knowledge, there are still no formal programs to train ophthalmology residents for this potentially stressful situation. We hypothesize that ophthalmology residents would benefit from formal training. Herein, we describe and evaluate a pilot training program in breaking bad news for ophthalmology residents.

III. Methods

The pilot study received ethics approval from The Ohio State University's Institutional Review Board (IRB# 2013B0388), and informed consent was obtained for all physicians participating in the study.

Volunteer patients were invited to serve on a panel discussion for resident education, and as such, determined to be exempt from formal consent by the IRB. These patients signed standard university waivers for their interviews to be videotaped for educational purposes.

The study had two parts: an internal needs assessment survey and a pilot training program for ophthalmology residents (Figure 1).

A. Needs Assessment Survey

The first part of the study involved a needs assessment survey to determine the perceived need for formal training at our institution (Figure 1A). Participants were asked whether ophthalmologists should receive formal training, when such training should occur, and whether they would welcome a Grand Rounds series on breaking bad news (Appendix 1).

B. Pilot Training Program

Based on positive responses to the needs assessment survey, we designed a pilot training program for ophthalmology residents (Figure 1B). Training took place during two regularly scheduled Grand Rounds and included standardized patient encounters, a didactic session, and a patient panel discussion with volunteer ophthalmology patients. All members of the Havener Eye Institute were invited to these Grand Rounds; residents attendance was required. Since most responses from the preliminary survey recommended that training take place during residency, only residents were recruited to evaluate the intervention.

During the first pilot training session, residents were given a checklist outlining the SPIKES strategy (Appendix 2). After reviewing the worksheet, residents were asked to deliver a difficult diagnosis to each of 3 standardized patients in an examination room at the Clinical Skills Education and Assessment Center at The Ohio State University. Standardized patients are professional actors who are trained to reproduce real patient encounters. Each session lasted 15 minutes, with 5 minutes between sessions, for a total of 1 hour. Diagnoses for the standardized patient encounters were chosen to parallel diagnoses of the volunteer patients, who would later participate in the panel discussion. Scripts for the standardized patient actors were guided by formal training for the actors at the Clinical Skills Education and Assessment Center as well as by advice from the volunteer ophthalmology patients (Appendix 3).

During the second Grand Rounds, a guest speaker from hematology-oncology, who taught breaking bad news at the Ohio State University College of Medicine, delivered a 30 minute lecture on the SPIKES protocol, followed by a 15 minute discussion considering how the SPIKES strategy might apply to ophthalmology (Figure 2). The conference culminated with a panel discussion, in which 3 patients volunteered to share their personal experiences in receiving a difficult diagnosis from an ophthalmologist. Each spoke for 15–20 minutes, emphasizing how the manner in which they received their diagnosis impacted their immediate and long-term ability to cope. They highlighted conversations that fostered a sense of hope: promoting comfort, offering low vision aids, screening family members for hereditary conditions, discussing research possibilities, and demonstrating a team approach to their care. Since the standardized patient scenarios paralleled the diagnoses of the volunteer patients, residents could consider their own delivery in light of the panelists' reactions.

C. Program Evaluation

To evaluate the hypothesis that formal training would be beneficial for ophthalmology residents, a pilot study was conducted. Before Grand Rounds all residents received a voluntary, anonymous online survey asking them to report their pre-intervention confidence level regarding 12 different aspects of the bad news encounter (Appendix 4). One month after training, all residents received an identical survey asking them to report their post-training confidence level regarding the same 12 measures. Results were matched and compared. This instrument was modified for ophthalmology, with permission, from the survey used in the original study by Baile *et al.*, which evaluated changes in physician confidence after an oncology workshop on the SPIKES protocol.[4] Primary outcome measures were improvements in resident confidence comparing matched surveys before and after training.

To determine the overall benefit of the pilot training session, residents were asked to estimate the usefulness for each aspect of the program on a 5-point Likert scale. They were also asked whether they would use the SPIKES protocol in the future and whether formal training should be incorporated into the formal curriculum. Additional comments were invited. Secondary outcome measures were overall program ratings, as well as responses to

the questions: "Would you use the SPIKES protocol in the future?" and, "Should formal training in breaking bad news be incorporated into the formal residency curriculum?"

