

Exam Room Presentations and Teaching in Outpatient Pediatrics: Effects on Visit Duration and Parent, Attending Physician, and Resident Perceptions

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Objective.—To examine the effects of exam room presentations and teaching (ERPT) in a busy outpatient pediatric setting on visit duration and on parent, preceptor, and resident perceptions.

Methods.—This 8-week, 2-method crossover study compared first-year pediatric resident patient presentations and attending physician teaching and discussion in the exam room (ERPT) with conference area presentation and teaching (CAPT). Outcome measures included visit duration, parent satisfaction, and resident/attending physician perceptions. Differences were analyzed using χ^2 (parent surveys), *t* tests (visit duration), and signed rank tests (Attending Physician and Resident Surveys).

Results.—Three hundred forty patient encounters were studied (151 ERPT vs 189 CAPT) that involved 15 first-year pediatric residents and 15 attending physicians. Visit durations were equivalent. Parent satisfaction was high in both methods. Attending physicians favored ERPT for adding opportunities to evaluate resident compe-

tencies, provide informed feedback, and role model. Attending physicians felt that ERPT decreased resident comfort level when discussing sensitive topics. Residents were less comfortable with ERPT for discussing sensitive topics and felt somewhat embarrassed when they did not know the answer to attending physicians' questions. Residents reported that ERPT presentations permitted attending physicians to demonstrate more physical exam skills and to observe interactions, enabling more informed feedback.

Conclusions.—ERPT and CAPT require similar time and result in high parent satisfaction. Although residents are a little less comfortable with ERPT, attending physicians are better able to observe, evaluate, and give feedback on resident skills and to role model and teach physical diagnosis.

KEY WORDS: bedside presentations; family-centered care; resident education; resident evaluation

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In a teaching hospital, physicians in the outpatient pediatric primary care setting must accomplish the dual functions of providing primary health care to children and training residents and medical students to provide that care. Accomplishing both goals is a challenge. Changes in medical economics have increased the pressure on academic medical centers to generate income through patient care activities. This is often difficult in academic pediatric primary care where the primary third party payer is Medicaid. To maintain economic viability, clinicians must increase patient volume and optimize billing, with attention to federal billing regulations. These increases in patient volume have the potential to negatively impact the amount of time clinicians spend teaching. Therefore, medical educators must find effective teaching methods that can be incorporated into busy clinical settings without interrupting the flow of patients.

Resident presentations and teaching in the exam room holds promise as an efficient method of providing excellent patient care and medical education simultaneously.¹ Advantages of bedside presentations and teaching include 1) increased opportunities for role modeling by the attending physicians, 2) increased opportunities for direct observation of residents interacting with families (relative to feedback and evaluation of competencies), and 3) increased opportunities to teach physical examination skills. All of these direct and indirect results of bedside teaching are important factors in resident education, effective delivery of primary care, and parent satisfaction with their primary care providers and patient care outcomes.

The purpose of this study was to examine the effect of exam room presentations and teaching (ERPT) on visit duration and on parent, preceptor, and resident perceptions in a busy outpatient pediatric primary care setting. We hypothesized that exam room presentations in the continuity setting would 1) decrease visit duration, 2) add opportunities for direct observation of resident interactions with patients/families, 3) provide opportunities for preceptors to role model and teach skills and behaviors important in the delivery of pediatric primary care, and 4) preserve the doctor-patient trust relationship between the residents and their patients and families.

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METHODS

Study Setting and Population

The Pediatric Primary Care Center (PPCC) at the Cincinnati Children's Hospital Medical Center is a large, hospital-based pediatric primary care provider to a diverse socioeconomic and ethnic population. The PPCC is the continuity site for 50 pediatric residents (about one third of the pediatric residents from the residency training program) and also serves as a training site for residents on their primary care, outpatient rotation (60 per year) and for medical students (50 per year). Approximately 15 000 children receive their primary care at this site for a total of 35 000 visits per year. All residents who receive their continuity experience in the PPCC are permanently assigned to the same day of the week to see patients for all 3 years of their residency. Likewise, preceptors in the PPCC have permanent assignments in the PPCC to encourage a long-term relationship between preceptor and resident and between resident and patient. Although all attending physicians share teaching responsibilities for all residents, faculty preceptors are assigned specific residents to evaluate. We encourage residents to seek out the preceptor to whom they are assigned to establish long-term educational relationships.

