Background: Communication is essential to building a trusting, clinician-patient relationship. Multiple studies have demonstrated the effects of experiential communication training on patient experience and provider well-being and resiliency. To date, no studies have described an organization-wide communication training program for pediatric clinicians. The objective of this study was to evaluate the impact of a pediatric-focused communication course on provider satisfaction, self-efficacy, and burnout.

Methods: Texas Children's Hospital (TCH), in collaboration with the American Academy on Communication in Healthcare (AACH), designed and implemented a pediatric focused communication course entitled Breakthrough Communication. Participant demographic information, self-assessment of communication skills, the Maslach Burnout Inventory Human Services Survey (MBI), and post-course satisfaction surveys were completed prior to, immediately following, and three months after the course.

Results: Participants reported high course satisfaction and improved self-efficacy in all measured skill sets both following and three months after course completion. Trends indicating a reduction in provider burnout improved in two of the three Maslach Burnout Inventory domains; however statistical significance was not achieved.

Conclusions: A pediatric-focused communication course was well received by multi-specialty clinicians within a large, academic healthcare organization. This course enhanced clinician self-efficacy with newly-learned pediatric encounter specific communication skills.

Reviewer 3:
1. ABSTRACT: Under methods, please mention how the survey was administered and to whom?
A response: An online survey link was sent to course participants prior to, immediately-post, and three-month post course completion. The manuscript has been addended to reflect this.

2. What type of clinician was each of the two instructors? How were they trained?
   a. Response: Thirteen facilitators were trained – 1 NP (critical care APP), 1 PA (surgical APP), 11 physicians (2 pediatricians, 4 pediatric sub-specialists (pediatric emergency medicine, hematology/oncology, hospitalist medicine), 1 pediatric anesthesiologist (CV anesthesiology) and 2 pediatric surgeons (pediatric surgery and plastic surgery). All facilitators completed a 64-hour, Academy of Communication in Healthcare, Train-the-Trainer program.
   b. The manuscript was addended to include this information.

3. PAGE 13: "Clinicians who repeatedly experience difficult encounters with patients and/or families tend to feel less job satisfaction and more professional burnout. The impact of professional burnout is not inconsequential, with up to 60% of practicing physicians reporting symptoms of emotional exhaustion, depersonalization, and a low sense of personal accomplishment. (54)" The first sentence is not supported in the paper with a reference. It should either have a reference or be phrased as conjectural. ("Clinicians… may feel less job satisfaction...") The authors' study results were not statistically significant regarding improvement in burnout, so the authors may want to place less emphasis on their discussion of burnout.
   a. I corrected this discrepancy within the manuscript.

4. DISCUSSION: The authors may want to suggest a future study to measure the impact of communication from healthcare workers who were trained in communication with those who were not.
   a. I added this to our discussion.

Reviewer 4:
1. I would recommend authors to elaborate more on what the course was consisted of. For example, it would be good to include some materials or cases from the course.
   a. I have added the course outline as Figure 1. in the manuscript. This outline provides details of course and was provided to participants.

2. How many plastic surgeons participated in the course? what were their survey results? how much of materials in the course were specifically directed for plastic surgeons?
   a. How many plastic surgeons participated in the course: 2 plastic surgeons and 4 plastic surgery advanced practice providers.
   b. The results for the survey:
      i. Post course satisfaction data for plastics surgery faculty:
         1. All participants completing the post course satisfaction survey (4/6) strongly agreed that the course was a valuable use of their time and was relevant to their practice. Additionally, they all indicated they would use the learned material in their clinical practice and would recommend the course to a colleague.
      ii. Post course comfort survey
         1. All participants completing the post course comfort survey (4/6) indicated an improved comfort in all 3 stages of the clinical encounter: beginning, developing a relationship, ending the encounter.
   c. How much of the materials in the course was specifically directed for plastic surgeons?
      i. The course was designed to be generalizable for the pediatric population, however the course participants’ selection of scenarios (for small group role-play sessions and integrative cases) allowed the content to be tailored/applicable to specific areas of specialty interest.
Dear Dr. Rohrich:

Thank you for considering our manuscript - **Communication Course for Pediatric Providers Improves Self-Efficacy.** The material of this original report has not been previously published or submitted elsewhere for publication and will not be sent to another journal until a decision is made concerning publication by Plastic and Reconstructive Surgery- Global Open.

In consideration of the *Plastic and Reconstructive Surgery- Global Open* taking action in reviewing and editing our submission, the authors undersigned hereby transfer, assign, or otherwise convey all copyright ownership to the *Plastic and Reconstructive Surgery- Global Open*. The undersigned authors understand that if the manuscript is accepted, the Editors reserve the right to determine whether it will be published in the print edition or solely in the Internet edition of the Journal. Articles accepted for publication are subject to editorial revision.

The undersigned authors attest that this is a product of the authors’ own work, with no conflicts of interest or financial disclosure. Ethical adherence was maintained throughout the duration of the study.

Thank you!