D. Statistical Analysis

Statistical analysis was performed using Stata version 11 (StataCorp LP, College Station, TX). Percentages were calculated for summary data. Median and interquartile range were calculated for ordinal data. For the pre- and post-training analysis, participants were matched using unique, anonymous study codes. The Wilcoxon signed-rank test was used to compare differences in the mean for matched pairs. The threshold for statistical significance was set at $p \leq 0.05$.

IV. Results

A. Needs Assessment Survey

For the needs assessment study, 45 of 65 (69%) potential study participants completed the baseline questionnaire. Of those who responded, there were 23 men and 22 women, 25 faculty and 20 residents or fellows. Thirty-four participants (76%) agreed that ophthalmologists would benefit from a structured approach to training, which extended beyond the context of routine clinical care. Thirty-three (73%) felt that residency would be the ideal setting. Thirty-six (80%) indicated that they would welcome formal training as part of a future Grand Rounds.

B. Pilot Training Program

For the pilot intervention study, 11/17 ophthalmology residents (65%) participated in the training program: 6/6 first-year residents, 4/5 second-year residents, and 1/6 third-year residents. Six residents had excused absences. Of the 11 residents who participated in training, 9/11 (82%) completed pre-intervention survey, and all 11 completed post-intervention survey, leaving 9 surveys for the pre/post-intervention analysis.

C. Primary outcome measures: improvements in resident confidence

Comparing matched surveys, resident confidence increased significantly in 7 of the 12 measures (Table 1). The most significant improvement was noted in the measure: setting realistic expectations without destroying hope ($p = 0.0095$).

D. Secondary outcome measures: overall program ratings

All aspects of the program received favorable reviews (Figure 3). All 11 residents (100%) reported that they would use the SPIKES protocol in the future. All 11 residents also agreed that training in breaking bad news should be incorporated into the formal curriculum.

V. Discussion

A. Do ophthalmology residents benefit from formal training in breaking bad news?

To the best of our knowledge, this pilot study is the first formal training program for ophthalmology residents in breaking bad news. As measured by our primary and secondary outcome measures, ophthalmology residents in our study seem to benefit from formal

training. Resident confidence improved, overall program ratings were favorable, and all residents agreed that training in breaking bad news should be incorporated into the formal residency curriculum.

B. Applying the SPIKES strategy to ophthalmology

Breaking bad news is a common scenario that gets little attention in the ophthalmology literature. Various protocols have been described to help physicians navigate this difficult process. There are many valuable lessons to be learned from our non-ophthalmology colleagues that are explored in our literature review.

The SPIKES protocol is effective, easy to learn, and adaptable to ophthalmology.[4] All residents who participated in training indicated that they would use SPIKES in the future with their patients. According to criteria in the Milestone Project, this strategy exemplifies an "appropriate technique for 'breaking bad news.'"[A]

C. Standardized patients

To help ophthalmology residents learn the SPIKES protocol, standardized patients can be adapted for ophthalmology. Since Back *et al.* described use of standardized patients to help oncologists learn the SPIKES protocol, various residency programs have incorporated standardized patients as part of communication skills training in breaking bad news.[2,6,10,19,28] In our pilot study, practicing with standardized patients received favorable responses (median score 4, interquartile range 4–5). Our results are compatible with scores from a program for surgical residents, who were also asked to gauge the usefulness of delivering bad news to standardized patients on a 5-point Likert scale (mean 4.0 ± 0.6).[6] This suggests that standardized patients can be successfully trained to portray ophthalmology patients as part of a communication skills training program.

In the future standardized patients could be used to objectively measure ophthalmology resident competency in breaking bad news. In the same way that Baile *et al.* compared surveys before and after training to measure subjective improvements in oncologists' confidence, Back *et al.* compared standardized patient encounters before and after training to measure objective improvements in oncologists' communication skills.[2,4] The University of Pittsburg demonstrated that scores from standardized patient encounters can be used to measure resident achievement of milestones in a surgical program.[10] Using our standardized patient checklist as a grading sheet, a similar objective evaluation of resident skills in breaking bad news could be developed for ophthalmology.

