EDUCATIONAL SCHOLARSHIP

Benefits of Teaching Medical Students How to Communicate with Patients Having Serious Illness

Comparison of Two Approaches to Experiential, Skill-Based, and Self-Reflective Learning

Matthew S. Ellman, MD*, and Auguste H. Fortin VI, MD, MPH

Yale School of Medicine, New Haven, Connecticut

Innovative approaches are needed to teach medical students effective and compassionate communication with seriously ill patients. We describe two such educational experiences in the Yale Medical School curriculum for third-year medical students: 1) Communicating Difficult News Workshop and 2) Ward-Based End-of-Life Care Assignment. These two programs address educational needs to teach important clinical communication and assessment skills to medical students that previously were not consistently or explicitly addressed in the curriculum. The two learning programs share a number of educational approaches driven by the learning objectives, the students' development, and clinical realities. Common educational features include: experiential learning, the Biopsychosocial Model, patient-centered communication, integration into clinical clerkships, structured skill-based learning, self-reflection, and self-care. These shared features — as well as some differences — are explored in this paper in order to illustrate key issues in designing and implementing medical student education in these areas.

BACKGROUND

An aging population and advances in medical technology result in more challenges for physicians to meet the needs and goals of patients living with advanced disease. To address these challenges, medical students must learn to communicate effectively and compassionately with patients who have complex and serious illness. Studies have shown that graduating medical students do not consistently feel prepared to communicate with and care for patients in difficult clinical situations and at the end of life [1-3]. For example, a na-

†Abbreviations: OSCE, Objective Structured Clinical Examination.

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^{*}To whom all correspondence should be addressed: Matthew S. Ellman, MD, Yale School of Medicine, Yale Internal Medicine Associates, 800 Howard Ave., New Haven, CT 06519; Tele: 203-785-7411; Fax: 203-785-4194; Email: matthew.ellman@yale.edu.

tional survey of a sample of 1,455 fourthyear medical students from 62 U.S. medical schools showed that students' education in end-of-life care was especially lacking in the aspects of communication and empathy. In this study, 48 percent of students reported having never received feedback about giving bad news, and 53 percent were never given feedback about a discussion of wishes for care at the end of life [2].

In the pre-clinical years, students will not be prepared to grasp and put these communication skills in context without having had exposure to seriously ill patients and medical care on the wards. While on the wards during clinical clerkships, students have inconsistent exposure and training in these communication and assessment skills. Mentors on the wards may not have had education or training themselves to enable them to be optimal role models [4]; indeed, a recent study showed that attending physicians do not use patient-centered skills when breaking difficult news to patients, but avoid psychosocial issues and focus instead on providing medical information [5]. Regardless, the encounters students witness are memorable (either positively or negatively) and important for their professional formation [6].

Because these skills are relevant for most clinical specialties, they are not "owned" as an educational responsibility by a particular clinical department. In addition, due to the logistics of educational schedules, students are not always present when important discussions with patients and families take place on the wards, and when they are present, students usually do not take an active role. For these reasons, we designed and implemented dedicated activities in the clinical curriculum to assure that all medical students at our institution received training in the essential aspects of communicating with patients with serious illness. In this paper, we describe our experience and analysis of two educational programs we developed at Yale Medical School: the Communicating Difficult News Workshop and the Ward-Based End-of-Life Care Assignment.

DESCRIPTION OF THE TWO EDUCATIONAL INNOVATIONS

Communicating Difficult News Workshop

This required 3½-hour workshop has been offered since 2003. It is occurs six times a year on the final afternoon of Medicine I, which is the first of two consecutive months of the inpatient component of the Medicine clerkship. Students return to the Medical School from their assigned hospitals for this workshop; the educational objectives of this are for students: to know why communicating difficult news is important, to understand a six-step protocol for delivering difficult news, and to practice giving difficult news in an encounter with a standardized patient.

