

ACGME. (2007). "Outcome project: Enhancing residency education through outcomes assessment." Retrieved June 10, 2007.

Afilalo, M., E. Lang, et al. (2007). "Impact of a standardized communication system on continuity of care between family physicians and the emergency department." *Cjem* 9(2): 79–86.

**OBJECTIVE:** It has been suggested that continuity of care is hampered because of the lack of communication between emergency departments (EDs) and primary care providers. A web-based, standardized communication system (SCS) that enables family physicians (FPs) to visualize information regarding their patients' ED visits was developed. This paper aims to evaluate the impact of this SCS on continuity of care. **METHODS:** We conducted an open, 4-period crossover, cluster-randomized controlled trial of 23 FP practices. During the intervention phase, FPs received detailed reports via SCS, while in the control phase they received mailed copies of the ED notes. Continuity of care was evaluated with a web questionnaire completed by FPs 21 days after the ED visit. The primary measures of continuity of care were knowledge of ED visit (quality and quantity), patient management and follow-up rate. **RESULTS:** We analyzed a total of 2022 ED visits (1048 intervention and 974 control). The intervention group received information regarding the ED visit more often (odds ratio [OR] 3.14, 95% confidence interval [CI] 2.6–3.79), found the information more useful (OR 5.1, 95% CI 3.49–7.46), possessed a better knowledge of the ED visit (OR 6.28, 95% CI 5.12–7.71), felt they could better manage patients (OR 2.46, 95% CI 2.02–2.99) and initiated actions more often following receipt of information (OR 1.62, 95% CI 1.36–1.93). However, there was no significant difference in the follow-up rate at FPs offices (OR 1.25, 95% CI 0.97–1.61). **CONCLUSION:** The use of SCS between an ED and FPs led to significant improvements in continuity of care by increasing the usefulness of transferred information and by improving FPs' perceived patient knowledge and patient management.

Alder, J., R. Christen, et al. (2007). "Communication skills training in obstetrics and gynaecology: whom should we train? A randomized controlled trial."

Archives of Gynecology and Obstetrics.

Abstract Objective: To determine whether patient–physician communication in obstetrics and gynaecology can be improved by a training program and to investigate if physicians with poorer performance before the training show greater improvement in communication skills scores over the course of the study. Design: Intervention study with randomisation in training and control group and patient satisfaction and communication skills of physicians as outcome variables. Physicians’ communication skills were assessed by independent raters using a standardised evaluation instrument (adapted version of the MAAS–R) to analyse video recorded interviews before and after the training. Patient satisfaction was assessed with a patient satisfaction questionnaire. Results&nbsp;&nbsp; Using general linear model (GLM) for repeated measures no group time interaction nor time effects were found for physicians’ communication skills. No group time interaction was found for patients’ satisfaction scores; however the significant time effect was mostly attributable to positive changes in patients’ rating of the training group. Physicians with poorer performance at the beginning showed greater improvements over the course of the study, especially in the training group. Conclusions: In this randomized controlled trial marginal intervention effects for the improvement of communication skills and only partial changes in patient satisfaction scores from pre to post training were shown. However, physicians with poorer performance at the beginning showed greater improvements, suggesting that competence levels were already relatively high at the beginning of the study. Also, formation of communication training groups should be based on specific skill deficits rather than being implemented unspecifically for an entire team of physicians.

Arnold, C. L., T. C. Davis, et al. (2006). "Assessment of newborn screening parent education materials." Pediatrics 117(5 Pt 2): S320–5.

OBJECTIVE: The purpose of this study was to measure the readability and user–friendliness (clarity, complexity, organization, appearance, and cultural appropriateness of materials) of parent education brochures on newborn screening. METHODS: We studied English–language versions of

the brochures that state newborn screening programs prepare and distribute. We obtained brochures from 48 states and Puerto Rico. We evaluated each brochure for readability with the Flesch reading ease formula. User-friendliness of the brochures was assessed with an instrument we created that contained 22 specific criteria grouped into 5 categories, ie, layout, illustrations, message, manageable information, and cultural appropriateness. RESULTS: Most current newborn screening brochures should be revised to make them more readable and user-friendly for parents. Ninety-two percent of brochures were written at a reading level that is higher than the average reading level of US adults (eighth-grade level). In most brochures, the essential information for parents was buried. Although all brochures were brief and focused on the newborn screening tests being performed, 81% needed improvement in getting to the point quickly and making it easy for parents to identify what they needed to know or to do. None of the brochures scored high in all 22 criteria on the user-friendliness checklist. CONCLUSIONS: Parent education materials about newborn screening should be revised to be easier to read and more user-friendly, by lowering the reading difficulty to eighth-grade level and focusing on issues such as layout, illustrations, message, information, and cultural appropriateness. It is important that state newborn screening programs and organizations work with parents to develop and to evaluate materials to ensure that they are user-friendly.

Baggs, J. G. (2007). "Nurse-physician collaboration in intensive care units." Crit Care Med 35(2): 641-2.

Baggs, J. G., M. H. Schmitt, et al. (1999). "Association between nurse-physician collaboration and patient outcomes in three intensive care units." Crit Care Med 27(9): 1991-8.

OBJECTIVE: To investigate the association of collaboration between intensive care unit (ICU) physicians and nurses and patient outcome. DESIGN: Prospective, descriptive, correlational study using self-report instruments. SETTINGS: A community teaching hospital medical ICU, a university teaching hospital surgical ICU, and a community non-teaching hospital mixed ICU, all in upstate New York. SUBJECTS: Ninety-seven

attending physicians, 63 resident physicians, and 162 staff nurses. PROCEDURE: When patients were ready for transfer from the ICU to an area of less intensive care, questionnaires were used to assess care providers' reports of collaboration in making the transfer decision. After controlling for severity of illness, the association between interprofessional collaboration and patient outcome was assessed. Unit-level organizational collaboration and patient outcomes were ranked. MEASURES: Healthcare providers' reported levels of collaboration, patient severity of illness and individual risk, patient outcomes of death or readmission to the ICU, unit-level collaboration, and unit patient risk of negative outcome. MAIN RESULTS: Medical ICU nurses' reports of collaboration were associated positively with patient outcomes. No other associations between individual reports of collaboration and patient outcome were found. There was a perfect rank order correlation between unit-level organizational collaboration and patient outcomes across the three units. CONCLUSIONS: The study offered some support for the importance of physician-nurse collaboration in ICU care delivery, a variable susceptible to intervention and further study.

Bass, P. F., 3rd, J. F. Wilson, et al. (2002). "Residents' ability to identify patients with poor literacy skills." *Acad Med* 77(10): 1039-41.

PURPOSE: To determine whether residents could identify patients with poor literacy skills based on clinical interactions during a continuity clinic visit. The authors hypothesized residents would overestimate patients' literacy abilities and fail to recognize many patients at risk for poor literacy. METHOD: The Rapid Estimate of Adult Literacy in Medicine-Revised (REALM-R) was administered to screen patients for potential literacy problems. Residents were asked "Do you feel this patient has a literacy problem?" and answered yes or no. Continuity adjusted chi-square was used to test for overestimation of literacy abilities by residents. RESULTS: REALM-R scores and residents' evaluations of literacy were available for 182 patients. The residents believed 10% of patients (18) had literacy problems based on their clinical interactions. Only three patients passing the literacy screen were incorrectly identified as at risk for literacy. Of the 90% of patients (164)

the residents perceived to have no literacy problem, 36% (59) failed the literacy screen. CONCLUSION: Resident physicians overestimated the literacy abilities of their patients. A significant portion of these residents' patients may not have the skills to effectively interact with the health care system and are at increased risk for adverse outcomes.

Beach, M. C., D. L. Roter, et al. (2006). "Are physicians' attitudes of respect accurately perceived by patients and associated with more positive communication behaviors?" Patient Educ Couns 62(3): 347–54.

OBJECTIVE: To explore the domain of physician–reported respect for individual patients by investigating the following questions: How variable is physician–reported respect for patients? What patient characteristics are associated with greater physician–reported respect? Do patients accurately perceive levels of physician respect? Are there specific communication behaviors associated with physician–reported respect for patients? METHODS: We audiotaped 215 patient–physician encounters with 30 different physicians in primary care. After each encounter, the physician rated the level of respect that s/he had for that patient using the following item: "Compared to other patients, I have a great deal of respect for this patient" on a five–point scale between strongly agree and strongly disagree. Patients completed a post–visit questionnaire that included a parallel respect item: "This doctor has a great deal of respect for me." Audiotapes of the patient visits were analyzed using the Roter Interaction Analysis System (RIAS) to characterize communication behaviors. Outcome variables included four physician communication behaviors: information–giving, rapport–building, global affect, and verbal dominance. A linear mixed effects modeling approach that accounts for clustering of patients within physicians was used to compare varying levels of physician–reported respect for patients with physician communication behaviors and patient perceptions of being respected. RESULTS: : Physician–reported respect varied across patients. Physicians strongly agreed that they had a great deal of respect for 73 patients (34%), agreed for 96 patients (45%) and were either neutral or disagreed for 46 patients (21%). Physicians reported higher levels of respect for older patients and for patients they knew well. The level of respect that

physicians reported for individual patients was not significantly associated with that patient's gender, race, education, or health status; was not associated with the physician's gender, race, or number of years in practice; and was not associated with race concordance between patient and physician. While 45% of patients overestimated physician respect, 38% reported respect precisely as rated by the physician, and 16% underestimated physician respect ( $r=0.18$ ,  $p=0.007$ ). Those who were the least respected by their physician were the least likely to perceive themselves as being highly respected; only 36% of the least respected patients compared to 59% and 61% of the highly and moderately respected patients perceived themselves to be highly respected ( $p=0.012$ ). Compared with the least-respected patients, physicians were more affectively positive with highly respected patients ( $p=0.034$ ) and provided more information to highly and moderately respected patients ( $p=0.018$ ). CONCLUSION: Physicians' ratings of respect vary across patients and are primarily associated with familiarity rather than sociodemographic characteristics. Patients are able to perceive when they are respected by their physicians, although when they are not accurate, they tend to overestimate physician respect. Physicians who are more respectful towards particular patients provide more information and express more positive affect in visits with those patients. PRACTICE IMPLICATIONS: Physician respectful attitudes may be important to target in improving communication with patients.

Bjorvell, H. and J. Stieg (1991). "Patients' perceptions of the health care received in an emergency department." Ann Emerg Med 20(7): 734-8.

OBJECTIVE: The purpose of this study was to obtain information about how patients perceive the health care delivered in an emergency department. SETTING: Patients who visited the ED at a Swedish university hospital during the daytime on Monday through Friday during a four-week period and were expected to be discharged from the ED after their visit were included in the study. Other criteria for participation were the patients' mental and physical abilities to fill out a questionnaire.

STUDY DESIGN: One hundred eighty-seven patients (110 women and 77 men) classified as orthopedic, gynecologic, internal medical, surgical, or

neurologic patients evaluated their perception of the health care delivered in the ED by filling out a questionnaire after arrival and before discharge. MEASUREMENTS AND MAIN RESULTS: The perceptions of the care received were on average quite positive. This was supported indirectly by the fact that scores for pain, strength, calmness, and despair changed in a positive direction during the ED stay. However, a pattern of varying satisfaction appeared when the patients were dichotomized into three groups according to how they had perceived their first information on arrival. Fourteen percent of the patients had received exact information, 20% were partly informed, and 66% had received no information about what was going to happen to them next. Those who received the most information at the time of arrival at the ED were more satisfied with the general treatment ( $P$  less than .05), respect ( $P$  less than .01), and attitude ( $P$  less than .05) later shown by the staff as well as with the information given later ( $P$  less than .05) than were the patients who had received no information at all on arrival. The general evaluation of the ED was more positive ( $P$  less than .001) scored by the patients who received the most information (they were more satisfied) compared with the other two groups. CONCLUSION: The information given to patients on arrival at the ED may be important to a positive perception of the care given during their stay.

Boudreaux, E. D., B. L. Cruz, et al. (2006). "The use of performance improvement methods to enhance emergency department patient satisfaction in the United States: a critical review of the literature and suggestions for future research." Acad Emerg Med 13(7): 795–802.

OBJECTIVES: The authors reviewed the evidence on performance improvement methods for increasing emergency department (ED) patient satisfaction to provide evidence-based suggestions for clinical practice. METHODS: Data sources consisted of searches through MEDLINE, CINAHL, PSYCHINFO, Cochrane Library, and Emergency Medicine Abstracts and a manual search of references. Articles were included if they reported a performance improvement intervention targeting patient satisfaction in the ED setting. Articles on studies not conducted in the United States or that failed to provide enough details to allow critical evaluation of the

study were excluded. Two authors used structured evaluation criteria to independently review each retained study. RESULTS: Nineteen articles met all selection criteria. Three studies found varying levels of support for multicomponent interventions, predominantly focused on implementation of clinical practice guidelines for specific presenting complaints and process redesign. Sixteen studies evaluated single-component interventions, with the following having at least one supportive study: using alternating patient assignment to provider teams rather than "zone"-based assignment, enhancing provider communication and customer service skills, incorporating information delivery interventions (e.g., pamphlets, video) that target patient expectations, using preformatted charts, and establishing ED-based observation units for specific conditions such as asthma and chest pain. CONCLUSIONS: There is modest evidence supporting a range of performance improvement interventions for improving ED patient satisfaction. Further work is needed before specific, evidence-based recommendations can be made regarding which process changes are most effective. Recommendations are made for improving the quality of performance improvement efforts in the ED setting.

Brinkman, W. B., S. R. Geraghty, et al. (2006). "Evaluation of resident communication skills and professionalism: a matter of perspective?" Pediatrics 118(4): 1371-9.

OBJECTIVE: Evaluation procedures that rely solely on attending physician ratings may not identify residents who display poor communication skills or unprofessional behavior. Inclusion of non-physician evaluators should capture a more complete account of resident competency. No published reports have examined the relationship between resident evaluations obtained from different sources in pediatric settings. The objective of this study was to determine whether parent and nurse ratings of specific resident behaviors significantly differ from those of attending physicians. METHODS: Thirty-six pediatric residents were evaluated by parents, nurses, and attending physicians during their first year of training. For analysis, the percentage of responses in the highest response category was calculated for each resident on each item. Differences between

attending physician ratings and those of parents and nurses were compared using the signed rank test. RESULTS: Parent and attending physician ratings were similar on most items, but attending physicians indicated that they frequently were unable to observe the behaviors of interest. Nurses rated residents lower than did attending physicians on items that related to respecting staff (69% vs 97%), accepting suggestions (56% vs 82%), teamwork (63% vs 88%), being sensitive and empathetic (62% vs 85%), respecting confidentiality (73% vs 97%), demonstrating integrity (75% vs 92%), and demonstrating accountability (67% vs 83%). Nurse responses were higher than attending physicians on anticipating postdischarge needs (46% vs 25%) and effectively planning care (52% vs 33%). CONCLUSIONS: Expanding resident evaluation procedures to include parents and nurses does enhance information that is gathered on resident communication skills and professionalism and may help to target specific behaviors for improvement. Additional research is needed to determine whether receiving feedback on parent and nurse evaluations will have a positive impact on resident competency.

Brown, J. B., M. Boles, et al. (1999). "Effect of clinician communication skills training on patient satisfaction. A randomized, controlled trial." Ann Intern Med 131(11): 822–9.

BACKGROUND: Although substantial resources have been invested in communication skills training for clinicians, little research has been done to test the actual effect of such training on patient satisfaction.

OBJECTIVE: To determine whether clinicians' exposure to a widely used communication skills training program increased patient satisfaction with ambulatory medical care visits. DESIGN: Randomized, controlled trial.

SETTING: A not-for-profit group-model health maintenance organization in Portland, Oregon. PARTICIPANTS: 69 primary care physicians, surgeons,

medical subspecialists, physician assistants, and nurse practitioners from the Permanente Medical Group of the Northwest. INTERVENTION:

"Thriving in a Busy Practice: Physician–Patient Communication," a communication skills training program consisting of two 4-hour interactive workshops. Between workshops, participants audiotaped office visits and studied the audiotapes. MEASUREMENTS: Change in

mean overall score on the Art of Medicine survey (HealthCare Research, Inc., Denver, Colorado), which measures patients' satisfaction with clinicians' communication behaviors, and global visit satisfaction. RESULTS: Although participating clinicians' self-reported ratings of their communication skills moderately improved, communication skills training did not improve patient satisfaction scores. The mean score on the Art of Medicine survey improved more in the control group (0.072 [95% CI, -0.010 to 0.154]) than in the intervention group (0.030 [CI, -0.060 to 0.1201]). CONCLUSIONS: "Thriving in a Busy Practice: Physician-Patient Communication," a typical continuing medical education program geared toward developing clinicians' communication skills, is not effective in improving general patient satisfaction. To improve global visit satisfaction, communication skills training programs may need to be longer and more intensive, teach a broader range of skills, and provide ongoing performance feedback.

Brown, S. L., J. A. Teufel, et al. (2007). "Early adolescents perceptions of health and health literacy." J Sch Health 77(1): 7-15.

BACKGROUND: Health illiteracy is a societal issue that, if addressed successfully, may help to reduce health disparities. It has been associated with increased rates of hospital admission, health care expenditures, and poor health outcomes. Because of this, much of the research in the United States has focused on adults in the health care system. This study investigated the effect of aspects of health literacy on the motivation to practice health-enhancing behaviors among early adolescents. METHODS: Measures were generally based on 3 National Health Education Standards for grades 5-8. Data were obtained from 1178 9- to 13-year-old students visiting 11 health education centers in 7 states. Students responded via individual electronic keypads. RESULTS: Multivariate logistic regression revealed that, in addition to age, difficulty understanding health information and belief that kids can do little to affect their future health, decreased the likelihood for interest in and desire to follow what they were taught about health. Further, low interest independently decreased motivation to follow what was taught. Girls were more likely to turn to school, parents, and medical personnel for health

information. Older students were more likely to turn to school and to the Internet. CONCLUSIONS: Programs and curricula should be designed to increase student interest in health issues and their self-efficacy in controlling their own health destinies. Educators should also teach students to more effectively use nonconventional health information sources such as the Internet, parents, and medical professionals.

Burstin, H. R., A. Conn, et al. (1999). "Benchmarking and quality improvement: the Harvard Emergency Department Quality Study." *Am J Med* 107(5): 437-49.

