Difficult conversations: Improving communication skills and relational abilities in health care*

Elaine C. Meyer, PhD, RN; Deborah E. Sellers, PhD; David M. Browning, MSW, BCD; Kimberly McGuffie, EdM; Mildred Z. Solomon, EdD; Robert D. Truog, MD

Background: **Communication skills and relational abilities are essential core competencies that are associated with improved health outcomes, better patient adherence, fewer malpractice claims, and enhanced satisfaction with care. Yet, corresponding educational opportunities are sorely underrepresented and undervalued.**

Objective: **To evaluate the impact of an interdisciplinary experiential learning paradigm to improve communication skills and relational abilities of pediatric critical care practitioners.**

Design: **Prepost design, including baseline, immediate follow-up, and 5-month self-report questionnaires.**

Setting: **Tertiary care pediatric hospital, Children's Hospital Boston.**

Participants: **One hundred six interdisciplinary clinicians with a range of experience levels and clinical specialties.**

Measurements: **Participants rated their sense of preparation, communication and relational skills, confidence, and anxiety. Open-ended questions asked participants about lessons learned, aspects of the training they found most helpful, and suggestions to improve the training.**

Main Results: **When questions were posed in a yes/no format, participants were nearly unanimous (93% to 98%) that the training had improved their sense of preparation, communication skills, and confidence immediately after and 5 months posttraining. Ninety percent of participants reported improvements in establishing relationships immediately after the training and 84% reported improvements 5 months posttraining. Eighty-two percent reported reduced anxiety immediately after training and 74% experienced reduced anxiety 5 months posttraining. On Likert items, 70% estimated their preparation had improved; 40% to 70% reported improvements in communication skills, confidence and anxiety, and 15% in relationship skills. Four qualitative themes emerged: identifying one's existing competence; integrating new communication skills and relational abilities; appreciating interdisciplinary collaboration; and valuing the learning itself.**

Conclusions: **A 1-day experiential learning paradigm focused on communication skills and relational abilities was highly valued, clinically useful, and logistically feasible. Participants reported better preparation, improved communication and relational skills, greater confidence, and reduced anxiety. Participants deepened their understanding of family perspectives, recognized valuable existing competencies, and strengthened their commitment to interdisciplinary teamwork. (Pediatr Crit Care Med 2009; 10:352–359)**

KEY WORDS: critical care; communication skills; relational abilities; difficult conversations

Conveying troubling news and engaging in difficult conversations with patients and their families are pivotally important, although anxiety-provoking components of clinical practice (1–3). Clinicians who otherwise feel prepared and competent in their clinical duties may lack confidence and describe themselves as ill prepared for difficult interpersonal interactions (4–6). They may fear they will not be able to find the "right words" or will say too much, too little, or the wrong thing altogether. Further, clinicians worry that imparting difficult news may diminish hope, compound a family's suffering, or unleash emotional responses they feel unprepared to handle (1, 2, 7). Because of the complexities and challenges inherent in these difficult conversations, it is not uncommon for clinicians to delay, avoid, or delegate this vital area of clinical practice (8).

Patients and family members highly value effective communication and empathic relationships with their healthcare providers, and often base their perceptions of the quality of care on such indices (9–14). Poor communication is a commonly cited reason for compromised clinical care and coordination, diminished trust, and degraded overall satisfaction with care (15–17). For patients and family members facing life-threatening illness, communication can provide important information, promote better understanding, improve treatment adherence, and assist with challenging treatment decisions (5, 18, 19). Clearly, these discussions serve critical purposes in transferring information and developing optimal treatment plans, but beyond their practical functions lie vital emotional, relational, and human aspects of these conversations (10, 13, 20, 21). For patients to feel they have been understood and well cared for, it is recognized that clinicians must attend to healthcare conversations on a deeper, more relational level (4, 13, 19, 20, 22, 23). Generally, family members value and prefer cli-

***See also p. 414.**

From the Division of Critical Care Medicine (ECM, RDT), Children's Hospital Boston, Boston, MA; Institute for Professionalism and Ethical Practice (ECM, DMB, RDT), Boston, MA; Departments of Psychiatry (ECM), Anaesthesia (Pediatrics) (DMB, MZS, RDT), and Social Medicine (MZS), Harvard Medical School, Boston, MA; Education Development Center, Inc. (DES, DMB, KM, MZS, RDT), Boston, MA.

Supported, in part, by Argosy Foundation and The Center for the Critically Ill Child.

The authors have not disclosed any potential conflicts of interest.

For information regarding this article, E-mail: elaine.meyer@childrens.harvard.edu

DOI: 10.1097/PCC.0b013e3181a3183a

In general, how prepared do you (now) consider yourself to be to have difficult discussions with patients and their families?
In general, how would you (now) assess your own communication skills in having difficult discussions with patients and their families?
In general, how would you (now) assess your own ability to develop and maintain relationships with patients and their families?
In general, how confident are you (now) when having difficult discussions with patients and their families?
Do you (now) find yourself anxious regarding having difficult discussions with patients and their families?

Figure 1. Likert scale self-assessment items included in the baseline, immediate follow-up, and 5-month follow-up questionnaires. Five-point Likert scale was employed (1 = poor/not at all, 2 = minimal/a little, 3 = fair/somewhat, 4 = good/quite, 5 = very good/very). The immediate and 5-month follow-up questionnaires included the word *now* in the item.