D. Volunteer patients

A few programs have described use of volunteer patients in breaking bad news training programs.[3,21,29] Our program was inspired by a powerful article by Baer *et al.*, in which cancer survivors participated in role play exercises with medical students.[3] Not surprisingly, this was the most highly rated aspect of our program (median 5, IQR 4–5). When asked about future training, most residents commented that future training should include a volunteer patient panel. As with oncology and other training programs, volunteer patients in

ophthalmology add a humanistic element to communication skills training that might escape lecture or simulation.

E. How do our results compare to similar studies in other fields?

Like most studies regarding communication skills, we compared self-assessments of confidence before and after training as our primary outcome measure.[30] In the study that originally presented and evaluated the SPIKES protocol, oncologists and fellows were asked to report their confidence level regarding 16 different aspects of the bad news encounter before and after training. Baile *et al.* found confidence increased in 13/16 measures for fellows and in 16/16 measures for faculty.[4] Other studies adapted this tool and found similar improvements.[3,32] With permission from Baile *et al.*, we modified this study instrument and found that resident confidence increased in 7/12 measures. While our results are modest in comparison, a larger study population would improve the power of this study to detect changes in resident confidence. This model could easily be reproduced at other training programs to determine generalizability.

F. Generalizability

In addition to comparing results at other training centers, repeating the post-intervention survey a few months after training at our own institution might also improve generalizability. As done by Reed *et al.* in their evaluation of a pediatric training program in breaking bad news, outcome measures might be assessed at baseline, immediately after training, and again 3 months after training to evaluate retention of skills.[28] In this manner, we might confirm the sustainability of our outcomes. Further work is necessary to determine the long-term impact of training on ophthalmology resident confidence and decide how often training should occur.

G. Limitations

This study has several limitations. First, our pilot training program was evaluated by a small group of residents at a single academic center. Six residents were excused from our required Grand Rounds because of other program commitments (e.g., away rotations, job interviews, service obligations). These disproportionately affected the senior residents. The difficult balance between education and clinical demands is not unique to our residency program. In one pediatric residency program, Reed *et al.* reported a similar participation rate for their training program in breaking bad news of 66% (29/44).[28] The authors also mentioned that participation was limited by service obligations, and no resident voluntarily declined training. They suggested offering training at a time when all residents might be excused from clinical duties.

Lack of participation by senior residents also limits the power of this study to detect a difference in confidence measures by level of residency training. This concern may be difficult to avoid in small residency programs. A study to assess the impact of training for surgical residents reported similar limitations, noting that only one PGY-4 resident was able to participate.[6] If senior residents would find training less useful than would junior residents, perhaps training should be implemented earlier in resident education. Along those lines, another study among surgical residents found that self-reported confidence levels were

higher among senior residents than among junior residents; however, higher confidence scores comparing senior residents to junior residents did not correlate with higher objective scores on standardized patient encounters. As a result, these authors recommend progressive training throughout residency.[10] Given the small size of most ophthalmology programs, participation at multiple centers would help determine the optimal timing for ophthalmology resident training.

Finally, loss of study participants limits generalizability of our primary outcome. Of the 11 residents who participated in Grand Rounds, 2 first-year residents did not complete the pre-intervention survey. As a result, only 9/11 surveys could be matched to assess changes in resident confidence. This limitation does not affect our secondary outcome, however, as all 11 residents completed post-training evaluation. Thus, implications for further research are promising, and this intervention could be conducted at multiple training centers to confirm whether ophthalmology residents benefit from formal training in breaking bad news.

VI. Conclusions

Visual impairment can have life changing implications, and the manner in which we approach these difficult conversations can profoundly impact the lives of our patients. In the same way that patient care and medical knowledge are competencies that improve with training, breaking bad news is also a skill that must be cultivated with proper technique and practice. We have adapted a powerful tool from oncology to help ophthalmology residents more effectively and comfortably deliver difficult news. Future studies from multiple training programs should be conducted to further evaluate the efficacy and generalizability of breaking bad news training in ophthalmology. If validated, this model could serve as a template to train and evaluate ophthalmology residents in this important area of communication and interpersonal skills.

