The Critical Care Communication project: Improving fellows' communication skills

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ABSTRACT

Purpose: The aim of this study was to develop an evidence-based communication skills training workshop to improve the communication skills of critical care fellows.

Materials and methods: Pulmonary and critical care fellows (N = 38) participated in a 3-day communication skills workshop between 2008 and 2010 involving brief didactic talks, faculty demonstration of skills, and faculty-supervised small group skills practice sessions with simulated families. Skills included the following: giving bad news, achieving consensus on goals of therapy, and discussing the limitations of life-sustaining treatment. Participants rated their skill levels in a pre-post survey in 11 core communication tasks using a 5-point Likert scale.

Results: Of 38 fellows, 36 (95%) completed all 3 days of the workshop. We compared pre and post scores using the Wilcoxon signed rank test. Overall, self-rated skills increased for all 11 tasks. In analyses by participant, 95% reported improvement in at least 1 skill; with improvement in a median of 10 of 11 skills. Ninety-two percent rated the course as either very good/excellent, and 80% recommended that it be mandatory for future fellows.

Conclusions: This 3-day communication skills training program increased critical care fellows' self-reported family meeting communication skills.

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1. Introduction

Each year, approximately 6 million people in the United States receive treatment in the intensive care unit (ICU). Twenty percent of these patients die either in the ICU or after intensive care, and many others survive with significant functional and cognitive impairments [1,2]. Many ICU patients lack capacity for medical decision making; therefore, intensivists typically discuss medical decision making with a patient's family or other decision-making proxies during formal or informal family meetings [3].

Multiple studies document that intensivist communication with families in the ICU is suboptimal [4–6]. Half of ICU family members do not understand the basic information about their loved ones' diagnosis, prognosis, or treatment [7]. Audio-recording studies of intensivists show that they often fail to address a patient's functional outcomes, attend to the family's emotional reactions, or inquire about a patient's religious and spiritual concerns [8–10]. Bereaved family members report that communication with physicians is critical, but recall this communication as unsatisfactory [11,12].

Professional organizations representing critical care physicians have responded to these data about suboptimal communication by calling for communication skills training for trainees. For example, the American Council of Graduate Medical Education's Residency Review Committee requires that all critical care programs offer training in medical ethics and palliative care, including communicating with families about end-of-life topics [13]. The American Thoracic Society has recommended

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that intensivists engage in educational experiences that provide skills training in core palliative care competencies with an emphasis on patient- and surrogate-centered decision making [14].

Still, few critical care fellowship programs provide evidence-based educational opportunities for fellows to improve their communication skills. A survey of pulmonary and critical care fellows documents minimal teaching of communication in the context of life-threatening illness and few opportunities for skills practice with supervision and explicit feedback from experienced faculty [15]. Most educational interventions for intensive care professionals have relied on didactic lectures or role modeling for passive learners, although neither of these strategies have been shown to improve communication skills [16]. Evidence-based communication skills interventions are urgently needed. In this article, we describe the development, implementation, and evaluation of an innovative, evidence-based program, Critical Care Communication (“C3”), for ICU fellows. This is the first communication skills program designed to improve intensivists’ ability to communicate with family members over the course of a patient’s illness. We hypothesized that self-reported communication skills would improve after the workshop and that learners would be satisfied with the workshop.

2. Material and methods

2.1. Program description

C3 is a 3-day communication skills training retreat for physicians training in critical care medicine. We modeled C3 on the National Cancer Institute–supported Oncotalk program [17–19], which resulted in sustained communication skills improvement among participating oncology fellows. We summarize C3 learning objectives in Table 1. We held the workshop outside the hospital setting and relieved participants of concurrent clinical responsibilities to enable them to focus on the training program.