Table 1. Socio-demographic characteristics of immediate follow-up participants

Characteristic	Doctors	Nurses	Other	Total
Years of experience				
0–1	0%	2%	12%	3 (3%)
2–5	67%	27%	35%	46 (44%)
6–15	26%	43%	35%	37 (35%)
16+	7%	27%	18%	19 (18%)
N	42	44	17	105
Age				
Mean (SD)	33 (5.3)	34 (9.7)	38 (11.5)	35 (8.6)
Gender				
Female	57%	86%	88%	74 (74%)
N	42	42	16	100
Ethnicity				
White	68%	91%	94%	83 (82%)
N	40	44	17	101
Previous learning opportunities				
Yes	81%	76%	71%	80 (75%)
N	42	45	17	106
Observed difficult conversations				
None	0%	5%	13%	4 (4%)
1–10	36%	32%	40%	35 (35%)
11–24	29%	20%	27%	24 (24%)
25+	36%	44%	20%	37 (37%)
N	42	41	15	100
Led difficult conversations				
None	10%	17%	33%	16 (16%)
1–10	60%	48%	47%	54 (53%)
11–24	16%	10%	13%	13 (13%)
25+	14%	26%	7%	18 (18%)
N	42	42	15	101
Mentor/role model				
Yes	50%	42%	63%	49 (49%)
N	42	43	16	101

nicians who reveal their own humanity and share their genuine emotions (4, 9, 10, 20). Indeed, these conversations and how patients and family members perceive they have been treated heavily influence satisfaction with care and are often long remembered (5, 9, 21, 22).

Educational opportunities and resources devoted to communication skills and relational abilities are sorely underrepresented and undervalued compared with others supporting technical skill acquisition. The purpose of this study was to evaluate the impact of an experiential learning paradigm to address these issues through the innovative integration of the perspectives of patients, family members and healthcare providers. The paradigm incorporates realistic enactments with professional actors to improve communication skills and relational abilities. The paradigm is broadly applicable and has been adapted for conversations with pediatric and adult populations associated with end-of-life care, organ donation, family presence during invasive procedures and resuscitation, presurgical consults, and adverse medical outcomes.

MATERIALS AND METHODS

Design. A prepost study design was used to evaluate the impact of the paradigm to improve healthcare providers' communication and relational skills during difficult healthcare conversations. The authors chose difficult conversations that arise in pediatric critical care as an example of particularly challenging conversations in which to evaluate the program. Participants completed baseline, immediate follow-up, and 5-month follow-up self-report questionnaires to evaluate their preparation for difficult conversations, communication and relationship skills, confidence, and degree of anxiety. Open-ended qualitative questions inquired about lessons learned and reflections on the learning, what was most and least helpful about the program, and suggestions to improve training.

Participants. During 2004, participants included physicians, nurses, social workers, psychologists, and chaplains from Children's Hospital Boston who had a range of experience levels and clinical specialties, including pediatric and neonatal intensive care, oncology, cardiology, pulmonology, neurology, emergency medicine, anesthesiology, palliative care, and general pediatrics. Participants were recruited through e-mail invitations sent to unit and service medical directors, training and department directors, and nurse managers. Fliers were also posted on bulletin boards displaying educational opportunities. A Website (www.ipepweb.org) provided information about the program and offered on-line registration. Some participants were referred through word-of-mouth referral from previous participants.

Intervention. The Program to Enhance Relational and Communication Skills (PERCS) is an educational effort of the Institute for Professionalism and Ethical Practice, and is organized from the perspective of relational learning (14, 24). Relational learning is built on the premise that the learning that matters most deeply in the professional development of healthcare practitioners occurs in the context of relationships among clinicians, patients, and family members. There are five key features of our pedagogical approach: creating a safe and trustworthy learning environment; emphasizing ethical and relational dimensions of care; suspending hierarchy among participants; valuing reflection and self-awareness; and honoring multiple perspectives (24). Although the paradigm offers a variety of practical communication skills and relational strategies, we explicitly emphasized the centrality of personhood, authenticity, and professional integrity.

Before the training, participants received the day-long agenda (Appendix A) and guidelines for group discussions and debriefing. The program had the character of a "mini-retreat" whereby participants were expected to attend for the entire day and be relieved from their typical clinical and administrative duties. Continental breakfast and lunch were provided to set a tone of well-being and to nurture community. A typical training session included 10–15 interdisciplinary participants, and three faculty facilitators representing medical, psychosocial, and patient/family perspectives. Faculty facilitators cultivated an atmosphere of acceptance, humility, and curiosity that encouraged participants to feel comfortable and to reflect on their own clinical practice (24).

Table 2. Participation in 5-month follow-up

Characteristic	% of Immediate Follow-up Also Returning 5-Month Follow-up	N
Total	54%	106
Discipline		
Physician	55%	42
Nurse	49%	45
Psychosocial	65%	17
Years of experience		
0–5	47%	49
6–15	65%	37
16+	53%	19
Age		
21–30	47%	38
31–45	62%	48
46+	40%	15
Gender		
Men	62%	26
Women	53%	74
Ethnicity		
Non-white	61%	18
White	52%	83
Previous learning opportunities		
No	35%[a]	26
Yes	60%	80
Observed difficult conversations		
0–10	41%[a]	39
11–24	58%	24
25+	68%	37
Led difficult conversations		
0–10	51%[a]	70
11–24	54%	13
25+	72%	18
Mentor/role model		
No	56%	52
Yes	53%	49

[a] $p < 0.05$ on chi-square test of independence.