Participants

Residents and attending physicians were recruited for the study during July, August, and September 2005. Residents were eligible if they were in their first year of categorical pediatric residency and were assigned to the PPCC for their continuity experience. Attending physicians were eligible if they attended in the PPCC regularly (at least 1 clinic session per week) during morning or afternoon sessions on Monday through Friday. Eligible residents and attending physicians who agreed to participate provided verbal consent. The patient population consisted of well and ill patients seen by participating first-year residents in the PPCC during the morning and afternoon sessions, Monday through Friday. Ill patients who required immediate care necessitating transport to the Emergency Department or admission to the hospital were excluded from the study. For the purpose of this study, the patient's *parent* was defined as the person who accompanied the child to the visit and provided verbal consent for treatment. Participants received no incentive to participate.

Study Design

This 2-method, crossover study was conducted over the 2-month period from mid-October through mid-December 2005. The timing of the study early in the academic year was intentional. We wanted to introduce the exam room presentation and teaching intervention early in the training of the residents to reduce exposure to the heterogeneous teaching and precepting methods used by attending physicians in other areas of the training program. In addition, federal guidelines regarding the primary care exception require the attending physician who is precepting residents in

patient care activities to provide direct care to patients until residents have been in training for 6 months.² This requirement ensured that attending preceptors would interact directly with all patients of the participating residents at each visit and not perceive participation in the study, which requires direct interaction, as an undue burden. The 2 methods of precepting—in the exam room and in the conference area—were alternated weekly to avoid seasonal variation in patient volumes due to changing disease prevalence. This study was approved by the Institutional Review Board of the Cincinnati Children's Hospital Medical Center.

Interventions: Precepting Methods

For method 1 (ERPT), patients seen by participating residents during weeks 1, 3, 5, and 7 of the study period were presented and discussed in the exam room in the presence of the patient and family. For method 2 (conference area presentation and teaching [CAPT]), patients seen by participating residents during weeks 2, 4, 6, and 8 of the study period were presented and discussed in the conference area, which is current standard practice. Following these presentations, attending physicians examined and interacted with the patient and parent in the room with or without the resident present, according to their teaching style. The location of the subsequent discussion regarding the patient's management plan was at the discretion of the attending physician. Most commonly this discussion occurred in the conference area away from the patient and family.

Survey Instruments

All of the surveys were developed de novo for this study based on a review of the literature and on feedback from preceptors, residents, medical educators, psychologists, and survey experts. The surveys were reviewed by experts from the Medical Education Research Group of the Cincinnati Children's Hospital Medical Center and amended as suggested, then piloted on a small number of parents, preceptors, or residents, depending on the survey. No data regarding the criterion-related validity or construct validity of the surveys was available at the time of the study since they were new survey tools.

Parent Survey

The parent survey contained 7 items with nominal response categories of yes, no, or not sure. Some of the items from the parent survey were based on a reliable, validated parent survey^{3,4} that is used hospital wide to monitor overall patient care satisfaction: "I was involved in decisions about my child's care as much as I wanted" and "My doctor treated me and my child with respect and dignity." Other items focused more directly on our fourth hypothesis, which addressed maintaining the pediatric primary care (PPC) resident-patient relationship in a setting where the teacher-learner relationship was more obvious: "I have confidence in my PPC doctor" and "I like to bring my child to PPC to see doctors, even though some of them are still learning."