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Author Contributions:

KJ Leaming-Van Zandt, MA Lopez, and RK Nicome took part in the conception and design of the study. RC Banuelos acquired and analyzed the data. L Grome wrote the manuscript draft, and KJ Leaming-Van Zandt significantly revised and finalized the manuscript. All authors have edited and approved the final article.
Communication Course for Pediatric Providers Improves Self-Efficacy

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Disclosure: The authors have no financial interest to declare in relation to the content of this article. The Article Processing Charge was paid for by the authors.
Communication Course for Pediatric Providers Improves Self-Efficacy

Abstract:
Background: Communication is essential to building a trusting, clinician-patient relationship. Multiple studies have demonstrated the effects of experiential communication training on patient experience and provider well-being and resiliency. To date, no studies have described an organization-wide communication training program for pediatric clinicians. The objective of this study was to evaluate the impact of a pediatric-focused communication course on provider satisfaction, self-efficacy, and burnout.

Methods: Texas Children’s Hospital (TCH), in collaboration with the Academy on Communication in Healthcare (ACH), designed and implemented a pediatric focused communication course entitled Breakthrough Communication. Pre, immediate-post, and three-month post course completion online surveys were sent to participants one day prior to, one day after, and three months after course completion. Participant demographic information, self-assessment of communication skills, the Maslach Burnout Inventory Human Services Survey (MBI), and post-course satisfaction data was collected.

Results: Participants reported high course satisfaction and improved self-efficacy in all measured skill sets both following and three months after course completion. Trends indicating a reduction in provider burnout improved in two of the three Maslach Burnout Inventory domains; however statistical significance was not achieved.

Conclusions A pediatric-focused communication course was well received by multi-specialty clinicians within a large, academic healthcare organization. This course enhanced clinician self-efficacy with newly-learned pediatric encounter specific communication skills.

Key Words: Communication; relationship-centered communication; patient experience; self-efficacy; burnout; pediatrics
Introduction/Background

Patient-centered care is foundational to delivering high quality healthcare. In 2001, the Institute of Medicine highlighted communication as an important element of healthcare quality and patient safety.¹ The transition from physician to patient-focused encounters requires incorporation of shared decision-making, understanding, and appreciation of patient social and mental well-being.²,³ An important and necessary tool for healthcare providers in the delivery of patient-centered care is relationship-centered communication.⁴-⁶ Strong and effective communication has been shown to improve healthcare outcomes, including patient safety, treatment adherence rates, patient satisfaction, and enhanced teamwork.⁷-¹²

Communication is the foundation of the therapeutic relationship. In pediatrics, the classic encounter is unique; a triadic relationship exists between the healthcare provider, patient, and caregiver. Communicating with the pediatric patient and his or her family presents unique challenges and requires special communication skills. Important differences between pediatric and adult medical care, varying stages of patient development, and diverse family dynamics require recognition and adjustment of communication style to meet the needs of the patient and his or her family. In its policy statement “The New Morbidity Revisited: A Renewed Commitment to the Psychosocial Aspects of Pediatric Care,” the Academy of Pediatrics highlights the “need to better learn how to elicit information, including using a narrative interview approach, allowing the child, adolescent, and parents to tell their stories”.¹³

Multiple studies have shown that communication skills can be taught and improved with effective training, deliberate practice, and specific feedback.¹⁴-¹⁶ To improve clinical outcomes and patient satisfaction, numerous organizations have created and/or implemented communication skills training programs for clinicians.¹⁷-²⁰ To date, an organization-wide, pediatric-focused communication course for faculty and advanced practice providers has not been described. The objective of our study was to evaluate the impact of a pediatric-focused, relationship-centered communication course on provider satisfaction, self-efficacy and comfort with learned communication skills, and burnout.

Methods

Setting

This study was conducted at a large, quaternary care children’s hospital. The study site was a large, not-for-profit, multi-disciplinary pediatric and women’s health organization in Houston, Texas. Affiliated with Baylor College of Medicine, Texas Children’s employs approximately 1,100 physicians and 500 advanced practice providers.

Participants

All staff providers within the Texas Children’s organization, including attending physicians and advanced practice providers from Texas Children’s Hospital, Pavilion for Women, Texas Children’s Pediatrics, and The Centers for Women and Children, were invited to participate in a 5.5 hour communication course between October 1, 2016 and May 30, 2017. Those who completed the pre-, post-, and/or 3-month post-course surveys were eligible for study participation. The Baylor College of Medicine Institutional Review Board approved this study with a waiver of written consent.
Intervention

In 2015, Texas Children’s and the Academy on Communication in Healthcare (ACH) collaborated on and developed a 5.5-hour pediatric-focused, communication skills course, entitled Breakthrough Communication. Based on the ACH model which applies validated communication skills to three segments of the clinical encounter (beginning the encounter, relationship-centered interviewing, and ending the interview), each skill set was individualized and developed to meet the unique communication needs and challenges faced during a pediatric encounter. (SDC 1) (See figure, Supplemental Digital Content 1 which displays the breakthrough communication handout. INSERT LINK HERE). Outlines key skills emphasized by the course. By prioritizing the active inclusion of the pediatric patient within clinical discussions, highlighting caregiver needs and expectations, and recognizing complex family dynamics as triggers for shifts in communication technique, participants were taught pediatric-relevant communication skills designed to enhance and improve the “triadic” (patient/caregiver/physician) transference of information. Further course details can be found in Supplemental Digital Content 1.