VII. Method of Literature Search

Articles published in peer-reviewed journals from any year were identified using MEDLINE/Pubmed and the Ohio State University College of Medicine Library. Searches included various combinations of the following terms: communication skills training, ophthalmology, breaking bad news, "SPIKES," standardized patients, simulated patients, resident education, ACGME, Milestone project. After review of these abstracts, relevant articles were retrieved and analyzed. Reference lists for articles were also reviewed for other publications of significance.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

Bibliography

1. American Medical Association. The Original Code of Ethics. Philadelphia: American Medical Association; 1847. On the duties of physicians to their patients and of the obligations of patients to their physicians; p. 94

2. 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):453–60. [PubMed: 17353492]

3. Baer AN, Freer JP, Milling DA, Potter WR, Ruchlin H, Zinnerstrom KH. Breaking bad news: use of cancer survivors in role-playing exercises. Journal of Palliative Medicine. 2008; 11(6):885–92. [PubMed: 18715181]

4. Baile WF, Buckman R, Lenzi R, Glober G, Beale EA, Kudelka AP. SPIKES-A six-step protocol for delivering bad news: application to the patient with cancer. Oncologist. 2000; 5(4):302–11. [PubMed: 10964998]

5. Beale EA, B W, Aaron J. Silence is not golden: communication with children dying from cancer. Journal of Clinical Oncology. 2005; 23(3):3629–31. [PubMed: 15908676]

6. Brewster LP, Risucci DA, Joehl RJ, et al. Comparison of resident self-assessments with trained faculty and standardized patient assessments of clinical and technical skills in a structured educational module. American Journal of Surgery. 2008; 195(1):1–4. [PubMed: 18082534]

7. Buckman R. Breaking bad news: why is it still so difficult? Br Med J (Clin Res Ed). 1984; 288(6430):1597–9.

8. Buckman, R. How to break bad news: a guide for health care professionals. Baltimore: Johns Hopkins University Press; 1992. p. 65-97.

9. Buckman R. Breaking bad news: the S-P-I-K-E-S strategy. Commun Oncol. 2005; 2:138–42.

10. Falcone JL, Claxton RN, Marshall GT. Communication skills training in surgical residency: a needs assessment and metacognition analysis of a difficult conversation objective structured clinical examination. Journal of Surgical Education. 2014; 71(3):309–15. [PubMed: 24797845]

11. Fallowfield L, Jenkins V. Communicating sad, bad, and difficult news in medicine. Lancet. 2004; 363(9405):312–9. [PubMed: 14751707]

12. Girgis A, Sanson-Fisher RW. Breaking bad news: consensus guidelines for medical practitioners. Journal of Clinical Oncology. 1995; 13(9):2449–56. [PubMed: 7666105]

13. Goldberg RJ. Disclosure of information to adult cancer patients: issues and update. Journal of Clinical Oncology. 1984; 2(8):948–55. [PubMed: 6747672]

14. Greiner AL, Conklin J. Breaking bad news to a pregnant woman with a fetal abnormality on ultrasound. Obstetrical & Gynecological Survey. 2015; 70(1):39–44. [PubMed: 25616346]

15. Harvey JA, Cohen MA, Brenin DR, Nicholson BT, Adams RB. Breaking bad news: a primer for radiologists in breast imaging. Journal of the American College of Radiology. 2007; 4(11):800–8. [PubMed: 17964502]

16. Hippocrates. Jones WH: Hippocrates with an English Translation. Vol. 2. London: Heinemann; 1923. Decorum, XVI; p. 297-9.