Attending Physician Survey

The attending physician survey contained 9 items that required rating by the respondent; a 4-point Likert scale was used, where 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree. These items focused on 2 primary content areas, which relate to the second and third hypotheses of this study. The first area was increasing opportunities for direct observation of the resident-patient encounter: "I have enough opportunities observing the resident to give useful feedback on things like communication, interpersonal, and clinical skills." The second area was teaching methods: "I teach by role modeling and demonstrating important things like talking about behavioral problems and performing elements of the physical exam." Additional items addressed resident comfort level in the teaching setting and the relationship between the PPC resident and the patient/family: "Residents are sometimes embarrassed when I ask a question and they don't know the answer" and "Parents view the resident as their primary doctor." Cronbach's α for this scale was 0.66. Although most statisticians consider ≥ 0.70 to be an acceptable reliability coefficient, some accept marginally lower thresholds, especially with newly developed scales.⁵

Resident Survey

The resident survey contained 14 items, also rated by the respondent by using a 4-point Likert scale. These items addressed content areas relating to the hypotheses of this study: time efficiency in the teaching process, "Presenting to the preceptor is reasonably time efficient and doesn't slow me down in PPC"; increasing opportunities for direct observation of resident interactions with patients/families, "The preceptor has enough opportunities observing me interact with my patients to evaluate me on communication, interpersonal skills, and clinical skills"; providing opportunities for preceptors to role model and teach skills and behaviors, "My preceptor sometimes demonstrates parts of the physical exam on the child"; and preserving the doctor-patient trust relationship between the residents and their patients, "My parents see me as their child's primary doctor." This survey also included items related to resident comfort level: "I feel comfortable presenting to the preceptor." Cronbach's α for this scale was 0.79, indicating satisfactory internal consistency.

Data Collection

A trained research assistant surveyed parents after completion of the physician visit by using a standardized technique. The parent was informed that the evaluation was voluntary, anonymous, and confidential. Parents who wished to participate gave verbal consent. The research assistant read the items to parents and recorded their responses on a laptop computer. She also recorded the time of sign in, which determines the order in which patients are registered, and the time of survey completion, after which the patient and parent were discharged from the PPCC.

Resident and attending physician surveys were contacted by e-mail at the end of the study to complete the Web-based surveys. The Figure depicts the study design.

Statistical Analysis

Visit duration was calculated as the difference between time of clinic sign in and time of survey completion and was compared by *t* test. Parent survey responses were compared by chi-square test. For each resident and attending physician item, a within-subject difference was calculated based on the rating provided for each method of precepting (exam room rating minus conference area rating). Within subject differences for each item were examined by the signed rank test to determine whether the difference was significantly different from zero. To present an estimate of the magnitude and direction of differences, mean differences were calculated. A positive mean difference indicates a preference for the exam room presentation, whereas a negative mean difference indicates a preference for the conference area presentation.

RESULTS

All eligible first-year residents ($n = 15$, 9 female and 6 male) and all eligible attending physicians ($n = 15$, 9 female and 6 male) consented to participate and completed the surveys. Attending physicians had an average of 10 years experience (range, 2–30 years) postresidency training.

Three hundred seventy-four PPCC visits were eligible (272 well-child visits and 102 ill-child visits). However, the research assistant was unable to approach all of these

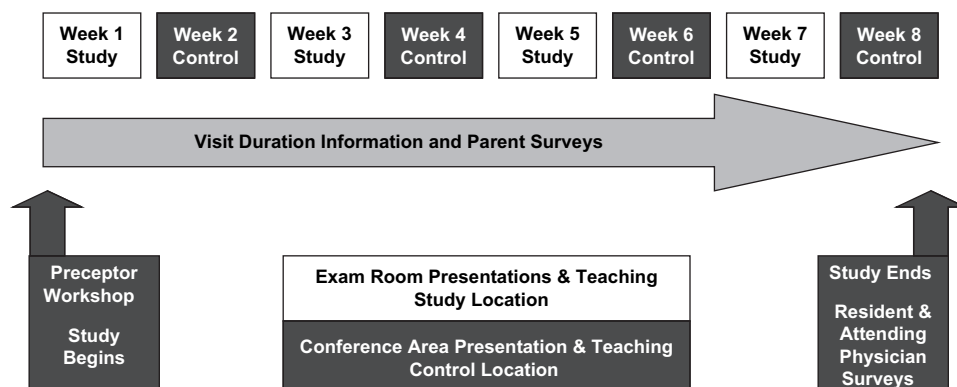


Figure. Study design.