PURPOSE: To determine whether feedback of comparative information was associated with improvement in medical record and patient-based measures of quality in emergency departments. SUBJECTS AND METHODS: During 1-month study periods in 1993 and 1995, all medical records for patients who presented to five Harvard teaching hospital emergency departments with one of six selected chief complaints (abdominal pain, shortness of breath, chest pain, hand laceration, head trauma, or vaginal bleeding) were reviewed for the percent compliance with process-of-care guidelines. Patient-reported problems and patient ratings of satisfaction with emergency department care were collected from eligible patients using patient questionnaires. After reviewing benchmark information, emergency department directors designed quality improvement interventions to improve compliance with the process-of-care guidelines and improve patient-reported quality measures. RESULTS: In the preintervention period, 4,876 medical records were reviewed (99% of those eligible), 2,327 patients completed on-site questionnaires (84% of those eligible), and 1,386 patients completed 10-day follow-up questionnaires (80% of a random sample of eligible participants). In the postintervention period, 6,005 medical records were reviewed (99% of those eligible), 2,899 patients completed on-site questionnaires (84% of those eligible), and 2,326 patients completed 10-day follow-up questionnaires (80% of all baseline participants). In multivariate analyses, adjusting for age, urgency, chief complaint, and site, compliance with process-of-care guidelines increased from 55.9% (preintervention) to 60.4% (postintervention,  $P = 0.0001$ ). We also found a 4% decrease (from 24% to 20%) in the rate of patient-reported problems with emergency

department care ( $P = 0.0001$ ). There were no significant improvements in patient ratings of satisfaction. CONCLUSION: Feedback of benchmark information and subsequent quality improvement efforts led to small, although significant, improvement in compliance with process-of-care guidelines and patient-reported measures of quality. The measures that relied on patient reports of problems with care, rather than patient ratings of satisfaction with care, seemed to be more responsive to change. These results support the value of benchmarking and collaboration.

Carrasquillo, O., E. J. Orav, et al. (1999). "Impact of language barriers on patient satisfaction in an emergency department." J Gen Intern Med 14(2): 82–7.

OBJECTIVE: To examine patient satisfaction and willingness to return to an emergency department (ED) among non-English speakers. DESIGN: Cross-sectional survey and follow-up interviews 10 days after ED visit. SETTING: Five urban teaching hospital EDs in the Northeastern United States. PATIENTS: We surveyed 2,333 patients who presented to the ED with one of six chief complaints. MEASUREMENTS AND MAIN RESULTS: Patient satisfaction, willingness to return to the same ED if emergency care was needed, and patient-reported problems with care were measured. Three hundred fifty-four (15%) of the patients reported English was not their primary language. Using an overall measure of patient satisfaction, only 52% of non-English-speaking patients were satisfied as compared with 71% of English speakers ( $p < .01$ ). Among non-English speakers, 14% said they would not return to the same ED if they had another problem requiring emergency care as compared with 9.5% of English speakers ( $p < .05$ ). In multivariate analysis adjusting for hospital site, age, gender, race/ethnicity, education, income, chief complaint, urgency, insurance status, Medicaid status, ED as the patient's principal source of care, and presence of a regular provider of care, non-English speakers were significantly less likely to be satisfied (odds ratio [OR] 0.59; 95% confidence interval [CI] 0.39, 0.90) and significantly less willing to return to the same ED (OR 0.57; 95% CI 0.34, 0.95). Non-English speakers also were significantly more likely to report overall problems with care (OR 1.70; 95% CI 1.05, 2.74), communication (OR 1.71; 95% CI 1.18, 2.47), and testing (OR 1.77; 95% CI 1.19, 2.64). CONCLUSIONS:

Non-English speakers were less satisfied with their care in the ED, less willing to return to the same ED if they had a problem they felt required emergency care, and reported more problems with emergency care. Strategies to improve satisfaction among this group of patients may include appropriate use of professional interpreters and increasing the language concordance between patients and providers.

Casanova, J., K. Day, et al. (2007). "Nurse-physician work relations and role expectations." J Nurs Adm 37(2): 68-70.

Chorley, J. N. (2005). "Ankle sprain discharge instructions from the emergency department." Pediatr Emerg Care 21(8): 498-501.

OBJECTIVES: (1) To describe the incidence of inclusion of early mobilization components in emergency department (ED) discharge instructions; (2) to describe the prescribed follow-up appointments; and (3) to analyze the differences between the treatment of pediatric and adult patients. METHODS: A 1-year retrospective chart review of ED records of a large urban hospital was performed. Medical records of 374 (95%) of the 397 adult and pediatric patients with ICD-9 code for ankle sprains were reviewed (213 males and 171 females, mean age 28.4 +/- 14.5; 291 adults, 93 pediatric). RESULTS: Sixteen percent of records contained discharge instructions that included rest, ice, compression, elevation, and medications (RICEM). Twenty percent included RICE. Pediatricians (33.7%) were more likely than adult physicians (10.3%) to have given RICEM ( $P < 0.0001$ ) and RICE ( $P = 0.05$ , pedi = 45.8%, adult = 13.1%). Follow-up referrals were recommended as needed 50% of the time. Follow-up referrals were made to community clinics (59%), orthopedic clinic (23%), the ED (14%), and others (4%). Pediatricians were more likely to recommend routine scheduled follow up (pedi = 62%, adult = 47%,  $P = 0.018$ ), suggest follow-up in a community clinic or doctors office (pedi = 68.6%, adult = 51.2%,  $P < 0.0001$ ), and to recommend earlier follow up (pedi = 1.6 weeks +/- 1.1, adult = 2.0 weeks +/- 1.1,  $P = 0.002$ ) than adult physicians. CONCLUSIONS: Programs that train physicians who work in the ED need to include education on the proper treatment, rehabilitation, and follow up of patients with acute ankle

sprains. Providing easy-to-complete discharge instruction templates can help providers give patients discharge instructions that may help patients minimize the risk of long-term sequelae.

Clarke, C., S. M. Friedman, et al. (2005). "Emergency department discharge instructions comprehension and compliance study." *Cjem* 7(1): 5-11.

**OBJECTIVES:** To assess patient comprehension of emergency department discharge instructions and to describe other predictors of patient compliance with discharge instructions. **METHODS:** Patients departing from the emergency department of an inner-city teaching hospital were invited to undergo a structured interview and reading test, and to participate in a follow-up telephone interview 2 weeks later. Two physicians, blinded to the other's data, scored patient comprehension of discharge information and compliance with discharge instructions. Inter-rater reliability was assessed using a kappa-weighted statistic, and correlations were assessed using Spearman's rank correlation coefficient and Fisher's exact test. **RESULTS:** Of 106 patients approached, 88 (83%) were enrolled. The inter-rater reliability of physician rating scores was high (kappa = 0.66). Approximately 60% of subjects demonstrated reading ability at or below a Grade 7 level. Comprehension was positively associated with reading ability ( $r = 0.29$ ,  $p = 0.01$ ) and English as first language ( $r = 0.27$ ,  $p = 0.01$ ). Reading ability was positively associated with years of education ( $r = 0.43$ ,  $p < 0.0001$ ) and first language ( $r = 0.24$ ,  $p = 0.03$ ), and inversely associated with age ( $r = -0.21$ ,  $p = 0.05$ ). Non-English first language and need for translator were associated with poorer comprehension of discharge instructions but not related to compliance. Compliance with discharge instructions was correlated with comprehension ( $r = 0.31$ ,  $p = 0.01$ ) but not associated with age, language, education, years in anglophone country, reading ability, format of discharge instructions, follow-up modality or association with a family physician. **CONCLUSIONS:** Emergency department patients demonstrated poor reading skills. Comprehension was the only factor significantly related to compliance; therefore, future interventions to improve compliance with emergency department instructions will be most effective if they focus on improving comprehension.

Coiera, E. W., R. A. Jayasuriya, et al. (2002). "Communication loads on clinical staff in the emergency department." Medical Journal of Australia 176: 415–418.

Cooke, T., D. Watt, et al. (2006). "Patient expectations of emergency department care: phase II—a cross-sectional survey." Cjem 8(3): 148–57.

OBJECTIVES: To explore emergency department (ED) patient expectations regarding staff communication with patients, wait times, the triage process and information management. METHODS: We conducted a cross-sectional English-language telephone survey among patients aged 18 years or older who visited the EDs in the Calgary Health Region in 2002. Survey items were based on a preceding qualitative study.

RESULTS: Of the 941 surveys, 837 were analyzed. Patients placed the highest importance on the explanation of test results (96.5%), a description of circumstances that would require the patient to return to the ED (94.4%), the use of plain language (92.1%) and the reason for the tests (90.8%). Seventy-six percent of patients felt that ED staff should update patients every 30 minutes or less, 51.3% expected patients with non-life threatening problems should wait <1 hour, and 58.3% expected that the tests should be done within 1 hour. Almost two-thirds of the patients (64.4%) believed that the most serious patients should be seen first; 59.3% felt that the seriousness of medical concern should be determined by a triage nurse, and 63.9% thought that their personal health records should be immediately available to the emergency physician without their consent. The actual length of stay was significantly longer than expected length of stay for all patient groups, with Canadian Emergency Department Triage and Acuity Scale Levels IV and V patients expecting a shorter wait than patients in more urgent triage groups. Triage level effects on other expectations were not observed. CONCLUSIONS: ED patient expectations appear to be similar across all triage levels. Patients value effective communication and short wait times over many other aspects of care. They have expectations for short wait times that are met infrequently and are currently unattainable in many Canadian EDs. Although it may be neither feasible nor desirable to meet all patient expectations, increased focus on wait times and staff

communication may increase both ED efficiency and patient satisfaction.

Cote, L. and H. Leclere (2000). "How clinical teachers perceive the doctor-patient relationship and themselves as role models." Acad Med 75(11): 1117-24.

**PURPOSE:** Teachers must be good role models. In order to act the part, however, they must reflect on and articulate the attitudes and behaviors they wish to convey. The aim of this study was to describe how clinicians who teach clerks and residents represent the doctor-patient relationship and how they see themselves as role models for this relationship.

**METHOD:** In the fall of 1997, 28 clinical teachers in family medicine and various medical and surgical specialties at Laval University Faculty of Medicine participated in individual semistructured interviews regarding their perceptions of the doctor-patient relationship and how it is taught. The interviews were conducted by a trained research assistant and the content of the interviews was coded by three independent observers, who then performed a qualitative analysis. **RESULTS:** The clinical teachers identified competencies associated with the doctor-patient relationship that differed in complexity and specificity. Paramount among these competencies were the ability to conduct interviews effectively and politely, the ability to understand and involve the patient, and, in some cases, the ability to handle emotionally-charged situations. The clinical teachers tended to demand more of their students in doctor-patient relationships than they did of themselves. Lack of time and a negative attitude toward the doctor-patient relationship, on the part of both teachers and students, were obstacles to teaching and learning this essential competency, even to the point of making it difficult for teachers to demonstrate and supervise these competencies during their daily clinical activities. **CONCLUSIONS:** Most of the teachers had difficulty describing situations or behaviors in which they modeled the doctor-patient relationship. Being a role model requires a fairly precise idea of what one is modeling and accomplishing, and what one wants trainees to understand about the relationship. Efforts must be made to help clinical teachers to integrate the doctor-patient relationship into their clinical supervision and to provide them with tools to demonstrate

this relationship effectively.

Crane, J. A. (1997). "Patient comprehension of doctor–patient communication on discharge from the emergency department." Journal of Emergency Medicine 15(1): 1–7.

An exit interview was conducted during March, 1994 on 314 patients treated and released from the Emergency Department at Kern Medical Center in Bakersfield, California. The questionnaire was designed to assess understanding of diagnosis, prescribed medications, additional instructions, and plans for follow–up care. The patients' own perceptions of the adequacy of communication and whom they considered the most important source of information were also determined. Overall, patients correctly identified 59% of their instructions. The performance of the English speaking and the Spanish speaking patients was compared. Spanish speaking patients scored significantly lower on all questions. The physician was identified by most patients (63.8%) as the source of the most information.

Cruz, M. and H. A. Pincus (2002). "Research on the influence that communication in psychiatric encounters has on treatment." Psychiatr Serv 53(10): 1253–65.

OBJECTIVE: The purpose of this article is to inform mental health professionals about the empirical literature on medical and psychiatric encounters and the influence of communicative behaviors on specific encounter outputs and treatment outcomes. METHODS: A comprehensive review of the health communications literature from 1950 to 2001, using MEDLINE and PsycINFO, was conducted to identify relevant articles on the communication skills of psychiatrists and other physicians. These searches were augmented by personal correspondence with experts on changes in practice patterns in psychiatry and on medical and psychiatric communications research. A review of references within each article and information from the experts identified other relevant articles. Selection was then narrowed to include reports of studies that used structured written instruments that captured relevant physician and patient perceptions of the physician–patient relationship, content analysis of

audio- or videotapes of communication in medical or psychiatric encounters, or interaction analysis systems used to categorize audio- or videotaped communicative behaviors in medical or psychiatric encounters. RESULTS AND CONCLUSIONS: Twenty-five articles in medicine and 34 articles in psychiatry were selected. Medical communication researchers have observed associations between physicians' communicative skills and patients' satisfaction, patients' adherence to treatment recommendations, treatment outputs, and patients' willingness to file malpractice claims. The research has also shown that primary care physicians can be more responsive to patients' concerns without lengthening visits. In psychiatry, the literature can be organized into four discrete categories of research: negotiated treatment and the customer approach, therapeutic alliance, Gottschalk-Gleser content analysis of patients' speech, and content analysis of psychiatric interviews.

Davis, T. C., M. S. Wolf, et al. (2006). "Low literacy impairs comprehension of prescription drug warning labels." J Gen Intern Med 21(8): 847-51.

BACKGROUND: Adverse events resulting from medication error are a serious concern. Patients' literacy and their ability to understand medication information are increasingly seen as a safety issue.

OBJECTIVE: To examine whether adult patients receiving primary care services at a public hospital clinic were able to correctly interpret commonly used prescription medication warning labels. DESIGN:

In-person structured interviews with literacy assessment. SETTING: Public hospital, primary care clinic. PARTICIPANTS: A total of 251 adult patients waiting for an appointment at the Louisiana State University Health Sciences Center in Shreveport (LSUHSC-S) Primary Care Clinic.

MEASUREMENTS: Correct interpretation, as determined by expert panel review of patients' verbatim responses, for each of 8 commonly used prescription medication warning labels. RESULTS: Approximately one-third of patients (n=74) were reading at or below the 6th-grade level (low literacy). Patient comprehension of warning labels was associated with one's literacy level. Multistep instructions proved difficult for patients across all literacy levels. After controlling for relevant potential confounding variables, patients with low literacy were 3.4 times less likely

to interpret prescription medication warning labels correctly (95% confidence interval: 2.3 to 4.9). CONCLUSIONS: Patients with low literacy had difficulty understanding prescription medication warning labels. Patients of all literacy levels had better understanding of warning labels that contained single-step versus multiple-step instructions. Warning labels should be developed with consumer participation, especially with lower literate populations, to ensure comprehension of short, concise messages created with familiar words and recognizable icons.

Davis, T. C., M. S. Wolf, et al. (2006). "Literacy and misunderstanding prescription drug labels." Ann Intern Med 145(12): 887-94.

BACKGROUND: Health literacy has increasingly been viewed as a patient safety issue and may contribute to medication errors. OBJECTIVE: To examine patients' abilities to understand and demonstrate instructions found on container labels of common prescription medications. DESIGN: Cross-sectional study using in-person, structured interviews. SETTING: 3 primary care clinics serving mostly indigent populations in Shreveport, Louisiana; Jackson, Michigan; and Chicago, Illinois. PATIENTS: 395 English-speaking adults waiting to see their providers. Measurement: Correct understanding of instructions on 5 container labels; demonstration of 1 label's dosage instructions. RESULTS: Correct understanding of the 5 labels ranged from 67.1% to 91.1%. Patients reading at or below the sixth-grade level (low literacy) were less able to understand all 5 label instructions. Although 70.7% of patients with low literacy correctly stated the instructions, "Take two tablets by mouth twice daily," only 34.7% could demonstrate the number of pills to be taken daily. After potential confounding variables were controlled for, low (adjusted relative risk, 2.32 [95% CI, 1.26 to 4.28]) and marginal (adjusted relative risk, 1.94 [CI, 1.14 to 3.27]) literacy were significantly associated with misunderstanding. Taking a greater number of prescription medications was also statistically significantly associated with misunderstanding (adjusted relative risk, 2.98 [CI, 1.40 to 6.34] for > or =5 medications). LIMITATIONS: The study sample was at high risk for poor health literacy and outcomes. Most participants were women, and all spoke English. The authors did not examine the association

between misunderstanding and medication error or evaluate patients' actual prescription drug-taking behaviors. CONCLUSIONS: Lower literacy and a greater number of prescription medications were independently associated with misunderstanding the instructions on prescription medication labels.

Dudas, V., T. Bookwalter, et al. (2002). "The impact of follow-up telephone calls to patients after hospitalization." *Dis Mon* 48(4): 239-48.

We studied whether pharmacists involved in discharge planning can improve patient satisfaction and outcomes by providing telephone follow-up after hospital discharge. We conducted a randomized trial at the General Medical Service of an academic teaching hospital. We enrolled General Medical Service patients who received pharmacy-facilitated discharge from the hospital to home. The intervention consisted of a follow-up phone call by a pharmacist 2 days after discharge. During the phone call, pharmacists asked patients about their medications, including whether they obtained and understood how to take them. Two weeks after discharge, we mailed all patients a questionnaire to assess satisfaction with hospitalization and reviewed hospital records. Of the 1,958 patients discharged from the General Medical Service from August 1, 1998 to March 31, 1999, 221 patients consented to participate. We randomized 110 to the intervention group (phone call) and 111 to the control group (no phone call). Patients returned 145 (66%) surveys. More patients in the phone call than the no phone call group were satisfied with discharge medication instructions (86% vs. 61%,  $P = 0.007$ ). The phone call allowed pharmacists to identify and resolve medication-related problems for 15 patients (19%). Twelve patients (15%) contacted by telephone reported new medical problems requiring referral to their inpatient team. Fewer patients from the phone call group returned to the emergency department within 30 days (10% phone call vs. 24% no phone call,  $P = 0.005$ ). A follow-up phone call by a pharmacist involved in the hospital care of patients was associated with increased patient satisfaction, resolution of medication-related problems, and fewer return visits to the emergency department.

Duffy, F. D., G. H. Gordon, et al. (2004). "Assessing competence in communication and interpersonal skills: the Kalamazoo II report." Acad Med 79(6): 495–507.

