



# Applying VitalTalk™ techniques to Best Case/Worst Case training to increase scalability and improve surgeon confidence in shared decision-making



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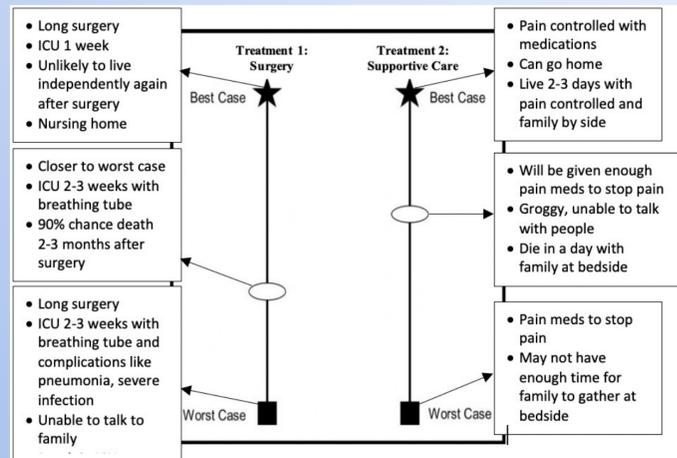
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## Background

❖ Surgical education provides little formalized training in shared decision-making (SDM) for high-risk procedures near the end of life

❖ **Best Case/Worst Case (BC/WC) Communication Tool** facilitates SDM

- Designed by and for surgeons
- Utilizes visual aid (see figure)
- Tells stories about possible futures under best, worst, most likely scenarios
- Patient reactions to stories exposes and clarifies values
- Aligns recommended treatment with patients' goals and preferences
- Training curricula requires a 1:1 instructor to resident ratio, limiting scalability



Graphic Aid illustrating "Best Case/Worst Case". Pen-and-paper diagram constructed by physician.

## Objectives

- ❖ To ascertain feasibility with addition of VitalTalk™ to increase scale
- ❖ To increase scalability of the BC/WC training (teach to entire resident cohorts)
- ❖ To measure impact of training on surgeon confidence in and perceived importance in BC/WC methodology

## Materials & Methods

- ❖ **Design:** Prospective cohort pre-post study; December 2018 to January 2019
- ❖ **Setting:** The University of Pittsburgh Medical Center, a multi-center tertiary care teaching hospital
- ❖ **Participants:** Forty-eight resident surgeons from general surgery and otolaryngology
- ❖ **Interventions:** Structured, 2-3 hour, faculty-facilitated, skills training session
  - Adapted from original curriculum utilizing role play to learn new skills
  - Powered by VitalTalk™ method that facilitates:
    - Adult learning
    - Learner defined goals
    - Immediate feedback on communication behaviors
  - Curriculum was designed to emphasize 10 specific skills (see Table 2)
  - Questionnaires measured 20 validated items for confidence and importance of skills

## Results

❖ **Description of Learner Cohort:**

1. Across all age ranges (24-27) and PGY (1-5): Most, 74.5% and 87.5% respectively, reported no prior communications training in medical school or residency
2. During residency: Residents encountered high-stakes communication frequently (3.6 on a 5 point scale)
3. Prior to the training, 81.8% of residents thought their communication skills needed improvement

❖ **Impact of BC/WC training:**

1. Demonstrated feasibility to teach communication skills in 2-3 hour session
2. Increased scalability using adapted curricula permitting 1 instructor to 5.3 resident learners
3. Training increased:
  - Confidence of resident learners
  - Perceived importance of SDM skills

**Table 2.** Resident perceptions of mastery, confidence and importance of communication skills before and after BC/WC Training

