

Training Pediatric Residents to Break Bad News Using the SPIKES Protocol

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BACKGROUND

- The SPIKES Protocol was developed by Dr. Robert Buckman and Dr. Walter Baile to guide healthcare professionals through delivering bad news.
- Previous studies have shown that the SPIKES Protocol can improve confidence among healthcare providers.
- There is limited research on its effectiveness among pediatric residents.
- The purpose of this study is to determine if formal training on the SPIKES Protocol improves the confidence of first-year pediatric residents in delivering bad news. We aim to continue improving the quality of this training.

METHODS

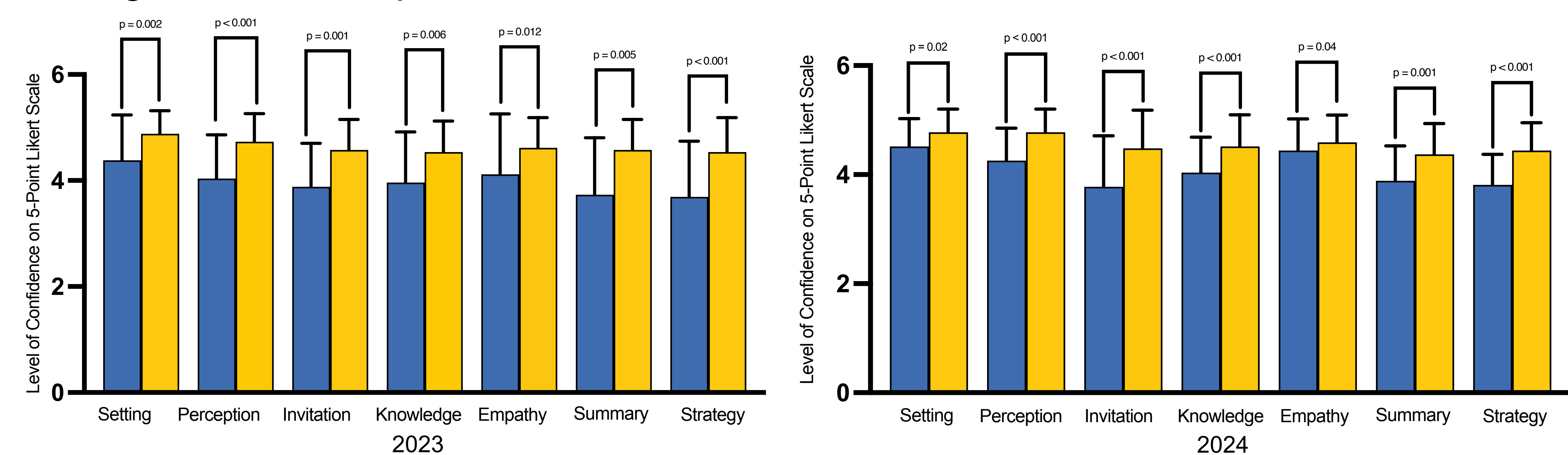
- A training was developed to teach interns at the UCLA Pediatric Residency Program how to successfully disclose bad news (Figure 1).
- A pre-survey was administered to assess confidence prior to the training.
- A post-survey was administered to assess confidence after the training.
- Pre- and post-surveys were scored on a 5-point Likert scale.
- Paired sample t-tests were performed to determine if there was a statistical difference ($p < 0.05$) between the pre- and post-survey mean confidence scores.

Pre-survey	5-minute 15-question survey to assess the resident's confidence in delivering bad news prior to the training (optional)
Didactic Session	40-minute interactive lecture to introduce the "SPIKES" Six-Step Protocol: <ol style="list-style-type: none"> Set up the interview Assess the patient's/family's perception of the condition Obtain the invitation to proceed Provide knowledge of medical facts Address emotions with empathetic responses Summarize discussion and strategize next steps
Standardized Patient Encounter	5-minute pre-recorded video to demonstrate how to use the SPIKES Protocol to disclose unfavorable medical information (i.e., a new diagnosis of a femur fracture secondary to osteosarcoma)
Simulation-based Learning	45-minute role-play session to allow trainees to learn how to successfully apply the SPIKES protocol to 3 different clinical scenarios (i.e., neonatal fever, teen pregnancy, and withdrawal of ventilatory support)
Post-survey	5-minute 12-question survey to assess the resident's confidence in delivering bad news after the training (optional)
Feedback Session	20-minute session to allow pediatric interns to provide feedback and suggestions on ways to improve the training