Accreditation of residency programs and certification of physicians requires assessment of competence in communication and interpersonal skills. Residency and continuing medical education program directors seek ways to teach and evaluate these competencies. This report summarizes the methods and tools used by educators, evaluators, and researchers in the field of physician–patient communication as determined by the participants in the "Kalamazoo II" conference held in April 2002. Communication and interpersonal skills form an integrated competence with two distinct parts. Communication skills are the performance of specific tasks and behaviors such as obtaining a medical history, explaining a diagnosis and prognosis, giving therapeutic instructions, and counseling. Interpersonal skills are inherently relational and process oriented; they are the effect communication has on another person such as relieving anxiety or establishing a trusting relationship. This report reviews three methods for assessment of communication and interpersonal skills: (1) checklists of observed behaviors during interactions with real or simulated patients; (2) surveys of patients' experience in clinical interactions; and (3) examinations using oral, essay, or multiple-choice response questions. These methods are incorporated into educational programs to assess learning needs, create learning opportunities, or guide feedback for learning. The same assessment tools, when administered in a standardized way, rated by an evaluator other than the teacher, and using a predetermined passing score, become a summative evaluation. The report summarizes the experience of using these methods in a variety of educational and evaluation programs and presents an extensive bibliography of literature on the topic. Professional conversation between patients and doctors shapes diagnosis, initiates therapy, and establishes a caring relationship. The degree to which these activities are successful depends, in large part, on the communication and interpersonal skills of the physician. This report focuses on how the physician's competence in professional conversation with patients might be measured. Valid, reliable, and practical measures can guide

professional formation, determine readiness for independent practice, and deepen understanding of the communication itself.

Eisenberg, E. M., A. G. Murphy, et al. (2005). "Communication in Emergency Medicine: Implications for patient safety." Communication Monographs 72(4): 390–413.

Fairbanks, R. J., A. M. Bisantz, et al. (2007 in press). "Emergency Department communication links and patterns." Annals of Emergency Medicine.

Francis, L., B. D. Weiss, et al. (2007). "Does literacy education improve symptoms of depression and self-efficacy in individuals with low literacy and depressive symptoms? A preliminary investigation." J Am Board Fam Med 20(1): 23–7.

**BACKGROUND AND OBJECTIVES:** Individuals with low literacy and symptoms of depression have greater improvement of depression symptoms when their treatment includes education to enhance literacy skills. The reason why literacy enhancement helps depression symptoms is unknown, but we hypothesize that it might be due to improved self-efficacy. We studied whether providing literacy education to individuals with both depression symptoms and limited literacy might improve their self-efficacy. **METHODS:** We studied 39 individuals enrolled in an adult literacy program and who, on further testing with the Patient Health Questionnaire (PHQ-9) had symptoms of depression. While they participated in the literacy program, we monitored their self-efficacy using the General Self Efficacy (GSE) scale, and also monitored the severity of depression symptoms with the PHQ-9. Changes in GSE and PHQ-9 scores from baseline were assessed with the Wilcoxon Signed Ranks Test. **RESULTS:** Thirty-one (79.5%) subjects participated for 1 year. There was a significant increase in their self-efficacy ( $P = .019$ ) and a significant decrease in depression symptoms ( $P < .002$ ). **CONCLUSION:** The results of this preliminary study suggest that among persons with low literacy and symptoms of depression, depression symptoms lessen as self-efficacy scores improve during participation in adult basic literacy education.

Gonzales, R. and A. Auerbach (2007). "Trainees, teams, and timely performance feedback." J Gen Intern Med 22(8): 1218–9.

Hamric, A. B. and L. J. Blackhall (2007). "Nurse–physician perspectives on the care of dying patients in intensive care units: collaboration, moral distress, and ethical climate." Crit Care Med 35(2): 422–9.

OBJECTIVE: To explore registered nurses' and attending physicians' perspectives on caring for dying patients in intensive care units (ICUs), with particular attention to the relationships among moral distress, ethical climate, physician/nurse collaboration, and satisfaction with quality of care. DESIGN: Descriptive pilot study using a survey design. SETTING: Fourteen ICUs in two institutions in different regions of Virginia. SUBJECTS: Twenty–nine attending physicians who admitted patients to the ICUs and 196 registered nurses engaged in direct patient care. INTERVENTIONS: Survey questionnaire. MEASUREMENTS AND MAIN RESULTS: At the first site, registered nurses reported lower collaboration ( $p < .001$ ), higher moral distress ( $p < .001$ ), a more negative ethical environment ( $p < .001$ ), and less satisfaction with quality of care ( $p = .005$ ) than did attending physicians. The highest moral distress situations for both registered nurses and physicians involved those situations in which caregivers felt pressured to continue unwarranted aggressive treatment. Nurses perceived distressing situations occurring more frequently than did physicians. At the second site, 45% of the registered nurses surveyed reported having left or considered leaving a position because of moral distress. For physicians, collaboration related to satisfaction with quality of care ( $p < .001$ ) and ethical environment ( $p = .004$ ); for nurses, collaboration was related to satisfaction ( $p < .001$ ) and ethical climate ( $p < .001$ ) at both sites and negatively related to moral distress at site 2 ( $p = .05$ ). Overall, registered nurses with higher moral distress scores had lower satisfaction with quality of care ( $p < .001$ ), lower perception of ethical environment ( $p < .001$ ), and lower perception of collaboration ( $p < .001$ ). CONCLUSIONS: Registered nurses experienced more moral distress and lower collaboration than physicians, they perceived their ethical environment as more negative, and they were less satisfied with

the quality of care provided on their units than were physicians. Provider assessments of quality of care were strongly related to perception of collaboration. Improving the ethical climate in ICUs through explicit discussions of moral distress, recognition of differences in nurse/physician values, and improving collaboration may mitigate frustration arising from differences in perspective.

Hanson, J. L. and V. F. Randall (2007). "Advancing a partnership: patients, families, and medical educators." Teach Learn Med 19(2): 191–7.

BACKGROUND: Medical educators must impart not only an immense quantity of knowledge and technical skills but also an essential collection of values, attitudes, and ways of relating that fall under the rubric of professionalism. Along with technical skills and knowledge, becoming a physician requires caring about patients and interacting in ways that meet practical needs. SUMMARY: One way to meet the challenges of teaching about professionalism and communication is to involve experienced patients and families as partners in education. Patients and family members have participated in health care quality assessment, health care advisory groups, and efforts to implement family-centered care. Medical educators have written competencies for communication and professionalism and have begun to involve patients and families in medical education activities. CONCLUSIONS: Increased involvement of patients and families in full partnership with medical educators is a logical outgrowth of changes in relationships between patients and health care providers as described in medical literature.

Heaston, S., R. L. Beckstrand, et al. (2006). "Emergency nurses' perceptions of obstacles and supportive behaviors in end-of-life care." J Emerg Nurs 32(6): 477–85.

INTRODUCTION: Little is known about emergency nurses' perceptions of either obstacles or supportive behaviors for providing end-of life (EOL) care to dying patients. The purpose of this study was to determine the perceived obstacles and supportive behaviors in providing EOL care to dying patients in emergency departments. METHODS: In this survey research, a 73-item questionnaire regarding EOL care was mailed to a

geographically dispersed national random sample of 300 members of the Emergency Nurses Association. Descriptive statistics were calculated for the 54 Likert-type items and demographic items. Two open-ended questions were analyzed using content analysis. RESULTS: Returns after 3 mailings yielded 169 usable questionnaires from 284 eligible respondents for a return rate of 59.5%. The greatest obstacles were: (1) emergency nurses having too great a work load to care for dying patients; (2) emergency nurses having to deal with angry family members; and (3) the poor design of emergency departments that do not allow for privacy of dying patients or grieving family members. The most supportive behaviors were: (1) good communication between the physician and RN caring for the dying patient; (2) physicians meeting in person with the family after the patient's death; and (3) an emergency department designed so that the family has a place to grieve in private. DISCUSSION: Having a better understanding of emergency nurses' perceptions of obstacles and supportive behaviors in providing end-of-life care could help decrease the stress of caring for dying patients. Actions could be taken to decrease the highest rated obstacles and increase the ratings of supportive behaviors that may ultimately result in better end-of-life care for dying patients and their families in the emergency setting.

Hendrickson, R. L., C. E. Huebner, et al. (2006). "Readability of pediatric health materials for preventive dental care." BMC Oral Health 6: 14.

ABSTRACT: BACKGROUND: This study examined the content and general readability of pediatric oral health education materials for parents of young children. METHODS: Twenty-seven pediatric oral health pamphlets or brochures from commercial, government, industry, and private nonprofit sources were analyzed for general readability ("usability") according to several parameters: readability, (Flesch-Kincaid grade level, Flesch Reading Ease, and SMOG grade level); thoroughness, (inclusion of topics important to young children's oral health); textual framework (frequency of complex phrases, use of pictures, diagrams, and bulleted text within materials); and terminology (frequency of difficult words and dental jargon). RESULTS: Readability of the written texts ranged from 2nd to 9th grade. The average Flesch-Kincaid grade level for government

publications was equivalent to a grade 4 reading level (4.73, range, 2.4 – 6.6); F–K grade levels for commercial publications averaged 8.1 (range, 6.9 – 8.9); and industry published materials read at an average Flesch–Kincaid grade level of 7.4 (range, 4.7 – 9.3). SMOG readability analysis, based on a count of polysyllabic words, consistently rated materials 2 to 3 grade levels higher than did the Flesch–Kincaid analysis. Government sources were significantly lower compared to commercial and industry sources for Flesch–Kincaid grade level and SMOG readability analysis. Content analysis found materials from commercial and industry sources more complex than government–sponsored publications, whereas commercial sources were more thorough in coverage of pediatric oral health topics. Different materials frequently contained conflicting information. CONCLUSION: Pediatric oral health care materials are readily available, yet their quality and readability vary widely. In general, government publications are more readable than their commercial and industry counterparts. The criteria for usability and results of the analyses presented in this article can be used by consumers of dental educational materials to ensure that their choices are well–suited to their specific patient population.

Hicks, G., M. Barragan, et al. (2006). "Health literacy is a predictor of HIV/AIDS knowledge." *Fam Med* 38(10): 717–23.

BACKGROUND AND OBJECTIVES: This study's objective was to evaluate the association between health literacy and human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) knowledge among patients seen at an inner–city, public hospital urgent care center (UCC). METHODS: We used a prospective survey of patients offered an HIV test by their providers during a UCC visit. We measured patients' health literacy level using the Rapid Estimate of Adult Literacy in Medicine (REALM) scale and assessed their HIV/AIDS knowledge using a 22–item questionnaire. RESULTS: A total of 372 patients were enrolled. Among participants in this relatively young sample (55% were under the age of 40), 92 (25%) had a REALM score at or below a sixth–grade level, and 122 (33%) did not have a high school diploma. Patients' mean HIV/AIDS knowledge scores differed significantly between patients with inadequate

health literacy and those with marginal or adequate health literacy. In multivariate analyses, patients' REALM scores were positively associated with patients' HIV/AIDS knowledge even after adjusting for income, education, and risk perception. CONCLUSIONS: These findings demonstrate that HIV/AIDS knowledge is strongly associated with patients' health literacy in this inner-city population. These findings reiterate the need to target HIV prevention strategies toward populations with inadequate health literacy levels and to dispel misconceptions regarding HIV/AIDS that directly influence risk-taking behaviors and health care utilization.

Hickson, G. B., C. F. Federspiel, et al. (2002). "Patient Complaints and Malpractice Risk." JAMA 287(22): 2951–2957.

Context A small number of physicians experience a disproportionate share of malpractice claims and expenses. If malpractice risk is related in large measure to factors such as patient dissatisfaction with interpersonal behaviors, care and treatment, and access, it might be possible to monitor physicians' risk of being sued. Objective To examine the association between physicians' patient complaint records and their risk management experiences. Design, Setting, and Participants Retrospective longitudinal cohort study of 645 general and specialist physicians in a large US medical group between January 1992 and March 1998, accounting for 2546 physician-years of care. Main Outcome Measures Computerized records of all unsolicited patient complaints were recorded by the medical center's patient affairs office, coded to characterize the nature of the problem and alleged offender, and compared with each physician's risk management records for the same period. Results Both patient complaints and risk management events were higher for surgeons than nonsurgeons. Specifically, 137 (32%) of the 426 nonsurgeons had at least 1 risk management file compared with nearly two thirds (137 [63%] of 219) of all surgeons ( $\chi^2_{1} = 54.7, P < .001$ ). Both complaint and risk management data were positively correlated with physicians' volume of clinical activity. Logistic regression revealed that risk management file openings, file openings with expenditures, and lawsuits were significantly related to total numbers of patient complaints, even when data were

adjusted for clinical activity. Predictive concordance of specialty group, complaint count, clinical activity, and sex for risk management file openings was 84%; file openings with expenditures, 83%; lawsuits, 81%; and multiple lawsuits, 87%. Conclusions Unsolicited patient complaints captured and recorded by a medical group are positively associated with physicians' risk management experiences.

Horwitz, I. B., S. K. Horwitz, et al. (2007). "Assessment of communication skills of surgical residents using the Social Skills Inventory." *Am J Surg* **194**(3): 401–5.

BACKGROUND: Interpersonal and communication skills are 1 of the 6 core competencies articulated as essential to resident education by the Accreditation Council for Graduate Medical Education. The current study assessed verbal and nonverbal communication skills among surgical residents. METHODS: The communication skills of surgical residents (n = 64) were assessed using the Social Skills Inventory. RESULTS: The majority of surgical residents demonstrated strong verbal and nonverbal skills, although the equilibrium index scores demonstrated an imbalance in the social skill profile for a minority (17.2%) of residents. Post graduate year was positively related to social expressivity (r = .31, P < .01) and social control (r = .27, P < .01) skills. In some cases, being proficient in one social skill was actually negatively related to another. CONCLUSIONS: The Social Skills Inventory was found to be a useful instrument for the multidimensional assessment of resident communication skills. Areas of strengths and weaknesses were identified and could be used for targeting areas for future educational interventions.

Houle, C., E. Harwood, et al. (2007). "What women want from their physicians: a qualitative analysis." *J Womens Health (Larchmt)* **16**(4): 543–50.

Background: Despite increased efforts to improve the education of trainees in women's health, little information exists about what women want from their healthcare providers. Existing information from studies focuses on patient care and medical knowledge rather than on all six competencies mandated by the Accreditation Council of Graduate Medical Education (ACGME). Objectives: To identify what adult female patients want their physicians to know and be able to do in all ACGME competency

areas in order to guide development of graduate women's health curricula. Methods: We conducted two focus groups with 18 volunteer adult female patients and one focus group with 5 community advocates. Questions addressed all six competency areas. The same female researcher moderated all three sessions. Two researchers analyzed session transcriptions for themes. Results: Female patients and community advocates consistently stressed the need for their physicians to be able to navigate the healthcare system and to be their advocates. They also noted the need for physicians skilled in working with patients from a variety of cultures and for developing and maintaining respectful doctor-patient relationships, including good interpersonal communication. Conclusions: Patients' expectations of physicians extend beyond medical knowledge and patient care into the areas of communication, systems-based practice, and professionalism. Curricular changes in women's health at the postgraduate level should emphasize skills in these competencies, and needs assessment processes would do well to include patient viewpoints in the future.

JCAHO. (2007). "2007 National Patient Safety Goals." Retrieved August 30, 2007, from <http://www.jcrinc.com/13469/>.

Jucks, R. and R. Bromme (2007). "Choice of words in doctor-patient communication: an analysis of health-related internet sites." Health Commun 21(3): 267-77.

As more and more doctor-patient communication is happening online, it is important to know how doctors adapt to their patients' knowledge level and ensure that they make themselves understood in this medium. This article examined question-answer sets from health archives to see whether medical experts adapted their answers to the way laypersons verbalized their concerns. The authors analyzed word use and further stylistic variables in question-answer pairs to test 2 hypotheses: (a) the lexical entrainment hypothesis predicting that experts would entrain to patients' word use; and (b) the linguistic copresence hypothesis predicting that the more medical terminology used by the patient, the more demanding experts' answers would be. Results provided evidence

that the patients' choice of words impacts the experts' answers. Practical implications are discussed for improving mutual understanding in online health advice.

Kalet, A., M. P. Pugnaire, et al. (2004). "Teaching Communication in Clinical Clerkships: Models from the Macy Initiative in Health Communications." Academic Medicine Special Themes: Educating for Competencies 79(6): 511–520.

Medical educators have a responsibility to teach students to communicate effectively, yet ways to accomplish this are not well-defined. Sixty-five percent of medical schools teach communication skills, usually in the preclinical years; however, communication skills learned in the preclinical years may decline by graduation. To address these problems the New York University School of Medicine, Case Western Reserve University School of Medicine, and the University of Massachusetts Medical School collaborated to develop, establish, and evaluate a comprehensive communication skills curriculum. This work was funded by the Josiah P. Macy, Jr. Foundation and is therefore referred to as the Macy Initiative in Health Communication. The three schools use a variety of methods to teach third-year students in each school a set of effective clinical communication skills. In a controlled trial this cross-institutional curriculum project proved effective in improving communication skills of third-year students as measured by a comprehensive, multistation, objective structured clinical examination. In this paper the authors describe the development of this unique, collaborative initiative. Grounded in a three-school consensus on the core skills and critical components of a communication skills curriculum, this article illustrates how each school tailored the curriculum to its own needs. In addition, the authors discuss the lessons learned from conducting this collaborative project, which may provide guidance to others seeking to establish effective cross-disciplinary skills curricula. (C) 2004 Association of American Medical Colleges

Kelly, P. A. and P. Haidet (2007). "Physician overestimation of patient literacy: a potential source of health care disparities." Patient Educ Couns 66(1): 119–22.

**OBJECTIVE:** To investigate physician overestimation of patient literacy level in a primary care setting. **METHODS:** The study sample consisted of 12 non-academic primary care physicians and 100 patients from a U.S. Department of Veterans Affairs Hospital in Houston, Texas. Patient literacy level was measured on a 1–4 scale using the Rapid Estimate of Adult Literacy in Medicine (REALM). Physicians rated each patient's literacy level on a corresponding scale. Chi-square was used to test for association of patient race/ethnicity and gender with: (1) patient REALM level and (2) discrepancy between patient REALM level and physician rating of patient literacy level. **RESULTS:** Patient REALM level was not statistically significantly associated with patient race/ethnicity or gender. Physicians overestimated the REALM level for 54% of African American, 11% of white non-Hispanic, and 36% of other race/ethnicity patients ( $p < .01$ ). **CONCLUSION:** Physicians commonly overestimate patients' literacy levels, and this apparently occurs more often with minority patients, and particularly with African Americans, than with white non-Hispanic patients. This discordance in estimation of patient's literacy level may be a source of disparities in health care.

Kramer, A. W., H. Dusman, et al. (2004). "Acquisition of communication skills in postgraduate training for general practice." *Med Educ* 38(2): 158–67.