The workshop commences with a 50minute didactic session, which begins with a reading of Raymond Carver's poem "What the doctor said" [7] in order to set a reflective tone for the experiences to follow. Students then define difficult news and share their experiences to-date with observing difficult news being given to patients. The rationale for and benefits of communicating difficult news are discussed, and a six-step protocol for successfully delivering difficult news is presented (see Appendix 1, adapted from [8-11]). Students receive a pocket card with the six steps and view a brief video demonstrating the protocol. The didactic session concludes with a discussion of coping and self-care skills to prevent professional burnout.

Students then move to breakout rooms where, in groups of three, they meet with a faculty facilitator to practice the newly learned protocol. This workshop utilizes standardized patients, who are actors trained to reliably and reproducibly enact a patient scenario, allowing students to practice this challenging communication task without the concern of causing harm to an actual patient [12]. Participants receive a brief patient "chart" for their standardized patient, which provides the information necessary to share the difficult news (e.g., a biopsy result). The faculty facilitator conducts the first interview in order to model general communica-

tion skills and further demonstrate the protocol, a strategy shown to be valuable for learners [13]. Each student then interviews a different standardized patient for 15 to 20 minutes and receives feedback from the observing students and the faculty member. Debriefing includes attention to the student's feelings during the interview. Students receive additional handouts with information on assessing patients' spirituality [8], communicating prognosis [9], and giving difficult news over the telephone [14].

Ward-Based End-of-Life Care Assignment

The four educational objectives of this program for third-year Yale medical students are: 1) to increase awareness of end-of-life issues faced by patients in the acute care setting; 2) to understand the elements of a comprehensive end-of-life care assessment; 3) to gain more comfort and ability to communicate effectively with patients at end of life; and 4) to appreciate the importance of reflection on the experience of caring for patients at end of life.

The objectives and content of the program were determined after a complete review of the curriculum for end-of-life related activities and a survey of graduating medical students in 2004 [15]. The survey assessed graduating students' perceptions of their education and experiences in end-of-life care and preparedness to provide end-of-life care in diverse domains. The program was introduced as a pilot in 2005 and then became a requirement for all third-year students in subsequent years [15].

In a 1-hour preparatory session, the assignment is reviewed in detail and students receive a pocket card with helpful phrases for end-of-life communication. Students also receive background reading and contact information for the dedicated end-of-life faculty in each major clinical department. While on any of their third-year ward-based clinical clerkships, students are asked to identify a suitable patient who is facing end-of-life related issues. They are encouraged to select a patient with whom they are already involved on the ward team.

Once a prospective patient is identified, students obtain permission from the patient's attending physician to conduct the evaluation and start by reviewing the patient's medical record. Subsequently, students conduct an interview(s) with the patient (and family, if appropriate) in an open-ended and patient-centered fashion, with the aid of written guidelines. In addition, students are asked to gather the perspectives of the physicians, nurses, and other health professionals involved in the patient's care. In their review of records and interviews, students are asked to consider core end-of-life domains, including: the presence of physical and non-physical symptoms and the medical management (or barriers to management) of these symptoms; the types and sources of patient's suffering and how these have or have not been addressed; and patient, family, and health professionals' planning for end-of-life care.

Before preparing a written report, students are asked to take dedicated time to reflect on personal responses to their experiences of speaking with the patient, the family, and the health professionals involved in the care. They then prepare a oneto two-page report addressing questions described in a written guide. Finally, students present their case at the end-of-life case conference, which takes place eight times per year on the Psychiatry Clerkship. The conferences are facilitated by dedicated faculty from diverse clinical departments, including medicine, geriatrics, surgery, pediatrics, psychiatry, and obstetrics gynecology. Student are asked to start their presentations with a brief clinical summary of their patients and then highlight, for group discussion, one or two end-of-life issues they found particularly educational, challenging, or surprising. Finally, each student shares a personal reflection on the experience, prompted by questions such as: How did it feel to sit and talk with someone who is seriously ill? What was challenging for you? How can you best cope with difficult reactions in order to provide the best care possible for patients, and how can you get support for this?

PROGRAM EVALUATIONS

Communicating Difficult News Workshop

Routine satisfaction assessment and feedback from student advisory groups has been consistently favorable. Students uniformly concur that the workshop achieves its educational goals and is a valuable experience. Data collection is under way to assess whether the workshop results in self-reported behavior change among students.