Early in the program, participants shared communication strategies and approaches they had found helpful in their clinical practice. This exercise highlighted the clinical experience and skill already present among participants and from which they were encouraged to draw. The curriculum incorporated brief didactic presentations summarizing established approaches for sharing difficult news with families (25, 26) and the evidence base for improving communication and relational skills (19, 27–30). Basic knowledge was presented regarding the ethical and legal guidelines for withdrawal of life-sustaining therapy (24, 31, 32). Participants also viewed educational videotapes (33–35) to enliven and emphasize the centrality of patient and family perspectives.

At the center of the program were two pediatric critical care case scenarios enacted with professional actors that unfolded clinically over several conversations with the "patient" and/or "family," followed by debriefing and videotape review. The cases included 5-year-old Billy O'Brien who was the victim of a near-drowning incident (24) and 17-year-old Sandy Richards with relapsed acute myelogenous leukemia (Appendix B). Professional actors portrayed the parents in the O'Brien case, and the parents, grandmother, and adolescent patient in the Richards case. Participants had the opportunity to engage in realistically enacted conversations, to review video clips and receive feedback, to observe others, and to participate in experiential collaborative learning with interdisciplinary colleagues (24, 36).

Evaluation. Both quantitative and qualitative methods were used to assess the impact of the educational effort on the participants' communication and relational skills. All participants were asked to complete questionnaires before and immediately after the training. Five-month follow-up questionnaires were conducted by e-mail and standard mail. An identification number assigned to each respondent facilitated linkage of participant responses over the study time frame.

The baseline questionnaire included questions about the participant's discipline, years of professional experience, previous training, and sociodemographic characteristics, such as age, gender, and race/ethnicity. In addition, each questionnaire included items about the number of times the respondent had observed or led difficult conversations. On all three questionnaires, participants were asked to assess, on five-point Likert scales, their preparation, communication skills, ability to establish and maintain relationships, confidence, and degree of anxiety about having difficult healthcare conversations (Fig. 1). The immediate and 5-month follow-up questionnaires also asked (in yes/no format) whether the program had improved the participants' sense of preparation, communication skills, relational capacities, and confidence, or reduced the degree of anxiety when engaging in difficult conversations with patients and families. Several open-ended, qualitative questions were also included on the follow-up questionnaires regarding lessons learned and reflections on the learning, the most and least helpful aspects of the program, and suggestions to improve the training.

Data Analysis. Statistical analyses were completed in SAS v8.2 (SAS Institute, Cary, NC). Chi-square tests of independence and one-way analysis of variance were used to assess differences by discipline for categorical and continuous measures, respectively. Statistical significance was set at $p < 0.05$ for all comparisons.

The participants' written responses to the open-ended questions were typed into an ACCESS database. Content analysis was conducted through a process of reading and marking key words and phrases to identify topics and issues of importance to participants (37–39). First author (E.C.M.) generated a list of themes identifying topics and issues of importance to participants based on initial reading and review of the responses. Coauthor (K.M.) then coded each of the open-ended responses according to the list of themes. Agreement about thematic content and labeling for the themes was reached through a process of discussion and successive refinement of language by senior authors (E.C.M. and D.M.B.).

Research Ethics. The study was reviewed by the Institutional Review Board of Children's Hospital Boston, when determined the study met exemption criteria #1 under the Health and Human Services regulations 45 Code of Federal Regulations 46 (i.e., research conducted in established educational settings involving normal educational practices). Each participant was asked to sign a voluntary consent form granting permission to be videotaped during enacted case scenarios and for completed evaluation questionnaires to be used for educational and research purposes.

RESULTS

One hundred ten individuals participated in PERCS training sessions. Of those, 106 (96%) completed both baseline and immediate follow-up questionnaires. Table 1 summarizes the demographic characteristics of these 106 participants. Approximately 41% of trainees were physicians, 43% were nurses, and 16% were psychosocial clinicians, including social workers, psychologists, and chaplains. Three participants did not indicate their discipline. Nurses and psy-

Table 3. Perceived impact of the program

Question	% Yes	
	Immediate Follow-up (n = 106)	5-Month Follow-up (n = 57)
Has the training program improved your sense of preparation to engage in difficult discussions with patients and their families?	98	93
Has the training program improved your communication skills to engage in difficult discussions with patients and their families?	98	98
Has the training program improved your ability to develop and maintain relationships with patients and their families?	90	83
Has the training program improved your sense of confidence when engaging in difficult discussions with patients and their families?	95	93
Has the training program reduced your sense of anxiety when engaging in difficult discussions with patients and their families?	82	74