Figure 1. Overview of the recently developed training on the SPIKES Protocol

RESULTS

- Interns completed the SPIKES Protocol training in June 2023 and June 2024.
- 27 residents in 2023 and 26 residents in 2024 completed the pre-/post-survey.
- 12 participants from the 2023 cohort completed a follow-up survey 9 months after the SPIKES training.
- In both years, residents had a significant increase in their confidence scores using the SPIKES protocol.



	Post-Survey Mean (n = 12)	Follow-Up Survey Mean (n = 12)	P-value
Setting	4.667	4.25	0.017
Perception	4.833	4.25	0.002
Invitation	4.5	4.083	0.137
Knowledge	4.667	4.333	0.039
Empathy	4.583	4.083	0.111
Summary	4.417	4.25	0.615
Strategy	4.5	4.083	0.21

Figure 2. Paired sample t-tests between the pre- and post-survey mean confidence scores for 2023 and 2024 cohorts (top row). Table with post-survey and follow-up survey mean scores (bottom row).

CONCLUSIONS

- This study demonstrates that formal training on the SPIKES Protocol can improve the confidence of first-year pediatric residents in delivering bad news. This training has been integrated into the UCLA Pediatric Residency Program's Intern Orientation Curriculum.
- Next steps include expanding the SPIKES Protocol training to include learners at various levels of medical training.

ACKNOWLEDGEMENT

Thank you to the UCLA Pediatric Residency Program for supporting this curriculum.

Teaching Incoming Pediatric Residents How to Break Bad News: The SPIKES Protocol

Samantha Zimmer, MS; Elizabeth Volpicelli, MD; Rolanda Gott, MD; Mai-King Chan, MD

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- Pre- and post-surveys were scored on a 5-point Likert scale.
- Paired sample t-tests were performed to determine if there was a statistical difference ($p < 0.05$) between the pre- and post-survey mean confidence scores.

Pre-survey	5-minute 15-question survey to assess the resident's confidence in delivering bad news prior to the training (optional)
Didactic Session	40-minute interactive lecture to introduce the "SPIKES" Six-Step Protocol: 1. Set up the interview 2. Assess the patient's/family's perception of the condition 3. Obtain the invitation to proceed 4. Provide knowledge of medical facts 5. Address emotions with empathetic responses 6. Summarize discussion and strategize next steps
Standardized Patient Encounter	5-minute pre-recorded video to demonstrate how to use the SPIKES Protocol to disclose unfavorable medical information (i.e., a new diagnosis of a femur fracture secondary to osteosarcoma)
Simulation-based Learning	45-minute role-play session to allow trainees to learn how to successfully apply the SPIKES protocol to 3 different clinical scenarios (i.e., neonatal fever, teen pregnancy, and withdrawal of ventilatory support)
Post-survey	5-minute 12-question survey to assess the resident's confidence in delivering bad news after the training (optional)
Feedback Session	20-minute session to allow pediatric interns to provide feedback and suggestions on ways to improve the training

Figure 1. Overview of the recently developed training on the SPIKES Protocol

RESULTS

- 29 interns completed the SPIKES Protocol training in June 2023.
- 27 participants completed the pre- and post-survey.
- 100% of interns reported feeling more confident in their ability to deliver bad news after the training (62.1% strongly agreed and 37.9% somewhat agreed).