Each course was led by two practicing clinicians trained in relationship-centered communication, skills-based facilitation, and effective feedback and delivery. Thirteen instructors were trained; one critical care nurse practitioner, one surgical physician assistant and eleven physicians. Physician trainer specialities were diverse, including two general pediatricians, four pediatric sub-specialists, one pediatric anesthesiologist, a pediatric surgeon, and a pediatric plastic surgeon. All facilitators completed a 64-hour, Academy of Communication in Healthcare, Train-the-Trainer program. With no more than 12 participants, facilitators guided learners through a series of short didactic presentations followed by small group role-play sessions. The course concluded with an integrative case where participants offered clinical encounters from their clinical setting that were difficult, identified themes in communication challenges, and then selected one of these encounters to role-play recently learned and practiced communication skills.

Measures

Participants were asked to complete electronic, pre- and post-course surveys on the day of training as well as three months after course completion. The surveys included demographic information, self-assessment of communication skills, the Maslach Burnout Inventory Human Services Survey (MBI), and post-course satisfaction.\(^2\)\(^1\) Licensing for use was obtained for the MBI survey prior to the initiation of the study.

Statistical Analysis

Demographic variables and raw survey responses were summarized as counts with percentages. Differences in responses/scores from one survey period to another (pre-, post-, or 3-month post) were assessed using the Wilcoxon signed rank test. Responses to burnout questions were summed according to the "Emotional Exhaustion", "Depersonalization", "Personal Achievement" domains of the Maslach Burnout Inventory. The summed scores from the MBI categories for the pre-course and 3-month post timeframes were described by the median and IQR (25\(^{\text{th}}\) and 75\(^{\text{th}}\) percentiles). Differences between the summed scores were also compared using the Wilcoxon signed
rank test. Statistical significance was assessed using a step-down multiple testing corrections with a family-wise 0.05 level. Analyses were carried out in SAS 9.4 (SAS Institute Inc., Cary, NC).

Results

Between October 1, 2016, and May 30, 2017, 416 providers of which were plastic surgery faculty, participated in the Breakthrough Communication course. Of these participants, 347 completed the pre-course survey (83.4% response rate), 311 completed the post-course survey (74.8% response rate), and 131 completed the 3-month post-course survey (31.5% response rate). Table 1. shows the demographics of surveyed participants, with most being physicians (74.4%), under the age of 44 years (66.6%), and female (77%). Approximately 50% of participants solely practiced in an outpatient setting.

Provider satisfaction data collected after course completion is displayed in Table 2. After taking the course, 85.5% of participants “strongly agreed” or “agreed” that it had been a valuable use of their time. Ninety-three percent of participants “strongly agreed” or “agreed” that the communication skills learned in the course would be relevant to their practice. Four out of six plastic surgery faculty completed the post course survey, all of which indicated they “strongly agreed” the course had been a valuable use of their time and was relevant to their practice.

Statistically significant improvements in comfort, defined as freedom from tension or anxiety, were seen in all three phases of communication. These findings are summarized in Table 3. The plastic surgery provider subgroup experienced similar improvements in comfort.

Provider comfort at three months post course completion remained superior to pre-course comfort. Five subcategories showed statistically significant continued improvement with a p-value < 0.001. These include acknowledging communication barriers, eliciting concerns, negotiating visit agenda, exploring patient perspective, and assessing understanding (Table 3).

Maslach Burnout Inventory data were collected prior to and 3-months after the course. At baseline, the majority of providers self-reported a low level of burnout (Table 4). At 3-month post-course, MBI scores for two of the three domains of burnout (emotional exhaustion and depersonalization) improved but did not reach statistical significance. Comparative analysis for individual questions did reveal a statistically significant change for the statement “I can easily understand how my patient feels about things” with a p-value < 0.001 (Table 4).

Discussion

In this study, we evaluated the impact of a 5.5-hour, pediatric-focused communication course on provider satisfaction, self-efficacy of learned communication skills, and provider burnout within a large, multi-disciplinary, pediatric healthcare organization.

In alignment with other communication studies describing high provider satisfaction and likelihood to recommend, participants of Texas Children’s Breakthrough Communication reported a high level of satisfaction with the course. The majority of participants felt that the course was a valuable use of their time and the communication
skills learned in the course would be relevant to their practice. Anecdotal evidence of provider satisfaction was, also, received via free-texted verbatims and emails, and primarily consisted of frequent and successful utilization of learned communication skills within their own specialties and enhanced patient experiences. Feedback from a seasoned physician (in practice for over twenty years) stated that after completing the course, he received multiple letters from patients’ family members thanking him for his care of their children. Caregivers were specifically impressed with how his explanations enhanced their understanding of their child’s disease and treatment. By emphasizing the benefits of relationship-centered communication, demonstrating and facilitating evidence-based communication skills practice, and tying its applicability within multi-specialty, clinical environments, participants felt the course was of educational value and a prioritized and necessary component of their continuing medical education. Provider satisfaction nurtured continued growth and development of the course via word-of-mouth marketing and collegial recommendations and referrals.