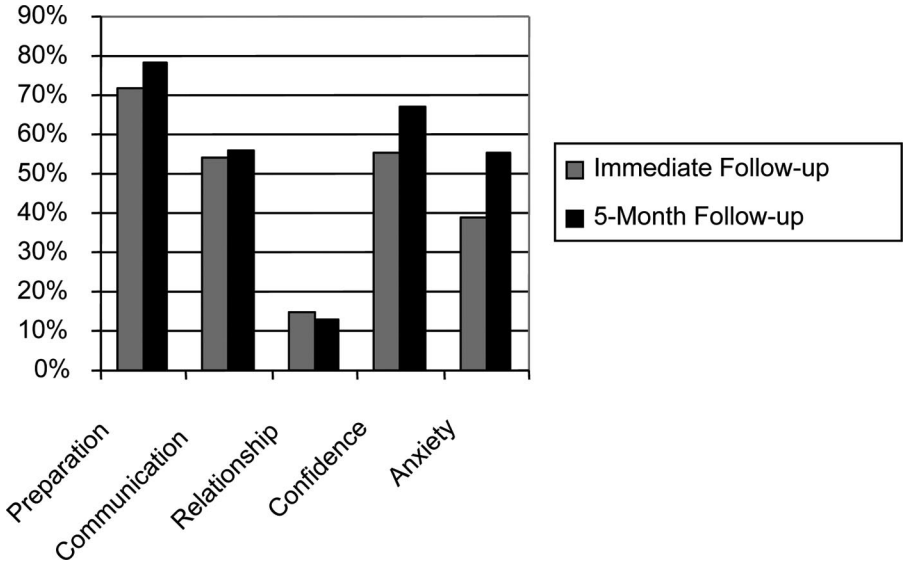

Figure 2. Percentage of participants' self-reported improvement from baseline to immediate and 5-month follow-up. Improvement was operationally defined as a change of one or more descriptive categories on the five-point Likert items (e.g., rating improved from 3 = fair to 4 = good).

chosocial clinicians were more likely than physicians to be women, white, and to have 6 or more years of experience. Physicians and nurses were more likely than psychosocial clinicians to have observed or led 11 or more difficult conversations in the past year.

As indicated in Table 2, 57 of the 106 (54%) who had completed both the baseline and the immediate follow-up questionnaires returned 5-month questionnaires. There were no significant differences in the rate of participation in the 5-month questionnaire by discipline, years of experience, gender, ethnicity, or presence of a mentor. However, participants with previous learning opportunities and more experience observing or leading difficult conversations were more likely to return the 5-month questionnaire.

When questions were posed in a yes/no format, participants were nearly unanimous (93% to 98%) in indicating that the training had improved their sense of preparation, communication skills, and confidence when having difficult conversations (Table 3). With respect to improving their ability to develop and maintain relationships with patients and their families, 90% and 83% of participants responded affirmatively on the immediate and 5-month follow-up, respectively. The training had a smaller impact on reducing anxiety, with 82% and 74% indicating so at the immediate and 5-month follow-up, respectively.

Figure 2 depicts data derived from Likert items and indicates the percentage of participants whose self-assessment was improved; that is, their degree of perceived preparation, communication skills, ability to develop and maintain relationships, and confidence was higher and their degree of anxiety was lower in the immediate or 5-month follow-up questionnaire than at baseline. There were no differences by discipline for any of the areas of self-reported improvement. Improvement was operationally defined as a change of one or more descriptive categories on the five-point Likert items (e.g., rating improved from 3 = fair to 4 = good). The self-appraisal of preparation was the most likely to increase with about 70% of participants reporting a higher level after the training. The areas of communication, confidence, and anxiety showed moderate levels of improvement, with overall percentages ranging from about 40% to 70%. Some participants reported no change or even greater anxiety after the training, perhaps reflecting greater appreciation for the complexity and importance of challenging discussions. Participants were least likely to cite an increase in their ability to establish and maintain relationships, with about 15% reporting improvement by the criterion we had established.

The training was well received, popular, and viewed as useful and worthwhile (Table 4). Participants were unanimous (99% to 100%) in recommending the program to other colleagues. Similarly, more than 90% of participants rated the learning as quite useful or very useful, and the quality of the training as very good or excellent (4 or 5 on five-point Likert scales). There were no differences by discipline in the ratings of the program's usefulness or quality. As a testament to its worth and utility, participants suggested that the training be incorporated into orientation sessions, annual review criteria, and the promotion process. Some recommended that the case scenarios be "customized" for various clinical settings to further enhance the learning, and that regular "booster sessions and practice" be made available. Comments such as, "One can only get better at it…everybody should attend this" suggest the value of the program for new and seasoned clinicians alike.

Qualitative Findings. Four themes emerged in participants' responses to the

Table 4. Participant rating of the program

	% of Total N	
	Immediate Follow-up	5-Month Follow-up
Overall, how useful did you find the training program?		
Not at all	0	0
A little	2	2
Somewhat	6	7
Quite	42	43
Very	51	48
Total N	105	56
Overall, how would you rate the quality of the program?		
Poor	0	0
Fair	0	0
Good	4	5
Very good	38	42
Excellent	58	53
Total N	105	55
Would you recommend the program to others in your position?		
Yes	99	100
Total N	101	57

qualitative questions: identifying one's existing competence; integrating new communication skills and relational capacities; appreciating interdisciplinary collaboration; and valuing the learning itself (Table 5). The following participant quotations illustrate the qualitative themes.

Identifying One's Existing Competence. Many clinicians recognized that they had communication talents and relational abilities that were relevant and trustworthy during difficult conversations, but had never before been professionally validated or encouraged. In many cases, these same participants expressed a sense of relief and a greater willingness to rely more confidently on their inherent communication and relational abilities.

