DEFINING THE SKILLS UNDERLYING COMMUNICATION COMPETENCE

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Although few would debate that doctors should communicate effectively with their patients, good communication often is regarded as a luxury that today's busy physician cannot afford. Furthermore, it is a common belief that good communicators are born, not made, and that in the long run, it is more important to be a skilled technician.

In reality, communication skills must be learned, practiced, and maintained [1–6], like all other essential skills of the clinician. Once mastered, effective communication does not add significant time to the patient visit, and in some cases, may actually save time [2,7,8]. Evidence shows that many patient, provider, and health system benefits can result from the combination of clinical expertise and effective communication, including greater patient and physician satisfaction [9–11], greater patient understanding and acceptance of treatment plans [12,13], reduced patient distress [13,14], and fewer lawsuits [15]. Furthermore, interventions to improve physician-patient communication can lead to better patient self-management of diabetes [16,17], reduced postoperative morbidity [18], and greater coping and quality of life in cancer [14,19].

However, physicians often do not communicate effectively with their patients. Common communication deficiencies include interrupting patients in the earliest phases of the encounter [20,21], failing to identify and prioritize all concerns before focusing the discussion [20,22], missing opportunities to understand and acknowledge the patient's ideas and feelings [23,24], and minimizing the patient's role in treatment planning [25,26].

In an effort to address concerns that new physicians lack communication and other skills needed for effective practice, the Accreditation Council for Graduate Medical Education (ACGME) has outlined competencies residents must demonstrate in order to be deemed ready to meet the health care needs of patients and society. Residency programs must certify that their graduates demonstrate competence in six key areas, two of which embody specific skills important for conducting effective patient encounters [27]. Although there is little dispute over the general principles underlying the communication competencies, important questions have been raised regarding which skills residents should learn and how programs should assess them [D Girard, oral communication, May 2002].

This article seeks to define the skills underlying the ACGME competencies for communicating with patients. These skills are discussed as they might be used in clinical practice, not as they are presented in the ACGME competencies. Skills for communicating with professional associates, individually or in teams, are included in the ACGME communication competencies but are beyond the scope of this review.

Overview of Educational Models

Research in physician-patient communication has identified specific communication behaviors associated with improved health outcomes. Various teaching models organize these research observations into a conceptual framework to help physicians learn, recall, and practice the behaviors as clinical skills. Examples of teaching models include the Patient-Centered Clinical Method [28], the Three Function Model [29], the 4E Model [30], and the Five-Step Patient-Centered Interviewing Method [31]. In addition, the Calgary-Cambridge Observation Guide [32] and the SEGUE Framework for Teaching and Assessing Communication Skills [33] include observer rating scales for formative and summative assessment. These various teaching models differ primarily in vocabulary and emphasis. Because they all draw on the same evidence base, there is considerable overlap in the concepts and skills they promote.

In 1999, a group of medical educators met to examine the models for teaching communication skills and to identify areas of commonality. Representatives from five of the six models provided explicit descriptions of the research base, underlying assumptions, and current applications of each model. In addition, attendees from

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Table 1. ACGME Communication Competencies Relevant to Patient Encounters

ACGME Communication Competencies*	Essential Elements of Communication in Patient Encounters†
Create and sustain a therapeutic relationship	Establish and maintain a personal connection
Demonstrate caring and respectful behaviors	Elicit patient's perspective: ask about function, ideas, feelings, and expectations
	Respond to expression of feelings with explicit empathic statements
	Express a desire to work with patient toward his or her greater health
Use effective listening skills	"Actively" listen, using nonverbal (eg, facial expression, posture) and verbal (eg, words of encouragement) techniques
Elicit information using effective nonverbal and questioning skills	Allow patient to finish an opening statement
Gather essential and accurate information about patients	Elicit a full set of concerns
	Agree on an agenda for the encounter
	Use open-ended questions to elicit and facilitate the patient's story of illness
	Use closed-ended questions to seek specific data
	Use summarizing and redirecting to announce transitions between different parts of the interview
Provide information using effective explanatory and writing skills	Determine what the patient already knows
Counsel and educate patients	Agree on medical terms and their meanings
	Check patient understanding and health literacy
	Refer patient to additional resources or information
Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences	Encourage patient participation in care plans to the extent he or she desires
	Explain choices, risks, and benefits in context of patient's goals and values
	Give advice, including personal biases
	Agree on "who will do what" throughout the care plan

ACGME = Accreditation Council for Graduate Medical Education.