17. Lee AG, Arnold AC. The ACGME Milestone Project in ophthalmology. Survey of Ophthalmology. 2013; 58(4):359–69. [PubMed: 23768922]

18. Lee AG, Arnold AC. The Next Accreditation System in ophthalmology. Survey of Ophthalmology. 2015; 60(1):82–5. [PubMed: 25311429]

19. Lienard A, Merckaert I, Libert Y, et al. Is it possible to improve residents breaking bad news skills? A randomised study assessing the efficacy of a communication skills training program. Br J Cancer. 2010; 103(2):171–7. [PubMed: 20628395]

20. Makoul G. The SEGUE Framework for teaching and assessing communication skills. Patient Education and Counseling. 2001; 45(1):23–34. [PubMed: 11602365]

21. Morgan ER, Winter RJ. Teaching communication skills. An essential part of residency training. Arch Pediatr Adolesc Med. 1996; 150(6):638–42. [PubMed: 8646316]

22. Morse AR. Talking to patients about vision loss and rehabilitation. Arch Ophthalmol. 2012; 130(2):235–7. [PubMed: 22332219]

23. Narayanan V, Bista B, Koshy C. 'BREAKS' Protocol for Breaking Bad News. Indian Journal of Palliative Care. 2010; 16(2):61–5. [PubMed: 21811349]

24. Novack DH, Plumer R, Smith RL, Ochitill H, Morrow GR, Bennett JM. Changes in physicians' attitudes toward telling the cancer patient. JAMA. 1979; 241(9):897–900. [PubMed: 762865]

25. Oken D. What to tell cancer patients. A study of medical attitudes. JAMA. 1961; 175:1120–8. [PubMed: 13730593]

26. Park I, Gupta A, Mandani K, Haubner L, Peckler B. Breaking bad news education for emergency medicine residents: A novel training module using simulation with the SPIKES protocol. J Emerg Trauma Shock. 2010; 3(4):385–8. [PubMed: 21063562]

27. Ptacek JT, Eberhardt TL. Breaking bad news. A review of the literature. JAMA. 1996; 276(6):496–502. [PubMed: 8691562]

28. Reed S, Kassis K, Nagel R, Verbeck N, Mahan JD, Shell R. Breaking bad news is a teachable skill in pediatric residents: A feasibility study of an educational intervention. Patient Education and Counseling. 2015; 98(6):748–52. [PubMed: 25775928]

29. Romm J. Breaking bad news in obstetrics and gynecology: educational conference for resident physicians. Arch Womens Ment Health. 2002; 5(4):177–9. [PubMed: 12510208]

30. Rosenbaum ME, Ferguson KJ, Lobas JG. Teaching medical students and residents skills for delivering bad news: a review of strategies. Acad Med. 2004; 79(2):107–17. [PubMed: 14744709]

31. Schofield PE, Butow PN, Thompson JF, Tattersall MH, Beeney LJ, Dunn SM. Psychological responses of patients receiving a diagnosis of cancer. Annals of Oncology. 2003; 14(1):48–56. [PubMed: 12488292]

32. Shaw DJ, Davidson JE, Smilde RI, Sondoozi T, Agan D. Multidisciplinary team training to enhance family communication in the ICU. Critical Care Medicine. 2014; 42(2):265–71. [PubMed: 24105452]

33. Sise MJ, Sise CB, Sack DI, Goerhing M. Surgeons' attitudes about communicating with patients and their families. Curr Surg. 2006; 63(3):213–8. [PubMed: 16757376]

34. Smith, D, interviewing; Rosa, Braga-Mele, MD MED.; Day, MD, Susan H.; Schwab, MD, Ivan R. Delivering bad news: nine ways to do it better. EyeNet. 2012; 16:65–6.

35. Stewart MA. Effective physician-patient communication and health outcomes: a review. Canadian Medical Association journal. 1995; 152(9):1423–33. [PubMed: 7728691]

36. Teike Luthi F, Cantin B. Breaking bad news: "EPICES", a French style as a learning method. Rev Med Suisse. 2011; 7(277):85–7. [PubMed: 21309184]

37. VandeKieft GK. Breaking bad news. Am Fam Physician. 2001; 64(12):1975–8. [PubMed: 11775763]

38. Vogel BA, Leonhart R, Helmes AW. Communication matters: the impact of communication and participation in decision making on breast cancer patients' depression and quality of life. Patient Education and Counseling. 2009; 77(3):391–7. [PubMed: 19796910]

39. Zakrzewski PA, Ho AL, Braga-Mele R. Should ophthalmologists receive communication skills training in breaking bad news? Can J Ophthalmol. 2008; 43(4):419–24. [PubMed: 18711454]