2.2. Pedagogic approach

C3 involved 4 types of formal learning activities: (1) brief didactic overviews (limited to 20 minutes each), in which faculty present to all participants an evidence-based, step-by-step approach for core communication tasks in the ICU; (2) skills demonstration; (3) small group sessions for 5 to 7 fellows with a faculty facilitator, in which participants practice skills for several hours at a time with close supervision and immediate feedback, using actors simulating ICU family members in case studies prepared for this purpose; and (4) learner-directed role-playing exercises within small groups.

More than 80% of the 3-day schedule was devoted to small-group sessions. In these sessions, the 1:5 ratio of facilitators to learners and small group size ensured that all participants had multiple opportunities per day to participate in skills practice. In 45-minute sessions, the facilitator reviewed the clinical situation, invited a fellow to volunteer for role-playing, discussed the fellow’s learning goals, observed the fellow’s interaction with the standardized family, and facilitated feedback by the fellow’s peers. Because most participants were anxious about talking to family actors in front of others and because their previous experiences with role-playing were often negative, faculty facilitators were careful to set ground rules to establish a safe environment in which experimentation was encouraged, support was provided, and success was recognized. The main teaching strategy was to emphasize positive feedback to encourage their skills and focus on the 1 area the learner identified as most important for practice. In addition, fellows were allowed to pause the role-playing exercise—or call a “time out”—if they wished to rethink an approach or ask for assistance from peers or faculty. The facilitator could also call a time out during the exercise to assist the fellow or to emphasize a teaching point.

2.2.1. Simulated family members in multiepisode, sequential cases

Throughout the retreat, the small groups used 3 cases chosen to represent the diverse situations occurring commonly in the intensive care unit (Table 2). Before the retreat, we trained 7 actors to play family members for these cases. The family actors received a written character profile and training in providing feedback to the fellows from the family perspective.

In each case scenario, the fellows met with the family 3 times as the patient’s condition evolved. In the first encounter, fellows delivered bad news. In the second encounter, they negotiated goals of therapy. In the third encounter, they practiced discussing limitations of life-sustaining treatment or telling a family that their loved one had died. This sequential approach mirrored a typical clinical situation in the ICU and allowed the fellows to develop a relationship with the family.

A final session invited the learners to informally role-play situations they found challenging in their own practice. The fellows could volunteer to play family members or physicians; as family members, they could experience what it was like to be on the “other side of the stethoscope.” This session was conducted late in the workshop, after fellows had worked with family actors in small groups, when fellows were more familiar with the methods, confident in the value of simulation, and willing to participate actively in challenging roles.

2.2.2. Preparing learners for skill transfer from simulated role play to clinical practice

At the end of the workshop, a didactic session (“Taking Skills Home”) guided participants in how they might apply their new skills in clinical practice in their intensive care units. Fellows identified 2 communication skills that they would like to apply within the next month and documented them on a follow-up postcard. We mailed the card back to the fellows 1-month after the retreat, reminding them of their plan to practice these 2 skills.

2.2.3. Written curriculum

We provided participants with a written curriculum, including the case scenarios and 7 brief learning modules written by our faculty and annotated with relevant references. Both the scenarios and modules focused on situations that are commonly faced by intensive care physicians in daily practice.

To prepare the modules, we conducted a computerized, bibliographic review of literature published on these topics during the last 10 years. A librarian helped to ensure the completeness of this search, and 2 of the authors (RMA, JN) reviewed every article and selected those that would be of greatest value as references for the fellows, which we updated annually. An international group of experts in communication skills training,
2.3. Evaluation methods

Fellows self-administered written pre- and postworkshop questionnaires adapted from instruments used for Oncotalk evaluation. Items included learner demographics, previous training, and self-assessed competence in communication skills, satisfaction with the workshop, and recommendations for training future fellows. Self-assessment items used closed-ended 5-point Likert scales. The workshop evaluation used closed-ended Likert scales and open-ended questions regarding what they found most valuable and recommendations for workshop improvement. After the 2008 offering, we added a follow-up survey mailed to fellows 1 month after completion, asking about sustainability and clinical experience using the learned communication skills. All surveys are available upon request.