"I found that I could be direct and honest with families. I am usually so uncomfortable that I tend to skirt hard questions."

"My overall confidence in my abilities to be with families and their concerns has increased ten-fold. I am no longer hesitant to meet with families based on my own insecurities as a clinician. [The training] instilled a confidence in me that has been expressed in my everyday work and highlighted in my work with families with difficult decisions to make or news to hear."

Integrating New Communication Skills and Relational Capacities. Participants reported learning a valuable repertoire of generalizable communication skills, such as making introductions, remembering to use the patient's name, beginning conversations with the family's concerns, using understandable language, sitting rather than standing, listening attentively, and recognizing the value of silence.

"Work with the concerns of the patient and family. Use that as the starting point."

"Remember to always use the patient's name."

"Offer information in an easily understood manner without too much medical jargon."

Participants also reported greater insight about broader relational capacities they might bring to bear to enhance and deepen their relationships with patients and families.

"Allow for quiet or difficult moments for parents to express their emotions. Do not feel as if you have to have all the answers, but rather convey care and the information you do have… let the patient know that their feelings are okay and that they are not alone with them and do not feel you have to fix it."

"The power of undivided attention and listening! Step out of your own perceptions of situations/family meetings and put yourself in the others' shoes."

Appreciating Interdisciplinary Collaboration. Many participants reported that they learned a great deal about the roles of other disciplines by observing the enacted conversations. It was not uncommon to hear comments such as, "I'm never going to talk with a family in a tough situation without a nurse again" or "I never knew that's what chaplains did." Some reported greater clarity about their own role and responsibility to contribute their disciplinary perspective to conversations with families, with emphasis on improving teamwork, healthy reliance on others, and shared responsibility for communication and emotional care of the family. One participant wrote that she got "more vociferous" in her role as advocate for families and another noted he would no longer "be afraid to speak up" in future family meetings. Such insights suggest an enhanced understanding, respect, and potential for partnership among team members.

"Give space for all team members. Always listen more than you talk."

"Make sure to let other team members know that they need to cover (your) clinical responsibilities while (you) are having the discussion so there are no interruptions."

Valuing the Learning Itself. The program afforded a rare opportunity for busy practitioners to reflect on their communication strengths and areas in need of improvement in the company of others who understood the healthcare culture. Participants emphasized the value of having the opportunity and time to devote to learning in a practice setting where no patient or family would be harmed or inconvenienced, and where, as learners, they would not be shamed or humiliated.

"Just having the opportunity to practice this type of conversation was invaluable. We have so few opportunities to do that, and when we do, it is usually in an actual crisis situation."

"In all my years of learning, I cannot remember a single experience that has made such an impact and provided such a growth experience that will definitely affect my practice in a positive way…I cannot wait to get this up and running…"

DISCUSSION

Our data demonstrated that a 1-day interdisciplinary experiential learning paradigm focused on communication and relational learning had sustained educational and clinical merit, and was logistically feasible. The training was most effective in improving the participants' sense of preparation to hold difficult conversations. Clinicians reported they learned a variety of communication skills, broadened their relational capacities, and grew in clinical confidence. Most participants reported a reduction in their sense of anxiety, although some experienced heightened anxiety perhaps because of a greater appreciation of the complexity of difficult conversations. The combination of newly acquired skills and greater trust in and access to existing

Table 5. Qualitative themes

Theme	Illustrative Quotation
Identifying one's existing competence	"I realized that my communication skills and ability to talk with families are not as terrible as I had originally thought. Hearing and seeing scenarios worked out with/by others made me realize that I might have said/felt the same in the situation"
Integrating new communication skills and relational capacities	"I hope I can help families through interactions of this type with a little more grace, more comfort with silence, and more solid support"
Appreciating interdisciplinary collaboration	"Give space for all team members. Always listen more than you talk"
Valuing the learning itself	"Just having the opportunity to practice this type of conversation was invaluable. We have so few opportunities to do that, and when we do, it is usually in an actual crisis situation"

relational abilities was described as empowering by participants, and buoyed their sense of confidence when approaching difficult conversations. Participants reported valuing learning about challenging conversations, deepening their understanding of patient and family perspectives, recognizing valuable existing relational competencies, and strengthening of their appreciation and commitment to interdisciplinary teamwork.

Participants reported learning communication and relational skills that have been highlighted in models of healthcare communication (40), approaches for breaking bad news (25, 26), and by families themselves (9–13, 15–17, 19, 29). To provide a "roadmap" for challenging discussions, established approaches for conveying bad news (25, 26), and the evidence base describing what matters most to families in their communication and relationships with clinicians (9, 10, 12, 13, 19, 21, 27–30, 41) were presented during brief didactic sessions. Participants reported they better understood the importance of listening, granting silence, and providing ample time for family members to speak, factors that have been associated with greater family satisfaction and less conflict with practitioners (19). Participants also reported improvements in their willingness and ability to elicit family perspectives, to inquire about psychosocial concerns, and to show empathy and caring in their interactions, all of which have been highlighted as important to families (9, 10, 13, 41).