*Data from [27].

†Data [34].

the ACGME, the Association of American Medical Colleges, and other academic organizations commented on criteria for teaching and assessing physician-patient communication. The group reached consensus on a list of "essential elements" of physician-patient communication that are appropriate for teaching and assessing communication competence (the Kalamazoo Consensus Statement) [34]. By expressing the essential elements as tasks rather than as specific skills, the group provided a clinical rationale for the use of these elements, with an understanding that as learners progress, they integrate basic skills into a broader repertoire of communication strategies. The essential elements of physician-patient communication outlined in the Kalamazoo Consensus Statement are presented in **Table 1** [27,34], matched with related ACGME communication competencies.

Skills Related to ACGME Competencies

Create and Sustain a Therapeutic Relationship/ Demonstrate Caring and Respectful Behaviors

Therapeutic relationships generate trust, partnership, and a sense of shared purpose between a physician and a patient [9,10,35]. Building a therapeutic relationship is an ongoing task throughout each encounter with a patient as well as over time. A strong therapeutic relationship depends on and promotes the use of effective communication skills. The Kalamazoo Consensus paper outlines four key communication skills for fostering a therapeutic relationship during each encounter: 1) establishing and maintaining a personal connection with the patient, 2) eliciting the patient's perspective on the problem that prompted the visit, 3) expressing empathy in response to patient cues, and 4) expressing a desire to work with the patient toward improved health [34].

Table 2. Eliciting the Patient's Perspective (FIFE)

F =	Function ("How does this affect what you can and can't do?")
I =	Ideas ("What do you think is wrong?")
F =	Feelings ("How are you holding up despite this?")
E =	Expectations ("What were you hoping I would do to help?")

Data from [28].

Make a personal connection with the patient. During the first few minutes of a visit, most patients seek signs that the physician will engage them personally, that is, greet them by name, look at them, smile, and acknowledge some shared experience [9,10]. A shared experience might be a remark about the weather or an update about a favorite interest or activity. A personal connection helps put patients at ease and makes them ready to exchange and recall information. It also signals that the physician is ready to listen, understand, and explain.

Elicit the patient's perspective on illness. A therapeutic relationship emphasizes not only the disease but also the patient's experience of illness. Before the visit, many patients will have consulted an informal health advisor or network and will have some ideas or concerns about what is wrong, what might happen to them, and what treatments they can expect [36,37]. Asking about these ideas or concerns, and about how the illness is affecting the patient, is a respectful and caring way to elicit the patient's perspective:

Dr: What do you think is wrong?
Pt: I don't know. You're the doctor, you tell me.
Dr: Sure, I'll tell you what I think, but it helps me to know what you've already learned about it, and how you think I might help.
Pt: Well, a friend of mine had back pain like this, and it went on for awhile, and then they found cancer in his back. I guess I was wondering about that.

The FIFE mnemonic outlines four areas key to understanding the patient's perspective, which are easily assessed during the history of present illness (**Table 2**) [28]. The FIFE mnemonic is a useful way to elicit the patient's perspective and to organize and remember the information that the patient provides.

Express empathy and support. Patients express feelings, verbally or nonverbally, throughout the encounter. Physicians usually convey empathy through vocal tone and facial expression, but they rarely make explicit empathy statements in response to patients' expressed feelings [21,24].