The high post-course satisfaction may also be a reflection of our healthcare providers’ desire for more standardized communication training. Despite the essential need for empathic and interpersonal communication in healthcare, there is still little programmatic or curricular emphasis on building interpersonal skills in medical school or training. Although the Accreditation Council for Graduate Medical Education (ACGME) and American Board of Medical Specialties (ABMS) jointly endorse interpersonal and communication skills as one of the six general core competencies for physicians, most healthcare providers informally learned their medical communication skills via non-standardized observations and modeling. Most providers demonstrate improvement in their communication performance during medical school and clinical training, yet generally do not attain professional expertise in communication. Building and sustaining strong healthcare provider-patient relationships, while also navigating difficult encounters and conversations, requires a set of modifiable behaviors that are not innate, but learned and reinforced through deliberate practice. Perceived inadequacies and gaps in communication education and training may also be contributing to participants’ satisfaction of a more formalized, communication course.

Upon completion of the course, improved self-efficacy and comfort in utilizing the relationship-centered communication skills (7 out of 12 domains) were achieved and sustained for at least three months. Our findings corroborate prior research showing gains in self-assessment as a result of educational interventions for healthcare professionals. Although the direct impact of our course on provider behaviors and implementation within practice was not analyzed, studies correlating self-efficacy as an evaluation measure of competence have been previously documented. In delineating the relationship between self-efficacy and performance, Bandura’s social-cognitive theory contends that behavior changes occur as a result of enhanced self-confidence in one’s ability to successfully enact tasks or skills. Because it plays a predictive and mediating role in relation to motivation, learning, and performance, many postulate that self-efficacy is necessary in the adoption and retention of new behaviors and skills. Whereas individuals avoid tasks perceived as exceeding their capabilities, they undertake and successfully perform tasks they are capable of handling.

Educational programs, which incorporate role play or simulated skills practice, have proven to be particularly successful when evaluating for self-efficacy. Although there
are varying degrees of discrepancy between self-assessment and observers’ ratings of corresponding skills. Previous studies have shown positive correlations between self-efficacy and performance with communication skills training. Brown et al. demonstrated a statistical improvement in trainee’s self-assessment of competence in overall and specific communication skills after conducting a randomized trial of a simulation-based multi-session workshop to improve palliative care communication skills. Longer term increases on self-efficacy, along with a significantly positive correlation between performance after training and self-efficacy 3 years later, was demonstrated after providers participated in a 20-hour communication skills training based on the Four Habits approach. From their study, Gulbransen et al. concluded that communication skills training may not only cause lasting improvements in physicians' self-confidence in their communication skills ability, but that the increased confidence is accurately associated with improvements in performance.

Many healthcare providers derive energy, strength, and professional satisfaction from the physician-patient relationship. Because the clinical encounter is a dynamic process, underlying patient, caregiver, and healthcare provider characteristics and behaviors can have a direct effect on verbal and non-verbal communication styles and can promote or alleviate interpersonal difficulty. Clinicians who repeatedly experience difficult encounters with patients and/or families tend to feel less job satisfaction and more professional burnout. The impact of professional burnout is not inconsequential, with up to 60% of practicing physicians reporting symptoms of emotional exhaustion, depersonalization, and a low sense of personal accomplishment. In 2012, Shanafelt et al conducted a national study of burnout in a large sample of US physicians and delineated burnout rates by specialty, with emergency medicine, general internal medicine, neurology, and family medicine exhibiting the highest rates of burnout, and general pediatrics, dermatology, pathology, and preventative medicine with the lowest rates.

Our study’s Maslach Burnout Inventory (MBI) scores for emotional exhaustion and depersonalization positively improved for 25% of our participants. As the majority of our course participants were primary pediatricians, primary care advanced practice providers and pediatric subspecialists, baseline MBI median scores of 13 (emotional exhaustion), 8 (depersonalization), and 42 (personal accomplishment) were unsurprisingly low. In a study published by Boissy et al, they reported moderate, baseline burnout scores for each MBI domain, and for 16% of National Provider Identifier-matched participants, improvement in all measures were noted at 3 months post-course. Perhaps, our communication course’s impact on burnout did not produce similarly significant change given the low baseline burnout levels of our group. Although statistical significance was not achieved, even small decreases in burnout may translate to more meaningful change, re: wellness, resiliency, and turnover.

Difficult to correlate with long-term outcomes, the consequences of burnout among practicing clinicians include both professional (poorer quality of care, increased medical errors and malpractice claims, and decreased clinician workforce) and personal (decreased ability to express empathy, problematic alcohol and drug use, stress-related health problems, broken relationships, and suicidal ideation) consequences. Identifying, improving upon and practicing empathic and other effective communication skills through frequent and deliberate practice may not only strengthen the healthcare provider-patient relationship, improve medical outcomes, increase patient satisfaction,
and prevent future difficult encounters, but also enhance job satisfaction, decrease stress and burnout, and reduce medical malpractice and litigation.60

Limitations

Our study has some important limitations. Given the design of the study, we could not exclude other causes for the improvement in scores among those who participated in the course. By mandating enrollment for a select number of specialties (pediatric emergency medicine, pediatric hospital medicine, and primary care pediatrics) and offering CME credits to all course participants, we were able to control for volunteer and other unmeasurable biases that often weaken non-experimental studies.