	Pre-Intervention (n=48)		Post-Intervention (n=42)		Within-person Difference, Mean (SD)
	Mean (SD)	Median (IQR)	Mean (SD)	Median (IQR)	
Compared with mastering surgical science, how important is it to master the technique of <u>communication</u> <sup>M</sup> :	3.0 (0.8)	3.0 (0)	3.7 (0.9)	4.0 (1.0)	0.64 (0.79)*
How Confident do you feel <sup>C</sup> :					
Making a clear recommendation to patient for or against a particular treatment methodology	3.2 (1.0)	3.0 (1.3)	3.8 (0.7)	4.0 (1.0)	0.62 (0.9)*
Explicitly exploring patient's values	3.6 (0.8)	3.0 (1.0)	4.1 (0.6)	4.0 (0.0)	0.57 (0.7)*
Mentioning specific probabilities when discussing treatment options with patients	2.8 (1.0)	3.0 (2.0)	3.2 (1.1)	3.0 (2.0)	0.45 (0.8)*
Asking patient "what is important to you now?"-- or some equivalent phrase	3.8 (0.8)	4.0 (1.0)	4.5 (0.6)	5.0 (1.0)	0.81 (0.9)*
Breaking bad news to patients with a clear, simple "headline"	3.1 (1.0)	3.0 (2.0)	4.2 (0.7)	4.0 (1.0)	1.2 (1.2)*
Including patient's chronic medical conditions in discussion about treatment outcomes	3.6 (0.8)	4.0 (1.0)	4.1 (0.7)	4.0 (0.8)	0.55 (0.9)*
Telling stories that describe the shape of a patient's life after surgery—with or without complications	3.3 (1.1)	3.5 (1)	3.9 (0.9)	4.0 (2.0)	0.60 (1.2)*
Using any type of graphical aid to explain possible outcomes to patients	3.0 (1.1)	3.0 (2.0)	3.9 (0.8)	4.0 (0.8)	0.90 (1.3)*
Basing recommendation on patient's values	3.6 (0.8)	4.0 (1.0)	4.2 (0.6)	4.0 (1.0)	0.68 (0.8)*
Using questions or phrases to encourage deliberation	3.5 (0.8)	3.0 (1.0)	4.3 (0.7)	4.0 (1.0)	0.78 (0.9)*

<sup>M</sup>10 Specific Skills depicted above. Measured for both "Confidence" and "Importance". Confidence only shown above.

- Overall, statistical difference in 18/20 communication items in confidence and importance after the training

## Results cont.

❖ **Impact of BC/WC training:**

4. Additionally, residents reported training as:
  - Highly relevant to practice (4.6 on 5 pt scale)
  - Highly likely to help future interactions (4.4 on 5 pt scale)
  - Highly recommended for:
    - Attending surgeons (95.2%)
    - Residents in other disciplines (95.2%)
      - Neurosurgery (76.2%)
      - Critical Care (71.4%)
      - Internal Medicine (71.4%)

## Conclusions

- ❖ Formal training in BC/WC:
  1. Demonstrated feasibility to teach skills in 2-3 hrs and was well received
  2. Permitted scaling training to 5.3 residents per 1 instructor
  3. Increased confidence in exercising those skills in clinical practice
  4. Increased perception of the importance of SDM communication skills
  5. Findings suggest that wider implementation may be warranted
    - Highly recommended to:
      - Residents and Attendings
      - May improve patient-centered SDM
  6. Curricular materials available by contacting Dr. Weill, weillsr@upmc.edu

## Disclosures/Acknowledgements

- ❖ Dr. Robert Arnold is on the Board of Directors at VitalTalk™ and several authors serve as senior faculty at VitalTalk™
- ❖ This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors
- ❖ The authors would like to thank the originator of BC/WC, Gretchen Schwarze, MD, MPP, FACS from the University of Wisconsin for providing us with her original training materials. We would also like to thank Raquel Forsythe, MD, Mary Callahan, MD, and Jesse A. Soodalter, MD, MA for their participation in leading the teaching intervention.
- ❖ The VitalTalk™ method training can be accessed at <https://www.vitaltalk.org>