



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



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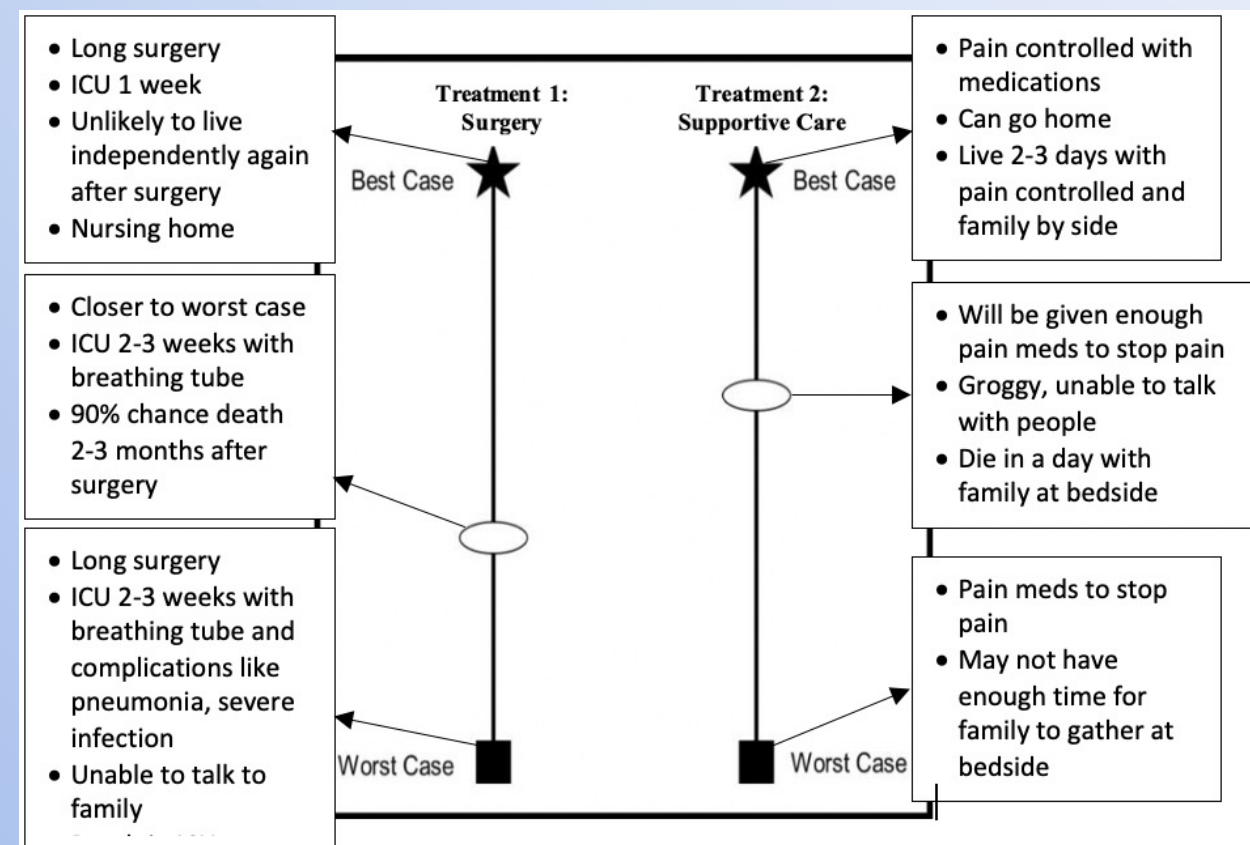
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Background

❖ 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> ?	3.0 (0.8)	3.0 (0)	3.7 (0.9)	4.0 (1.0)	0.64 (0.79)*
How Confident do you feel?					
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)*

!0 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

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- ❖ The VitalTalk™ method training can be accessed at <https://www.vitaltalk.org>