Aside from the Maslach Burnout Inventory, we used a non-validated instrument for measurement of course satisfaction and self-efficacy of communication skills. Non-MBI survey questions were based on previously established course assessment surveys and piloted prior to study initiation. Additionally, the decline in survey completion for both post- and three-month post-intervention may have caused results not to be representative of all participants.

Performance utilization and improvement and patient satisfaction scores were not collected or analyzed for our study. Although positive correlations between self-efficacy and performance have been discussed, further research is needed to determine whether providers finding the course valuable and relevant is associated with behavior changes in application of the skill sets and patient satisfaction.

Finally, our communication course was offered to only one, largely-employed, healthcare organization. However, we administered the training program to a diverse array of clinicians, including primary care pediatricians, pediatric sub-specialists, pediatric surgical sub-specialists, obstetrician-gynecologists, physician assistants, and nurse practitioners. Even though the single-site setting of our study might appear to limit generalizability, other large organizations, such as Kaiser Permanente, Cleveland Clinic, and Mayo Clinic, have demonstrated improved self-efficacy, empathy, burnout, and/or patient satisfaction scores.17,18,20

Conclusion

A pediatric-focused communication course was well-received by multi-specialty, practicing clinicians within a large, academic healthcare organization. This 5.5-hour relationship-centered communication course not only enhanced clinician self-efficacy and comfort with newly-learned skills, but also improved burnout (domains of emotional exhaustion and depersonalization) and well-being. Further research is necessary to investigate the effects on communication skill utilization and performance, patients’ experience of care, and clinical outcomes. Additionally, a future study measuring the impact of communication training on patient care, satisfaction, and follow up would be of value.

Practice implications

TCH Breakthrough Communication can be successfully implemented in a large, pediatric, multi-specialty organization. Course satisfaction, self-efficacy and comfort with relationship-centered communication skills, and provider burnout may improve after participation in a pediatric-focused, experiential communication course. Whether this
course positively impacts quality and clinical outcomes, such as patient safety, enhanced teamwork, patient satisfaction, and adherence with treatment requires further investigation.

Legends
SDC 1 - See figure, Supplemental Digital Content 1 which displays the breakthrough communication handout. INSERT LINK HERE

Acknowledgements:
We thank Dr. Larry Hollier and Dr. Joan Shook for their unwavering vision, leadership, and support; our dedicated and energetic course facilitators, Ruth Abelt CPNP, Aba Coleman MD, Erin Gottlieb MD, Cheryl Hardin MD, Laura Monson MD, Kamini Muzumdar MD, Ruben Rodriguez MD, Mary Shapiro MD, Moushumi Sur MD, Veronica Victorian PA-C; our unwavering and dependable course administrators, Andrea Romay and Tara Enders; and, our incomparable and hard-working research support manager, Betty Tung.
References:

1. Institute of Medicine. Committee on Quality of Health Care in America. Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, DC. National Academy Press. 2001.

2. Chaitoff A, Sun B, Windover A, et al. Associations Between Physician Empathy, Physician Characteristics, and Standardized Measures of Patient Experience. Acad Med. 2017;92:1464-1471.

3. Smith RC. Patient-centered Interviewing: an evidence-based method. Philadelphia PA. Lippincott Williams & Wilkins. 2002.

4. Beach MC, Inui T, and RCC Research Network. Relationship-centered care: a constructive reframing. J Gen Intern Med. 2006;21:S3-8.

5. Levinson W, Lesser CS, Epstein RM. Developing physician communication skills for patient-centered care. Health Affairs. 2010;29:1310-1318.

6. Safran DG, Taira DA, Rogers WH, et al. Linking primary care performance to outcomes of care. J Fam Pract. 1998;47:213-220.

7. Stewart MA. Effective physician-patient communication and health outcomes: a review. CMAJ. 1995;152:1423-1433.

8. Baile WF, Kudelka AP, Beale EA, et al. Communication skills training in oncology: description and preliminary outcomes of workshops on breaking bad news and managing patient reactions to illness. Cancer. 1999;86:887-897.

9. Wouda JC, van de Wiel HBM. Education in patient-physician communication: how to improve effectiveness? Patient Educ Couns. 2013;90:46-53.

