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

Sydney R. Weill, MD, MSW1, 2, Alexander J. Layden1, 3, Michael J. Nabozny, MD, Janet Leahy, CRNP5, Rene Claxton, MD, MS6, Amy B. Zelenksi, PhD6, Chris Zimmermann, MD7, Julie Childers, MD, MS8, Robert Arnold, MD9, Daniel E. Hall, MD, MDiv, MHSc, FACS8, 9,10, 11

1 University of Pittsburgh School of Medicine, Pittsburgh, PA. 2 Department of Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA. 3 Department of Epidemiology, University of Pittsburgh, Pittsburgh, PA. 4 Department of Surgery, University of Rochester, Rochester, NY. 5 Department of General Medicine, Section of Primary Care and Medical Ethics, UPMC, Pittsburgh, PA. 6 Department of Medicine, University of Wisconsin School of Medicine and Public Health, Madison, Wisconsin. 7 Department of Surgery, University of Wisconsin School of Medicine and Public Health, Madison, Wisconsin. 9 Department of Surgery, University of Pittsburgh Medical Center (UPMC), Pittsburgh, PA. 10 The Wolf Center at UPMC, Pittsburgh, PA. 11 Geriatric Research, Education and Clinical Center, Veterans Affairs Pittsburgh Healthcare System, Pittsburgh, PA.

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, increase scalability and feasibility

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

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
- Intervention: 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

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

Disclosures/Acknowledgements

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- 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

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

- Findings suggest that wider implementation may be warranted
  - Highly recommended to:
    - Residents
    - Attendings
  - May improve patient-centered SDM
- 6 Curricular materials available by contacting Dr. Weill, weillsr@upmc.edu

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

<table>
<thead>
<tr>
<th>Pre-Intervention (n=40)</th>
<th>Post-Intervention (n=42)</th>
<th>Mean (SD)</th>
<th>Median (QR)</th>
<th>Mean (SD)</th>
<th>Median (QR)</th>
<th>White-paper, Difference, Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confident in mastery of technique of communication™</td>
<td>3.0 (0.8)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>0.0 ± 0.7 (SD)</td>
</tr>
<tr>
<td>How Confident are you today?</td>
<td>3.0 (0.8)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>0.0 ± 0.7 (SD)</td>
</tr>
<tr>
<td>Making a clear recommendation to patient for or against a particular treatment methodology</td>
<td>3.2 (0.8)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>0.2 ± 0.7 (SD)</td>
</tr>
<tr>
<td>Explicitly explaining patient’s values</td>
<td>3.6 (0.8)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>0.6 ± 0.7 (SD)</td>
</tr>
<tr>
<td>Making specific probabilities when discussing treatment options with patient</td>
<td>3.0 (0.8)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>0.0 ± 0.7 (SD)</td>
</tr>
<tr>
<td>Asking patient “What is important to you?” — or some equivalent phrase breaking bad news to patients with a clear, simple “headline”</td>
<td>3.1 (0.8)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>0.2 ± 0.7 (SD)</td>
</tr>
<tr>
<td>Including patient’s medical conditions in discussion about treatment outcomes</td>
<td>3.0 (0.8)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>0.0 ± 0.7 (SD)</td>
</tr>
<tr>
<td>Telling stories that describe the shape of a patient’s life after surgery — with or without complications</td>
<td>3.3 (0.8)</td>
<td>3.1 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>0.3 ± 0.7 (SD)</td>
</tr>
<tr>
<td>Using any type of graphical aid to explain possible outcomes to patients</td>
<td>3.0 (0.8)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>0.0 ± 0.7 (SD)</td>
</tr>
<tr>
<td>Basing recommendation on patient’s values</td>
<td>3.0 (0.8)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>0.0 ± 0.7 (SD)</td>
</tr>
<tr>
<td>Using questions or phrases to encourage deliberation</td>
<td>3.0 (0.8)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>3.0 (0.9)</td>
<td>0.0 ± 0.7 (SD)</td>
</tr>
</tbody>
</table>

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 training.

Table 1. Resident perceptions of mastery, confidence and importance of communication skills before and after BC/WC Training