**PURPOSE:** The evidence suggests that a longitudinal training of communication skills embedded in a rich clinical context is most effective. In this study we evaluated the acquisition of communication skills under such conditions. **METHODS:** In a longitudinal design the communication skills of a randomly selected sample of 25 trainees of a three-year postgraduate training programme for general practice were assessed at the start and at the end of training. Eight videotaped real life consultations were rated per measurement and per trainee, using the MAAS-Global scoring list. The results were compared with each other and with those of a reference group of 94 experienced GPs. **RESULTS:** The mean score of the MAAS-Global was slightly increased at the end of training (2.4) compared with the start (2.2). No significant difference was found between the final results of the trainees and the reference group. According to the criteria of the rating scale the performance of both

trainees and GPs was unsatisfactory. CONCLUSION: The results of this study indicate that communication skills do not improve in a three-year postgraduate training comprising both a rich clinical context and a longitudinal training of communication skills, and that an unsatisfactory level still exists at the end of training. Moreover, GPs do not acquire communication skills during independent practice as they perform comparably to the trainees. Further research into the measurement of communication skills, the teaching procedures, the role of the GP-trainer as a model and the influence of rotations through hospitals and the like, is required.

Kyriacou, D. N., D. Handel, et al. (2005). "BRIEF REPORT: Factors affecting outpatient follow-up compliance of emergency department patients." J Gen Intern Med 20(10): 938-42.

BACKGROUND: Emergency department (ED) patients often fail to follow-up with referrals to outpatient clinics and physicians. OBJECTIVE: To compare the effects of 2 ED discharge instructional methods on outpatient follow-up compliance and to evaluate sociodemographic characteristics as possible factors affecting outpatient follow-up compliance. DESIGN AND PARTICIPANTS: Randomized trial of ED patients. At discharge, the intervention group had their follow-up appointment made and the standard group was given our hospital's referral service phone number to make their own follow-up appointment. MEASUREMENTS: Outpatient clinics were called 1 month after each subject's ED discharge to ascertain if they followed-up. Poisson regression was used to examine the effects of sociodemographic factors on follow-up compliance. RESULTS: Of 287 eligible subjects, 250 (87%) agreed to participate. Follow-up rates were 59% for the intervention group and 37% for the standard group ( $P < .001$ ). Having a primary care physicians appeared to increase ED patients' outpatient follow-up compliance and having Medicaid insurance appeared to decrease outpatient follow-up compliance, but neither of these findings was statistically significant. CONCLUSIONS: In our ED, patients who have their outpatient follow-up appointment made at discharge have a significantly greater probability of follow-up compliance compared with patients given

standard discharge instructions. Most sociodemographic characteristics do not affect our ED patients' follow-up compliance.

Laidlaw, T. S., D. M. Kaufman, et al. (2006). "Relationship of resident characteristics, attitudes, prior training and clinical knowledge to communication skills performance." *Med Educ* 40(1): 18–25.

**PURPOSE:** A substantial body of literature demonstrates that communication skills in medicine can be taught and retained through teaching and practice. Considerable evidence also reveals that characteristics such as gender, age, language and attitudes affect communication skills performance. Our study examined the characteristics, attitudes and prior communication skills training of residents to determine the relationship of each to patient-doctor communication. The relationship between communication skills proficiency and clinical knowledge application (biomedical and ethical) was also examined through the use of doctor-developed clinical content checklists, as very little research has been conducted in this area.

**METHODS:** A total of 78 first- and second-year residents across all departments at Dalhousie Medical School participated in a videotaped 4-station objective structured clinical examination presenting a range of communication and clinical knowledge challenges. A variety of instruments were used to gather information and assess performance. Two expert raters evaluated the videotapes.

**RESULTS:** Significant relationships were observed between resident characteristics, prior communication skills training, clinical knowledge and communication skills performance. Females, younger residents and residents with English as first language scored significantly higher, as did residents with prior communication skills training. A significant positive relationship was found between the clinical content checklist and communication performance. Gender was the only characteristic related significantly to attitudes. **CONCLUSIONS:** Gender, age, language and prior communication skills training are related to communication skills performance and have implications for resident education. The positive relationship between communication skills proficiency and clinical knowledge application is important and should be explored further.

Langille, D. B., D. M. Kaufman, et al. (2001). "Faculty attitudes towards medical communication and their perceptions of students' communication skills training at Dalhousie University." Med Educ 35(6): 548–54.

SETTING: Faculty of Medicine, Dalhousie University, Halifax, Nova Scotia, Canada. OBJECTIVES: (1) To assess the attitudes of full-time clinical faculty members towards medical communication using the newly developed Attitudes Towards Medical Communication Scale; (2) to determine faculty members' perceptions of communications training for students and residents. METHODS: An anonymous self-completion survey was sent to 233 full-time clinical faculty members. The questionnaire asked about faculty attitudes towards medical communication, and assessed faculty members' views of student and resident training in communication. RESULTS: Faculty scored highly in the Attitudes Towards Medical Communication Scale, with a mean score of 51.5 (SD 4.1) out of a possible 60. In univariate analysis, rating of personal enjoyment of teaching, rating of the importance of teaching, and having attended at least one faculty communications workshop in the previous 5 years were significantly associated with higher scale scores. When these factors were assessed using linear regression, only having attended a workshop and higher rating of the importance of teaching remained significant. Faculty assessed student training in communications skills poorly overall. When assessing seven specific communications areas, more than 20% rated this training as poor for six of the areas for third- and fourth-year students and for five of the areas for residents. CONCLUSIONS: Clinical faculty at Dalhousie have very positive attitudes towards medical communication, and more highly positive attitudes are found in those who have attended a communications workshop. Despite this evidence that faculty appreciate the importance of medical communication skills, many assessed students' training in this curriculum area as poor.

Levinson, W., D. L. Roter, et al. (1997). "Physician-patient communication: The relationship with malpractice claims among primary care physicians and surgeons." JAMA 277(7): 553–559.

Lindau, S. T., A. Basu, et al. (2006). "Health literacy as a predictor of follow-up after an abnormal Pap smear: a prospective study." J Gen Intern Med 21(8): 829-34.

**BACKGROUND:** Low literacy influences cervical cancer screening knowledge, and is a possible contributor to racial disparities in cervical cancer. **OBJECTIVE:** To examine the hypothesis that literacy predicts patient adherence to follow-up recommendations after an abnormal Pap smear. **DESIGN:** A prospective, continuity clinic-based study. **PARTICIPANTS:** From a sample of 538 women undergoing literacy testing at the time of Pap smear screening, we studied 68 women with abnormal Pap smear diagnoses. **MEASUREMENTS:** Literacy was assessed using the Rapid Evaluation of Adult Literacy in Medicine (REALM). We also measured other proxies for literacy, including educational attainment and physician estimates of patients' literacy level. Outcome measures included on-time and 1-year follow-up and duration of time to follow-up after an abnormal Pap smear. **RESULTS:** Only one-third of the cohort adhered to follow-up recommendations. At 1 year, 25% of the women had not returned at all. Patients with inadequate literacy (as assessed by the REALM) were less likely to follow up within 1 year, although this result was not statistically significant (adjusted odds ratio [OR]=3.8, 95% confidence interval [CI]: 0.8 to 17.4). Patients subjectively assessed by their physician to have low literacy skills were significantly less likely to follow up within 1 year (adjusted OR=14, 95% CI: 3 to 65). Less than high school education (hazard ratio (HR)= 2.3; 95% CI: 1.2, 4.6) and low physician-estimated literacy level (HR=3.4, 95% CI: 1.4, 8.2), but not objective literacy level, were significant predictors of duration of time to follow-up, adjusting for recommended days to follow-up and other factors. **CONCLUSIONS:** Among women with an abnormal Pap smear, those perceived by their physician to have low literacy were significantly more likely to fail to present for follow-up.

Lindeborg, R. A. (1994). "Excellent Communication." Public Relations Quarterly 39(1): 5-11.

This article discusses factors which influence the success of an organization's communication program as cited in a study by Frederic I.

Halperin, former chair of the International Association of Business Communicators (IABC). Frederic I. Halperin, the immediate past chair of the IABC Research Foundation, spends much of his time spreading the word about the Foundation's landmark study Excellence in Public Relations and Communication Management. The Foundation is the research arm of the IABC. Three years ago at the IABC meeting in Colorado Springs, Colo., Halperin (then chair of the Foundation) summarized the three attributes of excellent communication programs, based on preliminary results of a survey of more than 300 companies. Additional analysis of the survey data has altered the order of the factors, but Halperin's description of them is still informative. Halperin listed the attributes of excellent communication in a speech titled "Making Excellent Communication Happen by Managing Your CEO, Your Organizational Culture, Yourself." Three factors have a critical influence on whether or not an organization will have an excellent communication program: 1. The value placed on communication by the chief executive officer and the organization's "dominant coalition." 2. The role and behavior of the top communicator. 3. The corporate culture of the organization.

This article discusses factors which influence the success of an organization's communication program as cited in a study by Frederic I. Halperin, former chair of the International Association of Business Communicators (IABC). Frederic I. Halperin, the immediate past chair of the IABC Research Foundation, spends much of his time spreading the word about the Foundation's landmark study Excellence in Public Relations and Communication Management. The Foundation is the research arm of the IABC. Three years ago at the IABC meeting in Colorado Springs, Colo., Halperin (then chair of the Foundation) summarized the three attributes of excellent communication programs, based on preliminary results of a survey of more than 300 companies. Additional analysis of the survey data has altered the order of the factors, but Halperin's description of them is still informative. Halperin listed the attributes of excellent communication in a speech titled "Making Excellent Communication Happen by Managing Your CEO, Your Organizational Culture, Yourself." Three factors have a critical influence on whether or not an organization will have an excellent communication program: 1. The value placed on

communication by the chief executive officer and the organization's "dominant coalition."2. The role and behavior of the top communicator. 3. The corporate culture of the organization.

Lynch, A. and E. Cole (2006). "Human factors in emergency care: the need for team resource management." Emerg Nurse 14(2): 32-5.

MacLean, S. L., E. W. Bayley, et al. (1999). "The LUNAR project: A description of the population of individuals who seek health care at emergency departments." J Emerg Nurs 25(4): 269-82.

**INTRODUCTION:** Although little information exists about the consumers of emergency services and their illness behaviors, such information is essential for decision making by providers, administrators, and policy makers. The purpose of the LUNAR Project was to describe the population of individuals who seek health care at emergency departments.

**METHODS:** After they attended a training course, 90 emergency nurses served as site coordinators in 89 emergency departments in 35 states. A standardized protocol was used to collect data retrospectively from 140 randomly selected patient records at each site. The final sample included 12,422 ED patients. **RESULTS:** Overall, 52% of the patient visits were for nonurgent care, 40% were for urgent care, and 8% were for emergent care. Most visits occurred between 10 AM and 8 PM and peaked at 6 PM. Children and younger adults were the largest consumers of services, primarily for nonurgent care. The most frequent reasons for visits were fever, chest pain, and abdominal pain, and the most common discharge diagnoses were middle ear infection, chest pain, and acute upper respiratory infection. **DISCUSSION:** The profile of ED patients showed a need for new types of services to provide nonurgent care and new interventions for preventing illnesses and injuries commonly treated in the emergency department.

Major, S. (2002). "Dysfunctional teams. A health and resource warning." Nurs Manag (Harrow) 9(2): 25-8.

Makary, M. A., J. B. Sexton, et al. (2006). "Operating room teamwork among

physicians and nurses: teamwork in the eye of the beholder." J Am Coll Surg 202(5): 746–52.

**BACKGROUND:** Teamwork is an important component of patient safety. In fact, communication errors are the most common cause of sentinel events and wrong-site operations in the US. Although efforts to improve patient safety through improving teamwork are growing, there is no validated tool to scientifically measure teamwork in the surgical setting. **STUDY DESIGN:** Operating room personnel in 60 hospitals were surveyed using the Safety Attitudes Questionnaire. Surgeons, anesthesiologists, certified registered nurse anesthetists, and operating room nurses rated their own peers and each other using a 5-point Likert scale (1 = very low, 5 = very high). **RESULTS:** Overall response rate was 77.1% (2,135 of 2,769). Ratings of teamwork differed substantially by operating room caregiver type, with the greatest differences in ratings shown by physicians: surgeons ( $F[4, 2058] = 41.73, p < 0.001$ ), and anesthesiologists ( $F[4, 1990] = 53.15, p < 0.001$ ). The percent of operating room caregivers rating the quality of collaboration and communication as "high" or "very high" was different by caregiver role and whether they were rating a peer or another type of caregiver: surgeons rated other surgeons "high" or "very high" 85% of the time, and nurses rated their collaboration with surgeons "high" or "very high" only 48% of the time. **CONCLUSIONS:** Considerable discrepancies in perceptions of teamwork exist in the operating room, with physicians rating the teamwork of others as good, but at the same time, nurses perceive teamwork as mediocre. Given the importance of communication and collaboration in patient safety, health care organizations should measure teamwork using a scientifically valid method. The Safety Attitudes Questionnaire can be used to measure teamwork, identify disconnects between or within disciplines, and evaluate interventions aimed at improving patient safety.

Makoul, G. (2001). "Essential elements of communication in medical encounters: the Kalamazoo consensus statement." Acad Med 76(4): 390–3. In May 1999, 21 leaders and representatives from major medical education and professional organizations attended an invitational

conference jointly sponsored by the Bayer Institute for Health Care Communication and the Fetzer INSTITUTE: The participants focused on delineating a coherent set of essential elements in physician–patient communication to: (1) facilitate the development, implementation, and evaluation of communication–oriented curricula in medical education and (2) inform the development of specific standards in this domain. Since the group included architects and representatives of five currently used models of doctor–patient communication, participants agreed that the goals might best be achieved through review and synthesis of the models. Presentations about the five models encompassed their research base, overarching views of the medical encounter, and current applications. All attendees participated in discussion of the models and common elements. Written proceedings generated during the conference were posted on an electronic listserv for review and comment by the entire group. A three–person writing committee synthesized suggestions, resolved questions, and posted a succession of drafts on a listserv. The current document was circulated to the entire group for final approval before it was submitted for publication. The group identified seven essential sets of communication tasks: (1) build the doctor–patient relationship; (2) open the discussion; (3) gather information; (4) understand the patient's perspective; (5) share information; (6) reach agreement on problems and plans; and (7) provide closure. These broadly supported elements provide a useful framework for communication–oriented curricula and standards.

Makoul, G. (2003). "The interplay between education and research about patient–provider communication." Patient Educ Couns 50(1): 79–84.

Attention to providers' communication skills is likely to increase, given the confluence of forces that have highlighted the importance of communication in healthcare. In the United States, interpersonal and communication skills have been explicitly identified as a priority throughout the continuum of medical education and practice. Ideally, theory and research inform teaching and assessment efforts by suggesting how communication behavior affects outcomes and by providing a conceptual framework for learning skills. This article illustrates the interplay between education and research by discussing

examples of useful concepts (models of communication, issues of perceived control, and patterns of non-verbal communication) and understudied topics (physician verbalizations during patients' initial narratives, the mundane aspects of communication in healthcare, conceptual and operational definitions of empathy, and the effect of patient narratives on both patients and providers). Given the breadth and depth of experience, from screening and prevention to treatment and support, the context of cancer offers a promising laboratory for enhancing both education and research about provider-patient communication.

Makoul, G. and R. H. Curry (2007). The Value of Assessing and Addressing Communication Skills. **298**: 1057-1059.

Makoul, G., E. Krupat, et al. (2007). "Measuring patient views of physician communication skills: Development and testing of the Communication Assessment Tool." Patient Educ Couns.

**OBJECTIVE:** Interpersonal and communication skills have been identified as a core competency that must be demonstrated by physicians. We developed and tested a tool that can be used by patients to assess the interpersonal and communication skills of physicians-in-training and physicians-in-practice. **METHODS:** We began by engaging in a systematic scale development process to obtain a psychometrically sound Communication Assessment Tool (CAT). This process yielded a 15-item instrument that is written at the fourth grade reading level and employs a five-point response scale, with 5=excellent. Fourteen items focus on the physician and one targets the staff. Pilot testing established that the CAT differentiates between physicians who rated high or low on a separate satisfaction scale. We conducted a field test with physicians and patients from a variety of specialties and regions within the US to assess the feasibility of using the CAT in everyday practice. **RESULTS:** Thirty-eight physicians and 950 patients (25 patients per physician) participated in the field test. The average patient-reported mean score per physician was 4.68 across all CAT items (S.D.=0.54, range 3.97-4.95). The average proportion of excellent scores was 76.3% (S.D.=11.1, range 45.7-95.1%).

Overall scale reliability was high (Cronbach's  $\alpha=0.96$ ); alpha coefficients were uniformly high when reliability was examined per doctor. CONCLUSION: The CAT is a reliable and valid instrument for measuring patient perceptions of physician performance in the area of interpersonal and communication skills. The field test demonstrated that the CAT can be successfully completed by both physicians and patients across clinical specialties. Reporting the proportion of "excellent" ratings given by patients is more useful than summarizing scores via means, which are highly skewed. PRACTICE IMPLICATIONS: Specialty boards, residency programs, medical schools, and practice plans may find the CAT valuable for both collecting information and providing feedback about interpersonal and communication skills.

Mandelberg, J. H., R. E. Kuhn, et al. (2000). "Epidemiologic analysis of an urban, public emergency department's frequent users." Acad Emerg Med 7(6): 637-46. OBJECTIVES: To determine how the demographic, clinical, and utilization characteristics of emergency department (ED) frequent users differ from those of other ED patients. METHODS: A cross-sectional and retrospective cohort study was performed using a database of all 348,858 visits to the San Francisco General Hospital ED during a five-year period (July 1, 1993, to June 30, 1998). A "frequent user" visited the ED five or more times in a 12-month period. RESULTS: Frequent users constituted 3.9% of ED patients but accounted for 20.5% of ED visits. The relative risk (RR) of frequent use was high among patients who were homeless (RR = 4.5), African American (RR = 1.8), and Medi-Cal sponsored (RR = 2.1). Frequent users were more likely to be seen for alcohol withdrawal (RR = 4.4), alcohol dependence (RR = 3.4), and alcohol intoxication (RR = 2.4). Frequent users were also more likely to visit for exacerbations of chronic conditions, including sickle cell anemia (RR = 8.0), renal failure (RR = 3.6), and chronic obstructive pulmonary disease (RR = 3.3). They were less likely to visit for all forms of trauma (RR = 0.43). Survival analysis showed that only 38% of frequent users for one year remained frequent users the next year. However, 56% of frequent users for two consecutive years remained frequent users in the third year. CONCLUSIONS: Frequent use of the ED reflects the urban social problems of homelessness, poverty,

alcohol abuse, and chronic illness. Frequent use of the ED shows a high rate of decline from one year to the next. This rate of decline slows after the first year and suggests the existence of a smaller group of chronic frequent users.

Mazor, K. M., H. L. Haley, et al. (2007). "The video-based test of communication skills: description, development, and preliminary findings." Teach Learn Med 19(2): 162-7.