Communication training approaches vary considerably with regard to their length and intensity, participant characteristics, teaching methods, role of faculty, and choice of outcome measures. Most programs tend to focus on "high-stakes" conversations and pivotal clinical junctures that occur in high-intensity settings, such as critical care, oncology, and emergency departments (42–46). Briefer educational programs typically focus on initial encounters between the clinician and patient/family (42, 43), whereas longer, more intensive training efforts address communication and relational issues across the disease trajectory (46, 47). As a 1-day program, longer than some and shorter than others, PERCS aims to strike a balance within a reasonable time frame by holding two to three conversations with the same actor-patients and families over the course of the training day.

PERCS emphasizes interdisciplinary training across varying levels of clinical experience, unlike most training programs that enroll participants from the same medical subspecialty and similar experience level. Although physicians have commonly been viewed as the bearers of difficult news, our approach integrates the valuable roles of nurses, psychosocial clinicians, and chaplains who typically help families to understand and emotionally process difficult news (41, 48). Although single-discipline training efforts have shown favorable outcomes (42, 43), PERCS aims to better approximate the actual interdisciplinary culture in which clinicians practice. Our paradigm has similarities in this regard to the work of Williams et al (44, 45), who convened teams of physicians, nurses, chaplains, and organ transplant coordinators together in simulated role plays with actors, with the goal of increasing consent rates.

Communication training efforts using simulation face complex challenges and vary considerably with respect to the specificity, rigor, and nature of their evaluation designs and outcome measures (36). Some programs, including our evaluation, have reported on treatment acceptability and participant self-appraisal to measure changes in knowledge and confidence level to hold difficult conversations (42, 47). Our evaluation also included 5-month outcome questionnaires and incorporated a broader self-assessment incorporating open-ended qualitative questions. Some programs (42, 43) have tracked observable changes in participants' communicative performance through videotaped pretraining and posttraining simulation case scenarios. Fallowfield et al (48) have reported impressive 12-month outcomes based on differences between participants' pretraining and posttraining communication behavior during actual family meetings. Williams et al (44, 45) measured organ donation consent rates as the primary outcome measure, distinguishing their outcome from more general communication training programs that rely on self-report measures and individual communication performance.

The study had several limitations that must be acknowledged. The study design did not include a comparison group and was limited to pre, post, and follow-up self-assessment of participants. The quantitative and qualitative assessment instruments focused exclusively on participant self-evaluation and appraisal and did not use multiple informants. The impact of the experiential learning paradigm on participants' clinical interactions with patients and their families remains to be investigated. The program was evaluated in a single pediatric institution, which may diminish the generalizability of the findings. Participants were largely self-selected and, thus, the issue of selection bias is relevant. Just over half of the participants returned the 5-month follow-up questionnaires and that group was more likely to have had previous learning opportunities and more experience observing or leading difficult conversations than the entire sample. Finally, the study was subject to the limitations of all studies that rely on self-report questionnaires.

CONCLUSION

In summary, our findings suggest that a 1-day experiential learning paradigm focused on communication skills and relational abilities was highly valued, clin-

ically useful, and logistically feasible for interdisciplinary pediatric critical care practitioners from a range of experience levels and clinical specialties. Participants reported better preparation, improved communication and relational skills, greater confidence, and reduced anxiety immediately on completion and 5 months after the training. There were no differences by discipline among any of the areas of self-improvement or the program's usefulness or quality, suggesting its applicability across disciplines and experience level. Participants deepened their understanding of patient and family perspectives, learned and practiced a range of communication and relational skills, recognized valuable existing competencies, and strengthened their commitment to teamwork. Virtually all participants recommended the program to other colleagues, a testament to its significant value and relevance. Furthermore, the training generated enthusiasm and commitment to make changes in everyday clinical practice. The experiential nature and realistic enactments of the program have been vital to its success, engaging participants emotionally and providing opportunities for practice. The experience was described by one participant as both "humbling and inspiring," conveying the richness and depth of learning that is available in these challenging but essential conversations. Indeed, good communication and relational abilities matter deeply to patients and their families and are long remembered. Relational learning opportunities can help practitioners bring their very best selves to these difficult encounters with confidence, clarity, and a sense of purpose.

ACKNOWLEDGMENTS

We thank Jeffrey P. Burns, MD, MPH, Patricia Hickey, RN, MSN, MBA, and Paul Hickey, MD, for their vision and generous support. We are indebted to Meg Comeau, MHA, Robert Pascucci, MD, Elizabeth Rider, MSW, MD, David Todres, MD, Pamela Varrin, PhD, Allyson Wall, BA, and our fine actors who helped make the program a success. Finally, we are most grateful to the participants who shared their learning experiences, vulnerabilities, insights, and suggestions.

