



The Seventh Element of Quality: The Doctor-Patient Relationship

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BACKGROUND AND OBJECTIVES: National experts have defined the elements of quality health care, but community-based physicians have not been systematically asked their opinions about quality. This study explored primary care clinicians’ beliefs about the elements of quality care.

METHODS: Responses from structured interviews with 12 primary care clinicians and open-ended comments in a subsequent survey of 85 clinicians, all employed by a large urban federally qualified community health center, were coded independently by two researchers and analyzed for major themes. After discovering that these themes resembled the six elements advanced by the Institute of Medicine, the data were recoded to identify additional perceptions about quality.

RESULTS: Clinicians believe that the relationship with patients is a core element of quality health care. They also reconfirm the elements of quality advanced by the Institute of Medicine—safety, timeliness, effectiveness, efficiency, equity, and patient centeredness, with safety mentioned infrequently. The clinicians also emphasized preventive care.

CONCLUSIONS: While primary care clinicians’ beliefs about quality are generally consistent with experts’ definitions, they emphasize relationships and rarely mention safety. Successful efforts to promote quality in primary care should be consistent with clinicians’ beliefs about what constitutes high quality.

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Since the Institute of Medicine (IOM) published the landmark report *Crossing the Quality Chasm* in 2001,¹ there has been a groundswell of interest and activity to improve the quality of health care in the United States. The IOM report identifies six elements of high-quality health care: effective, patient centered, timely, efficient, equitable, and safe. Patient satisfaction or experience has emerged as another quality indicator. Much

of the work to improve quality has been hospital based, but more recent efforts have focused on improving performance and quality in primary care outpatient settings. For the most part “quality” has been defined in primary care as compliance with a number of care processes, mostly focusing on prevention and care of chronic diseases.² Primary care clinicians’ level of agreement with quality indicators—and the clinical guidelines that incorporate these

indicators—is highly variable.^{3,4} Experts and national quality organizations have promulgated definitions of quality with little input from primary care doctors and other clinicians who provide day-to-day patient care. One study of hospital-based physicians and nurses found their perceptions of quality bore little resemblance to experts’ definitions.⁵ Other work focusing on palliative care clinicians in acute care settings⁶ and nurses⁷ show little agreement in what constitutes quality in these settings. To date there has been little systematic research to understand primary care clinicians’ beliefs about what constitutes high-quality care.

Pay-for-performance (P4P) programs have emerged as a promising mechanism to improve the quality and safety of health care.^{8,9} The fundamental rationale for P4P programs is to reward health care organizations and providers for providing high-quality health services consistent with evidence-based guidelines.¹ While there is nascent evidence that physicians adhere to recommended guidelines more frequently when financial incentives are provided, it remains to be seen whether these programs are consistent with

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physicians' perceptions of quality or whether these programs are effective at improving overall quality of care and health outcomes for patients.¹⁰⁻¹⁵

As part of a larger evaluation of the effects of a P4P compensation plan on a large urban federally qualified community health center, we studied clinicians' beliefs about the elements of high-quality medical care. Our objective was to describe the elements of high-quality care from primary care clinicians' viewpoints.

Methods

Setting and Population

Access Community Health Network (ACCESS) is a federally qualified community health organization that owns and operates 48 primary care centers in and around Chicago. ACCESS designed a performance-based compensation (PBC Plan) for clinicians to improve the quality of care for chronic diseases and prevention. As part of a multi-method evaluation of the PBC Plan, we conducted a study to understand the effects of the PBC Plan through the eyes of the clinicians. This study had two components: a small qualitative, interview study of clinicians' knowledge, attitudes, and beliefs about quality and performance-based compensation and a large written survey of all ACCESS clinicians. In this report, we describe findings that result from the interview and the open-ended survey question pertaining to respondents' views on quality.

Design

Interviews. The goal of the interviews was to elicit perspectives from clinicians across the spectrum of productivity (measured in visit volume) and quality (represented by a composite measure of performance on internal chart audits of various quality indicators). Using a 2x2 matrix combining high and low productivity with high and low quality, one member of the study team (ME) identified a convenience sample of clinicians representing varying combinations of productivity and performance and scheduled the interviews. The interviewer (SS) and the data analysts (SS and MM) were blinded to the membership of the groups. The interview questions (Table 1) were developed, in part, using "critical incidents"¹⁶ or "key incidents"¹⁷ to elicit physicians' descriptions of high- and low-quality patient interactions and to elicit a comprehensive understanding of how physicians define quality.¹⁸ A semi-structured, in-person interview to assess their perceptions of health care quality was developed and pilot tested, and one member of the study team (SS) experienced with in-depth interviewing techniques conducted all of the interviews. Each interview was approximately 45 minutes in duration and was digitally audiorecorded, transcribed, de-identified, and analyzed as described below. Interviews were scheduled successively until the interviewer felt that no new themes were elicited during the interviews. From January to March 2006, we

invited 13 clinicians to participate in the interviews.