Background: The importance of assessing physician-patient communication skills is widely recognized, but assessment methods are limited. Objective structured clinical examinations are time-consuming and resource intensive. For practicing physicians, patient surveys may be useful, but these also require substantial resources. Clearly, it would be advantageous to develop alternative or supplemental methods for assessing communication skills of medical students, residents, and physicians. Description: The Video-based Test of Communication Skills (VTCS) is an innovative, computer-administered test, consisting of 20 very short video vignettes. In each vignette, a patient makes a statement or asks a question. The examinee responds verbally, as if it was a real encounter and he or she were the physician. Responses are recorded for later scoring. Test administration takes approximately 1 h. Evaluation: Generalizability studies were conducted, and scores for two groups of physicians predicted to differ in their communication skills were compared. Preliminary results are encouraging; the estimated  $g$  coefficient for the communication score for 20-vignette test (scored by five raters) is 0.79;  $g$  for the personal/affective score under the same conditions is 0.62. Differences between physicians were in the predicted direction, with physicians considered "at risk" for communication difficulties scoring lower than those not so identified. Conclusions: The VTCS is a short, portable test of communication skills. Results reported here suggest that scores reflect differences in skill levels and are generalizable. However, these findings are based on very small sample sizes and must be considered preliminary. Additional work is required before it will be possible to argue confidently that this test in particular, and this approach to testing communication skills in general, is valuable

and likely to make a substantial contribution to assessment in medical education.

McLaughlin, S. A., C. Monahan, et al. (2007). "Implementation and evaluation of a training program for the management of sexual assault in the emergency department." *Ann Emerg Med* **49**(4): 489–94.

**STUDY OBJECTIVE:** Sexual assault nurse examiner (SANE) programs have improved the quality of care for sexual assault victims. An adverse effect of these programs is reduced resident clinical exposure to victims of sexual assault. The objectives of this project are to determine the baseline level of resident competence in knowledge and management of sexual assault and to demonstrate the effectiveness of training in developing resident competence. **METHODS:** The study included 27 emergency medicine residents at an urban academic center with an active SANE program. The design included pretest, intervention, and retest at 6 months. The intervention included 8 hours of lecture, role play, and skills laboratories. Objectives were based on SANE standards. The 4 assessments were a written knowledge test, evidence collection on mannequin, standardized patient interviews, and a written emergency department note. Data were compared with paired t tests. **RESULTS:** Twenty-three (85%) residents completed the study. Preintervention, residents scored 56% on the written knowledge test, 63% on evidence collection, 71% on standardized patient interviews, and 66% on the written note. Residents showed significant postintervention improvements in written knowledge (improvement 24%; 95% confidence interval [CI] 20% to 27%) and evidence collection (improvement 18%; 95% CI 12% to 24%). Performance on standardized patient-based communication skills did not change after the intervention. Resident posttest scores were similar to those of SANE providers. **CONCLUSION:** Emergency medicine residents training in an urban center with an active SANE program had limited knowledge and skills in the treatment of victims of sexual assault. Our multimodal educational intervention increased residents' knowledge and evidence collection skills to levels equivalent to that of experienced providers in a SANE program.

Meade, C. D., J. Menard, et al. (2007). "Impacting health disparities through community outreach: utilizing the CLEAN look (culture, literacy, education, assessment, and networking)." Cancer Control 14(1): 70–7.

**BACKGROUND:** Community outreach programs are important vehicles for reducing the discovery–delivery disconnect by bringing cancer education and screening services directly to community members. Such programs are consistent with the priority areas of the Department of Health and Human Services' initiatives for reducing health disparities by 2010, and they support the use of culturally, linguistically, and literacy–specific approaches for eliminating cancer health disparities. **METHODS:** This article reviews the important tenets of culture and literacy when developing community outreach programs for medically underserved populations, examines a health education empowerment model for community program planning, and describes the use of the CLEAN Look Checklist (in which CLEAN is an easy–to–remember mnemonic of culture, literacy, education, assessment, and networking) for identifying cues and strategies to achieve relevant outreach. **RESULTS:** This article illustrates the application of this approach with an example of outreach strategies for reaching at–risk Haitian American women in our community. **CONCLUSIONS:** Meeting the challenge of a strong health disparities agenda requires integration of cultural and literacy considerations in outreach program, message, and intervention development. The use of a checklist may help clinicians, educators, and researchers create a sustainable model of community outreach guided by a paradigm that incorporates a multilevel approach to address cancer outcomes for disenfranchised populations.

Morrow, D., D. Clark, et al. (2006). "Correlates of health literacy in patients with chronic heart failure." Gerontologist 46(5): 669–76.

**PURPOSE:** Many older adults have inadequate health–related literacy, which is associated with poor health outcomes. Thus, it is important to identify determinants of health literacy. We investigated relationships between health literacy and general cognitive and sensory abilities, as well as education, health, and demographic variables, in a community sample of middle–aged and older adults. **DESIGN AND METHODS:**

Participants were 314 community-dwelling adults (67% female, 48% African American) diagnosed with chronic heart failure recruited for a pharmacist-based intervention study to improve adherence to chronic heart failure medications. We administered demographic, health, education, cognitive (e.g., processing speed, working memory), and sensory measures, and the Short Test of Functional Health Literacy in Adults (STOFHLA), as part of the baseline condition of this study. RESULTS: STOFHLA scores were lower for participants who were older, less educated, male, African American, had more comorbidities, or scored lower on all cognitive ability measures. Hierarchical linear regression analyses showed that education and cognitive ability were independently associated with the STOFHLA measure and explained age differences in health literacy. IMPLICATIONS: The association of cognitive abilities and literacy has important implications for health literacy models and for interventions to reduce the impact of low health literacy on health outcomes. For example, medication instructions should be designed to reduce comprehension demands on general cognitive abilities as well as literacy skills.

Olney, C. A., D. G. Warner, et al. (2007). "MedlinePlus and the challenge of low health literacy: findings from the Colonias project." J Med Libr Assoc 95(1): 31-9.

OBJECTIVE: To explore the potential of a community-based health information outreach project to overcome problems associated with health literacy in low-income Hispanic communities along the Texas-Mexico border. METHODS: Using a train-the-trainer approach, community outreach workers known as promotoras were trained by a health information outreach team to search English and Spanish versions of MedlinePlus. These 15 promotoras submitted written examples on a weekly basis of the topics they helped residents explore on MedlinePlus and the ways in which the residents used the information. These weekly reports, along with verbal interviews with promotoras and others in the communities, allowed development of a database of 161 incidents ("stories") demonstrating how community residents used MedlinePlus. These stories were thematically analyzed to explore how the program

benefited participants. RESULTS: The database of stories included examples of community residents becoming better informed about their illnesses, resolving to visit doctors, making decisions about recommended treatments, reducing their anxiety about health conditions, committing to healthy or preventive behavior, and assisting family members. CONCLUSION: With the help of paraprofessionals like promotoras, community-based health information outreach projects may improve the ability of community residents to understand their health conditions and to participate actively in their health care.

O'Mahony, S., E. Mazur, et al. (2007). "Use of multidisciplinary rounds to simultaneously improve quality outcomes, enhance resident education, and shorten length of stay." J Gen Intern Med 22(8): 1073–9.

BACKGROUND: Hospital-based clinicians and educators face a difficult challenge trying to simultaneously improve measurable quality, educate residents in line with ACGME core competencies, while also attending to fiscal concerns such as hospital length of stay (LOS). OBJECTIVE: The purpose of this study was to determine the effect of multidisciplinary rounds (MDR) on quality core measure performance, resident education, and hospital length of stay. DESIGN: Pre and post observational study assessing the impact of MDR during its first year of implementation. SETTING: The Norwalk Hospital is a 328-bed, university-affiliated community teaching hospital in an urban setting with a total of 44 Internal Medicine residents. METHODS: Joint Commission on Accreditation of Healthcare Organizations (JCAHO) core measure performance was obtained on a monthly basis for selected heart failure (CHF), pneumonia, and acute myocardial infarction (AMI) measures addressed on the general medical service. Resident knowledge and attitudes about MDR were determined by an anonymous questionnaire. LOS and monthly core measure performance rates were adjusted for patient characteristics and secular trends using linear spline logistic regression modeling. RESULTS: Institution of MDR was associated with a significant improvement in quality core measure performance in targeted areas of CHF from 65% to 76% ( $p < .001$ ), AMI from 89% to 96% ( $p = .004$ ), pneumonia from 27% to 70% ( $p < .001$ ), and all combined from 59% to

78% ( $p < .001$ ). Adjusted overall monthly performance rates also improved during MDR (odds ratio [OR] 1.09, CI 1.06–1.12,  $p < .001$ ). Residents reported substantial improvements in core measure knowledge, systems-based care, and communication after institution of MDR ( $p < .001$ ). Residents also agreed that MDR improved efficiency, delivery of evidence-based care, and relationships with involved disciplines. Adjusted average LOS decreased 0.5 (95% CI 0.1–0.8) days for patients with a target core measure diagnosis of either CHF, pneumonia, or AMI ( $p < .01$ ) and by 0.6 (95% CI 0.5–0.7) days for all medicine DRGs ( $p < .001$ ). CONCLUSIONS: Resident-centered MDR is an effective process using no additional resources that simultaneously improves quality of care while enhancing resident education and is associated with shortened length of stay.

Ong, L. M. L., J. C. J. M. de Haes, et al. (1995). "Doctor-patient communication: A review of the literature." Social Science & Medicine 40(7): 903–918.

Communication can be seen as the main ingredient in medical care. In reviewing doctor-patient communication, the following topics are addressed: (1) different purposes of medical communication; (2) analysis of doctor-patient communication; (3) specific communicative behaviors; (4) the influence of communicative behaviors on patient outcomes; and (5) concluding remarks. Three different purposes of communication are identified, namely: (a) creating a good inter-personal relationship; (b) exchanging information; and (c) making treatment-related decisions. Communication during medical encounters can be analyzed by using different interaction analysis systems (IAS). These systems differ with regard to their clinical relevance, observational strategy, reliability/validity and channels of communicative behavior. Several communicative behaviors that occur in consultations are discussed: instrumental (cure oriented) vs affective (care oriented) behavior, verbal vs non-verbal behavior, privacy behavior, high vs low controlling behavior, and medical vs everyday language vocabularies. Consequences of specific physician behaviors on certain patient outcomes, namely: satisfaction, compliance/adherence to treatment, recall and understanding of information, and health status/psychiatric morbidity are

described. Finally, a framework relating background, process and outcome variables is presented.

Orellana, D., I. J. Busch–Vishniac, et al. (2007). "Noise in the adult emergency department of Johns Hopkins Hospital." J Acoust Soc Am 121(4): 1996–9.

While hospitals are generally noisy environments, nowhere is the pandemonium greater than in an emergency department, where there is constant flow of patients, doctors, nurses, and moving equipment. In this noise study we collected 24 h measurements throughout the adult emergency department of Johns Hopkins Hospital, the top ranked hospital in the U.S. for 16 years running. The equivalent sound pressure level ( $L_{eq}$ ) throughout the emergency department is about 5 dB(A) higher than that measured previously at a variety of in–patient units of the same hospital. Within the emergency department the triage area at the entrance to the department has the highest  $L_{eq}$ , ranging from 65 to 73 dB(A). Sound levels in the emergency department are sufficiently high [on average between 61 and 69 dB(A)] to raise concerns regarding the communication of speech without errors—an important issue everywhere in a hospital and a critical issue in emergency departments because doctors and nurses frequently need to work at an urgent pace and to rely on oral communication.

Palmer, R., H. Rayner, et al. (2007). "Multisource feedback: 360–degree assessment of professional skills of clinical directors." Health Serv Manage Res 20(3): 183–8.

For measuring behaviour of National Health Service (NHS) staff, 360–degree assessment is a valuable tool. The important role of a clinical director as a medical leader is increasingly recognized, and attributes of a good clinical director can be defined. Set against these attributes, a 360–degree assessment tool has been designed. The job description for clinical directors has been used to develop a questionnaire sent to senior hospital staff. The views of staff within the hospital are similar irrespective of gender, post held or length of time in post. Analysis has shown that three independent factors can be distilled, namely operational management, interpersonal skills and creative/strategic thinking. A

simple validated questionnaire has been developed and successfully introduced for the 360-degree assessment of clinical directors.

Pichert, J. W., C. S. Miller, et al. (1998). "What health professionals can do to identify and resolve patient dissatisfaction." Joint Commission Journal on Quality Improvement 24: 303-312.

Potter, T. B. and R. G. Palmer (2003). "360-degree assessment in a multidisciplinary team setting." Rheumatology (Oxford) 42(11): 1404-7.

OBJECTIVES: To use the 360-degree assessment in the multidisciplinary setting of a rheumatology department and to evaluate its impact, recognizing that this process will become part of the revalidation process of NHS professionals in the future. METHODS: Seventeen team members completed an anonymous questionnaire to give confidential opinions about the clinical, humanistic and other skills of their colleagues. Results and comments were collated and given as feedback to each individual. Before feedback, participants were asked to predict their perceived strengths and weaknesses. After feedback they evaluated the process. RESULTS: A profile of abilities was established for each team member and discussed privately with the clinical director. Often team members had good insight into their perceived strengths and weaknesses. Some participants were hurt by negative comments made about them even if this was balanced by positive comments. There were mixed views on the relevance and usefulness of the process, and whether or not it should be repeated. Some team members found the process threatening. CONCLUSION: The 360-degree assessment can be used in a multidisciplinary setting, the questions being the same for all individuals. It is a very powerful tool that must be handled carefully so that it does not cause more harm than good.

Powell, C. K., E. G. Hill, et al. (2007). "The relationship between health literacy and diabetes knowledge and readiness to take health actions." Diabetes Educ 33(1): 144-51.

PURPOSE: The purpose of this study was to explore the relationship among health literacy, patients' readiness to take health actions, and

diabetes knowledge among individuals with type 2 diabetes. **METHODS:** Sixty-eight patients with type 2 diabetes receiving care in an academic general internal medicine clinic were administered the Rapid Estimate of Adult Literacy in Medicine (REALM) literacy instrument prior to completing the Diabetes Health Belief Model (DHBM) scale and Diabetes Knowledge Test (DKT). Multivariable linear regression was used to assess the association between REALM literacy level, DKT score, DHBM scale score, and most recent hemoglobin A1C level while controlling for other covariates of interest. **RESULTS:** After controlling for other covariates of interest, no significant association between DHBM scale score and REALM literacy level was found ( $P = .29$ ). However, both DKT score and most recent hemoglobin A1C level were found to be significantly associated with patient literacy ( $P = .004$  and  $P = .02$ , respectively). Based on the multivariable model, patients with less than a fourth-grade literacy level had 13% lower DKT scores (95% confidence interval [CI], -28% to -2%;  $P = .08$ ) and 1.36% higher most recent hemoglobin A1C levels (95% CI, 1.06% to 1.73%;  $P = .02$ ) relative to those with a high school literacy level. **CONCLUSIONS:** Low health literacy is a problem faced by many patients that affects their ability to navigate the health care system and manage their chronic illnesses. While low health literacy was significantly associated with worse glycemic control and poorer disease knowledge in patients with type 2 diabetes, there was no significant relationship with their readiness to take action in disease management.

Ragin, D. F., U. Hwang, et al. (2005). "Reasons for using the emergency department: results of the EMPATH Study." *Acad Emerg Med* 12(12): 1158-66.

**OBJECTIVES:** Emergency Medicine Patients' Access To Healthcare (EMPATH) was a cross-sectional, observational study conducted to identify the principal reasons why patients seek care in hospital emergency departments (EDs) in the United States. **METHODS:** Twenty-eight U.S. hospitals, stratified by geographic region and hospital characteristics, participated in this study. Demographic, clinical, and insurance data were collected for a 24-hour period at each site, using chart reviews and a structured interview administered to all consenting adult patients seeking treatment during that period. Patients' reasons for

presenting to the ED were assessed by their level of agreement (on a three-point Likert scale) with 21 carefully worded statements designed to capture a range of possible reasons for seeking care in the ED. Factor analysis was used to consolidate highly correlated responses and to identify the principal factors explaining patients' reasons for coming to the ED. RESULTS: A total of 1,579 patient interviews and 2,004 chart reviews were obtained from a diverse sample that was 55.4% female, 58.3% white, 28.3% African American, 7.0% Hispanic, and 6.0% other ethnic groups. This exploratory analysis yielded five factors characterizing patients' principal reasons for seeking ED care, with medical necessity the most frequent, followed by ED preference, convenience, affordability, and limitations of insurance. CONCLUSIONS: Use of the ED is, for most people, an affirmative choice over other providers rather than a last resort; it is often a choice driven by lack of access to or dissatisfaction with other sources of care.

Ratzan, S. C. and R. M. Parker (2006). "Health literacy – identification and response." J Health Commun 11(8): 713–5.

Redley, B., S. A. LeVasseur, et al. (2003). "Families' needs in emergency departments: instrument development." J Adv Nurs 43(6): 606–15.

BACKGROUND: Families who accompany critically ill relatives in emergency departments (EDs) are an integral part of the care unit. However, there are few empirical data on their needs during this phase of care. In order to guide quality care, general and specific needs of families accompanying these critically ill relatives should be systematically examined. AIM: The aim of this pilot project was to test the tool, methods and analysis plan for a study to examine the perceived needs of family members accompanying critically ill patients in EDs and their perceptions of ED staff's ability to meet these needs. METHOD: Over a 6-week period in 1996, 84 relatives who met the inclusion criteria were recruited to the study. A postal questionnaire, to uncover the needs of family members, was pilot tested. The questionnaire consisted of 40 need statements reflecting five major themes: meaning, proximity, communication, comfort and support. Of the 84 relatives selected for the study, 73%

returned completed questionnaires. RESULTS: The findings of this pilot study suggest that the questionnaire is a valid and reliable tool for researchers wishing to examine and rank the needs of family members who accompany critically ill people in EDs. In addition, the analysis plan was found to be appropriate. CONCLUSIONS: This pilot study provides both a method and a tool for further research into family needs. Examination of the pilot data supported the reliability and validity of the tool and produced findings that challenge nurses to move beyond traditional practice that has excluded families from being an integral part of caring for critically ill patients in EDs.

Rentmeester, C. A. (2007). "Why aren't you doing what we want?" Cultivating collegiality and communication between specialist and generalist physicians and residents." J Med Ethics 33(5): 308–10.

