A Division of Medical Communications in an Academic Medical Center’s Department of Medicine
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Abstract
Excellent physician communication skills (physician-to-patient and patient-to-physician) have been found to have a positive impact on patient satisfaction and may positively affect patient health behaviors and health outcomes. Such skills are also essential for accurate, succinct, and clear peer-to-peer (physician-to-physician), physician-to-lay-public, and physician-to-media communications. These skills are not innate, however; they must be learned and practiced repeatedly. The Division of Medical Communications (DMC) was created within the Department of Medicine at Brigham and Women’s Hospital as an intellectual home for physicians who desire to learn and teach the wide variety of skills needed for effective communication.

In this Perspective, the authors provide an overview of the key types of medical communications and share the DMC model as an innovative approach to providing expert guidance to physicians and physicians-in-training as they develop, practice, and refine their communication skills. Current DMC projects and programs include a Volunteer Patient Teaching Corps, which provides feedback to medical students, residents, and faculty on communication skills; a controlled trial of a modified team-based learning method for attending rounds; expert coaching in preparation for presentations of all types (e.g., grand rounds; oral presentations or poster presentations on basic science, clinical, or medical education research); sessions on speaking to the media and running a meeting well; and courses on writing for publication. Objective assessment of the impact of each of these interventions is planned.

Excellent physician communication skills (physician-to-patient and patient-to-physician) have been found to have a positive impact on patient satisfaction and may positively affect patient health behaviors and health outcomes.1–12 These skills are also essential for accurate, succinct, and clear peer-to-peer (physician-to-physician), physician-to-lay-public, and physician-to-media communications.13–20 The skills required for effective medical communications are not innate, however; they must be learned and practiced repeatedly.

To address physicians’ need for communication skills training at Brigham and Women’s Hospital, we recently founded the Division of Medical Communications (DMC) in the Department of Medicine. In this Perspective, we begin by briefly describing four key types of medical communications and then provide an overview of efforts at other U.S. academic medical centers. We conclude by outlining the DMC’s mission, structure, members, and programs, and the outcomes we plan to track to assess effectiveness.

Key Types of Medical Communications
Physician-to-patient and patient-to-physician communication
Most academic work in the field of medical communications has been at the physician–patient interface. In a 1926 speech to Harvard medical students, Dr. Frances Weld Peabody encapsulated the importance of communicating well: “One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient.”21 Studies have shown that communicating well with patients eases their physical and mental burdens, speeds healing, and aids adherence to prescribed treatments.1–12

In 1978, Benarde and Mayerson22 suggested patient–physician negotiation, in which the physician and patient are “active and equal participants,” as a method for enhancing patient–physician dialogue and patient compliance. A basic tenet of this process is making the patient “believe that he is an independent, worthy person entitled to the most clearly stated information possible.” The physician is encouraged to be responsive to questions and to sit face-to-face with the patient to improve eye contact and assess the patient’s response to instructions or explanations. Communication with the patient is viewed as “a circular event”; closing the circuit requires feedback ideally both from the patient to the physician and from the physician to the patient.

Communication skills need to be taught to doctors-in-training by faculty as well as by patients. These skills should be viewed as a crucial part of training in medical school and residency. In a 1994 study in an ambulatory clinic setting, McLeod et al23 found that residents who were rated highly by patients on satisfaction were also rated highly by faculty on humanism, and that the two types of ratings were strongly correlated. More recently, Joyce et al24 outlined a successful collaboration by the Henry Ford Health System’s Graduate
Medical Education Office and its Office of Clinical Quality and Safety to design a communication skills curriculum. This curriculum used objective structured clinical examination scenarios adapted from sentinel events that focused on aspects of “quality of care, patient safety, and interpersonal and communication skills.” Residents from multiple residency programs self-assessed their performance and received feedback from standardized patients and from faculty after direct observation of their skills. In another recent study, Stewart et al.24 explored whether residents focused more on the illness and less on the patient’s point of view as they moved through their residency programs. They showed that residents’ mean scores on an outpatient clinic patient satisfaction survey assessing the residents’ personal manner, technical skills, and communication skills stayed relatively stable from year 1 to year 3 of their residency. This finding indicates that residents can remain strong communicators as they move up the training ladder and not lose their focus on patients’ concerns.