10. Stein T, Frankel RM, Krupat E. Enhancing clinician communication skills in a large healthcare organization: a longitudinal case study. Patient Educ Couns. 2005;58:4-12.
18. Roter DL, Hall JA, Kern DE, Barker LR, Cole KA, Roca RP. Improving physicians’ interviewing skills and reducing emotional distress: a randomized trial. *Arch Intern Med.* 1995;155:1877-1884.
19. Brown JB, Boles M, Mullooly JP, Levinson W. Effect of clinician communication skills training on patient satisfaction: a randomized, controlled trial. *Ann Intern Med.* 1999;131:822-829.
20. Boissy A, Windover AK, Bokar D, et al. Communication skills training for physicians improves patient satisfaction. *J Gen Intern Med.* 2016;31:755-761.
21. Maslach C, Jackson SE, Leiter MP. *Maslach Burnout Inventory Manual (3rd edition).* Palo Alto, CA: Consulting Psychologists Press, Inc.
22. Salib S, Glowacki EM, Chilek LA, Mackert M. Developing a communication curriculum and workshop for an internal medicine residency program. *South Med J.* 2015;108:320-324.
23. Liu X, Rohrer W, Luo A, Fang Z, He T, Xie W. Doctor-patient communication skills training in mainland China: a systematic review of the literature. *Patient Educ Couns.* 2015;98:3-14.
24. Rao JK, Anderson LA, Inui TS, Frankel RM. Communication interventions make a difference in conversations between physicians and patients: a systematic review of the evidence. *Med Care.* 2007;45:340-349.
25. Levetown M. American Academy of Pediatrics Committee on Bioethics. *Pediatrics.* 2008;121:e1441-1460.
26. Baumal R, Benbassat J. Current trends in the educational approach for teaching interviewing skills to medical students. *IMAJ.* 2008;10:552-555.
27. Silverman J. Teaching clinical communication: a mainstream activity or just a minority sport. *Patient Educ Couns.* 2009;76:361-367.
28. Hodges B, Turnbull J, Cohen R, Bienenstock A, Norman G. Evaluating communication skills in the objective structured clinical examination format: reliability and generalizability. *Med Educ.* 1996;20:38-43.
29. Yeidia MJ, Gillespie CC, Kachur E, et al. Effect of communication training on medical student performance. *J Amer Med Assoc.* 2003;290:1157-1165.
30. Wouda JC, van de Wiel HBM. The communication competency of medical students, residents, and consultants. *Patient Educ Couns.* 2012;86:57-62.
31. Barth J, Lannen P. Efficacy of communication skills training in oncology: a systematic review and meta-analysis. *Ann Oncol.* 2011;22:1030-1040.
32. Mukerji G, Weinerman A, Schwartz S, Atkinson A, Stroud L, Wong BM. Communicating wisely: teaching residents to communicate effectively with patients and caregivers about unnecessary tests. *BMC Medical Education.* 2017;17:248.
33. Fellowes D, Wilkinson S, Moore P. Communication skills training for health care professionals working with cancer patients, their families and/or careers. *Cochrane Database Syst Rev.* 2004;2:CD003751 [review].
34. Hulsman RL, Ros WJ, Winnubst JA, Bensing JM. Teaching clinically experienced physicians communication skills. A review of evaluation studies. *Med Educ.* 1999;33:655-668.
35. Kramer AWM, Dusman H, Tan LHC, Jansen JJM, Grol RPTM van der Vleuten CPM. Acquisition of communication skills in postgraduate training for general practice. *Med Educ.* 2004;38:158-167.
36. Sullivan AM, Lakoma MD, Block SD. The status of medical education in end-of-life care: a national report. *J Gen Intern Med.* 2003;18:685-695.
37. Ericsson KA. Deliberate practice and acquisition of expert performance: a general overview. *Acad Emerg Med.* 2008;15:988-994.
38. Ericsson KA. An expert-performance perspective of research on medical expertise: the study of clinical performance. *Med Educ.* 2007;41:1124-1130.
39. Hodges BD, Kuper A. Theory and practice in the design and conduct of graduate medical education. *Acad Med.* 2012;87:25-33.
40. Epstein RM. Assessment in medical education. *N Engl J Med.* 2007;356:387-396.
41. Brown CE, Back AL, Ford DW, et al. Self-assessment scores improve after simulation-based palliative care communication skill workshops. *Am J Hosp Palliat Care.* 2018;35:45-51.
42. Norgaard B, Ammentorp J, Ohm Kyvik K, Kofoed PE. Communication skills training increases self-efficacy of health care professionals. *J Contin Educ Health Prof.* 2012;32:90-97.
43. Parle M, Maguire P, Heaven C. The development of a training model to improve health professionals’ skills, self-efficacy, and outcome expectancies when communicating with cancer patients. *Soc Sci Med.* 1991;66:762-769.
44. Heaven CM, Maguire P. Training hospice nurses to elicit patient concerns. *J Adv Nurs.* 1996;23:280-286.
45. Gulbrandsen P, Jensen BF, Finset A. Self-efficacy among doctors in hospitals after a course in clinical communication. *Tidsskr Nor Laegeforen.* 2009;129:2343-2346.
46. Bandura A. Social Learning Theory. New Jersey: Englewood Cliffs; Prentice Hall; 1977.
47. Bandura A. Reflections on self-efficacy. *Advances in Behavior Research and Therapy.* 1978;1:234-269.
48. Jenkins V, Fallowfield L. Can communication skills training alter physicians’ beliefs and behavior in clinics? *J Clin Oncol.* 2002;20:765-769.
49. Gude T, Vaglum P, Anvik T, et al. Do physicians improve their communication skills between finishing medical school and completing internship? A nationwide prospective observational cohort study. *Patient Educ Couns.* 2009;76:207-212.
50. Ward M, Gruppen L, Regehr G. Measuring self-assessment: current state of the art. *Adv Health Sci Educ Theory Pract.* 2002;7:63-80.
51. Gruppen LD, Garcia J, Grum CM, et al. Medical students’ self-assessment accuracy in communication skills. *Acad Med.* 1997;72S:S57-59.
52. Gordon MJ. A review of the validity and accuracy of self-assessments in health professions training. *Acad Med.* 1991;66:762-769.
53. Gulbrandsen P, Jensen BF, Finset A, Blanch-Hartigan D. Long-term effect of communication training on the relationship between physicians’ self-efficacy and performance. *Patient Educ Couns.* 2013;91:180-185.
54. Bragard I, Libert Y, Etienne A, et al. Insight on variables leading to burnout in cancer physicians. *J Cancer Educ.* 2010;25:109–115.
55. Shanafelt TD, Balch CM, Bechamps GJ, et al. Burnout and career satisfaction among American surgeons. *Ann Surg.* 2009;250:463-471.
56. Shanafelt TD, Boone S, Tan L, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med.* 2012;172:1377-1385.
57. Shanafelt TD, Hasan O, Dyrbye LN, et al. Changes in burnout and satisfaction with work-life balance in physicians and the general US working population between 2011 and 2014. *Mayo Clin Proc.* 2015;90:1600-1613.
58. Wallace JE, Lemaire JB, Ghali WA. Physician wellness: a missing quality indicator. *Lancet.* 2009;374:1714-1721.
59. Williams ES, Konrad TR, Scheckler WE, et al. Understanding physicians’ intentions to withdraw from practice: the role of job satisfaction, job stress, mental and physical health. *Health Care Manage Rev.* 2001;26:7-19.
60. Boudreaux ED, O’Hea EL. Patient satisfaction in the emergency department: a review of the literature and implications for practice. *J Emerg Med.* 2004;26:13-26.
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Figure 1. Breakthrough Communication Handout.pdf
Table 1.
Demographic Variables (n=347)