Other Cited Material

A. The Ophthalmology Milestone Project. Available at: https://www.acgme.org/acgmeweb/Portals/0/PDFs/Milestones/OphthalmologyMilestones.pdf. Published December 2013. Accessed June 13, 2014

B. Christensen L, Good WV, Murphree AL, Wright KW. Breaking the news. Documentary produced by: Institute for Families of Blind Children. 1991
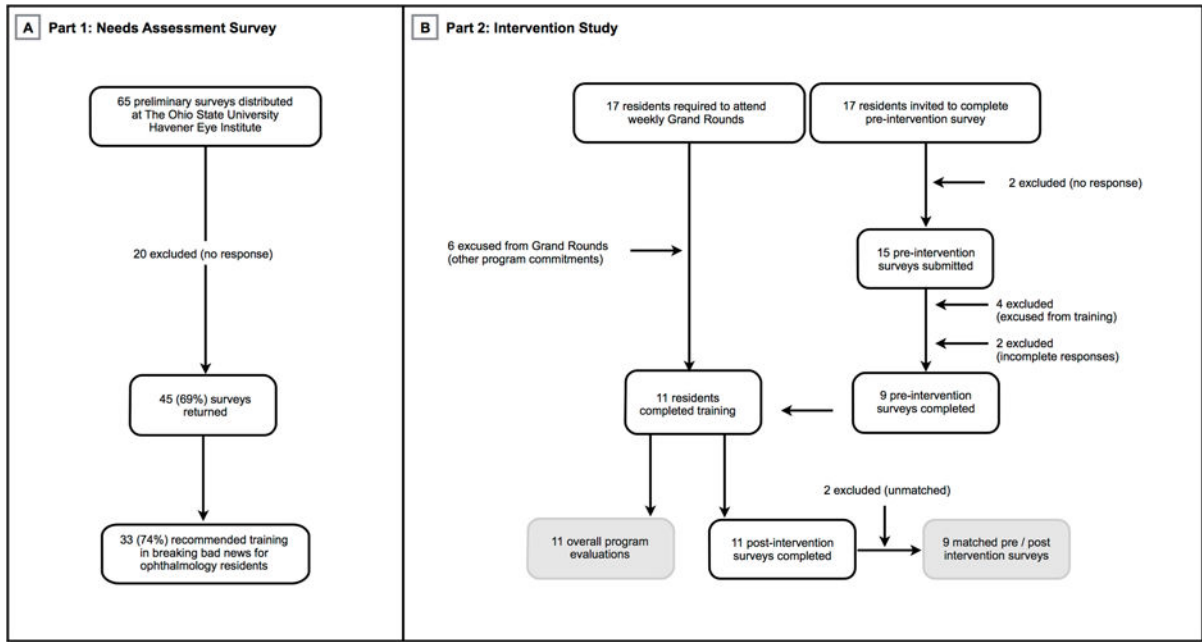
Figure 1. Flow chart
A: Flow diagram of participant enrollment in the needs assessment survey. B: Flow diagram of participant enrollment in the intervention study.

Setting
- Find a private location.
- Sit down, turn on the lights.
- Remove barriers to full eye contact (i.e. the slit lamp).
- Minimize interruptions.
- Appear calm and attentive.
- Acknowledge family / friends, and invite them into the conversation.

Perception
- Explore what the patient already knows.
- Find out what previous physicians have told them.
- Ask whether they know the results from previous testing.
- "What did you first think when you noticed your right eye seemed blurry?"
- "What have you been worrying about?"

Invitation
- Empower the patient: ask before you tell.
- Offer to involve significant others who are not present before proceeding.
- Find out how much detail the patient prefers.
- "What would you like to know about your diagnosis?"
- "How much detail would you like about your diagnosis and treatment?"
- "Is there anyone else you would like me to talk to?"

Knowledge
- Offer a warning shot: "I'm sorry to tell you... I wish I had better news..."
- Start chronologically: "Remember when you first noticed ...?"
- Deliver information in small pieces.
- Allow for moments of silence.
- Avoid medical terminology.
- Explain the role (or lack of role) of glasses.
- Remember that patients will not absorb many details after the initial bad news.