Developing residents' communication skills has been a goal of residency training programmes since the Accreditation Council for Graduate Medical Education codified it as a core competency. In this article, a case that features problematic communication between a generalist and specialist physician is drawn upon, and it is suggested how their communication might become open and effective through a practice of reason exchange. This is a practice of giving reasons, listening to reasons given by others, evaluating reasons and deciding which particulars of situations constitute reasons to act and reasons how to act. Drawing on recent literature in teaching communication to radiology residents, it is proposed that practices of reason exchange are part of the skill set generally referred to as "negotiation skills" that should be cultivated in all residents. Particularly, in cases in which generalist and specialist physicians disagree about the reasons to do something, not do something or do something this way or that way, how well physicians are trained to practice reason exchange depends on whether they can communicate effectively and negotiate disagreement collegially.

Rhodes, K. V., T. Vieth, et al. (2004). "Resuscitating the physician–patient relationship: emergency department communication in an academic medical center." Ann Emerg Med 44(3): 262–7.

**STUDY OBJECTIVE:** We characterize communication in an urban, academic medical center emergency department (ED) with regard to the timing and nature of the medical history survey and physical examination and discharge instructions. **METHODS:** Audiotaping and coding of 93 ED encounters (62 medical history surveys and physical examinations, 31 discharges) with a convenience sample of 24 emergency medicine residents, 8 nurses, and 93 nonemergency adult patients. **RESULTS:** Patients were 68% women and 84% black, with a mean age of 45 years. Emergency medicine providers were 70% men and 80% white. Of 62 medical history surveys and physical examinations, time spent on the introduction and medical history survey and physical examination averaged 7 minutes 31 seconds (range 1 to 20 minutes). Emergency medicine residents introduced themselves in only two thirds of encounters, rarely (8%) indicating their training status. Despite physician tendency (63%) to start with an open-ended question, only 20% of patients completed their presenting complaint without interruption. Average time to interruption (usually a closed question) was 12 seconds. Discharge instructions averaged 76 seconds (range 7 to 202 seconds). Information on diagnosis, expected course of illness, self-care, use of medications, time-specified follow-up, and symptoms that should prompt return to the ED were each discussed less than 65% of the time. Only 16% of patients were asked whether they had questions, and there were no instances in which the provider confirmed patient understanding of the information. **CONCLUSION:** Academic EDs present unique challenges to effective communication. In our study, the physician-patient encounter was brief and lacking in important health information. Provision of patient-centered care in academic EDs will require more provider education and significant system support.

Rosenzweig, S., T. P. Brigham, et al. (1999). "Assessing emergency medicine resident communication skills using videotaped patient encounters: gaps in inter-rater reliability." *J Emerg Med* 17(2): 355-61.

We report on a process for assessing the communication skills of emergency medicine residents that includes 1) a faculty development initiative; 2) videotaping of actual resident-patient encounters in the

emergency department; and 3) creation of an observation instrument for evaluating communication behaviors. We tested this observation instrument for inter-rater reliability, finding moderate-to-high agreement for only 11 of 32 items. These related to personal introductions, conflict management, nonverbal communication, and overall performance. There was poor or no agreement for behaviors related to establishing rapport, gathering information, and contracting or informing. Challenges of assessing interpersonal skills of emergency medicine residents are discussed.

Roth, C. S., K. V. Watson, et al. (2002). "A communication assessment and skill-building exercise (CASE) for first-year residents." *Acad Med* 77(7): 746-7.

OBJECTIVE: Good communication skills are essential for residents entering postgraduate education programs. However, these skills vary widely among medical school graduates. This pilot program was designed to create opportunities for (1) teaching essential interviewing and communication skills to trainees at the beginning of residency, (2) assessing resident skills and confidence with specific types of interview situations, (3) developing faculty teaching and assessment skills, (4) encouraging collegial interaction between faculty and new trainees, and (5) guiding residency curricular development. DESCRIPTION: During residency orientation, all first-year internal medicine residents (n = 26) at the University of Minnesota participated in the communication assessment and skill-building exercise (CASE). CASE consisted of four ten-minute stations in which residents demonstrated their communication skills in encounters with standardized patients (SPs) while faculty members observed for specific skills. Faculty and SPs were oriented to the educational purposes and goals of their stations, and received instructions on methods of providing feedback to residents. With each station, residents were provided one and a half minutes of direct feedback by the faculty observer and the SP. The residents were asked to deal with an angry family member, to counsel for smoking cessation, to set a patient-encounter agenda, and to deliver bad news. A resident's performance was analyzed for each station, and individual profiles were created. All residents and faculty completed evaluations of the exercise,

assessing the benefits and areas for improvement. DISCUSSION: Evaluations and feedback from residents and faculty showed that most of our objectives were accomplished. Residents reported learning important skills, receiving valuable feedback, and increasing their confidence in dealing with certain types of stressful communication situations in residency. The activity was also perceived as an excellent way to meet and interact with faculty. Evaluators found the experience rewarding, an effective method for assessing and teaching clinical skills, a faculty development experience for themselves in learning about structured practical skills exercises, and a good way to meet new interns. The residency program director found individual resident performance profiles valuable for identifying learning issues and for guiding curricular development. Time constraints were the most frequently cited area for improvement. The exercise became feasible by collaborating with the medical school Office of Education–Educational Development and Research, whose mission is to collaborate with faculty across the continuum of medical education to improve the quality of instruction and evaluation. The residency program saved considerable time, effort, and expense by using portions of the medical school's existing student skills–assessment programs and by using chief residents and faculty as evaluators. We plan to use CASE next year with a wider variety of physician–patient scenarios for interns, and to expand the program to include beginning second– and third–year residents. Also, since this type of exercise creates powerful feedback and assessment opportunities for instructors and course directors, and because feedback was so favorable from evaluators, we will encourage participation in CASE as part of our faculty educational development program.

Rowland–Morin, P. A., N. P. Coe, et al. (2002). "The effect of improving communication competency on the certifying examination of the American Board of Surgery." *Am J Surg* 183(6): 655–8.

BACKGROUND: Since 1991 the authors have offered a course that identifies content deficits, but only provides instruction directed at improving verbal and nonverbal behaviors. We report the outcome of this 10–year effort as success on the certifying examination of the American

Board of Surgery between 1991 and 2001. METHODS: Sixteen 5-day courses were scheduled over 10 years. Participants included those who had not taken the oral examination or had failed at least once and invited senior faculty (n = 26). Sites were chosen to replicate the actual examination setting. RESULTS: There were 122 participants, with follow-up data available on 88. Success in the certifying examination after completing the course is 96 percent. CONCLUSIONS: Evaluation of communication deficits and training to improve them is strongly associated with success. Clearly, this course is effective at identifying communication behaviors that are interfering with success on the certifying examination of the American Board of Surgery.

Sanders, L. M., V. T. Thompson, et al. (2007). "Caregiver health literacy and the use of child health services." Pediatrics 119(1): e86-92.

OBJECTIVES: Eighty million US adults have low health literacy, a risk factor for increased health care use among adults. The purpose of this work was to assess the association between caregiver health literacy and the use and cost of child health services. METHODS: We conducted a cross-sectional study of caregiver-child dyads from a sample of children aged 12 months to 12 years presenting to the pediatric emergency department of an urban, public hospital. Caregiver health literacy was measured by the Short Test of Functional Health Literacy in their preferred language (English or Spanish). Child health care use was measured by a 12-month retrospective review of the public hospital system's electronic database and of state Medicaid billing records for 4 types of visits: preventive care, urgent care, emergency care, and hospital care. Cost of child health care use was provided by Medicaid billing records. Multivariate analysis included caregiver education, age, and language proficiency, as well as child age, special health care needs, ethnicity, and health-insurance coverage. RESULTS: A total of 290 dyads were enrolled in the study. Twenty-two percent of caregivers had low (inadequate or marginal) health literacy. Caregivers with low health literacy were more likely to have less than a high school education, to have limited English proficiency, and to have been born outside the United States. There were no differences in health care use or cost

between children of caregivers with low health literacy and children of caregivers with adequate health literacy. Three caregiver characteristics were associated with increased use of child health care services: born outside the United States, age at child's birth <24 years, and limited English proficiency. CONCLUSIONS: One in 5 caregivers of young children has low health literacy. Caregiver health literacy, however, was not associated with disparities in the use of child health services in this inner-city, ethnic minority population.

Schillinger, D., E. L. Machtiger, et al. (2006). "Language, literacy, and communication regarding medication in an anticoagulation clinic: a comparison of verbal vs. visual assessment." J Health Commun 11(7): 651–64.

Despite the importance of clinician–patient communication, little is known about rates and predictors of medication miscommunication. Measuring rates of miscommunication, as well as differences between verbal and visual modes of assessment, can inform efforts to more effectively communicate about medications. We studied 220 diverse patients in an anticoagulation clinic to assess concordance between patient and clinician reports of warfarin regimens. Bilingual research assistants asked patients to (1) verbalize their prescribed weekly warfarin regimen and (2) identify this regimen from a digitized color menu of warfarin pills. We obtained clinician reports of patient regimens from chart review. Patients were categorized as having regimen concordance if there were no patient–clinician discrepancies in total weekly dosage. We then examined whether verbal and visual concordance rates varied with patient's language and health literacy. Fifty percent of patients achieved verbal concordance and 66% achieved visual concordance with clinicians regarding the weekly warfarin regimen ( $P < .001$ ). Being a Cantonese speaker and having inadequate health literacy were associated with a lower odds of verbal concordance compared with English speakers and subjects with adequate health literacy (AOR 0.44, 0.21–0.93, AOR 0.50, 0.26–0.99, respectively). Neither language nor health literacy was associated with visual discordance. Shifting from verbal to visual modes was associated with greater patient–provider concordance across all patient subgroups, but especially for those with communication

barriers. Clinician-patient discordance regarding patients' warfarin regimen was common but occurred less frequently when patients used a visual aid. Visual aids may improve the accuracy of medication assessment, especially for patients with communication barriers.

Simon, J. R. (2007). "Refusal of Care: The Physician-Patient Relationship and Decisionmaking Capacity." Ann Emerg Med.

Problems of refusal of care, among the most common ethical dilemmas in the emergency department, are also often the most difficult to resolve, pitting 2 conflicting duties, that of helping patients and that of respecting their autonomy, against each other. Using a case presentation as a backdrop, this article offers a practical approach to patients who refuse treatment, including assessment of decisionmaking capacity but emphasizing the role of trust, communication, and compromise in these cases.

Spandorfer, J. M., D. J. Karras, et al. (1995). "Comprehension of discharge instructions by patients in an urban emergency department." Ann Emerg Med 25(1): 71-4.

**STUDY OBJECTIVE:** To assess patients' comprehension of their emergency department discharge instructions and to determine if inner-city patients' literacy levels are adequate to comprehend written discharge instructions. **DESIGN:** Prospective, observational study. **SETTING:** The ED of an inner-city university hospital. **PARTICIPANTS:** Two hundred seventeen patients consecutively discharged from the ED during 12 separate time slots. **INTERVENTIONS:** Patients were interviewed after discharge from the ED and asked to state their diagnosis, medication instructions, and follow-up instructions. Comparisons between patient recall and instructions as written in the chart were assessed by independent raters and scored from poor to excellent. Patients were administered a standardized test of reading ability. **RESULTS:** Overall comprehension rates were judged to be good, although 23% of patients exhibited no understanding of at least one component of their discharge instructions. Mean reading ability of the patients was at the sixth-grade level. The ED's printed discharge instructions were written at an 11th-grade reading

level. Patients with low literacy scores were more likely to have poor comprehension of instructions. CONCLUSION: Overall comprehension rates in this population were good despite the fact that ED instruction sheets were written at an inappropriately high reading level. Verbal instructions given by the discharging physician likely have a significant effect on patients' comprehension of instructions.

Street, R. L., Jr., H. Gordon, et al. (2007). "Physicians' communication and perceptions of patients: Is it how they look, how they talk, or is it just the doctor?" Soc Sci Med.

Although physicians' communication style and perceptions affect outcomes, few studies have examined how these perceptions relate to the way physicians communicate with patients. Moreover, while any number of factors may affect the communication process, few studies have analyzed these effects collectively in order to identify the most powerful influences on physician communication and perceptions. Adopting an ecological approach, this investigation examined: (a) the relationships of physicians' patient-centered communication (informative, supportive, partnership-building) and affect (positive, contentious) on their perceptions of the patient, and (b) the degree to which communication and perceptions were affected by the physicians' characteristics, patients' demographic characteristics, physician-patient concordance, and the patient's communication. Physicians (N=29) and patients (N=207) from 10 outpatient settings in the United States participated in the study. From audio-recordings of these visits, coders rated the physicians' communication and affect as well as the patients' participation and affect. Doctors were more patient-centered with patients they perceived as better communicators, more satisfied, and more likely to adhere. Physicians displayed more patient-centered communication and more favorably perceived patients who expressed positive affect, were more involved, and who were less contentious. Physicians were more contentious with black patients, whom they also perceived as less effective communicators and less satisfied. Finally, physicians who reported a patient-centered orientation to the doctor-patient relationship also were more patient-centered in their

communication. The results suggest that reciprocity and mutual influence have a strong effect on these interactions in that more positive (or negative) communication from one participant leads to similar responses from the other. Physicians' encounters with black patients revealed communicative difficulties that may lower quality of care for these patients.

Street, R. L., Jr., H. S. Gordon, et al. (2005). "Patient participation in medical consultations: why some patients are more involved than others." Med Care 43(10): 960–9.

**BACKGROUND:** Patients vary in their willingness and ability to actively participate in medical consultations. Because more active patient participation contributes to improved health outcomes and quality of care, it is important to understand factors affecting the way patients communicate with healthcare providers. **OBJECTIVES:** The objectives of this study were to examine the extent to which patient participation in medical interactions is influenced by 1) the patient's personal characteristics (age, gender, education, ethnicity); 2) the physician's communication style (eg, use of partnership–building and supportive talk); and 3) the clinical setting (eg, the health condition, medical specialty). **RESEARCH DESIGN AND SUBJECTS:** The authors conducted a post hoc cross–sectional analysis of 279 physician–patient interactions from 3 clinical sites: 1) primary care patients in Sacramento, California, 2) patients with systemic lupus erythematosus (SLE) from the San Francisco Bay area, and 3) patients with lung cancer from a VA hospital in Texas. **MAIN OUTCOME MEASURES:** The outcome measures included the degree to which patients asked questions, were assertive, and expressed concerns and the degree to which physicians used partnership–building and supportive talk (praise, reassurance, empathy) in their consultations. **RESULTS:** The majority of active participation behaviors were patient–initiated (84%) rather than prompted by physician partnership–building or supportive talk. Patients who were more active participants received more facilitative communication from physicians, were more educated, and were more likely to be white than of another ethnicity. Women more willingly expressed negative feelings and

concerns. There was considerable variability in patient participation across the 3 clinical settings. Female physicians were more likely to use supportive talk than males, and physicians generally used less supportive talk with nonwhite compared with white patients. CONCLUSIONS: Patient participation in medical encounters depends on a complex interplay of personal, physician, and contextual factors. Although more educated and white patients tended to be more active participants than their counterparts, the strongest predictors of patient participation were situation-specific, namely the clinical setting and the physician's communicative style. Physicians could more effectively facilitate patient involvement by more frequently using partnership-building and supportive communication. Future research should investigate how the nuances of individual clinical settings (eg, the health condition, time allotted for the visit) impose constraints or opportunities for more effective patient involvement in care.

Stuart, P. J., S. Parker, et al. (2003). "Giving a voice to the community: a qualitative study of consumer expectations for the emergency department." Emerg Med (Fremantle) 15(4): 369-75.

OBJECTIVE: To identify consumer expectations with respect to the ED. METHODS: Semi-structured focus groups comprising representatives from a wide range of community groups. Data was analysed using a qualitative analytical approach. RESULTS: The major themes of the groups were communication, triage, waiting area, cultural issues and carers. Consumers expressed the need to be informed about how the ED functions, particularly with regard to the triage process, patient assessment and admissions procedure. Privacy at the triage desk, comfort and safety of the waiting area, provision of facilities for children, cultural awareness of staff, access interpreter services and recognition of the needs of carers were identified as key issues. CONCLUSION: The recognition of consumer needs provides the opportunity for the ED to develop strategies to match patient needs to service delivery.

Sun, B. C., J. Adams, et al. (2000). "Determinants of patient satisfaction and willingness to return with emergency care." Ann Emerg Med 35(5): 426-34.

**STUDY OBJECTIVE:** To identify emergency department process of care measures that are significantly associated with satisfaction and willingness to return. **METHODS:** Patient satisfaction and willingness to return at 5 urban, teaching hospital EDs were assessed. Baseline questionnaire, chart review, and 10-day follow-up telephone interviews were performed, and 38 process of care measures and 30 patient characteristic were collected for each respondent. Overall satisfaction was modeled with ordinal logistic regression. Willingness to return was modeled with logistic regression. **RESULTS:** During a 1-month study period, 2,899 (84% of eligible) on-site questionnaires were completed. Telephone interviews were completed by 2,333 patients (80% of patients who completed a questionnaire). Patient-reported problems that were highly correlated with satisfaction included help not received when needed (odds ratio [OR] 0.345; 95% confidence interval [CI] 0.261 to 0.456), poor explanation of causes of problem (OR 0.434; 95% CI 0.345 to 0.546), not told about potential wait time (OR 0.479; 95% CI 0.399 to 0.577), not told when to resume normal activities (OR 0.691; 95% CI 0.531 to 0.901), poor explanation of test results (OR 0.647; 95% CI 0.495 to 0.845), and not told when to return to the ED (OR 0.656; 95% CI 0.494 to 0.871). Other process of care measures correlated with satisfaction include nonacute triage status (OR 0.701, 95% CI 0.578 to 0.851) and number of treatments in the ED (OR 1.164 per treatment; 95% CI 1.073 to 1.263). Patient characteristics that significantly predicted less satisfaction included younger age and black race. Determinants of willingness to return include poor explanation of causes of problem (OR 0.328; 95% CI 0.217 to 0.495), unable to leave a message for family (OR 0.391; 95% CI 0.226 to 0.677), not told about potential wait time (OR 0.561; 95% CI 0.381 to 0.825), poor explanation of test results (OR 0.541; 95% CI 0.347 to 0.846), and help not received when needed (OR 0.537; 95% CI 0.340 to 0.846). Patients with a chief complaint of hand laceration were less willing to return compared with a reference population of patients with abdominal pain. Willingness to return is strongly predicted by overall satisfaction (OR 2.601; 95% CI 2.292 to 2.951). **CONCLUSION:** These data identify specific process of care measures that are determinants of patient satisfaction and willingness to return. Efforts to increase patient

satisfaction and willingness to return should focus on improving ED performance on these identified process measures.

Sun, B. C., M. Brinkley, et al. (2004). "A patient education intervention does not improve satisfaction with emergency care." Ann Emerg Med 44(4): 378–83.