The 2001 Institute of Medicine report Crossing the Quality Chasm specifically identified personal “continuous healing relationships” between providers and patients as the basis for quality health care, noting that care does not consist of “just face-to-face visits” but also the provider’s responsiveness to the patient’s needs and the patient’s “access to care” (including via the telephone or Internet).25 Before the publication of this landmark report stressing the essential importance of communication between doctor and patient, the Association of American Medical Colleges (AAMC) Medical School Objectives Project in 1999 urged medical school faculty to teach communication skills actively.26 In response to the AAMC’s call to action, the American Academy on Physician and Patient organized a physician–patient communication skills conference in 2002 at the Fetzer Institute in Kalamazoo, Michigan. The resulting “Kalamazoo II” report defined communication as follows:

Specific tasks and observable behaviors that include interviewing to obtain a medical history, explaining a diagnosis and prognosis, giving therapeutic instructions and information needed for informed consent to undergo diagnostic and therapeutic procedures, and providing counseling to motivate participation in therapy or to relieve symptoms.27 That conference also focused on interpersonal skills, which the Kalamazoo II report authors defined as “the effect of communication on another person.”27

Key interpersonal skills include:

1) respect, including treating others as one would want to be treated; (2) paying attention to the patient with open verbal, nonverbal, and intuitive communication channels; (3) being personally in the present in the moment with the patient, mindful of the importance of the relationship and (4) having a caring intent, not only to relieve suffering but also to be curious and interested in the patient’s ideas, values, and concerns.27

Epstein and Hundert28 stressed that “measurable patient-centered (or relationship-centered) behaviors include responding to patients’ emotions and participatory decision making.” In addition, they indicated that the ability to make real-time adjustments to the therapeutic relationship through self-awareness, self-reflection, and monitoring is important. The positive behaviors emphasized by Epstein and Hundert are similar to those labeled as the “key elements of physician communication” and organized into the Kalamazoo Essential Elements checklist, which can be used to evaluate the following physician–patient interactions: building the relationship, opening the discussion, gathering information, understanding the patient’s perspective, sharing information, reaching agreement, and providing closure.29

Over the past 20 years, evidence-based studies have demonstrated the utility of strong communication skills in developing the therapeutic relationship needed for patient satisfaction.3,5-12 For example, Chen et al. found that explaining possible treatment options and potential complications for patients with a new breast cancer diagnosis was associated with improved patient satisfaction. In another example, Schoenthaler et al.21 evaluated the effect of patient perceptions of provider communication on medication adherence among more than 400 African American patients with poorly controlled hypertension in community-based health care practices in the New York metropolitan area. In this study, patients rated their providers’ communication via a questionnaire, and patients’ medication adherence was measured with the Morisky self-report measure. Communication rated as collaborative was associated with better medication adherence ($P = .03$). Schoenthaler et al.21 concluded that “the quality of patient–provider communication is a potentially modifiable element of the medical relationship that may affect health outcomes.” Such studies led the Accreditation Council for Graduate Medical Education in 2010 to mandate that residency programs teach and assess interpersonal and communication skills during residency training.30

Examples of the impact of positive physician–patient communication abound.3,4 For instance, in a study of 2,000 patients receiving diabetes care across 25 Veterans Affairs sites, investigators found that patient evaluations of physicians’ communication and of their participatory decision-making style were both strongly associated with patients’ reported diabetes management outcomes, even after controlling for patient sociodemographic and health variables such as age and health status.6

Studies have also demonstrated that medical communication skills can be improved through training.4,12,13,31 For example, Yedidia et al.31 found medical students’ communication performance to be significantly enhanced through the use of established educational models for teaching and practicing core communication skills and by engaging students in self-reflection on their performance. Results have been mixed in studies about communication skills training and objective measures of improved outcomes in patients with cancer, however.6,11 Yet, a recent systematic review and meta-analysis showed a positive and significant association between higher levels of clinician warmth and listening skills and the satisfaction of patients with a cancer diagnosis.32

A 2012 Cochrane review32 based on 43 randomized trials of “patient-centred approaches to care delivery” concluded that these types of interventions, including training sessions shorter than 10 hours, were effective in giving providers the skills they needed to be more patient-centered. (This finding was in contrast to the 2001 Cochrane review of the same topic.31) The 2012 review concluded32:
There is some indication that complex interventions directed at providers and patients that include condition-specific educational materials have beneficial effects on health behaviour and health status, outcomes not assessed in studies reviewed previously [in 2001].

That review’s conclusion is supported by “The Right to Health” toolkit for health professionals sponsored by the British Medical Association and the Commonwealth Medical Trust. This resource indicates that where health professionals take time to listen to patients, sympathetically discuss their fears and concerns, and provide relevant information in a supportive and caring manner, health outcomes and patient satisfaction are improved.