patients because sometimes more than 1 patient was ready for discharge at the same time. All 340 parents approached who were eligible for the study agreed to participate (capture rate, 91%; ERPT in 151 encounters and CAPT in 189 encounters). Well and ill visits were distributed similarly in the study and control groups (74% well visits in the study group; 72% in the control group). There was no significant difference between the visit duration for ERPT (mean 96 minutes; standard deviation [SD] 34 minutes) versus CAPT (mean 95 minutes; SD 29 minutes). The mean visit duration for control visits (CAPT) was similar to mean cycle times that have been obtained prior to the study.

Parent satisfaction was high overall for both precepting methods, with no significant differences between the two. Observing the teacher-learner relationship between the resident and the preceptor as part of bedside teaching resulted in no apparent change in the relationship between the residents and their families in terms of confidence and visit satisfaction as perceived by the families. However, because of the high levels of satisfaction in both groups, the measure appears to have a ceiling effect and therefore does not allow any useful comparisons between visit types.

Attending physicians favored exam room presentations for adding opportunities to evaluate resident competencies, provide informed feedback, and role model (Table 1). Attending physicians felt that residents were less comfortable discussing sensitive topics in the exam room.

Residents were less comfortable discussing sensitive topics and more embarrassed when they did not know the answer to an attending physician question when presenting and discussing in the exam room (Table 2). Residents reported that the exam room location permitted attending physicians to demonstrate more physical exam skills and to observe resident-patient interactions more to provide additional informed feedback.

DISCUSSION

To our knowledge, this is the first study of ERPT in a pediatric outpatient setting. This builds on the work of Orsetti and Williams,⁶ Smith et al,⁷ Anderson et al,⁸ and Rogers et al,⁹ who studied this method in other outpatient settings. We found that location of presentation and discussion of patient information does not affect visit duration or parent satisfaction and comfort level with the resident-patient relationship. Resident and attending physician ratings favored the exam room location for providing opportunities to observe directly clinical and communication skills.

Contrary to our hypothesis, visit duration was similar regardless of location of presentation and discussion. This finding is similar to that of Smith et al⁷ in a neurology clinic, but differs from Orsetti and Williams,⁶ who documented significant time savings in an internal medicine clinic (25 vs 33 minutes). In inpatient populations, studies have demonstrated conflicting findings and opinion as to the relative efficiency of presentations and teaching at the bedside compared to elsewhere. Lehmann et al¹⁰ demonstrated that for inpatients on an internal medicine ward, bedside presentations required more time (10 ± 6 minutes compared to 6 ± 5 minutes for conference room presentations). The overall duration of rounds, however, was not measured. Wang-Cheng et al¹¹ surveyed residents and attending physicians on an internal medicine adult inpatient ward and found that 40% of residents and 24% of attending physicians thought bedside presentations and teaching took more time, but no objective measurement substantiated this perception.

Since the Accreditation Council for Graduate Medical Education developed and implemented mandated evaluation of the core competencies in 2003, medical educators have recognized that evaluation of certain of these clinical skills, especially patient interviewing, physical examination, and communication and interpersonal skills, requires