Table 3. Components of the Empathy Statement (NURS)

N =	Name the feeling ("You look [angry, frightened, sad, worried] about this."). Note that accurately naming the feeling is not critical, since patients will provide clarification, especially when asked, "Have I got that right?"
U =	Understand the feeling ("It's understandable you'd feel that way."). This is preferable to "I can understand," because some patients will reply "No you can't, unless you've been through this yourself."
R =	Respect the patient's attempts to cope ("You're doing the right thing by getting it checked out."). Note that any healthy response qualifies as coping; the default is coming in for help.
S =	Support and partner with the patient ("I'll make sure there's no evidence of cancer in your back."). Support and partnership, or expressing a desire to work together on a problem, is therapeutic.

Data from [31].

Dr: That sounds pretty scary.
Pt: Yeah, that's what I thought, too. I figured I better tell you.
Dr: I can see why you'd be worried. You're doing the right thing by getting it checked out. I'll make sure there's no evidence of cancer in your back.

The NURS mnemonic outlines four discrete components of the basic empathy statement (**Table 3**) [31]. Empathy statements have a strong positive impact on patient outcomes and do not prolong visit times [2,7,38].

Use Effective Listening Skills/Gather Essential and Accurate Information

Use nonverbal and verbal listening skills. Effective listening has both nonverbal and verbal components. Nonverbal components include minimizing physical barriers, optimizing space and distance, and attending to facial expression and posture [39–41]. In hospitals, physical barriers such as bed rails, tray tables, and televisions can be moved or silenced to minimize distance and reduce distractions. In outpatient settings, charts, computers, and pagers compete with patients for the physician's attention. Important nonverbal aspects of listening include remaining at eye level with the patient (usually by sitting), establishing frequent eye contact, and leaning forward to convey interest and caring [39–42].

Verbal components of effective listening follow a cyclic pattern of "invite, listen, summarize" [F Platt, oral communication, September 2001]. Most invitations are

open-ended questions ("What can I help you with today?") that encourage patients to talk. Listening requires silence, curiosity about the patient's experience, and attention to symptoms, ideas, feelings, and values. Summaries are opportunities to pause and review what the physician has understood so far, and to check its accuracy with the patient.

Allow the patient to complete an opening statement. In a 1984 study, Beckman and Frankel [20] found that physicians interrupted patients an average of 18 seconds into the opening statement. The most common interruption was a request for details; however, once interrupted, patients rarely returned to their opening statement. Uninterrupted patients talked for an average of 90 seconds, and no patient talked for more than 2 minutes. A second study 15 years later showed that time to interruption remains short at 22 seconds [43]. The authors of this study concluded that interruptions inhibited rather than enhanced data gathering, and they recommended that physicians let patients talk without interruption for a few minutes. This brief period of listening allows physicians to observe how patients organize and report information and to demonstrate that they are ready to listen and help.

Agree on an agenda for the visit. A major impediment to collecting essential and accurate information during a visit is a failure to negotiate a consensual agenda. For example, in the 1984 study by Beckman and Frankel [20], patients had an average of 3.7 questions, concerns, or requests per visit. Physicians often mistakenly identified the first issue raised by the patient as the chief complaint or main focus of the visit. Issues of greater importance to either the patient or the physician were ignored or identified later, leading to unnecessary prolongation of the visit. Other investigators have found that eliciting and prioritizing the issues early in the visit, even if no specific actions result during the encounter, reduces patient distress and the frequency of end-of-visit requests for "just one more thing"[8,19].

Dr: So there are four things today—worse knee pain, a cough with wheezing, adjusting your water pills, and checking your cholesterol. You said the knee pain is most important to you, and the cough is most important to me. I want to make sure we use the time we have wisely. Let's take care of those two things today, and we can get started on the others with some routine lab tests. That way I can do justice to all of them.