Physician-to-physician (peer-to-peer) communication

Duty hours reform has given rise to new communication problems between and among physicians. Issues related to “patient handoffs” have been the focus of some recent studies. Handoffs are meant to provide continuity of care and high-quality and safe decision making. However, studies have identified communication errors stemming from inadequate transmission of key pieces of clinical information and data about the patient and insufficient face-to-face and/or written communication between cross-covering physicians; these errors increase the risk of adverse events. For example, a study from the University of Chicago pediatric service demonstrated that “the item that postcall interns expected on-call interns to perceive as the most important was not perceived as such by the on-call interns for 60% of the patients.”

Following a focused review of papers on “handoffs in the era of duty hours reform,” DeRienzo et al, from the Duke University Health System, recommended three practical handoff management “principles”:

1. Physicians need formal didactic and interactive training in handoffs, and
2. Face-to-face, uninterrupted communication combining verbal and written or electronic handoff information is best, and
3. Data must be unambiguous and factually correct.

Using findings from this literature review, a Duke University Health System taskforce established “Handoff Core Content Guidelines” and added requirements for formal training in and evaluation of handoffs for all residents. DeRienzo et al indicated that they hope to be able to demonstrate improvement—fewer inadequate sign-outs and progressive development of handoff competency skills.

Starmer et al recently published a prospective study on a “resident handoff bundle” intervention, which consisted of “standardized communication and handoff training, a verbal mnemonic, and a new team handoff structure.” To determine whether the intervention could help decrease medical errors and preventable adverse events, they examined 1,255 patient admissions involving 84 resident physicians (42 residents pre- and 42 residents post-intervention) on two pediatric inpatient units at Boston Children’s Hospital. They found significant decreases in medical errors (P < .001) and preventable adverse events (P = .04) following the intervention.

Another type of physician-to-physician communication undergoing study is consultation with specialists. In Canada, the Web-based Champlain BASE service focuses on “building access to specialists through e-consultation” by enabling primary care physicians to send questions about patient problems to specialist consultants along with uploads of patient test results (e.g., X-ray images, laboratory tests). The service’s standardized electronic form makes the process streamlined and effective. There is a one-week time frame for the specialist to respond to the provider’s question, request more information, or recommend referring the patient to a specialist.

Physician-to-lay-public communication

Targeted messages are educational messages designed to reach subgroup populations based on an understanding of the knowledge and attitudes of the community being targeted. Targeted messages are distinguished from tailored messages, which are directed at individuals. At the Northwestern University Feinberg School of Medicine, Cameron et al identified key issues for targeted message design in order to improve disparities in colorectal cancer screening. To promote screening among patients with an expired colonoscopy order, they conducted patient outreach efforts: An educational brochure and DVD explaining colorectal screening was mailed, and patients received a follow-up phone call that asked about receipt of the materials and whether the patient had read the brochure and/or watched the DVD. Their randomized controlled trial using this targeted, multifaceted intervention showed a small but statistically significant improvement in screening rates at the three-month mark among the intervention group compared with the control group that received usual care (P = .001).

More recently, Cameron et al explored the optimal design of public education materials. They showed that messages concerning influenza vaccination that contain both facts and myths, as well as evidence to discount the myths, are useful in increasing patients’ knowledge about influenza vaccination and may engage patients more than messages that contain facts alone. The authors noted that recognizing and confronting these myths head-on may serve to increase both patients’ knowledge about a health topic, as well as their ability to accurately distinguish and remember both mythical and factual information when exposed to it at a later time.

Physician-to-media communication

On January 8, 2011, U.S. Representative Gabrielle Giffords was shot in the head while at an event with constituents in Tucson, Arizona. Later, Dr. G. Michael Lemole, Jr, chief of neurosurgery at the University of Arizona Medical Center, provided the press with lucid explanations of the surgery he had performed on Giffords. We transcribed the following excerpt from a video of his April 16, 2011, presentation to the Association of Health Care Journalists in Philadelphia, Pennsylvania:

"Let me talk about briefly what we did here. We did something called a decompressive craniectomy…. The whole idea there … and I kid with my residents, is to “pop” the top of the skull, basically take part of the skull off and let the swollen brain relax…. It’s like taking a dry sponge and dropping it in water, it’s going to swell…. But at the end of the day, if you’re faced with a brain that is swollen during surgery, you can’t put that bone back in. You don’t want to plug a “shoehorn” in and try to help that. That’s not going to help."
In this short but effective description of a decompressive craniectomy, Lemole used analogies so the audience could readily understand what was done; he also used schematic diagrams to illustrate what he was saying. His presentation serves as an ideal model for communicating with the press.