Table 1. Attending Physician Survey Results

Item	Mean Difference (ERPT – CAPT)*	SD	P Value
Exam Room Presentation and Teaching Preferred			
I have had enough opportunities observing the resident to evaluate him/her on communication, interpersonal skills, and clinical skills.	0.73	0.80	.008
I have enough opportunities observing the resident to give useful feedback on things like communication, interpersonal, and clinical skills.	0.67	0.90	.03
I teach by role modeling and demonstrating important things like talking about behavioral problems and performing elements of the physical exam.	0.67	0.72	.008
Sometimes, the resident seems a little uncomfortable talking about certain sensitive issues.	0.47	0.52	.02
Residents are sometimes embarrassed when I ask a question and they don't know the answer.	0.43	0.94	0.17
Precepting in PPC is time efficient and doesn't slow down the resident.	0.20	0.56	0.38
Conference Area Presentation and Teaching Preferred			
The resident seems comfortable presenting to me.	-0.33	0.90	0.28
Parents/guardians view the resident as their primary doctor.	-0.13	0.35	0.50
Parents/guardians understand that the residents are still learning and don't think less of them when I suggest something that changes the plan.	-0.08	0.28	1.00

*ERPT indicates exam room presentation and teaching; CAPT indicates conference area presentation and teaching; PPC indicates pediatric primary care; SD indicates standard deviation. Within subject, differences were examined by signed rank test to determine whether the difference was significantly different from zero. Mean differences were calculated to demonstrate magnitude and direction of differences. A positive mean difference indicates a preference for the exam room presentation; negative, a preference for the conference area presentation.

Table 2. Resident Survey Results

Item	Mean Difference (ERPT – CAPT)*	SD	P Value
Exam Room Presentation and Teaching Preferred			
The preceptor has enough opportunities observing me interact with my patients to give me feedback on communication, interpersonal, and clinical skills.	0.73	0.80	.008
Sometimes, I'm a little uncomfortable talking to the preceptor about sensitive patient-related issues.	0.67	0.90	.03
I am embarrassed sometimes when my preceptor asks me something about my patient or a disease and I don't know the answer.	0.60	0.83	.03
My preceptor sometimes demonstrates parts of the physical examination on the child (eg, ear exam, neurologic exam).	0.40	0.51	.03
The preceptor has enough opportunities observing me interact with my patients to evaluate me on communication, interpersonal skills, and clinical skills.	0.33	0.72	0.19
My patients trust my preceptor's advice more than mine.	0.27	0.59	0.25
I learn from my preceptor how to talk to mothers about behavioral things.	0.13	0.51	0.63
I learn from my preceptor through role modeling.	0.07	0.46	1.00
My preceptor helps me figure out the right questions to ask and how to ask them with some of my PPC† patients who had unusual or complicated problems.	0	0.53	1.00
My parents see me as their child's primary doctor.	0	0.38	1.00
Conference Area Presentation and Teaching Preferred			
I feel comfortable presenting to the preceptor.	–0.40	0.83	0.15
I still feel in charge of my patients even when my preceptor suggests a different way of handling a patient's problem.	–0.20	0.41	0.25
Presenting to the preceptor is reasonably time efficient and doesn't slow me down in PPC.	–0.13	0.99	0.79
My patients understand that I am still learning and don't think less of me when my preceptor suggests something that changes the plan.	–0.07	0.70	1.00

*ERPT indicates exam room presentation and teaching; CAPT indicates conference area presentation and teaching; SD indicates standard deviation. Within subject, differences were examined by signed rank test to determine whether the difference was significantly different from zero. Mean differences were calculated to demonstrate magnitude and direction of differences. A positive mean difference indicates a preference for the exam room presentation; negative, a preference for the conference area presentation.

†PPC indicates pediatric primary care.

direct observation.¹² Because studies have indicated that direct observation is not commonly a significant part of the evaluation process,^{13,14} programs recognize the need for efficient methods to incorporate direct observation into the teaching process, both for feedback and evaluation purposes. One approach that has proven successful has been to develop structured observation scales that are completed by the evaluating physician as a result of formal direct observation of the trainee-patient interaction.^{15,16} Our study suggests that both attending physicians and residents see presentations and teaching in the exam room as a means of direct observation, which enhances feedback and evaluation. The advantage is the increased efficiency resulting from combining 2 functions important to medical education—direct observation and teaching.