Ward-Based End-of-Life Care Assignment

We evaluated the program with two separate analyses: First, we analyzed qualitatively a set of students' written reports in order to evaluate the personal impact of the educational experience on the students; second, we compared levels of preparedness reported in questionnaires by students who did or did not complete the assignment in order to assess the effectiveness of the program. In the first analysis, at least two of three coders read line by line the reports written by 121 students in 2005-2006. Using the constant comparative method of qualitative data analysis, the faculty independently identified and abstracted themes and ideas [16]. The faculty-coders then met as group and through consensus developed a classification of six broad themes, each containing three to four code dimensions. The six themes describing the effect of the experience on the students were: 1) recognition of the complexity of patient reactions to dying; 2) communication issues; 3) recognition of the value to the patient of the clinicians' presence and listening; 4) interpersonal dynamics; 5) range of the students' personal reflections on the experience; and 6) perceptions of the assignment itself [15]. Student reflections indicate that for some of them, the experience was very meaningful and formative, as illustrated in the following examples of student remarks:

"Without this assignment, I probably would never have dared to talk so directly about death and

dying with a patient who is experiencing just that."

"I learned most of all that one must take care to look out for the good of the suffering/dying patient . . . this was a very good exercise that I am glad Yale requires; it forced me to think very carefully about why I felt the emotions I did in the EOL situation and I will be a better doctor for it."

To assess the effectiveness of the Ward-Based End of Life Care Assignment, we compared the level of preparedness in endof-life care reported by students in the graduating classes of 2004-2007, who did or did not complete the exercise. A greater proportion of students who completed the exercise felt prepared in end-of-life care compared with those who did not (50.7 percent (39/77) vs. 35.6 percent (64/180); P = .02). Among five domains of skills examined, significant differences were seen in interviewing/communicating (3.7 vs. 3.5; P = .05) and management of common symptoms (3.3 vs. 3.0; P < .01). These results show that the program may improve graduating students' selfreported preparedness to care for patients at the end of life [17].

COMMON FEATURES OF THE TWO PROGRAMS

Experiential Learning

While preparation by reading, listening to a lecture, and observing a role model's demonstration are clearly useful, a student cannot move toward skills competency with these passive modes of learning alone. Students need to experience asking the questions, saying the words, responding to emotion, and experiencing their own response to the interactions. In both programs, students take an active role in learning the skills by actually "doing" the communication, asking the questions, assessing the patient (or standardized patient) in real time, and responding accordingly. Feedback is be-

havior-based and helps learners improve their skill

Patient-Centered Communication

Both programs build upon and reinforce the principles of patient-centered communication [10,18]. In the preclinical years, students learn to interact with patients using a model of patient-centered interviewing that achieves a shared agenda, encourages the patient's narrative, and uncovers the personal and emotional context of illness [10,19]. Students learn to respond empathically to patients' feelings and emotions and recognize that this forges a strong doctor-patient relationship that can lead to improved health outcomes [20]. When students transition to the clinical years, they are often not observed interacting with patients and so their patient-centered skills may not be reinforced. The reported programs re-visit and build on these skills and show their practical application to communicating with seriously ill patients [21].

Fostering the Biopsychosocial Model

The two programs share the important goal of reinforcing the practice of medicine under the Biopsychosocial Model. This model, developed by Engel [22], posits that biological, psychological, and social factors all are important in an individual patient's risk for and experience of illness. This concept is introduced in the preclinical curriculum but is not emphasized in an organized way during the clinical years. By showing clinical students how communication skills at end of life can help to operationalize the Biopsychosocial Model, these two programs reinforce the paradigm and integrate it with clinical care.

Integration into Clinical Clerkships

Both programs are integrated into the clinical clerkships. On the last afternoon of the Internal Medicine I Clerkship, students attend the Communicating Difficult News Workshop. Students complete the Ward-Based End-of-Life Care Assignment on any third-year clinical clerkship when they are involved in the care of a patient facing end-

of-life issues and then present their case at the conference, which takes place during the Psychiatry Clerkship. Integrating these activities into the clinical clerkships encourages students to recognize the relevance of these skills to the care of patients on the wards and highlights the message that these skills are important for physicians in all specialties and are not only the purview of palliative care or hospice specialists.