| Variable          | Category      | n  | (%)  |
|-------------------|---------------|----|------|
| **Age Range**     |               |    |      |
| < 25              |               | 1  | 0.3% |
| 25 – 34           |               | 95 | 27.4%|
| 35 – 44           |               | 135| 38.9%|
| 45 – 54           |               | 65 | 18.7%|
| 55 – 64           |               | 39 | 11.2%|
| > 65              |               | 12 | 3.5% |
| **Gender**        |               |    |      |
| Female            |               | 267| 77.0%|
| Male              |               | 80 | 23.0%|
| **Race**          |               |    |      |
| White             |               | 191| 55.0%|
| Asian             |               | 83 | 23.9%|
| Black             |               | 33 | 9.5% |
| Hispanic/Latino   |               | 21 | 6.1% |
| Other*            |               | 19 | 5.5% |
| **Practice Setting** |             |    |      |
| Outpatient        |               | 173| 49.9%|
| Inpatient & Outpatient |           | 83 | 23.9%|
| Inpatient - Acute Care |           | 42 | 12.1%|
| Inpatient - PICU/PCU |             | 6  | 1.7% |
| EC                |               | 28 | 8.1% |
| Other             |               | 15 | 4.3% |
| **Provider Type** |               |    |      |
| MD                |               | 244| 70.3%|
| APP               |               | 80 | 23.1%|
| DO                |               | 14 | 4.0% |
| Other             |               | 9  | 2.6% |
| **Number of years in Practice** | |    |      |
| 0-5 yrs.          |               | 122| 35.2%|
| 6-10 yrs.         |               | 72 | 20.8%|
| 11-15 yrs.        |               | 54 | 15.6%|
| 16-20 yrs.        |               | 38 | 11.0%|
| >21 yrs.          |               | 61 | 17.6%|

*Other includes: American Indian/Alaska Native, Native Hawaiian/Pacific Islander, ≥ 2 races, other

**Note:** 3 individuals did not provide responses; percentages rounded to nearest tenth.
Table 2.
Post Course Provider Satisfaction
Responses for Post Survey Satisfaction Questions (n=311)

| Post Survey Questions                                                                 | Category                  | n (%)      |
|----------------------------------------------------------------------------------------|---------------------------|------------|
| What is your level of satisfaction from this workshop?                                 | Strongly Disagree         | 4 (1.3%)   |
|                                                                                        | Disagree                  | 9 (2.9%)   |
|                                                                                        | Neither Agree nor Disagree| 32 (10.3%) |
|                                                                                        | Agree                     | 140 (45.0%)|
|                                                                                        | Strongly Agree            | 126 (40.5%)|
| The communication skills learned in this workshop will be relevant to my practice.    | Strongly Disagree         | 2 (0.6%)   |
|                                                                                        | Disagree                  | 4 (1.3%)   |
|                                                                                        | Neither Agree nor Disagree| 16 (5.1%)  |
|                                                                                        | Agree                     | 132 (42.4%)|
|                                                                                        | Strongly Agree            | 157 (50.5%)|
| Do you plan to implement any of the material that was presented today into your clinical activities? | Yes                       | 306 (98.4%)|
|                                                                                        | No                        | 5 (1.6%)   |
| Would you recommend this session to a colleague?                                       | Yes                       | 283 (91.0%)|
|                                                                                        | No                        | 28 (9.0%)  |