Given the public’s interest in medical matters, physicians may need to learn how to collaborate with the lay media to provide information for delivery in print, audio, or video formats. When presenting to an audience of fellow scientists, it behooves the physician to build up the work logically, one deduction or observation at a time. However, the lay media are usually only interested in the final message. A physician who works with the media needs to learn to boil information down to a sound bite that conveys what he or she considers to be the single most important message in such a way that the audience will receive the intended key message.

**A Focus on Medical Communications: Examples From Other Institutions**

Several other U.S. institutions have focused on medical communications, each in a different manner from that of the DMC at Brigham and Women’s Hospital. Below, we provide a few examples:

- At Northwestern University Feinberg School of Medicine, the Department of Medicine’s Division of General Internal Medicine and Geriatrics has established a Health Literacy and Learning Program to “advance the study of limited health literacy and interventions that could improve one’s ability to obtain, process, and understand basic information needed to make appropriate health decisions.”

- Johns Hopkins Bloomberg School of Public Health offers to all Johns Hopkins University graduate students the option of completing a certificate in health communication. This program covers both theoretical and applied communication and teaches students to design and evaluate “communication messages, campaigns and programs.” Students who complete the certificate are expected to achieve the following competencies: “(1) awareness of behavior change and communication theories; (2) knowledge of media effects and audiences’ uses of media/communication modes; and (3) recognition of quantitative and qualitative methods used in the study of Health Communication.”

- The University of Rochester Department of Family Medicine has established a Center for Communication and Disparities Research. The mission of this center is “to improve health, advance health care quality, and eliminate disparities in health and health care.”

- Case Western Reserve University School of Medicine offers courses on communication skills, professionalism, and humanism in medicine.

- The Centers for Disease Control, in conjunction with the Rollins School of Public Health at Emory University, offers a course to provide public health professionals with continuing education on health literacy.

**Our Division of Medical Communications**

Physicians spend a large fraction of their time communicating information to various audiences. To be effective, they should plan these communications ahead of time and customize them for the recipients. The skills required to do this are not innate but, rather, must be learned and practiced repeatedly. We believe that a well-rounded physician must be able to communicate with patients, discuss patient issues with peers, and provide effective messages to the lay public and to the media. Therefore, in 2010, we founded the DMC in the Department of Medicine at Brigham and Women’s Hospital as a place where physicians, fellows, residents, and medical students can seek expert advice and learn or improve their skills in the four key medical communications areas we described above: physician-to-patient/patient-to-physician, physician-to-physician, physician-to-lay-public, and physician-to-media. In addition, through participating in the DMC’s research and hands-on demonstration projects, physicians and physicians-in-training can acquire the knowledge and insight required to advance the art and science of medical communications at our teaching hospital, at Harvard Medical School, and at national and international levels.

**Organization**

We chose to establish the DMC in the Department of Medicine, given the breadth and depth of the department’s faculty, the size of its pool of trainees, and its resources (financial and otherwise). Historically, the Department of Medicine has served as an incubator for new academic structures at the Brigham and Women’s Hospital until these initiatives can establish their own broad institutional and economic support. Other divisions that began in this department include Global Health Equity, Pharmacoepidemiology, and Network Medicine. Our initiative also makes a scholarly connection with the department by helping physicians and physicians-in-training establish new methods of teaching and communication, apply for grant funding, and prepare to present their findings at local, regional, and national meetings and in publishable form. In terms of structure, the DMC allows its members (described below) to focus on their broad interests without having to consider competing interests, as might occur were there a separate medical communications department or an interdepartmental medical communications program. We anticipate that as the DMC demonstrates success, its influence and initiatives will expand hospital-wide. To our knowledge, there is no equivalent structure, with all the facets of communication represented by the DMC, in other U.S. teaching hospitals or MD-granting medical schools.

The DMC has more than 50 members. Four of the members are faculty who split their time between the DMC (as 0.5 or 0.75 full-time equivalents) and another division in the Department of Medicine. Approximately 50 members are department faculty who serve as expert consultants in different areas of communications. Funding for the four part-time faculty salaries is provided by the department, and three of these faculty members also have medical communications research grants from hospitals or independent funding agencies. The consultant members do not receive a salary for their participation in DMC activities.
Table 1
Selected Programs and Projects of the Division of Medical Communications in the Department of Medicine at Brigham and Women’s Hospital, 2010–2014