Elicit information using effective nonverbal and questioning skills. Guiding the interview involves facilitating the patient's narrative (illness story) while generating and testing diagnostic hypotheses. Patient narratives give reliable, valid information about symptoms, and relating the narrative is itself therapeutic [36]. Physicians elicit narratives with open-ended questions ("Tell me more about that") and facilitation ("uh huh," head nod, expectant silence) [44,45]. The physician's job is to translate the narrative into a medical and social history and set of diagnostic hypotheses. Once the narrative no longer produces new information, physicians can use closed-ended (yes/no or short-answer) questions to test hypotheses and characterize specific symptoms. Physicians commonly resort to a high control style interview [21] dominated by physician questions aimed at getting all the data. Patients end up feeling that the physician does not listen or care, and they stop volunteering new information. The threat can be minimized by explaining the process to the patient:

Dr: You probably have some things to tell me about your back pain, and I'll probably have some questions for you. Why don't you go first?

Summarize and redirect the interview. In practice, most interviews consist of multiple narrative-to-inquiry sequences. Transitions between sequences are most effectively accomplished by summarizing and redirecting, or by announcing the transitions:

Dr: I'm going to shift gears now and ask you about any diseases that run in your family.

Provide Information and Education

Most patients want more information from their physicians than they are currently receiving [25]. Patients who receive information are more satisfied, even when they do not participate in treatment decisions [46,47]. Information can decrease the sense of helplessness and isolation that accompanies illness and can increase patients' ability to understand and adhere to treatment plans [48,49].

Physicians overestimate the time they spend giving information to patients [25]. At the same time, patients forget much of what physicians tell them during a typical encounter [50]. The goal is not to spend more time but to develop a systematic approach to giving information (**Table 4**) [36,37,51–53]. The success of any approach depends on appropriate prior use of relationship-building, listening, and information-gathering skills.

Make Informed Decisions Regarding Care Plans with Patient Input

Patients who want information do not necessarily want to participate in decisions regarding their own care.

However, patients who have an active role in care planning have better outcomes than patients who do not play a role in such planning [54]. Many patients simply prefer an overview of the options, including risks and benefits, and a recommendation about which option is best for them and why. As in information giving, it is wise to ask patients about their preferences for participating in decisions regarding their care.

Successful care planning begins with a shared understanding of the nature of the patient's problem, the goals and methods of its management, and the likely outcomes for each method. Effective care plans also involve agreeing on medical terms and their meanings and making explicit the values and beliefs that guide decisions [55]. When management involves a procedure and the patient has decision-making capacity, institutional guidelines for informed consent must be followed. At a minimum, informed consent involves a description of the procedure, risks, and alternatives (including no procedure or treatment) [56]. Patients should have the opportunity to ask and receive answers to questions as they weigh management decisions. Decision aids are available to help physicians minimize the biases inherent in presenting choices and to help patients quantify their preferences; however, few have gained wide acceptance [57].

Nonadherence. Nonadherence is not specifically addressed in the communication competencies but is strongly linked with physician-patient communication [9,49,58]. Nonadherence, especially for prescription medications, is a major clinical and economic problem in the United States. Prescription underuse is 40% or more for diabetes, hypertension, and arthritis, and 20% to 30% for asthma and anticoagulation [59]. One-third or more of prescriptions are never filled; common reasons include concern about side effects, efficacy, and cost [60]. Once prescriptions are filled, major factors influencing adherence are the patient's perception of the seriousness of the illness and the efficacy of the prescribed treatment, the chronicity of the illness and treatment, and the quality of the physician-patient relationship [61]. **Table 5** summarizes a general approach to successful longitudinal care planning to avoid various causes of nonadherence.

Closing the visit. Closure of the medical encounter (defined as the final goodbye) is interrupted at least one-third of the time, often by disclosure of a new problem [62]. Interruptions occur even when patients have been given an opportunity to disclose all of their concerns early in the visit. Communication skills for closing the visit include 1) briefly summarizing and affirming agreement on problems and plans, 2) affirming who will do what between this and the next visit, 3) reviewing whom to call if interim problems arise, and 4) thanking the patient for coming in [62].

Table 4. Approach to Providing Information

Ask first, then tell. Most patients have an informal health advisor (eg, a friend, family member, book, Web site) and come to the encounter with beliefs or concerns about what is wrong and what should be done. Ask about these things before giving information. Patients will be unable to listen to new information until they feel that they have been heard and understood [36,37,51].