Structured, Skill-Based Learning

Initial impressions of students (and even more experienced clinicians) to learning or improving skills for communicating with seriously ill patients are varied. Some students feel overwhelmed and have no idea what to say. Some worry about losing control of their emotions in stressful situations [23]. Others believe that the task is simple and straightforward with nothing of substance to consider. For example, the student may think that telling a patient of a new diagnosis of cancer is just matter of giving the factual information and trying to be kind about it. Or, when caring for a patient with incurable disease for whom no specific treatments are available, the student (or physician) may feel his role is limited, there is not much to say, and he ought to try to not upset the patient. Further, students often worry they will say "the wrong thing" and will cause harm to the patient.

To address these potential barriers, structured teaching methods and tools are employed in both programs. The medical encounter is approached as a procedure, and the skills needed to complete each component are learned and practiced. In the Communicating Difficult News Workshop, students are asked to employ the sequenced six-step protocol in the encounter with the standardized patient. They are encouraged to refer to the six-step pocket card as a reminder during the interview. Feedback from the faculty is organized around the communication skills in the six steps. Students are encouraged to carry and refer to their pocket cards on the wards.

The Ward-Based End-of-Life Care Assignment delineates very specific questions

for students to address in their comprehensive end-of-life evaluation, e.g., they are asked to "identify two main sources of physical, psychological, social, or spiritual suffering the patient is experiencing. Are these being addressed effectively?" In addition, the pocket card, "Communication phrases near end of life" (adapted from Medical College of Wisconsin Palliative Care Center Educational Materials) [24], serves both as a reminder of the various domains to consider (quality of life, goals of care, cross-cultural view of illness, responding to emotion, etc.) as well as helpful open-ended questions and phrases to get started to use when the students is unsure what to say. For example, in the category of Goals of Care/Goals Setting, examples of questions include: "With your current condition, what is most important for you right now?" "What are you hoping for?" "What do you hope to avoid?" "What are you expecting for the time you have left?" "What are you afraid might happen?"

Self-Reflection and Self-Awareness

A core aspect of both programs is student self-reflection and self-awareness, which is actively promoted by the educational instructions and prompted by the faculty facilitators. Often not a stated or overt learning objective in the medical school curriculum, students have few guided opportunities to reflect on their clinical experiences. Reflection, and the self-awareness it can foster, is fundamental to learning from experience and particularly important in learning about caring for patients near the end of life [25,26]. Similarly, we believe self-reflection is essential to develop effective skills in challenging clinical communication such as those addressed in these two programs. Lack of self-awareness can affect students' ability to effectively communicate difficult news [27]. Self-awareness is also a key component in developing mindful practice, which can help to reduce the risk of professional burnout [28].

In the Ward-Based End-of-Life Care Assignment, students often have their first experience with a terminally ill or dying patient. For many, this can be personally and emotionally challenging. With the rapid pace of the hospital and hectic, task-laden schedules of the ward teams, there is no built-in time to acknowledge and debrief students' (or residents' and attendings') personal reactions to difficult clinical circumstances. For these reasons, students often very much appreciate the expectation that they can debrief these early experiences with terminally ill patients at the end-of-life case conference. We believe that for the difficult work of caring and communicating with patients near the end of life, students benefit from recognizing their own personal and professional reactions and, if they continue this practice, will be more likely to remain "present" with patients through the course of their illness.

In the Difficult News Workshop, poetry is used to involve students at an emotional level and to set a reflective tone; we have previously shown this to be effective in clinical teaching [29]. Other reported curricula use scripted readings of a short story to similar ends [30]. The importance of self-awareness and reflection are explicitly discussed in the didactic session. During debriefings, faculty facilitators ask students about their reactions and feelings and help them see previously unrecognized negative attitudes [31]. Facilitators empathize with and validate students' emotions using the same empathy-skills that the students are taught to use with patients.