An additional advantage of presentations and teaching in the exam room is that it provides opportunity for the time-honored tradition of role modeling by the attending physicians.^{1,17,18} The bedside is an excellent setting to role model interpersonal and interviewing skills, especially around sensitive issues, and to demonstrate physical diagnostic maneuvers.¹⁹ Rogers et al,⁹ in fact, found that in adult medicine, bedside teaching tended to change the focus of teaching to physical diagnosis and away from mechanisms of disease. Our study indicated that both the residents and the attending physicians recognized role modeling and demonstration as positive features of bedside teaching.

Family-centered care, which has been identified as a national priority by the Institute of Medicine,²⁰ emphasizes

patient and family involvement in health care decisions. Teaching at the bedside in the presence of the patient and family is one means of promoting family-centered care in the residency training setting. Patient satisfaction with the health care visit and trust and confidence in the physician are measures of the effectiveness of bedside teaching in the context of family-centered care, and are especially pertinent to the continuity setting where confidence and trust in the resident physician as primary care provider are fundamental to the learning experience. With bedside teaching, confidence and trust in the resident physician could potentially be affected, because the teacher-learner relationship between the attending physician and the resident may be apparent to the patient and family. The literature on this issue is limited but suggests that families do not perceive the teaching-learning process in primary care as a significant factor or detractor from their relationship with their resident doctor, even when the teacher-learner relationship is evident.^{21,22} In fact, some studies in adults have shown that patients often find bedside teaching positive and beneficial to their understanding and involvement in their care.^{8–10} The results of our study strengthen the notion that bedside teaching does not affect patient satisfaction or confidence in the resident physician.

The only negative aspect of bedside teaching, which was noted by both the residents and attending physicians, was the issue of resident discomfort, specifically when discussing sensitive issues with the family and when the residents were unable to answer a question asked by the attending

physicians. This finding was consistent with studies in adult medicine^{8,11} that showed many learners (residents) did feel uncomfortable conducting presentations and discussions in the presence of the patient (11% and 98%, respectively). Reasons given by the learners included 1) patient confusion, 2) worry that they would lose their patient's trust if attending physicians corrected them in the patient's presence, and 3) concern that conducting presentations and discussions in the clinic exam room would diminish resident autonomy. On the other hand, Rogers et al⁹ found that learner (medical student) attitudes changed with experience, and those who presented frequently in the patient's presence were more likely to prefer to do so in the future. We have likewise observed this informally, although we have not documented it in a systematic way.

This study has several limitations. There was considerable variation in age and years of teaching experience of the preceptor attending physicians, which could have affected the study results. The study included a fairly small number of first-year residents and attending physicians who participated early in the academic year. Therefore, our findings may have limited generalizability to attending physicians supervising more senior residents. Additionally, it is also possible that the parent satisfaction questionnaire could have been influenced by a concern that a negative response would affect future care received at the PPCC or by a desire to please their physician by providing a preferred response.

A methodological limitation of the study was the use of surveys that were developed de novo for the study. Although they were developed by a team of physicians with extensive experience in survey design, reviewed for content validity by experts in the field, and piloted on patient families, residents, and attending physicians who were not included in the study, they have not been subjected to formal validation studies.

CONCLUSIONS

Exam room presentations and discussions add value in the outpatient pediatric setting. With increasing emphasis on family-centered care and involvement of families in decision making, bedside teaching appears to be an appropriate approach in both the inpatient and outpatient arena. Although this does create some discomfort in residents, especially early in their training, this should diminish with experience as suggested in the adult literature. Advantages to parents are involvement in decision making and learning more about their child. Advantages to preceptors are the ability to provide better feedback and evaluation on resident competencies and performance, to role model important behaviors and counseling skills, and to demonstrate physical diagnosis skills. Advantages to residents are improved, more legitimate feedback and evaluation and learning of hands-on skills, communication skills, and interpersonal skills from attending physicians.

Presentations and discussions conducted in the presence of the patient and family appear to be a viable strategy to accomplish the dual roles of patient care delivery and medical education that are required in the pediatric primary care, outpatient setting. Future studies of bedside presenta-

tions should be designed to evaluate teaching effectiveness in terms of outcomes, such as changes in resident behaviors and increased knowledge, improved skills, and changed attitudes.