2.4. Data analysis

We summarized group demographic and prior training using appropriate measures of central tendency. We compared group pre and post self-assessed skill scores using the Wilcoxon signed rank test. We considered *P < .05* statistically significant. We completed all statistical analyses using SAS 9.3 (Cary, NC). The University of Pittsburgh Institutional Review Board reviewed and approved all evaluation procedures.

3. Results

3.1. Participants

Program directors required all first-year Department of Medicine Pulmonary/Critical Care and second-year Department of Critical Care Medicine Critical Care fellows to attend C3, taught annually from 2008 to 2010. A total of 38 fellows (15 [42%] Pulmonary/Critical Care and 23 [58%] Critical Care Medicine) participated, although 2 did not complete the full 3-day workshop. Most participants were white, male, and between 30 and 34 years old (Table 3). Fellows reported extensive experience providing end-of-life care, with 48% reporting caring for more than 25 dying patients in the last year.

3.2. Self-reported communication training experiences

Most fellows had some prior structured training in palliative care communication skills during residency (Table 4 in appendix). Most of the fellows reported prior formal training in giving bad news (81%) and discussing resuscitation code status (78%), whereas fewer had been formally trained to conduct family meetings (50%), to talk with families who failed to acknowledge the gravity of the patient’s situation (44%), or to address spiritual issues (42%). Prior training often did not include direct observation or feedback from faculty. For example, although 81% of fellows said they received training in giving bad news, only 65% had observed and given feedback by faculty; 13% said they received bedside teaching regarding discussing spiritual issues. Before our training program, most fellows rated their competence as moderate for most core communication skills we assessed (Table 5). They believed they were most competent to express empathy, discuss code status, and elicit family concerns and least competent to discuss spiritual issues, talk to families in denial, and talk about palliative options. Fellows were interested in learning communication skills, with 100% reporting that such skills were important or very important for excellence in the practice of intensive care.

3.3. Self-assessed pre-post retreat change

After training in our program, fellows reported improvement in all 11 communications skills assessed (*P < .05*). In contrast, they did not report improvement in treating pain, a competency not addressed in the workshop and used as an assessment of reporting bias. Fellows reported improving on a median of 10 of 11 communication skills (range, 1–11; mode, 11). For example, pre-C3, 36% of fellows thought they were prepared or well prepared (corresponding to 4 or 5 on the Likert scale) to run a family conference; this increased to 100% post-C3. Pre-C3, 7 (19%) of 36 believed they were prepared to respond to family members who wanted treatments that the medical team did not believe were indicated; this increased to 83% post-C3. The absolute pre-post increase in the proportion of fellows reporting feeling prepared or well prepared ranged from 69% for discussing code status with the family to 92% for giving bad news to a family.

3.4. Workshop evaluation

Overall, 92% of fellows rated the workshop as very good or excellent. Fellows rated the small group communication practice sessions most highly (4.8 of 5), followed by the didactic sessions (4.3). Eighty-three percent of fellows strongly agreed that the course should be recommended to other fellows, and 80% thought the course should be required. Representative quotes from the fellows include the following:

“I hope to use these skills in the future.” “Should be mandated/required.” “Excellent! This course made me a better physician. I was lacking in communication skills.” “Course was extremely valuable—non-threatening environment in which to try techniques that we would not normally try in the real world.”

We also received unsolicited positive e-mails from both the Pulmonary/Critical Care and Critical Care Medicine fellows and their fellowship program directors. The Director of the Pulmonary and Critical Care Medicine fellowship wrote:

“My fellows LOVED the course. They felt that it was very educational, very well run, and a great experience.

3.5. One-month follow-up

Among fellows who received the 1-month follow-up self-assessment (n = 12), 100% reported being competent/very competent to give bad news, run a family meeting, discuss options, attend to emotions, and negotiate conflict (Table 6). In addition, fellows reported that during the month after the training, they were practicing the skills taught in the course such as using simple jargon-free language, expressing empathy,
using ask-tell-ask, asking family members what the patient would have wanted, and exploring with open-ended questions (Table 7 in appendix).