Self-Care

Caring for the self is a way to cope with the emotional toll of caring for seriously ill patients [26]. Both programs address this explicitly. In the Difficult News Workshop, students learn about the danger of isolation and the importance of identifying a group of trusted individuals to share with for support. During the Ward-Based End-of-Life Care Assignment case conference, the personal and professional challenges of caring for patients at the end of life for all students and physicians are explicitly acknowledged. Students are encouraged to consider resources for support as they move ahead in their training.

NOTABLE DIFFERENCES IN THE TWO PROGRAMS

There are two noteworthy pedagogical differences in the programs. While the Difficult News Workshop employs standardized patients, the Ward-Based End-of-Life Care Assignment involves actual patients on the wards. Second, in the Difficult News Workshop, faculty input and assessment takes place through direct observation, while in the End-of-Life Care Assignment, faculty do not observe students with patients but rather respond to students' case presentations. These differences are driven by both clinical realities and educational choices and each has advantages and limitations. While it is not clinically appropriate for medical students to deliver significant difficult news to actual patients, the opportunity to learn and practice these skills before residency is achieved using a standardized patient with a faculty observer. In contrast, the content of the Ward-Based End-of-Life Care Assignment — an open-ended assessment of a patient's end-of-life related issues — allows students to assess on their own, in a manner appropriate for a medical student, an actual patient on the wards. Incidentally, many students have reported that information they gathered during their assessment was very influential to the ward team in guiding the care of the patient. We believe that the different approaches of the two programs provide complementary educational experiences.

CONCLUSIONS AND OUTLOOK

The two programs described in this report were developed to help Yale Medical students attain skills in communicating with and caring for patients living with serious illness. While independently created, they share several educational methods, including experiential learning, patient-centered communication, structured skill-based learning, fostering learner self-reflection, and self-care. These educational strategies are similar to other reported, independently developed, medical school curricula [32]. Both programs provide important reminders for students in the clinical years of the impor-

tance of a biopsychosocial approach to care and reinforce their patient-centered communication skills.

These programs could be strengthened by more robust evaluation strategies to assess skill retention, such as observing students demonstrate learned skills during encounters with standardized patients in an Observed Structured Clinical Examination (OSCE†). Structured observation of residents' encounters with actual patients has been used to assess similar curricula in graduate medical education [13], but this methodology may not be appropriate to assess medical students.

Competency in end-of-life care communication requires ability in additional content areas such advance directives and goals of care, but whether it is best to present these as part of undergraduate or graduate medical education needs to be determined.

We believe that the larger medical school curriculum should further integrate patient-centered communication, a biopsychosocial approach to patient care, selfawareness, and self-care into the clinical clerkships. This can be achieved, in part, through faculty development, that is, training residents and attending physicians to both model the needed communication skills [33,34]; research has shown that residents want more support and training in communicating difficult news [35]. Faculty also need to be taught to recognize and take advantage of "teachable moments" in clinical care [32] and help students increase their personal awareness [31]. Giving students more opportunities during clerkships to discuss their experiences and concerns in a safe environment is also important [32]. The reported programs can serve as models for integrating structured skills-based learning into clinical experiences.

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APPENDIX

Six-Step Protocol for Communicating Difficult News (adapted from [8-11])