REFERENCES

1. Kroenke K, Omori DM. Bedside teaching. *South Med J*. 1997;90:1069-1075.
2. National Archives and Records Administration. 42 Code of Federal Regulations 415.174. *Exception: Evaluation and Management Services Furnished in Certain Centers*. Washington, DC: US Government Printing Office; 2006:806.
3. Jenkinson C, Coulter A, Bruster S. The Picker Patient Experience Questionnaire: development and validation using data from in-patient surveys in five countries. *Int J Qual Health Care*. 2002;14:353-358.
4. Hays RD, Shaul JA, Williams VSL, et al. Psychometric properties of the CAHPS 1.0 survey measures. *Med Care*. 1999;37(3 suppl):MS22-MS31.
5. Santos JRA. Cronbach's alpha: a tool for assessing the reliability of scales. *J Extension*. 1999;37:1-5. Available at: <http://www.joe.org/joe/1999april/tt3.html>. Accessed August 2, 2007.
6. Orsetti KE, Willaims BC. "In-room" presentation in the ambulatory setting. *J Gen Intern Med*. 1998;13(suppl):90.
7. Smith AG, Bromberg MB, Singleton JR, et al. The use of "clinic room" presentation as an educational tool in the ambulatory care setting. *Neurology*. 1999;52:317-320.
8. Anderson RJ, Cyran E, Schilling L, et al. Outpatient case presentations in the conference room versus examination room: results from two randomized controlled trials. *Am J Med*. 2002;113:657-662.
9. Rogers HD, Carline JD, Paauw DS. Examination room presentations in general internal medicine clinic: patients' and students' perceptions. *Acad Med*. 2003;78:945-949.
10. Lehmann LS, Brancati GL, Chen MC, et al. The effect of bedside case presentation on patients' perceptions of their medical care. *N Engl J Med*. 1997;336:1150-1155.
11. Wang-Cheng RM, Barnas GP, Sigmann P, et al. Bedside case presentation: why patients like them but learners don't. *J Gen Intern Med*. 1989;4:284-287.
12. Holmboe ES. Faculty and the observation of trainees clinical skills: problems and opportunities. *Acad Med*. 2004;79:16-22.
13. Chisholm CD, Whennmouth LF, Daly EA, et al. An evaluation of emergency medicine resident interaction time with faculty in different teaching venues. *Acad Emerg Med*. 2004;11:149-155.
14. Kassebaum DG, Eaglen RH. Shortcomings in the evaluation of students' clinical skills and behaviors in medical school. *Acad Med*. 1999;74:842-849.
15. Shayne P, Gallahue F, Rinnert S, et al. Reliability of a core competency checklist assessment in the emergency department: the Standardized Direct Observation Assessment Tool. *Acad Emerg Med*. 2006;13:727-732.
16. Lane JL, Gottlieb RP. Structured clinical observations: a method to teach clinical skills with limited time and financial resources. *Pediatrics*. 2000;105:973-977.
17. Linfors EW, Neelon FA. The case for bedside rounds. *N Engl J Med*. 1980;21:1230-1233.
18. LaCombe MA. On bedside teaching. *Ann Intern Med*. 1997;126:217-220.
19. Weissmann PF, Branch WT, Gracey CF, et al. Role modeling humanistic behavior: learning bedside manner from the experts. *Acad Med*. 2006;81:661-667.
20. Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Available at: <http://www.nap.edu/books/0309072808/html/>. Accessed February 6, 2007.
21. Monk SM, Nanagas MT, Fitch JL, et al. Comparison of resident and faculty patient satisfaction surveys in a pediatric ambulatory clinic. *Teach Learn Med*. 2006;18:343-347.
22. Bonds DE, Foley KL, Dugan E, et al. An exploration of patients' trust in physicians in training. *J Health Care Poor Underserved*. 2004;15:294-306.