REFERENCES

1. Fallowfield L, Jenkins V: Communicating sad, bad, and difficult news in medicine. *Lancet* 2004; 363:312–319
2. Buckman R: Breaking bad news: Why is it still so difficult? *Br Med J* 1984; 288: 1597–1599
3. Quill TE: Perspectives on care at the close of life. Initiating end-of-life discussions with seriously ill patients: Addressing the "elephant in the room." *JAMA* 2000; 284:2502–2507
4. Fallowfield L: Giving sad and bad news. *Lancet* 1993; 341:476–478
5. Truog RD, Christ G, Browning D, et al: Sudden traumatic death in children: We did everything but your child didn't survive. *JAMA* 2006; 295:2646–2654
6. Brody B: The script. *N Engl J Med* 2006; 355:979–981
7. Hurwitz C, Duncan J, Wolfe J: Caring for the child with cancer at the close of life: There are people who make it and I'm hoping I'm one of them. *JAMA* 2004; 292:2141–2149
8. Christakis NA, Iwashyna TJ: Attitude and self-reported practice regarding prognostication in a national sample of internists. *Arch Intern Med* 1998; 158:2389–2395
9. Finlay I, Dallimore D: Your child is dead. *BMJ* 1991; 302:1524–1525
10. Meyer EC, Ritholz MD, Burns JP, et al: Improving the quality of end-of-life care in the pediatric intensive care unit: Parents' priorities and recommendations. *Pediatrics* 2006; 117:649–657
11. Contro N, Larson J, Scofield S, et al: Family perspectives on the quality of pediatric palliative care. *Arch Pediatr Adolesc Med* 2002; 156:14–19
12. Macdonald ME, Liben S, Carnevale FA, et al: Parental perspectives on hospital staff members' acts of kindness and commemoration after a child's death. *Pediatrics* 2005; 116:884–890
13. Meert KL, Thurston CS, Thomas R: Parental coping and bereavement outcome after the death of a child in the pediatric intensive care unit. *Pediatr Crit Care Med* 2001; 2:324–328
14. Browning DM, Solomon MZ: Relational learning in pediatric palliative care: Transformative education and the culture of medicine. *Child Adolesc Psychiatr Clin N Am* 2006; 15:795–815
15. Davies B, Connaughty S: Pediatric end-of-life care: Lessons learned from parents. *J Nurs Adm* 2002; 32:5–6
16. Azoulay E, Chevret S, Leleu G, et al: Half the families of intensive care unit patients experience inadequate communication with physicians. *Crit Care Med* 2000; 28:3044–3049
17. Kirchhoff KT, Walker L, Hutton A, et al: The vortex: Families' experiences with death in the intensive care unit. *Am J Crit Care* 2002; 11: 200–209
18. Curtis JR, Engelberg RA, Wenrich MD, et al: Studying communication about end-of-life care during the ICU family conference: Development of a framework. *J Crit Care* 2002; 17:147–160
19. McDonagh JR, Elliott TB, Engelberg RA, et al: Family satisfaction with family conferences about end-of-life care in the intensive care unit: Increased proportion of family speech is associated with increased satisfaction. *Crit Care Med* 2004; 32:1484–1488
20. Browning D: To show our humanness—Relational and communicative competence in pediatric palliative care. *Bioethics Forum* 2002; 18:23–28
21. Mack JW, Hilden JM, Watterson J, et al: Parent and physician perspectives on quality of care at the end of life in children with cancer. *J Clin Oncol* 2005; 23:9155–9161
22. Zoppi K, Epstein RM: Is communication a skill? Communication behaviors and being in relation. *Fam Med* 2002; 4:319–324
23. Solomon MZ, Browning D: Pediatric palliative care: Relationships matter and so does pain control. *J Clin Oncol* 2005; 23:9055–9057
24. Browning DM, Meyer EC, Truog RD, et al: Difficult conversations in health care: Cultivating relational learning to address the hidden curriculum. *Acad Med* 2007; 82:905–913
25. Rabow MW, McPhee SJ: Beyond breaking bad news: How to help patients who suffer. *West J Med* 1999; 171:260–263
26. Baile WF, Buckman R, Lenzi R, et al: SPIKES—A six-step protocol for delivering bad news: Application to the patient with cancer. *Oncologist* 2000; 5:302–311
27. Curtis JR, Patrick DL, Shannon SE, et al: The family conference as a focus to improve communication about end-of-life care in the intensive care unit: Opportunities for improvement. *Crit Care Med* 2001; 29(Suppl 2): N26–N33
28. Curtis JR, Patrick DL, Engelberg RA, et al: A measure of the quality of dying and death. Initial validation using after-death interviews with family members. *J Pain Symptom Manage* 2002; 24:17–31
29. Stapleton RD, Engelberg RA, Wenrich MD, et al: Clinician statements and family satisfaction with family conferences in the intensive care unit. *Crit Care Med* 2006; 34:1679–1685
30. Roter DL, Larson S, Fischer GS, et al: Experts practice what they preach: A descriptive study of best and normative practices in end-of-life discussions. *Arch Intern Med* 2000; 160:3477–3485
31. Solomon MZ, Browning D, Dokken D, et al: The Initiative for Pediatric Palliative Care (IPPC) curriculum: Enhancing family-centered care for children with life-threatening conditions (Modules 5). Newton, MA, Education Development Center, Inc., 2003
32. Solomon MZ, Sellers DE, Heller KS, et al: New and lingering controversies in pediatric end-of-life care. *Pediatrics* 2005; 116: 872–883
33. Browning DM, Dokken, DD: Speaking the same language. What matters to families. The Initiative for Pediatric Palliative Care Curriculum (videotape series). Newton, MA, Education Development Center, Inc., 2002
34. Browning DM, Rushton CH: Big choices, little choices. What matters to families. The Initiative for Pediatric Palliative Care Curriculum (videotape series). Newton, MA, Education Development Center, Inc., 2002
35. Browning DM, Rushton CH: I need it to make