- Preparation: Learn about the disease. Get the setting right. Block out time. Invite significant others. Be mindful of body language. Make appropriate eye contact.
- 2. **Determine what the patient already knows:** "What do you think might be causing your symptoms?" "What is your understanding of where things stand now with your illness?" "What did you think when...?" "Did you think it might be serious...?"
- 3. Find out what the patient wants to know about diagnosis and prognosis: This is best done well before the "bad news" session. "If this condition turns out to be serious, do you want to know?" "Are you the kind of person who wants to know all the news about your illness?" "Some people want to know the details of their illness, while others really don't want to know what is happening and would rather their families be told. What do you prefer?" "I have some information about your test results. Do you want to talk about it now?"
- 4. **Share the information:** Break the news, assessing the patient's readiness to receive it at each step. (Don't be surprised if the patient hears/retains none of it.)
 - Warn about the arrival of bad news: "I'm afraid I have some bad news. Do you want to talk about it now?" "This is more serious than we thought." "I'm afraid the news is not good."
 - Give the news using unambiguous language, then stop, e.g., "The growth turned out to be cancer." Allow silences. (Don't just do something, sit there!) Be with the patient in his pain; you just changed his world view.
 - Do not minimize severity; avoid vagueness, confusion.
 - Check the patient's understanding frequently.
- 5. Ask about and respond to the patient's/family's emotional reaction/feelings: "How are you feeling, having gotten this news?" "NURS" (Name, Understand, Respect, Support) the emotion: "I can see that what I have told you is upsetting. I can understand how it would be. This is a tough thing for you to be going through. I'll be here for you."
- 6. Plan for follow-up:
 - Summarize, ask for questions
 - Outline next steps
 - Additional tests
 - Referrals
 - Symptom control
 - Discuss potential sources of support
 - Family, friends
 - Assess spirituality/religion (FICA)
 - Faith "Do you consider yourself to be a spiritual or religious person?"
 - Importance "What importance does faith have in your life?" "Have your be liefs influenced the way you take care of yourself and your illness?" "What role do your beliefs play in regaining your health or dealing with debility?"
 - Community "Are you a part of a spiritual or religious community (church, temple, masjid, synagogue, sangha, etc.)?" "Is this of support to you and how?" "Is there a group of people you really love or who are important to you?"
 - Address "Would you like me to address these issues in your health care (re ferral to hospital chaplain, speak to pastor, etc.)?"
 - Assess patient's safety: Able to drive home? Someone at home to provide support?
 - Provide reassurance and hope: "I'm pretty sure we can control your illness." "I don't think your illness is curable, but I will do my best to control any symptoms such as pain that you are having." Do not remove hope (e.g., "There's nothing more we can do.")
 - Be prepared to repeat bad news in future visits

REFERENCES

- Sullivan AM, Warren AG, Lakoma MD, Liaw KR, Hwang D, Block SD. End-of-life care in the curriculum: a national study of medical education deans. Acad Med. 2004;79(8):760-8.
- Billings ME, Engelberg R, Curtis JR, Block S, Sullivan AM. Determinants of medical students' perceived preparation to perform endof-life care, quality of end-of-life care education, and attitudes toward end-of-life care. J Palliat Med. 2010;13(3):319-26.
- Fraser HC, Kutner JS, Pfeifer MP. Senior medical students' perceptions of the adequacy of education on end-of-life issues. J Palliat Med. 2001;4(3):337-43.
- Hafferty FW, Franks R. The hidden curriculum, ethics teaching, and the structure of medical education. Acad Med. 1994;69(11):861-71.
- Vail L, Sandhu H, Fisher J, Cooke H, Dale J, Barnett M. Hospital consultants breaking bad news with simulated patients: an analysis of communication using the Roter Interaction Analysis System. Patient Educ Couns. 2011;83(2):185-94.
- Krupat E, Pelletier SR, Chernicky DW. The third year in the first person: medical students report on their principal clinical year. Acad Med. 2011;86(1):90-7.
- Carver R, Gallagher T. A new path to the waterfall: Poems. New York: Atlantic Monthly Press; 1989.
- Puchalski C, Romer AL. Taking a spiritual history allows clinicians to understand patients more fully. J Palliat Med. 2000;3(1):129-37.
- Emanuel L, von Guten C, Ferris F. EPEC Participant's Handbook. Princeton: Robert Wood Johnson Foundation; 1999.
- Fortin AH, VI, Dwamena F, Frankel R, Smith RC. Smith's Patient-Centered Interviewing: An Evidence-Based Method. Third ed. New York: McGraw-Hill; 2012.
- Buckman R. How to Break Bad News: A Guide for Health Care Professionals. Baltimore: Johns Hopkins University Press; 1992. p. 65-97.
- Fortin AH, VI, Haeseler FD, Angoff N, Cariaga-Lo L, Ellman MS, Vasquez L, et al. Teaching pre-clinical medical students an integrated approach to medical interviewing: half-day workshops using actors. J Gen Intern Med. 2002;17(9):704-8.
- Han PKJ, Keranen LB, Lescisin DA, Arnold RM. The palliative care clinical evaluation exercise (CEX): an experience-based intervention for teaching end-of-life communication skills. Acad Med. 2005;80(7):669-76.
- Reisman AB, Stevens DL, editors. Telephone Medicine: A Guide for the Practicing Physician. Philadelphia: American College of Physicians; 2002.