Ask about information preferences. Some patients want detailed information about their disease and its treatment; others just want the "big picture." Others prefer that some information (eg, a diagnosis of cancer) be given to a family member [52]. Before giving information, assess patients' readiness to hear information by asking about their preferences.

Use everyday language. Avoid jargon, abbreviations, and acronyms when simpler words will suffice:

Dr: This medicine will help your arthritis. It can cause ulcers in some people. You had an ulcer before, so I'd also like you to take these medicines to remove a kind of bacteria that helps ulcers form.

Ask about health literacy. Most patients are reluctant to disclose their illiteracy and find ways to hide it [53]. Forecast questions about health literacy with a normalizing statement ("Some of my patients have trouble understanding the directions on prescription bottles. How about you?") or an invitation to help ("If you have any trouble reading that, give me a call and we can discuss it.").

Personalize information whenever possible. For example, individualize handouts by highlighting specific areas, or write down pertinent information for the patient to post in a highly visible area at home.

Pause occasionally to ask what the patient has understood so far. To check understanding at the end of the visit, ask how the patient will answer someone at home who asks "What did the doctor say?"

Direct the patient to additional sources of information. Hospitals and libraries can refer patients to nonprofit organizations, support groups, Web sites, and brochures.

Challenges to Achieving Communication Competence

Some important challenges lie ahead for trainees and educators in achieving the goal of communication competence.

Challenges for Trainees

Residents enter communication skills training with habits and styles developed over decades of communicating

Table 5. Approach to Management Planning in Chronic Disease

Simplify the management plan. Address one or two parts of the management plan at a time, and break the tasks down into realistic steps. For example, a patient with obesity, nicotine dependence, and type 2 diabetes is unlikely to adhere to a treatment plan involving simultaneous institution of smoking cessation, blood sugar monitoring, and a diet and exercise program.

Tailor the plan. When possible, tailor components of the management plan to a patient's individual habits and routines. "Walk through" a day to identify patient routines that can be linked to parts of the plan and to identify and overcome obstacles to implementing them. Discuss what to do about missed treatments.

Write the plan down. Use office letterhead or prescription forms to write, draw, or otherwise indicate specific directives and schedules such as "walk for 20 minutes three times a week." Ask patients to post these directives in a conspicuous place such as a refrigerator or cupboard door.

Explain treatments. Explain the goals and purpose of prescribed or recommended treatments. Tell the patient what benefits to expect from treatments, and when.

Address medication side effects. Tell the patient about the most common side effects of treatment and what to do about them ("This medicine can upset your stomach. You should take it with food. It if causes diarrhea or a rash, which probably won't happen, I'd like you to call my office."). Patients can also be given a longer list of less common side effects to refer to if questions arise.

Check adherence. Ask about nonadherence in ways that do not shame or punish the patient ("Most people have trouble taking pills exactly as prescribed. What troubles have you had?"). Be clear that your goal is to help solve the problems that can arise when implementing a treatment plan.

Encourage appropriate behavioral change. Patient self-management often requires lifestyle changes. Successful change depends on the patient's conviction that changing behavior will improve outcomes and their confidence that they can make the change successfully.

with others. As a result, the concepts may seem self-evident and simplistic and the skills unnatural and forced. Importantly, feedback about these skills may feel more personal and thus more threatening than feedback about other skills, such as performing a focused physical examination or inserting a central venous catheter. Learning in this domain will require awareness about one's own communication behaviors as well as the attitudes and values that shape them [63].

Challenges for Educators

Faculty may be unprepared to teach communication skills [64]. Those who trained more than 10 years ago may be unfamiliar with the evidence supporting the assessment of communication competency or with appropriate teaching methods. Although most medical schools require courses in communication and interpersonal skills, many do not use the experiential learning methods important for teaching these skills, such as description or demonstration of the desired skills, practice with observation and feedback, and periodic reinforcement [65]. Finally, assessment of communication competence will require faculty to spend significant time watching residents interact with patients and families and meeting with each other to reach agreement on what they are watching for and how to rate it.