Empathy
- Recognize patient emotions (anger, fear, shock).
- Acknowledge / validate feelings.
- "I know this isn't what you were hoping to hear."
- "This is probably a shock to you."

Summary
- Confirm understanding, and invite questions.
- Establish a follow-up plan, emphasizing that you will work together as a team.
- Offer to speak to family members.
- Identify resources for support (low vision, support groups, etc.).
- Offer HOPE when possible: symptomatic control, minimizing pain, research.
- Give contact information.

Figure 2. Modified SPIKES protocol
As part of the formal training program, a template was created for lecture and discussion with additional points by the authors.[4,9]
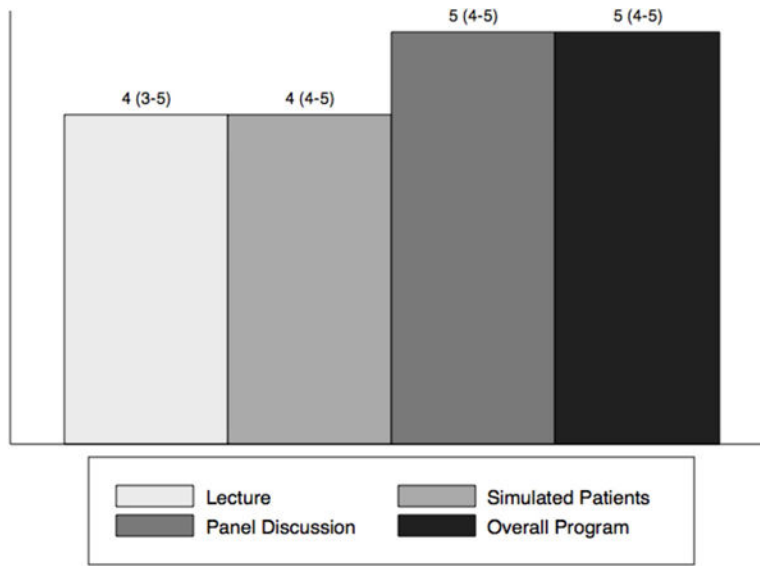
Figure 3. Educational intervention survey: overall program ratings

Residents were asked to gauge the individual benefit for each aspect of the training program on a 5-point Likert scale: 1 = lowest, 5 = highest. Bar height demonstrates the median program rating, and numbers in parentheses represent the interquartile range.

Table 1

Educational Intervention Survey: Resident Self-Evaluation of Confidence in Breaking Bad News

	Median (IQR)^{a,b,c}		
	Pre - Test (n = 9)	**Post - Test (n = 9)**	**P value**^{d}
Plan ahead for a patient encounter in which you deliver bad news	3 (3 – 3)	4 (4 – 4)	0.01
Open the conversation in a manner that places the patient at ease	3 (2 – 4)	4 (4 – 4)	0.01
Estimate the patient/family's baseline understanding	4 (3 – 4)	4 (4 – 4)	0.05
Determine how much the patient or family would like to know	3 (3 – 4)	4 (4 – 5)	0.05
Provide information in small pieces, avoiding medical terminology	3 (3 – 4)	4 (4 – 5)	0.06
Allow for moments of silence	4 (4 – 4)	4 (4 – 4)	0.70
Verify patient/family understanding	4 (4 – 4)	5 (4 – 5)	0.18
Recognize emotions expressed by the patient/family	4 (4 – 5)	4 (4 – 5)	0.80
Respond empathetically to emotions	4 (4 – 5)	4 (4 – 5)	0.41
Discuss possible treatment options and alternatives	3 (3 – 4)	4 (4 – 4)	0.05
Set realistic expectations without destroying hope	3 (3 – 4)	4 (4 – 4)	0.01
Summarize the encounter with contact information and other resources for support	4 (3 – 4)	5 (4 – 5)	0.02

IQR = interquartile range

^{a}Figures in parentheses represent the interquartile range.

^{b}Responses to the question, "Please estimate your confidence level with respect to different aspects of the bad news encounter."

^{c}Responses were graded on a 5 point Likert scale: 1 = lowest, 5 = highest.

^{d}p value calculated using the Wilcoxon signed-rank test, comparing the difference in mean between matched pairs.