sense: Reflections on caring for dying children and their families. What matters to families. The Initiative for Pediatric Palliative Care Curriculum (videotape series). Newton, MA, Education Development Center, Inc., 2003
36. Hanna M, Fins JJ: Viewpoint: Power and communication: Why simulation training ought to be complemented by experiential and humanist learning. *Acad Med* 2006; 81: 265–270
37. Krippendorf K: Content Analysis: An Introduction to Its Methodology. Newbury Park, CA, Sage Publications, 1980
38. Neuendorf K: The Content Analysis Guidebook. Thousand Oaks, CA, Sage Publications, 2002
39. Manning P, Cullum-Swan B: Handbook of Qualitative Research. Thousand Oaks, CA, Sage Publications, 1994
40. Makoul G: Essential elements of communication in medical encounters: The Kalamazoo consensus statement. *Acad Med* 2001; 76:390–393
41. Meyer EC, Burns JP, Griffith JL, et al: Parental perspectives on end-of-life care in the pediatric intensive care unit. *Crit Care Med* 2002; 30:226–231
42. Greenberg LW, Ochsenschlager D, O'Donnell R, et al: Communicating bad news: A pediatric department's evaluation of a simulated intervention. *Pediatrics* 1999; 103(6 Pt 1): 1210–1217
43. Lorin S, Rho L, Wisnivesky JP, et al: Improving medical student intensive care unit communication skills: A novel educational initiative using standardized family members. *Crit Care Med* 2006; 34:2386–2391
44. Williams MA, Lipsett LA, Shatzer JH: Experiential, interdisciplinary training in end-of-life care and organ donation. *Crit Care Med* 2001
45. Williams MA, Lipsett PA, Rushton CH, et al: The physician's role in discussing organ donation with families. *Crit Care Med* 2003; 31:1568–1573
46. Fryer-Edwards K, Arnold RM, Baile W, et al: Reflective teaching practices: An approach to teaching communication skills in a small-group setting. *Acad Med* 2006; 81:638–644
47. Back AL, Arnold RM, Tulsky JA, et al: Teaching communication skills to medical oncology fellows. *J Clin Oncol* 2003; 21:2433–2436
48. Fallowfield L, Jenkins V, Farewell V, et al: Enduring impact of communication skills training: Results of a 12-month follow-up. *Br J Cancer* 2003; 89:1445–1449

Appendix A

Program to Enhance Relational and Communication Skills (PERCS) Day Agenda

8:30–8:45	Welcome and Introduction
8:45–9:45	Introduction to PERCS Review of the Literature Videotape: *"Speaking the Same Language"* PERCS Principles and Guidelines
9:45–10:45	Withdrawal of Life Support Case Simulation
10:45–11:00	Break
11:00–11:30	Withdrawal of Life Support Ethics Lecture and Discussion
11:30–12:15	Withdrawal of Life Support Case Simulation
12:15–12:30	Break
12:30–1:00	(Lunch Session) The Experience of Professional Caregivers Videotape: "*I Need It to Make Sense*"
1:00–1:45	End-of-Life Conversations with Children and Families Case Simulation
1:45–2:00	Break
2:00–2:15	Videotape and Response: *"Big Choices, Little Choices"*
2:15–3:00	End-of-Life Conversations with Children and Families Case Simulation
3:00–3:15	Reflections on the Workshop
3:15–3:30	Evaluation

Appendix B

Sandy Richards

Sandy Richards is a 17-year-old adolescent who has a history of acute myelogenous leukemia. She has presented to the emergency department with some weight loss over the past few months, a cough of several weeks' duration, and increasing dyspnea. Chest radiograph suggests a diffuse infiltrative disease, most likely *Pneumocystis carinii* pneumonia.

Additional history: Sandy has been a Children's Hospital patient for a long time, and is well known to house staff, with frequent admissions and clinic/emergency department visits for chemotherapy and for episodes of fever and neutropenia. Since her diagnosis 5 years ago, she has received aggressive chemotherapy, including a bone marrow transplant. She has been seemingly disease free for much of the past few years, has been accepted at a prominent university, and plans to enter one of the healthcare professions.

Sandy was admitted to the intensive care unit a few hours ago for treatment of her pneumonia. Her initial color blood count is discouraging—her white count is 34K with 45% blasts indicating that her cancer has returned. Oncology has consulted and a bronchoscopy, central venous line placement, and bone marrow biopsy under anesthesia are planned for the next day to assist with treatment planning.

Sandy lives with her parents and grandmother, whom she calls Nanna. Her grandfather, whom she calls Poppa, died 2 years ago from cancer. His last days were not managed well in the hospital, and he died in pain. Grandmother had struggled with her husband's physicians for several weeks to withhold his prognosis. She watched her husband "go downhill" after he was told there was no treatment for his cancer, and is convinced that he would have lived longer if the doctors had not told him the truth.

Conversation One

The nurse and physician caring for Sandy meet with her parents and paternal grandmother to discuss her condition, the results of initial blood work results and what it means, and the limited options for treatment. Mr. and Mrs. Richards react with shock and dismay on hearing that Sandy's cancer has come back. The parents and grandmother realize that this is very serious, and they have some understanding that this is a "turning point" in Sandy's illness.

Conversation Two (that evening)

Sandy's social worker/nurse/physician team is working the evening shift, and has been told that Sandy has been upset and withdrawn most of the evening. Sandy had a visit earlier with her family, but it is not entirely clear what, if anything, she has been told about her situation. The social worker/nurse/physician team enters the room to check in with her. Sandy is lying on the bed, with her back facing the door.