Perhaps the greatest challenge will be determining how best to assess communication and interpersonal skills, as no gold standard assessment tool currently exists. A variety of observer-based rating instruments are available [66,67], but their performance on the same set of recorded interviews has never been compared. Most residency programs use these instruments as guides for goal-setting and feedback during supervised patient encounters. The ACGME endorses several tools for assessment of communication competency, including observer ratings (simulated patients, direct or video observation), patient ratings (simulated or actual), and 360-degree evaluations (by patients, peers, staff, and self) [68]. How practical these tools are for daily use by residents and faculty remains to be seen.

Conclusion

Residency program directors and specialty societies now have the opportunity to define interpersonal and communication competencies for themselves. The challenge, inherent in all competency-based teaching and assessment, is envisioning competence in a particular area, defining and articulating its components, and then working backward to create appropriate educational experiences. The ACGME competencies are intentionally general so that training programs can define them according to the needs of their respective specialties. Assessment methods will depend on how competency is defined and will no doubt require frequent observation by a variety of people. Above all, reliable and valid observation tools that are also practical need to be identified, and faculty need experience using them.

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References

1. Maguire P. Can communication skills be taught? Br J Hosp Med 1990;43:215–6.
2. Roter DL, Hall JA, Kern DE, et al. Improving physicians' interviewing skills and reducing patients' emotional distress. A randomized clinical trial. Arch Intern Med 1995;155:1877–84.
3. Putnam SM, Stiles WB, Jacob MC, James SA. Teaching the medical interview: an intervention study. J Gen Intern Med 1988;3:38–47.
4. Bowman FM, Goldberg DP, Millar T, et al. Improving the skills of established general practitioners: the long-term benefits of group teaching. Med Educ 1992;26:63–8.
5. Maguire P, Fairbairn S, Fletcher C. Consultation skills of young doctors: I—Benefits of feedback training in interviewing as students persist [published erratum apears in Br Med J 1986;293:26]. Br Med J 1986;292:1573–6.
6. Stillman PL, Sabars DL, Redfield DL.The use of paraprofessionals to teach interviewing skills. Pediatrics 1976; 57:769–74.
7. Branch WT, Malik TK. Using 'windows of opportunities' in brief interviews to understand patients' concerns. JAMA 1993;269:1667–8.
8. White J, Levinson W, Roter D. "Oh by the way . . .": The closing moments of the medical visit. J Gen Intern Med 1994;9:24–8.
9. Robbins JA, Bertakis KD, Helms LJ, et al. The influence of physician practice behaviors on patient satisfaction. Fam Med 1993;25:17–20.
10. Safran DG, Taira DA, Rogers WH, et al. Linking primary care performance to outcomes of care. J Fam Pract 1998;47:213–20.
11. Suchman AL, Roter D, Green M, Lipkin M Jr. Physician satisfaction with primary care office visits. Collaborative Study Group of the American Academy on Physician and Patient. Med Care 1993;31:1083–92.
12. Hall JA, Roter DL, Katz NR. Meta-analysis of correlates of provider behavior in medical encounters. Med Care 1988;26:657–75.