4. Discussion

This report describes the first skills-based communication course designed to improve intensivists’ communication skills. The program built upon educational theory and evidence from other educational interventions to improve fellows’ skills in delivering bad news, conducting family meetings, discussing goals of therapy with surrogates, and negotiating conflicts over end-of-life care. The course improved fellows’ self-reported preparedness in 11 key communication skills, and participants recommended that it be required for all future intensive care fellows.

Prior communication training for critical care fellows at our institution used a didactic approach and focused on knowledge rather than skills acquisition. Those programs provided cognitive material regarding palliative care and mental models for how to handle difficult conversations in the ICU. Although fellows believed this material was important, the passive learning format did not address communication skills. We, therefore, used the evidence-based Oncotalk model—using active learning and skills practice—while modifying the curriculum to address the specific skills and needs of intensive care fellows and the settings in which they practice.

The success of C3 in improving communication skills of participants was similar to that of the Oncotalk and Geritalk programs, which focused on oncology and geriatrics fellows, respectively [17,20]. For example, Oncotalk participants improved in 8 of 11 communication skills during standardized patient encounters coded by blinded, independent coders. Among Oncotalk participants who did not respond empathetically when giving bad news pretraining, 73% did so posttraining.

Previous interventions to improve ICU communication skills have been developed for other groups of learners. A multisession educational intervention enrolling 99 Veterans Administration ICU nurses found that the percentage rating their skills as “very well” or “excellent” in 8 core communication skills increased from an average of 41% to 74%, which compares to our average change in proficiency from 32% to 93% [21]. A study of fourth-year medical students demonstrated that those completing the intervention were more proficient at multiple skills including gathering information and setting goals and expectations than controls [22]. A communication intervention aimed at pediatric ICU physicians, nurses, chaplains, psychologists, and social workers showed that more than 90% of participants reported that they had improved their communication skills, with most maintaining better skills at 5 months after the intervention [23]. A study using standardized family members to teach communication skills and ethical principles to critical care trainees found that although ethical and legal knowledge and trainee comfort scores improved, communication skills trended toward improvement without reaching statistical significance [24].

Our intervention was developed specifically for postgraduate physician trainees who will be specialists in adult critical care medicine. Increasingly, it is these physicians who are responsible for care of patients and communication with families in adult critical care units. We believed it was important for the family meetings to span the course of the patient’s illness. This emphasizes the importance of communication as an intensivists’ core skill—rather than something that is only implemented during end-of-life care. Fellows commented on the importance of seeing the disease trajectory for promoting realism and allowing them to develop a relationship with the family.

In our experience, the course is both feasible and effective. Fellowship program directors agreed that communication skills training is a priority for the education of their fellows. The fellows, in turn, recognized and valued this commitment to their education. Indeed, our results demonstrate high learner satisfaction with the course. We also found a significant increase in self-assessed preparedness for specific communication challenges and a high frequency of deliberate skills practice in the clinical setting after the course.

The project has limitations. The course has only been taught at a single institution with a large number of fellows and very supportive program directors. In addition, the course involves several days of training...
led by skilled group facilitators. We are currently training faculty at 10 other institutions across the United States to develop similar programs for their fellows. Finally, we did not directly investigate the impact on communication skills in practice nor on patient and family outcomes. Research suggests that more effective communication by ICU physicians is associated with family psychosocial well-being and satisfaction, as well as with timely implementation of care plans that are aligned with patient preferences [25,26].

5. Conclusions

C3 is a promising communication skills training workshop for intensivists resulting in self-reported skills acquisition and participant satisfaction. Future research should examine the influence of C3 training on patient and family outcomes in the ICU.

(Modules are available at the IPAL-ICU website, http://www.capc.org/ipal-icu/).