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<th>Type of communication</th>
<th>Program/project</th>
<th>Support/expenses</th>
<th>Anticipated outcomes</th>
<th>Current and planned metrics</th>
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| Physician-to-patient and patient-to-physician | Volunteer Patient Teaching Corps | • Administrative assistant helps organize patient sessions  
• Patient parking and mileage costs are reimbursed | • Increased student and patient satisfaction  
• Improved student and physician communication skills | • Higher (Likert scale) anonymous student satisfaction ratings of Introductory Abdominal Examination session using volunteer patients compared with student satisfaction ratings of all other Introductory Physical Examination sessions that do not use volunteer patients  
• Improved patient satisfaction surveys |
| Medical grand rounds with patient participation that incorporate communication skills and pearls. Examples:  
• A medical student’s discussion of her illness and physicians’ communication skills  
• Deconstructing and learning from successful doctor–patient relationships  
• An acute coronary syndrome: pathophysiology of coronary artery disease and its significance from the patient’s perspective | Patient parking and mileage costs are reimbursed | Improved physician communication skills, empathy, and recognition of the importance of body language | Higher (Likert scale) satisfaction scores for this type of grand rounds compared with grand rounds without patients: achieved in 2013 |
| Physician-to-physician | Controlled trial of modified team-based learning method on attending rounds | Administrative assistant for this IRB-approved study sends survey tool to each resident and medical student after rounds; forwards completed surveys to statistician for statistical analysis | Improved evaluation scores for higher educational yield and engaging learning on attending rounds | • Higher (Likert scale) ratings of educational satisfaction with attending rounds of this type compared with the usual type: achieved in 2013  
• Better trainee and attending morale |
| Coaching and rehearsals for talks, scientific and poster presentations, and small-group, case-based sessions | Administrative assistant for this IRB-approved study schedules appointments for interested faculty, residents, and fellows | Improved confidence and ability to answer questions while at the podium, at poster, or in small-group sessions | Higher (Likert scale) satisfaction scores for speaker evaluations when coaching has been provided |
| Running a Meeting Well | Administrative assistant organizes this session with expert consultants | Increased knowledge of how to prepare and run a meeting | • Improved leadership skills for attendees in the future as evidenced by increased leadership positions and opportunities offered  
• Increased accomplishment of meeting goals  
• Better rating of meeting on a Likert scale survey  
• Better meeting attendance |
| Physician-to-media | Tips on Speaking to Media During Disasters | Administrative assistant organizes sessions for faculty and residents | Improved public respect and satisfaction | Increased positive comments in lay press and blogs about physicians: occurred in 2013 after the Boston Marathon bombings when physicians spoke extensively to the press |

Abbreviation: IRB indicates institutional review board.
Among the DMC’s four part-time faculty members, one is an editor of a medical journal (J.D.), two are involved in continuing medical education initiatives and postgraduate courses (Graham McMahon [G.M.], H.S.), two are course directors for required Harvard Medical School second-year pathophysiology courses (G.M., H.S.), and three are actively engaged in a variety of institutional review board–approved medical communications research projects (James Colbert, G.M., H.S.).

Programs, projects, and outcome measures
The DMC’s programs and projects serve a full range of communication training needs, and they differ in breadth and scope from the efforts of other institutions’ medical communications centers. In addition, we consistently emphasize the measurement of concrete patient and physician outcomes. Among our current programs and projects are the Volunteer Patient Teaching Corps, which provides feedback to medical students, residents, and faculty on their communication skills; a controlled trial of a modified team-based learning method for attending rounds; coaching for presentations of all types (e.g., grand rounds; oral clinical, medical education, or basic science research presentations or poster presentations at local, regional, and national meetings); sessions on speaking to the media and running a meeting well; and courses on writing for publication. Selected examples in Table 1 highlight the breadth and scope of the DMC programs offered from 2010 to 2014 as well as the outcomes and measures we plan to use to determine their effectiveness.

In Sum
The DMC provides an intellectual home for physicians who desire to learn and teach the wide variety of skills needed for effective medical communications. Our faculty and consultant members offer guidance to physicians and physicians-in-training who are just learning these skills as well as critiques of the work produced by individuals with advanced skills. Further, we endeavor to determine whether our interventions actually improve a measurable skill, attitude, or other outcome. By drawing faculty and consultants from across the Department of Medicine, the DMC has the strength and diversity necessary to help everyone in the department achieve their communication needs and goals. The programs and services we offer—including courses, hands-on mentoring, listening, guidance, rehearsals, remediation, curricula, and outreach efforts—will be dictated and modified through our assessments of the impact of our interventions on measurable outcomes. We plan to track carefully the DMC’s efforts in order to determine what tangible and practical impact our interventions have on improving medical communications at our institution over the coming years. Our planned areas of study include patient and physician satisfaction with the quality of medicine practiced, health outcomes and health behaviors, and physician career advancement.

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