13. Stewart M, Brown JB, Donner A, et al. The impact of patient-centered care on outcomes. J Fam Pract 2000; 49:796–804.
14. Fallowfield LJ, Hall A, Maguire GP, Baum M. Psychological outcomes of different treatment policies in women with early breast cancer outside a clinical trial. BMJ 1990;301:575–80.
15. Levinson W, Roter DL, Mullooly JP, et al. Physician-patient communication. The relationship with malpractice claims among primary care physicians and surgeons. JAMA 1997;277:553–9.
16. Kaplan SH, Greenfield S, Ware JE Jr. Assessing the effects of physician-patient interactions on the outcomes of chronic disease [published erratum appears in Med Care 1989;27:679]. Med Care 1989;27(3 Suppl): S110–27.
17. Rost KM, Flavin KS, Cole K, McGill JB. Change in metabolic control and functional status after hospitalization. Impact of patient activation intervention in diabetic patients. Diabetes Care 1991;14:881–9.
18. Gittell JH, Fairfield KM, Bierbaum B, et al. Impact of relational coordination on quality of care, postoperative pain and functioning, and length of stay: a nine-hospital study of surgical patients. Med Care 2000;38:807–19.
19. Maguire P. Improving communication with cancer patients. Eur J Cancer 1999;35:2058–65.
20. Beckman HB, Frankel RM. The effect of physician behavior on the collection of data. Ann Intern Med 1984;101: 692–96.
21. Platt FW, McMath JC. Clinical hypocompetence: the interview. Ann Intern Med 1979;91:898–902.
22. Stewart MA, McWhinney IR, Buck CW. The doctor/patient relationship and its effect upon outcome. J R Coll Gen Pract 1979;29:77–81.
23. Eisenthal S, Koopman C, Stoeckle JD. The nature of patients' requests for physicians' help. Acad Med 1990;65: 401–5.
24. Suchman AL, Markakis K, Beckman HB, Frankel R. A model of empathic communication in the medical interview. JAMA 1997;277:678–82.
25. Waitzkin H. Doctor-patient communication. Clinical implications of social scientific research. JAMA 1984;252: 2441–6.
26. Makoul G, Arnston P, Schofield T. Health promotion in primary care: physician-patient communication and decisions about prescription medications. Soc Sci Med 1995; 41:1241–54.
27. Accreditation Council for Graduate Medical Education. Outcome project: enhancing residency education through outcomes assessment. Competency language (full version). Available at http://www.acgme.org/outcome/comp/compFull.asp. Accessed 7 May 2002.
28. Stewart M. Patient-centered medicine: transforming the clinical method. Thousand Oaks (CA): Sage Publications; 1995.
29. Cole SA, Bird J. The medical interview. The three function approach. 2nd edition. St. Louis: Mosby; 2000.
30. Keller VF, Carroll JG. A new model for physician-patient communication. Patient Educ Couns 1994;23: 131–40.
31. Smith RC. The patient's story: an evidence-based method. 2nd edition. Philadelphia: Lippincott Williams & Wilkins; 2001.
32. Kurtz SM, Silverman J, Draper J. Teaching and learning communication skills in medicine. Abingdon, Oxon (UK): Radcliffe Medical Press; 1998.
33. Makoul G. The SEGUE framework for teaching and assessing communication skills. Patient Educ Couns 2001;45:23–34.
34. Makoul G. Essential elements of communication in medical encounters: the Kalamazoo consensus statement. Acad Med 2001;76:390–3.
35. Novack DH. Therapeutic aspects of the clinical encounter. J Gen Intern Med 1987;2:346–55.
36. Martin AR. Exploring patient beliefs. Steps to enhancing physician-patient interaction. Arch Intern Med