- Ellman MS, Rosenbaum JR, Bia M. Development and implementation of an innovative ward-based program to help medical students acquire end-of-life care experience. Acad Med. 2007;82(7):723-7.
- Pope C, Ziebland S, Mays N. Qualitative research in health care. Analysing qualitative data. BMJ. 2000;320(7227):114-6.
- Ellman MS, Rosenbaum JR, Cherlin E, Bia M. Effectiveness of an integrated ward-based program in preparing medical students to care for patients at the end of life. Am J Hosp Palliat Care. 2009;26(1):18-23.
- Fortin AH, VI. Communication skills to improve patient satisfaction and quality of care. Ethn Dis. 2002;12(4):S3-58-61.
- Fortin AH, VI, Haeseler FD, Angoff N, Cariaga-Lo L, Ellman MS, Vasquez L, et al. Teaching pre-clinical medical students an integrated approach to medical interviewing half-day workshops using actors. J Gen Int Med. 2002;17:704-8.
- Stewart MA. Effective physician-patient communication and health outcomes: a review. CMAJ. 1995;152(9):1423-33.
- 21. Fallowfield L, Jenkins V. Communicating sad, bad, and difficult news in medicine. Lancet. 2004;363(9405):312-9.
- Engel GL. The need for a new medical model: a challenge for biomedicine. Science. 1977;196(4286):129-36.
- Friedrichsen M, Milberg A. Concerns about losing control when breaking bad news to terminally ill patients with cancer: physicians' perspective. J Palliat Med. 2006;9(3):673-82.
- Medical College of Wisconsin Palliative Care Pocket Card: Medical College of Wisconsin Palliative Care Center [Internet]. [cited 2012 Mar 12]. Available from: http://www.mcw.edu/palliativecare/pocketcards.htm.
- Weissman DE, Quill TE, Block SD. Missed opportunities in medical student education. J Palliat Med. 2010;13(5):489-90.
- Janssen AL, Macleod RD, Walker ST. Recognition, reflection, and role models: critical elements in education about care in medicine. Palliat Support Care. 2008;6(4):389-95.
- Meitar D, Karnieli-Miller O, Eidelman S. The impact of senior medical students' personal difficulties on their communication patterns in breaking bad news. Acad Med. 2009;84(11):1582-94.
- Krasner MS, Epstein RM, Beckman H, Suchman AL, Chapman B, Mooney CJ, et al. Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. JAMA. 2009;302(12):1284-93.
- Cohen PA, Fortin AH, VI. Curriculum of literature and medicine for residents. Acad Med. 1999;74(5):578-9.

- Torke AM, Quest TE, Kinlaw K, Eley JW, Branch WT, Jr. A workshop to teach medical students communication skills and clinical knowledge about end-of-life care. J Gen Intern Med. 2004;19(5 Pt 2):540-4.
- Smith RC, Dwamena FC, Fortin AH, VI. Teaching Personal Awareness. J Gen Intern Med. 2005;20(2):201-7.
- 32. Rosenbaum ME, Ferguson KJ, Lobas JG. Teaching medical students and residents skills for delivering bad news: a review of strategies. Acad Med. 2004;79(2):107-17.
- 33. Lienard A, Merckaert I, Libert Y, Bragard I, Delvaux N, Etienne AM, et al. Is it possible to improve residents breaking bad news skills? A randomised study assessing the efficacy of a communication skills training program. Br J Cancer. 2010;103(2):171-7.
- Alexander SC, Keitz SA, Sloane R, Tulsky JA. A controlled trial of a short course to improve residents' communication with patients at the end of life. Acad Med. 2006;81(11):1008-12.
- Dosanjh S, Barnes J, Bhandari M. Barriers to breaking bad news among medical and surgical residents. Med Educ. 2001;35(3):197-205.