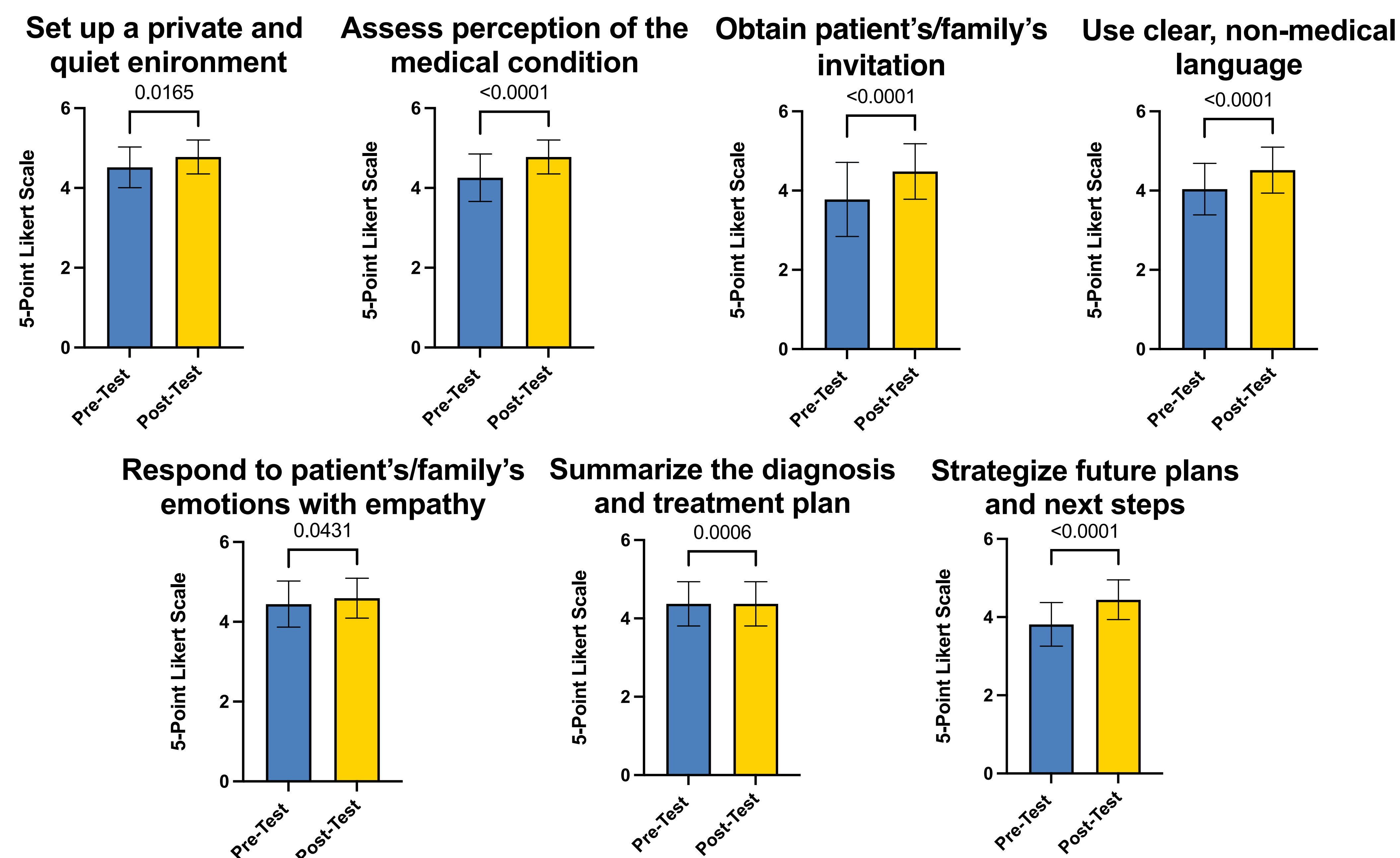


Figure 2. Paired sample t-tests between the pre- and post-survey mean confidence scores.

CONCLUSIONS

- This study demonstrates that formal training on the SPIKES Protocol can improve the confidence of first-year pediatric residents in delivering bad news.
- This training will be integrated into the UCLA Pediatric Residency Program's Intern Orientation Curriculum.
- Next steps include providing the SPIKES Protocol training to pediatric fellows and attendings at UCLA.

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