**STUDY OBJECTIVE:** We determine whether a patient education intervention based on a previously validated model increases satisfaction with emergency department (ED) care. **METHODS:** A single–page patient education form was distributed on alternating 2–week time blocks for 8 weeks at the triage desk of a single academic ED. Alert, discharged patients were administered an exit interview assessing satisfaction on a 5–point ordinal scale. Secondary outcomes included patient satisfaction measured on a bivariate scale, willingness to return, and process of care indicators previously demonstrated to be associated with satisfaction. Exclusion criteria included air or ground transport to the ED, inability to speak English or Spanish, and refusal to participate. Differences in patient satisfaction and other outcomes were adjusted for predefined covariates, including age, sex, triage severity, race, language, location in ED, total ED length of stay, and time to room, using multivariable logistic regression. **RESULTS:** Of 1,934 patients discharged during study periods, 1,233 (64%) were approached and 860 (44%) were enrolled. There were no important covariate differences between the control and intervention groups. There was no important correlation between intervention and patient satisfaction on univariate (odds ratio [OR] 0.840; 95% confidence interval [CI] 0.650 to 1.086) and multivariate analysis (OR 0.874; 95% CI 0.672 to 1.136). There were no important correlations between the intervention and secondary outcomes on multivariate analysis. **CONCLUSION:** A triage–based, patient education intervention did not significantly improve patient satisfaction or performance on predictors of satisfaction at the study site.

Tamblyn, R., M. Abrahamowicz, et al. (2007). Physician Scores on a National Clinical Skills Examination as Predictors of Complaints to Medical Regulatory Authorities. **298:** 993–1001.

Context Poor patient–physician communication increases the risk of

patient complaints and malpractice claims. To address this problem, licensure assessment has been reformed in Canada and the United States, including a national standardized assessment of patient–physician communication and clinical history taking and examination skills.

**Objective** To assess whether patient–physician communication examination scores in the clinical skills examination predicted future complaints in medical practice.

**Design, Setting, and Participants** Cohort study of all 3424 physicians taking the Medical Council of Canada clinical skills examination between 1993 and 1996 who were licensed to practice in Ontario and/or Quebec. Participants were followed up until 2005, including the first 2 to 12 years of practice.

**Main Outcome Measure** Patient complaints against study physicians that were filed with medical regulatory authorities in Ontario or Quebec and retained after investigation.

Multivariate Poisson regression was used to estimate the relationship between complaint rate and scores on the clinical skills examination and traditional written examination. Scores are based on a standardized mean (SD) of 500 (100). Results Overall, 1116 complaints were filed for 3424 physicians, and 696 complaints were retained after investigation. Of the physicians, 17.1% had at least 1 retained complaint, of which 81.9% were for communication or quality-of-care problems. Patient–physician communication scores for study physicians ranged from 31 to 723 (mean [SD], 510.9 [91.1]). A 2-SD decrease in communication score was associated with 1.17 more retained complaints per 100 physicians per year (relative risk [RR], 1.38; 95% confidence interval [CI], 1.18–1.61) and 1.20 more communication complaints per 100 practice-years (RR, 1.43; 95% CI, 1.15–1.77). After adjusting for the predictive ability of the clinical decision-making score in the traditional written examination, the patient–physician communication score in the clinical skills examination remained significantly predictive of retained complaints (likelihood ratio test,  $P < .001$ ), with scores in the bottom quartile explaining an additional 9.2% (95% CI, 4.7%–13.1%) of complaints.

**Conclusion** Scores achieved in patient–physician communication and clinical decision making on a national licensing examination predicted complaints to medical regulatory authorities.

Taylor, D., M. P. Kennedy, et al. (2006). "A multifaceted intervention improves patient satisfaction and perceptions of emergency department care." Int J Qual Health Care 18(3): 238–45.

**OBJECTIVE:** . We aimed to evaluate the effectiveness of a multifaceted intervention, targeting staff–patient communication, in improving emergency department patient satisfaction. **METHODS:** We undertook a pre- and post-intervention study in a university-affiliated emergency department, over a 12-month period. The intervention included communication workshops, a patient education film, and a patient liaison nurse. At the patient level, the patient liaison nurse ensured optimal staff–patient community communication and played a role in staff communication education. The intervention was evaluated using patient surveys (containing general and communication-specific satisfaction items scored out of 100), complaint rates, and patient liaison nurse activity data. **RESULTS:** A total of 321 and 545 patients returned questionnaires in the pre- and post-intervention periods, respectively. Significant improvements were observed in patients' perceptions of being 'informed about delays' [score difference, 5.3; 95% confidence interval (CI), 0.6–10.0], that 'staff cared about them as a person' (difference, 4.4; 95% CI, 0.7–8.1), the overall emergency department facility assessment (difference, 3.9; 95% CI, 0.4–7.5) and overall emergency department care (difference, 3.8; 95% CI, 0.3–7.3). Non-significant improvements were seen in all other satisfaction items. In the post-intervention period, there was a 22.5% (95% CI, 14.6–32.8) decrease in the number of complaints received and a decrease in the complaint rate of 0.7 (95% CI, –0.3 to 1.6) complaints per 1000 patients. The patient liaison nurse activities included orientation of the patient including (i) explanation of tests, procedures, and delays; (ii) communication with a range of hospital staff; and (iii) general comfort measures including analgesia quality control. **CONCLUSION:** Significant improvements in a variety of patient satisfaction measures were achieved with an intervention comprising staff communication workshops, a patient education film, and a patient liaison nurse.

Taylor, D. M. and P. A. Cameron (2000). "Discharge instructions for emergency

department patients: what should we provide?" J Accid Emerg Med 17(2): 86–90.

Effective communication between the physician and patient is required for optimum post-emergency department management. Written emergency department discharge instructions, when used to complement verbal instructions, have been shown to improve communication and patient management. This review examines the purpose, advantages, and disadvantages of three commonly used types of discharge instruction. The desirable features of discharge instructions are described. It is recommended that structured, pre-formatted instruction sheets be provided to all patients discharged to home, that emergency departments establish uniform policies to promote best practice in communication, and that the use of discharge instructions be considered as an emergency department performance indicator.

Thomas, E. J., J. B. Sexton, et al. (2003). "Discrepant attitudes about teamwork among critical care nurses and physicians." Crit Care Med 31(3): 956–9.

OBJECTIVE: To measure and compare critical care physicians' and nurses' attitudes about teamwork. DESIGN: Cross-sectional surveys. SETTING: Eight nonsurgical intensive care units in two teaching and four nonteaching hospitals in the Houston, TX, metropolitan area. SUBJECTS: Physicians and nurses who worked in the intensive care units. MEASUREMENTS AND MAIN RESULTS: Three hundred twenty subjects (90 physicians and 230 nurses) responded to the survey. The response rate was 58% (40% for physicians and 71% for nurses). Only 33% of nurses rated the quality of collaboration and communication with the physicians as high or very high. In contrast, 73% of physicians rated collaboration and communication with nurses as high or very high. By using factor analysis, we developed a seven-item teamwork scale. Multivariate analysis of variance of the items yielded an omnibus ( $F(7, 163) = 8.37; p < .001$ ), indicating that physicians and nurses perceive their teamwork climate differently. Analysis of individual items revealed that relative to physicians, nurses reported that it is difficult to speak up, disagreements are not appropriately resolved, more input into decision making is needed, and nurse input is not well received. CONCLUSIONS: Critical care

physicians and nurses have discrepant attitudes about the teamwork they experience with each other. As evidenced by individual item content, this discrepancy includes suboptimal conflict resolution and interpersonal communication skills. These findings may be the result of the differences in status/authority, responsibilities, gender, training, and nursing and physician cultures.

Thompson, D. A., P. R. Yarnold, et al. (1996). "Effects of actual waiting time, perceived waiting time, information delivery, and expressive quality on patient satisfaction in the emergency department." Ann Emerg Med 28(6): 657-65.

STUDY OBJECTIVE: To determine the effects of actual waiting time, perception of waiting time, information delivery, and expressive quality on patient satisfaction. METHODS: During a 12-month study period, a questionnaire was administered by telephone to a random sample of patients who had presented to a suburban community hospital emergency department during the preceding 2 to 4 weeks. Respondents were asked several questions concerning waiting times (ie, time from triage until examination by the emergency physician and time from triage until discharge from the ED), information delivery (eg, explanations of procedures and delays), expressive quality (eg, courteousness, friendliness), and overall patient satisfaction. RESULTS: There were 1,631 respondents. The perception that waiting times were less than expected was associated with a positive overall satisfaction rating for the ED encounter ( $P < .001$ ). Satisfaction with information delivery and with ED staff expressive quality were also positively associated with overall satisfaction during the ED encounter ( $P < .001$ ). Actual waiting times were not predictive of overall patient satisfaction ( $P = NS$ ). CONCLUSION: Perceptions regarding waiting time, information delivery, and expressive quality predict overall patient satisfaction, but actual waiting times do not. Providing information, projecting expressive quality, and managing waiting time perceptions and expectations may be a more effective strategy to achieve improved patient satisfaction in the ED than decreasing actual waiting time.

Tijunelis, M. A., E. Fitzsullivan, et al. (2005). "Noise in the ED." Am J Emerg Med

23(3): 332–5.

**BACKGROUND:** The impact of noise pollution on both the patient and the care provider has been extensively studied in the neonatal intensive care unit and in other critical care units. Noise pollution makes errors more probable and is one of the risk factors for provider burnout and negative outcomes for patients. The Environmental Protection Agency (EPA) recommends that the acceptable noise level in a hospital should not exceed 40 dB. **OBJECTIVES:** The purpose of this study was to record and analyze noise in a large urban level I emergency department (ED) and compare to the EPA guidelines. **METHODS:** A 3–channel dosimeter Quest Q300 (Quest Technologies, Oconomowoc, WI) was placed as a stand–alone unit on the wall of the resuscitation booth in the ED. Sound was sampled 16 times per second for 12 hours and was recorded as peaks and averages for each minute. The dosimeter was then placed in the pocket of a medical student with a small 8–mm shoulder–mount type 2 microphone. The medical student followed an emergency medicine resident throughout an 8–hour shift in the main resuscitation area while monitoring and logging sound fluctuations in the environment. Sound pressure levels were logged in real time and subsequently correlated to the recorded peaks. Sound was sampled 16 times per second and recorded peaks and averages for each minute. **RESULTS:** In the initial part of the study, the time–weighted average was 43 dB. The average sound levels peaked approximately 25 times over 12 hours. Individually measured peak levels of 94 to 117 dB occurred every minute. In the second part of the study, the time–weighted average was 52.9 dB. **CONCLUSIONS:** When compared to EPA accepted noise levels for hospital (40 dB), the ED under study had excessive noise on a regular basis. There are easily identifiable sources of noise pollution in the ED. By identifying and modifying sources of noise, stress in the ED may be decreased.

van Zanten, M., J. R. Boulet, et al. (2005). "Using a standardised patient assessment to measure professional attributes." *Med Educ* 39(1): 20–9.

**INTRODUCTION:** Professionalism is an important topic in medical education today. While much work has focused on defining professionalism and teaching medical students the appropriate

interpersonal behaviours, relatively little research has looked at meaningful ways of assessing the relevant attributes. **METHOD:** The Educational Commission for Foreign Medical Graduates (ECFMG) clinical skills assessment (CSA) uses standardised patients (SPs) to evaluate the readiness of graduates of international medical schools to enter accredited graduate training programmes in the USA. Doctor interpersonal skills, including professional qualities such as rapport, are evaluated as part of the CSA. Attentiveness, attitude and empathy, all facets of professional behaviour, are specifically targeted as part of the assessment. **RESULTS:** To date, over 35 000 candidates have been assessed, encompassing more than 370 000 individual SP encounters. Based on a 1-year cohort of examinees, the reliability of the individual professionalism-related component scores ranged from 0.61 to 0.70. Doctors who had graduated from medical school more recently, or were younger, generally obtained higher ratings. Professional qualities were only marginally related to measures of basic science and clinical science proficiency. Female candidates were rated significantly higher than male candidates on all dimensions. **CONCLUSIONS:** While some professional behaviours are probably best measured using formats such as surveys, self-assessment and critical incident techniques, certain aspects of the domain can be reliably and validly measured in SP examinations.

Veldhuijzen, W., P. Ram, et al. (2007). "Much variety and little evidence: a description of guidelines for doctor-patient communication." *Med Educ* 41(2): 138-45.

**AIM:** To explore the quality of the content of communication skills training programmes, we analysed and assessed guidelines for doctor-patient communication used in communication programmes for general practitioner (GP) trainees. **METHOD:** Guidelines for doctor-patient communication were extracted from educational materials supplied by the 8 Dutch university centres for vocational training in general practice. Four themes guided the analysis of the guidelines: content, type of contact, format and structure and status. The quality of the guidelines was assessed with the Appraisal of Guidelines Research and Evaluation (AGREE) instrument, a validated measurement instrument for guideline

quality. RESULTS: We identified 18 guidelines. Guideline content covered 64–100% of the GP qualification requirements. General consultations and specific situations were the subject of 9 guidelines each. Format and structure differed between guidelines. Guideline use seemed not to be obligatory. AGREE scores were low. CONCLUSIONS: Guidelines for doctor–patient communication are difficult to identify in materials of GP training courses. Guideline quality is low; guidelines are little evidence–based and little attention has been paid to applicability and involvement of users. GP qualification requirements are only partly covered. Guidelines differed substantially without clarity about the reasons behind different choices. Guideline status was low. RECOMMENDATIONS: When studying the factors that influence training effect, the quality of training content should be considered as well as teaching methods. Communication skills training programmes should be based on evidence–based guidelines that have been developed according to similar standards as for medical technical guidelines.

Veldhuijzen, W., P. M. Ram, et al. (2007). "Characteristics of communication guidelines that facilitate or impede guideline use: a focus group study." BMC Fam Pract **8**: 31.

BACKGROUND: The quality of doctor–patient communication has a major impact on the quality of medical care. Communication guidelines define best practices for doctor patient communication and are therefore an important tool for improving communication. However, adherence to communication guidelines remains low, despite doctors participating in intensive communication skill training. Implementation research shows that adherence is higher for guidelines in general that are user centred and feasible, which implies that they are consistent with users' opinions, tap into users' existing skills and fit into existing routines. Developers of communication guidelines seem to have been somewhat negligent with regard to user preferences and guideline feasibility. In order to promote the development of user centred and practicable communication guidelines, we elicited user preferences and identified which guideline characteristics facilitate or impede guideline use. METHODS: Seven focus group interviews were conducted with experienced GPs, communication

trainers (GPs and behavioural scientists) and communication learners (GP trainees and medical students) and three focus group interviews with groups of GP trainees only. All interviews were transcribed and analysed qualitatively. RESULTS: The participants identified more impeding guideline characteristics than facilitating ones. The most important impeding characteristic was that guidelines do not easily fit into GPs' day-to-day practice. This is due to rigidity and inefficiency of communication guidelines and erroneous assumptions underpinning guideline development. The most important facilitating characteristic was guideline structure. Guidelines that were structured in distinct phases helped users to remain in control of consultations, which was especially useful in complicated consultations. CONCLUSION: Although communication guidelines are generally considered useful, especially for structuring consultations, their usefulness is impaired by lack of flexibility and applicability to practice routines. User centred and feasible guidelines should combine the advantages of helping doctors to structure consultations with flexibility to tailor communication strategies to specific contexts and situations.

Waisman, Y., N. Siegal, et al. (2005). "Role of diagnosis-specific information sheets in parents' understanding of emergency department discharge instructions." Eur J Emerg Med 12(4): 159-62.

OBJECTIVES: To investigate the contribution of diagnosis-specific information sheets at discharge from the emergency department on parental understanding of the discharge instructions. METHODS: The study group consisted of a convenience sample of parents of children discharged home from the emergency department of an urban tertiary care pediatric facility (n=95). At discharge by the physician, all were given a disease-specific information sheet to accompany the physician's discharge instructions. Thereafter, the parents were asked to complete the same 13-item questionnaire used in our previous study, covering demographics, level of anxiety, and quality of physician's explanation, in addition to a description, in their own words, of their child's diagnosis and treatment instruction and an indication of their preferred auxiliary method of delivery of information. The findings were compared with the

study group in the first phase study (n=287) who did not receive the disease-specific information sheet. The BMDP statistical package was used for the analysis. RESULTS: No statistically significant differences between the two groups in age, sex, and education, level of anxiety before or after the emergency department visit, or time of day were observed. Full understanding of the diagnosis was noted in 73% of the parents who received the information sheet and 72% of the parents in our previous study who did not. Corresponding rates of understanding of the treatment instructions were 92% and 82%. On statistical analysis, the distribution of the diagnosis-specific information sheet significantly improved parental understanding of the treatment instructions ( $P=0.025$ ), but not of the diagnosis ( $P=0.54$ ). CONCLUSIONS: Although overall parental understanding of emergency department discharge instructions is good, understanding of the treatment instructions can be further improved with the use of diagnosis-specific information sheets.

Watt, D., W. Wertzler, et al. (2005). "Patient expectations of emergency department care: phase I – a focus group study." *Cjem* 7(1): 12–6.

OBJECTIVES: To assess patient comprehension of emergency department discharge instructions and to describe other predictors of patient compliance with discharge instructions. METHODS: Patients departing from the emergency department of an inner-city teaching hospital were invited to undergo a structured interview and reading test, and to participate in a follow-up telephone interview 2 weeks later. Two physicians, blinded to the other's data, scored patient comprehension of discharge information and compliance with discharge instructions. Inter-rater reliability was assessed using a kappa-weighted statistic, and correlations were assessed using Spearman's rank correlation coefficient and Fisher's exact test. RESULTS: Of 106 patients approached, 88 (83%) were enrolled. The inter-rater reliability of physician rating scores was high (kappa = 0.66). Approximately 60% of subjects demonstrated reading ability at or below a Grade 7 level. Comprehension was positively associated with reading ability ( $r = 0.29$ ,  $p = 0.01$ ) and English as first language ( $r = 0.27$ ,  $p = 0.01$ ). Reading ability was positively associated with years of education ( $r = 0.43$ ,  $p < 0.0001$ ) and first language ( $r =$

0.24,  $p = 0.03$ ), and inversely associated with age ( $r = -0.21$ ,  $p = 0.05$ ). Non-English first language and need for translator were associated with poorer comprehension of discharge instructions but not related to compliance. Compliance with discharge instructions was correlated with comprehension ( $r = 0.31$ ,  $p = 0.01$ ) but not associated with age, language, education, years in anglophone country, reading ability, format of discharge instructions, follow-up modality or association with a family physician. CONCLUSIONS: Emergency department patients demonstrated poor reading skills. Comprehension was the only factor significantly related to compliance; therefore, future interventions to improve compliance with emergency department instructions will be most effective if they focus on improving comprehension.