1983;143:1773–5.
37. Delbanco TL. Enriching the doctor-patient relationship by inviting the patient's perspective. Ann Intern Med 1992;116:414–8.
38. Stewart MA. Effective physician-patient communication and health outcomes: a review. CMAJ 1995;152: 1423–33.
39. Harrigan JA, Oxman TE, Rosenthal R. Rapport expressed through non-verbal behavior. J Non-verbal Behav 1985; 9:95–110.
40. Larsen KM, Smith CK. Assessment of non-verbal communication in the patient-physician interview. J Fam Pract 1981;12:481–8.
41. Weinberger M, Greene JY, Mamlin JJ. The impact of clinical encounter events on patient and physician satisfaction. Soc Sci Med 1981;15:239–44.
42. Hall JA, Harrigan, Rosenthal R. Non-verbal behavior in clinician-patient interaction. Appl Prevent Psychol 1995;4:21–35.
43. Marvel MK, Epstein RM, Flowers K, Beckman HB. Soliciting the patient's agenda: have we improved? JAMA 1999;281:283–7.
44. Maguire P, Faulkner A, Booth K, et al. Helping cancer patients disclose their concerns. Eur J Cancer 1996; 32A:78–81.
45. Wissow LS, Roter DL, Wilson ME. Pediatrician interview style and mothers' disclosure of psychosocial issues. Pediatrics 1994;93:289–95.
46. Ende J, Kazis L, Ash A, Moskowitz MA. Measuring patients' desire for autonomy: decision making and information-seeking preferences among medical patients. J Gen Intern Med 1989;4:23–30.
47. Peters RM. Matching physician practice style to patient informational issues and decision-making preferences. An approach to patient autonomy and medical paternalism issues in clinical practice. Arch Fam Med 1994;3:760–3.
48. Guadagnoli E, Ward P. Patient participation in decision making. Soc Sci Med 1998;47:329–39.
49. Bartlett EE, Grayson M, Barker R, et al. The effects of physician communication skills on patient satisfaction; recall, and adherence. J Chronic Dis 1984;37:775–64.
50. Ley P. Doctor-patient communication: some quantitative estimates of the role of cognitive factors in noncompliance. J Hypertens Suppl 1985;3:S51–5.
51. Maiman LA, Becker MH, Liptak GS, et al. Improving pediatricians' compliance-enhancing practices: a randomized trial. Am J Dis Child 1988;142:773–9.
52. Buckman R. How to break bad news: a guide for health care professionals. Baltimore: Johns Hopkins University Press; 1992.
53. Miles S, Davis T. Patients who can't read. Implications for the health care system. JAMA 1995;274:1719–20.
54. Greenfield S, Kaplan S, Ware JE Jr. Expanding patient involvement in care. Effects on patient outcomes. Ann Intern Med 1985;102:520–8.
55. Quill TE, Brody H. Physician recommendations and patient autonomy: finding a balance between physician power and patient choice. Ann Intern Med 1996;125:763–9.
56. Mazur DJ.Why the goals of informed consent are not realized: treatise on informed consent for the primary care physician. J Gen Intern Med 1988;3:370–80.
57. O'Connor AM, Stacey D, Rovner D, et al. Decision aids for people facing health treatment or screening decisions. Cochrane Database Syst Rev 2001:CD001431.
58. Becker MH. Patient adherence to prescribed therapies. Med Care 1985;23:539–55.
59. Task Force for Compliance. Noncompliance with medications: An economic tragedy with important implications for health care reform. Baltimore: Task Force for Compliance; 1994.
60. American Association for Retired Persons. A survey on the need for a prescription drug benefit under the Medicare program. Washington (DC): AARP; 1994.
61. Meichenbaum D, Turk DC. Facilitating treatment adherence: a practitioner's guidebook. New York: Plenum Press; 1987.
62. White JC, Rosson C, Christensen J, et al. Wrapping things up: a qualitative analysis of the closing moments of the medical visit. Patient Educ Couns 1997;30:155–65.
63. Novack DH, Suchman AL, Clark W, et al. Calibrating the physician. Personal awareness and effective patient care. Working Group on Promoting Physician Personal Awareness, American Academy on Physician and Patient. JAMA 1997;278:502–9.
64. Novack DH, Volk G, Drossman DA, Lipkin M Jr. Medical interviewing and interpersonal skills teaching in US medical schools. Progress, problems, and promise. JAMA 1993;269:2101–5.
65. Kurtz SM, Silverman J, Draper J. The "how" principles of how to teach and learn communication skills. In: Teaching and learning communication skills in medicine. Abingdon, Oxon (UK): Radcliffe Medical Press; 1998.
66. Boon H, Stewart M. Patient-physician communication assessment instruments: 1986 to 1996 in review. Patient Educ Couns 1998;35:161–76.
67. Stillman PL, Regan MB, Swanson DB, et al. An assessment of the clinical skills of fourth-year students at four New England medical schools. Acad Med 1990;65:320–6.
68. Accreditation Council for Graduate Medical Education and American Board of Medical Specialties. Toolbox of assessment methods. Version 1.1. Available at http://www.acgme.org/outcome/assess/toolbox.asp. Accessed 12 Aug 2002.

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