Note: 15 individuals did not provide responses; percentages rounded to nearest tenth.
Table 3a.
Perceived comfort pre vs immediately post course completion. P-values based on Signed-Rank Test for perceived differences in Scores (on Post Survey)

| How comfortable are you with Beginning the Encounter? | Number of Responses | Direction* | P-value |
|--------------------------------------------------------|---------------------|------------|---------|
| Greeting and establishing rapport with the patient and family | 313 | <0.001 |
| Attending to the patient’s comfort | 313 | <0.001 |
| Acknowledging communication barriers (e.g. EMR; Pagers/Phones) | 313 | + | <0.001 |
| Eliciting all the patient/caregiver concerns | 313 | + | <0.001 |
| Negotiating the agenda | 313 | + | <0.001 |

| How comfortable are you with Developing a Relationship with your Patients/Caregivers? | Number of Responses | Direction* | P-value |
|--------------------------------------------------------------------------------------|---------------------|------------|---------|
| Engaging in reflective listening | 313 | + | <0.001 |
| Exploring the patient/caregiver’s perspectives | 313 | + | <0.001 |
| Responding with empathy | 313 | <0.001 |

| How comfortable are you with Ending the Encounter? | Number of Responses | Direction* | P-value |
|------------------------------------------------------|---------------------|------------|---------|
| Sharing diagnosis and information | 313 | <0.001 |
| Assessing understanding | 312 | + | <0.001 |
| Summarizing and clarifying the treatment plan | 313 | + | <0.001 |
| Providing closure | 311 | <0.001 |

* Median>0

Table 3b.
Perceived comfort pre and 3 months post course completion. P-values based on Signed-Rank Test for perceived difference in comfort scores from pre and 3 month-post survey

| How comfortable are you with Beginning the Encounter? | Number of Responses | Direction* | P-value |
|--------------------------------------------------------|---------------------|------------|---------|
| Greeting and establishing rapport with the patient and family | 99 | 0.0173 |
| Attending to the patient’s comfort | 99 | 0.0001 |
| Acknowledging communication barriers (e.g. EMR; Pagers/Phones) | 99 | + | <.0001 |
| Eliciting all the patient/caregiver concerns | 99 | + | <.0001 |
| Negotiating the agenda | 99 | + | <.0001 |

| How comfortable are you with Developing a Relationship with your Patients/Caregivers? | Number of Responses | Direction* | P-value |
|--------------------------------------------------------------------------------------|---------------------|------------|---------|
| Engaging in reflective listening | 99 | 0.0004 |
| Exploring the patient/caregiver’s perspectives | 99 | + | <.0001 |
| Responding with empathy | 99 | 0.0004 |

| How comfortable are you with Ending the Encounter? | Number of Responses | Direction* | P-value |
|------------------------------------------------------|---------------------|------------|---------|
| Sharing diagnosis and information | 99 | 0.0006 |
| Assessing understanding | 99 | + | <.0001 |
| Summarizing and clarifying the treatment plan | 99 | <.0001 |
| Providing closure | 99 | <.0001 |

* Median>0a
Table 4a.
Total summarized as continuous variables for individuals with Pre and 3 mo. Post Scores available

| Label                      | Pre-Course Survey | 3 mo. Post-Course Survey | P-value* |
|----------------------------|-------------------|--------------------------|----------|
| **Section A: Emotional Exhaustion** |                   |                          |          |
| Median (IQR)               | 13 (9-19)         | 11 (7-19)                | 0.239    |
| **Section B: Depersonalization** |                   |                          |          |
| Median (IQR)               | 8 (4-12)          | 7 (4-14)                 | 0.723    |
| **Section C: Personal Achievement** |                   |                          |          |
| Median (IQR)               | 42 (37-45)        | 42 (39-46)               | 0.175    |

*Based on Wilcoxon Signed Rank Test

Table 4b.
P-values based on Signed-Rank Test for differences in Scores between Pre and 3 Mo. Post Scores

| Number of Responses | Direction | P-value |
|---------------------|-----------|---------|
| **For each statement, mark the box that most accurately reflects your response.** |
| I feel emotionally drained from my work | 85 | 0.672 |
| I feel used up at the end of the workday. | 85 | 0.028 |
| I feel fatigued when I get up in the morning and have to face another day on the job. | 85 | 0.533 |
| I can easily understand how my recipients feel about things. | 84 | + | <0.001* |
| I feel I treat some recipients as if they were impersonal objects. | 85 | 0.254 |
| Working with people all day is really a strain for me. | 85 | 0.843 |
| I deal very effectively with the problems of my recipients. | 85 | 0.983 |
| I feel burned out from my work. | 85 | 0.870 |
| I feel I'm positively influencing other people's lives through my work. | 85 | 0.610 |
| I've become more callous toward people since I took this job. | 85 | 0.978 |
| I worry that this job is hardening me emotionally. | 85 | 0.826 |
| I feel very energetic. | 85 | 0.853 |
| I feel frustrated by my job. | 85 | 0.066 |
| I feel I'm working too hard on my job. | 84 | 0.269 |
| I don't really care what happens to some recipients. | 85 | 0.446 |
| Working with people directly puts too much stress on me. | 85 | 0.793 |
| I can easily create a relaxed atmosphere with my recipients. | 85 | 0.214 |
| I feel exhilarated after working closely with my recipients. | 85 | 0.537 |
| I have accomplished many worthwhile things in this job. | 84 | 0.153 |
| I feel like I'm at the end of my rope. | 85 | 0.465 |
| In my work, I deal with emotional problems very calmly. | 85 | 0.515 |
| I feel patients blame me for some of their problems. | 85 | 0.897 |
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