Weber, H., M. Stockli, et al. (2007). "Communication during ward rounds in Internal Medicine An analysis of patient-nurse-physician interactions using RIAS." Patient Educ Couns 67(3): 343-8.

OBJECTIVE: Describe the content and of mode of patient-physician-nurse interactions during ward-rounds in Internal Medicine. METHODS: In 267/448 patients, 13 nurses, and 8 physicians from two wards in General Internal Medicine 448 interactions on ward rounds were tape recorded by observers. After exclusion of interactions with more than three participants ( $N=150$ ), a random sample of 90 interactions was drawn. Data were analysed with a modified RIAS version that allowed for the registration of a third contributor and for the assessment of the direction of a communicative action (e.g.: nurse-->patient, etc.). Furthermore, time spent per individual patient was registered with a stop-watch. RESULTS: A total of 12,078 utterances (144 per ward round) were recorded. Due to problems with the comprehensibility of some interactions the final data set contains 71 ward round interactions with 10,713 utterances (151 per ward round interaction). The average time allotted to an individual patient during ward-rounds was 7.5min (range: 3-16min). The exchange of medical information is the main topic in physicians (39%) and nurses (25%), second common topic in patients (28%), in whom communicative actions like agreement or checking are more common (30% patients/25% physicians/22% nurses). Physicians and

patients use a substantial number of communicative actions (1397/5531 physicians; 1119/3733 patients). Patients receive about 20 bits of medical or therapeutic information per contact during ward-rounds. CONCLUSIONS: If ward rounds serve as the central marketplace of information nurses' knowledge is under-represented. Further research should try to determine whether the quality of patient care is related to a well balanced exchange of information, to which nurses, physicians, and patients contribute their specific knowledge. PRACTICE IMPLICATIONS: Given the fact that in-patients in Internal Medicine usually present complex problems, the exchange of factual information, expectations, and concepts is of paramount importance. We hope that this paper is going to direct the attention of the scientific community to the characteristics of ward-rounds because they will remain the central marketplace of communication in hospital.

Wen, C., P. Hudak, et al. (2007). "Homeless People's Perceptions of Welcomeness and Unwelcomeness in Healthcare Encounters." Journal of General Internal Medicine 22(7): 1011-1017.

Abstract Background Homeless people face many barriers to obtaining health care, and their attitudes toward seeking health care services may be shaped in part by previous encounters with health care providers. Objective To examine how homeless persons experienced "welcomeness" and "unwelcomeness" in past encounters with health care providers and to characterize their perceptions of these interactions. Design Qualitative content analysis of 17 in-depth interviews. Participants Seventeen homeless men and women, aged 29-62 years, residing at 5 shelters in Toronto, Canada. Approach Interpretive content analysis was performed using iterative stages of inductive coding. Interview transcripts were analyzed using Buber's philosophical conceptualization of ways of relating as "I-It" (the way persons relate to objects) and "I-You" (the way persons relate to dynamic beings). Results Most participants perceived their experiences of unwelcomeness as acts of discrimination. Homelessness and low social class were most commonly cited as the perceived basis for discriminatory treatment. Many participants reported

intense emotional responses to unwelcoming experiences, which negatively influenced their desire to seek health care in the future. Participants' descriptions of unwelcoming health care encounters were consistent with "I-It" ways of relating in that they felt dehumanized, not listened to, or disempowered. Welcoming experiences were consistent with "I-You" ways of relating, in that patients felt valued as a person, truly listened to, or empowered. Conclusions Homeless people's perceptions of welcomeness and unwelcomeness are an important aspect of their encounters with health care providers. Buber's "I-It" and "I-You" concepts are potentially useful aids to health care providers who wish to understand how welcoming and unwelcoming interactions are fostered.

Whitehouse, A., A. Hassell, et al. (2007). "360 degree assessment (multisource feedback) of UK trainee doctors: field testing of team assessment of behaviours (TAB)." Med Teach 29(2-3): 171-6.

**BACKGROUND:** This study was to see if the team assessment of behaviours (TAB) 360 degree assessment tool was able to identify interpersonal behaviour problems in doctors in training, to see if feedback was useful, to gauge the value of the process by those involved, and to learn lessons about implementing the process for the future.

**METHODS:** TAB was administered to assess interpersonal behaviours of senior house officers in four hospitals in the West Midlands, UK. In addition, questionnaires were sent to all participants, some were interviewed about the whole process, and records kept of the time involved.

**RESULTS:** One hundred and seventy-one SHO volunteers received 1378 assessments. The median number of ratings per SHO was 8 (mode 9). Sixty-four percent of SHOs received 'no concern' ratings in all four behaviours (domains) assessed. Twenty-one percent received one 'some concern' rating. Fifteen percent received more than one 'concern' rating.

**CONCLUSION:** Assessors and trainees found the process practical, valuable and fair. Educational supervisors found it valuable, although only 23% learned something new about their trainees. Clinical tutors valued the system. Administrative staff found it time consuming. The TAB four-domain rating form with its single pass category identified specific concern about volunteer trainees' professional behaviour. Not all trainees

received skilled feedback.

Whitt, N., R. Harvey, et al. (2007). "How many health professionals does a patient see during an average hospital stay?" N Z Med J 120(1253): U2517.

AIM: To assess how many health professionals are directly involved in a patient's stay at Auckland City Hospital, Auckland, New Zealand.

METHODS: A retrospective review of the records was carried out of all patients admitted through the Admission and Planning Unit and the Emergency Department on a chosen day. Every health professional who wrote in the medical notes was counted and tabulated for each patient.

RESULTS: 81 patients were admitted--47 medical and 34 surgical. In medicine, the patients saw an average of 17.8 health professionals during their hospitalisation (95%CI 0.0–36.7) (median 17) (range 5 to 44); an average of 6.0 doctors (0.0–12.6) (5) (2–21); 10.7 nurses (0.0–22.3) (11) (3–24); and 1.0 allied health workers (0.0–4.5) (0) (0–6). In surgery, the patients saw an average of 26.6 health professionals during their hospitalisation (95%CI 0.0–66.7) (median 21.5) (range 2 to 75); an average of 10.0 doctors (0.0–25.8) (8.5) (1–33); 15.9 nurses (0.0–39.2) (13.5) (1–44); and 0.8 allied health workers (0–3.3) (0) (0–4).

CONCLUSIONS: Modern hospital healthcare delivery involves many different healthcare professionals. Patients have more nurse contacts than doctors ( $p < 0.0001$ ). Surgical patients see more health professionals than medical patients overall ( $p = 0.01$ ) but the daily rate was not found to be statistically different ( $p = 0.3$ ). Involvement of different health professionals may necessitate good communication/handover processes as well as possible changes to traditional training methods.

Wiman, E. and K. Wikblad (2004). "Caring and uncaring encounters in nursing in an emergency department." J Clin Nurs 13(4): 422–9.

BACKGROUND: Caring is a core characteristic of nursing. Nurses' caring behaviour has been explored in several studies. When caring for trauma patients, the most important caring behaviour must be the procedures associated with lifesaving. However, it is important not to forget the patient's psychological needs. AIM: The aim of this study was to highlight encounters between injured patients and nurses in the trauma team and

to explore whether the theory of caring and uncaring encounters in nursing and health care is applicable in emergency care. DATA COLLECTION AND ANALYSIS: Data were collected by videotaping caring episodes between slightly injured patients and nurses in the trauma team. Five episodes involving 10 nurses were studied. The analysis was carried out in four steps. First the videotapes were studied several times and then transcribed into narratives, which were reduced into courses of events. These were subsequently classified according to aspects of caring and uncaring. RESULTS: The nurses' verbal and non-verbal communication was poor, and they adopted a wait-and-see policy. A new uncaring aspect, instrumental behaviour, emerged from this poor communication. One of the caring aspects, being dedicated and having courage to be appropriately involved, could not be identified. Most encounters included several aspects of caring and uncaring, but the uncaring aspects predominated. The dominance of uncaring aspects indicates a lack of affective caring behaviour. CONCLUSION: The result showed that the theory is partly applicable in emergency care. A new aspect, instrumental behaviour emerged. The nurses' behaviour in the five episodes was labelled as uncaring. Authentic nurse-patient encounters are essential in nursing. RELEVANCE TO CLINICAL PRACTICE: The importance of meeting patients' psychological needs and nurses' affective caring behaviour should be emphasized in trauma care, trauma courses and nursing education. It is necessary to measure the caring behaviour of trauma nurses.

Wolf, M. S., T. C. Davis, et al. (2006). "Misunderstanding of prescription drug warning labels among patients with low literacy." Am J Health Syst Pharm 63(11): 1048-55.

PURPOSE: The common causes for misunderstanding prescription drug warning labels (PWLs) among adults with low literacy were studied.

METHODS: A total of 74 patients reading at or below the sixth-grade level and receiving care at the primary care clinic at the Louisiana State University Health Sciences Center in Shreveport were recruited to participate in structured interviews. Patients were asked to interpret and comment on eight commonly used warning labels found on prescription

medications. Correct interpretation was determined by expert panel review of patients' verbatim responses. Qualitative methods were employed to code responses and generate themes regarding the misunderstanding of these PWLs. RESULTS: Among this sample of patients with low literacy skills, rates of correct interpretation for the eight warning labels ranged from 0% to 78.7%. With the exception of the most basic label, less than half of all patients were able to provide adequate interpretations of the warning label messages. Five themes were derived to describe the common causes for misunderstanding the labels: single-step versus multiple-step instructions, reading difficulty of text, use of icons, use of color, and message clarity. Labels were at greater risk for being misunderstood if they included multiple instructions, had a greater reading difficulty, included unfamiliar terms, or used confusing icons that were discordant with text messages. Participants also frequently imposed an incorrect meaning on label colors, which led to further confusion. CONCLUSION: Patients with low literacy skills demonstrated a lower rate of correct interpretation of the eight most commonly used PWLs than did those with higher literacy skills. Multiple-step instructions, reading difficulty of text, the use of icons, the use of color, and message clarity were the common causes of label misinterpretation.

Wolf, M. S., J. A. Gazmararian, et al. (2007). "Health literacy and health risk behaviors among older adults." Am J Prev Med 32(1): 19–24.

BACKGROUND: Limited health literacy is associated with poorer physical and mental health, although the causal pathways are not entirely clear. In this study, the association between health literacy and the prevalence of health risk behaviors was examined among older adults. METHODS: A cross-sectional survey of 2923 new Medicare, managed-care enrollees was conducted in four U.S. metropolitan areas (Cleveland OH; Houston TX; Tampa FL; Fort Lauderdale–Miami FL). Health literacy was measured using the short form of the Test of Functional Health Literacy in Adults. Behaviors investigated included self-reported cigarette smoking, alcohol consumption, physical activity, body mass index, and seat belt use. RESULTS: Individuals with inadequate health literacy were more likely to

have never smoked (46.7% vs. 38.6,  $p = 0.01$ ); to completely abstain from alcohol (75.6% vs. 57.9,  $p < 0.001$ ); and to report a sedentary lifestyle (38.2% vs. 21.6%,  $p < 0.001$ ) compared to those with adequate health literacy. No significant differences were noted by mean body mass index or seat belt use. In multinomial logistic regression models that adjusted for relevant covariates, inadequate health literacy was not found to be significantly associated with any of the health risk behaviors investigated. CONCLUSIONS: Among community-dwelling elderly, limited health literacy was not independently associated with health risk behaviors after controlling for relevant covariates.

Wyer, P. C., M. D. Brown, et al. (2007). "Evidence-based emergency medicine/editorial. Evidence, values, communication: essential ingredients of shared emergency medicine decisionmaking." Ann Emerg Med 49(5): 690-2.

Xiao, Y., S. Schenkel, et al. (2007). "What Whiteboards in a Trauma Center Operating Suite Can Teach Us About Emergency Department Communication." Ann Emerg Med.

STUDY OBJECTIVE: Highly reliable, efficient collaborative work relies on excellent communication. We seek to understand how a traditional whiteboard is used as a versatile information artifact to support communication in rapid-paced, highly dynamic collaborative work. The similar communicative demands of the trauma operating suite and an emergency department (ED) make the findings applicable to both settings. METHODS: We took photographs and observed staff's interaction with a whiteboard in a 6-bed surgical suite dedicated to trauma service. We analyzed the integral role of artifacts in cognitive activities as when workers configure and manage visual spaces to simplify their cognitive tasks. We further identified characteristics of the whiteboard as a communicative information artifact in supporting coordination in fast-paced environments. RESULTS: We identified 8 ways in which the whiteboard was used by physicians, nurses, and with other personnel to support collaborative work: task management, team attention management, task status tracking, task articulation, resource planning and tracking, synchronous and asynchronous communication,

multidisciplinary problem solving and negotiation, and socialization and team building. The whiteboard was highly communicative because of its location and installation method, high interactivity and usability, high expressiveness, and ability to visualize transition points to support work handoffs. CONCLUSION: Traditional information artifacts such as whiteboards play significant roles in supporting collaborative work. How these artifacts are used provides insights into complicated information needs of teamwork in highly dynamic, high-risk settings such as an ED.

Yates, K. and A. Pena (2006). "Comprehension of discharge information for minor head injury: a randomised controlled trial in New Zealand." N Z Med J 119(1239): U2101.

AIMS: To investigate health literacy (i.e. understanding medical information) in North Shore Hospital's Emergency Medicine Department patients and to assess differences in comprehension between standard and simplified head injury advice sheets. METHODS: Prospective randomised controlled trial in a convenience sample of adult Emergency Medicine patients presenting to an urban emergency department (ED) in New Zealand. Consented patients were randomised to receive either the standard head injury advice sheet or a shorter, simplified sheet. Participants were asked 10 questions (to test comprehension of advice sheets), demographic data collected, and a Rapid Estimation of Adult Literacy in Medicine test administered. Data analysis included descriptive statistics with 95% confidence intervals, Mann Whitney U test, and regression model analysis. RESULTS: 200 participants. Mean age 43.4 years, 77.5% with 12 or more years of schooling, 84.5% with reading level of high school age or above. No significant differences in demographics, schooling, and reading levels were observed between study groups. The simplified form study group showed significantly higher comprehension scores ( $p < 0.0001$ ). In the regression analysis, factors associated with higher comprehension scores included: the simplified form, higher literacy level, more years of schooling, and younger age group. CONCLUSIONS: Previous studies have highlighted poor literacy levels in ED populations, a factor thought to affect understanding of discharge information. In this study population, where most read at high school

level or above, the simplified advice sheet was still better understood. Recommendations for improving discharge information are discussed.

Yudkowsky, R., A. Alseidi, et al. (2004). "Beyond fulfilling the core competencies: an objective structured clinical examination to assess communication and interpersonal skills in a surgical residency." Curr Surg 61(5): 499–503.

**OBJECTIVE:** The Accreditation Council for Graduate Medical Education (ACGME) has challenged program directors to assess their residents' core competencies, including communication and interpersonal skills (CIS). We report our institution's experience using a series of standardized patient encounters in an objective structured clinical examination (OSCE) to evaluate CIS in surgical residents. **METHODS:** Standardized patients rated the residents' ability to maintain a patient-centered approach across 6 challenging communication tasks. Residents received verbal feedback from the patients after each encounter and completed a survey indicating their experience and comfort with each task. Individual and group reports documented resident competency and provided aggregate information for curriculum review. Formal grades were not assigned. **RESULTS:** Twenty-two residents in 2 surgical residency programs piloted the assessment. The Generalizability of the assessment was 0.81. Scores of second- and third-year residents were not significantly different. Residents found the program to be helpful and able to assess their skills. **CONCLUSIONS:** The standardized patient-based OSCE is an effective method to assess communication and interpersonal skills and provides useful information for curriculum review.

Yudkowsky, R., S. M. Downing, et al. (2006). "Developing an institution-based assessment of resident communication and interpersonal skills." Acad Med 81(12): 1115–22.

**PURPOSE:** The authors describe the development and validation of an institution-wide, cross-specialty assessment of residents' communication and interpersonal skills, including related components of patient care and professionalism. **METHOD:** Residency program faculty, the department of medical education, and the Clinical Performance Center at the University

of Illinois at Chicago College of Medicine collaborated to develop six standardized patient-based clinical simulations. The standardized patients rated the residents' performance. The assessment was piloted in 2003 for internal medicine and family medicine and was subsequently adapted for other specialties, including surgery, pediatrics, obstetrics-gynecology, and neurology. We present validity evidence based on the content, internal structure, relationship to other variables, feasibility, acceptability, and impact of the 2003 assessment. RESULTS: Seventy-nine internal medicine and family medicine residents participated in the initial administration of the assessment. A factor analysis of the 18 communication scale items resulted in two factors interpretable as "communication" and "interpersonal skills." Median internal consistency of the scale (coefficient alpha) was 0.91. Generalizability of the assessment ranged from 0.57 to 0.82 across specialties. Case-specific items provided information about group-level deficiencies. Cost of the assessment was about \$250 per resident. Once the initial cases had been developed and piloted, they could be adapted for other specialties with minimal additional effort, at a cost saving of about \$1,000 per program. CONCLUSION: Centrally developed, institution-wide competency assessment uses resources efficiently to relieve individual programs of the need to "reinvent the wheel" and provides program directors and residents with useful information for individual and programmatic review.

Zandbelt, L. C., E. M. Smets, et al. (2007). "Medical specialists' patient-centered communication and patient-reported outcomes." Med Care 45(4): 330-9.

BACKGROUND: Physicians' patient-centered communication in the medical consultation is generally expected to improve patient outcomes. However, empirical evidence is contradictory so far, and most studies were done in primary care. OBJECTIVE: We sought to determine the association of specialists' patient-centered communication with patient satisfaction, adherence, and health status. METHODS: Residents and specialists in internal medicine (n = 30) and their patients (n = 323) completed a questionnaire before a (videotaped) follow-up encounter. Patients' satisfaction was assessed immediately after the consultation and

their self-reported treatment adherence, symptoms, and distress 2 weeks later. Specialists' patient-centered communication was assessed by coding behaviors that facilitate or rather inhibit patients to express their perspective. Patient participation was assessed by determining their relative contribution to the conversation and their active participation behavior. Outcomes were assessed using standard questionnaires. Analyses accounted for relevant patient, visit and physician characteristics. RESULTS AND CONCLUSIONS: Medical specialists' facilitating behavior was associated with greater satisfaction in patients who were less confident in communicating with their doctor. Patient-centered communication was not associated with patients' health status or adherence in general, but facilitating behavior was positively related to the adherence of patients with a foreign primary language. In general, patients appeared to be more satisfied after an encounter with a more-facilitating and a less-inhibiting physician, but these associations diminished when controlling for background characteristics. We conclude that the absence of strong associations between patient-centered communication and patient-reported outcomes may be explained by medical specialists being responsive to patients' characteristics.