Surveys. Using information from these interviews, we designed and distributed a written survey to all 135 ACCESS clinicians in person and subsequently by phone and e-mail. In this survey, we asked general questions about P4P and quality, specific questions about the design and implementation of the ACCESS PBC Plan, and one open-ended question: "What is your definition of high-quality health care?" We included the responses to this open-ended question in the qualitative analysis for this study.

The Institutional Review Board at the University of Chicago approved this study, with all participants providing written informed consent prior to participation. Participants were not compensated.

Data Analysis

Transcripts from the interviews and the data from the open-ended survey question responses were analyzed using qualitative methods. The initial analysis was performed by a single investigator with expertise in qualitative research who was not a physician and who was unfamiliar with the IOM report.¹ This researcher read the in-depth interview transcripts to identify recurrent themes within the text in accordance with general principles of grounded theory,¹⁸ ie, an open coding system was developed and new subsequent text was analyzed using constant comparison with existing themes. Category names and definitions were revised and adjusted throughout the coding process (Table 2). When the first coder was confident that category saturation had been reached, this coder met with a second coder to explain the categories and the definitions for reliability checking purposes. The second coder, a physician who was familiar with the IOM report, commented on the congruence between five of the categories developed independently by the first coder and five of the six aims of the IOM

Table 1: Semi-structured Interview Questions About Quality

• I'm very interested in what you think "quality" is in regard to your work.
• Can you think of a patient encounter that you recall as being a high-quality encounter?
• Could you describe it for me?
• What in particular defined it as high quality for you?
• Could you describe a low-quality patient encounter?
• What defined it as a low quality for you?
• Do you have any other comments for me about quality and health care?

Table 2: Definitions of Characteristics of Quality

Characteristic	Definition
Effective	Based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse)
Patient centered	Respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions
Timely	Avoiding unnecessary waits and sometimes harmful delays for both those who receive and those who give care
Efficient	Avoiding waste, in particular waste of equipment, supplies, ideas, and energy
Equitable	Without inappropriate variations that are attributable to personal characteristics such as gender, ethnicity, geographic location, or socioeconomic status
Safe	Avoiding injuries to patients from the care that is intended to help them
Relationships	Sharing meaningful therapeutic interactions with patients and other members of the health care team

for improving the quality of health care into the 21st century. Closer examination of the definitions of the common categories suggested that only slight revisions were necessary to make the operational definitions of the categories consistent with the IOM descriptions. The remaining categories identified in the analysis were explained to the second coder, who performed a check of all transcripts to ensure consistency in coding the transcripts. Any differences were resolved through discussion. The categories were then used to analyze the open-ended survey question. No additional themes emerged in this analysis. The data were analyzed with N'Vivo qualitative analysis software (Version 7, QSR International, Victoria, Australia).

Results

Twelve of the 13 clinicians invited to participate provided informed consent: three family physicians, three pediatricians, two OB-GYN physicians, two internal medicine physicians, one certified nurse midwife, and one physician assistant working with a family physician. The seven female and five male interviewees represented 10 different ACCESS clinics within Chicago's underserved areas. In addition, 85 clinicians (Table 3) responded to the written survey, giving a response rate of 63%. The qualitative responses to the survey were combined with the

interview responses for the final qualitative analysis. Because no new themes emerged in the responses to the written survey, we believe content saturation was reached for the definition of quality in this setting.

The major thematic categories that emerged from the analysis are shown below, with representative quotations taken from both the in-person interviews and the open-ended survey question to exemplify each theme.

Effectiveness

Comments included in this category referred to the adherence to evidence-based knowledge in patient care. The role of effective medical care in provision of quality medical care was mentioned by all interviewees although the expression varied widely. One physician linked quality to a positive impact on patient outcomes: "...quality is affecting the outcome in a positive way. And what comes to mind immediately is the

Table 3: Characteristics of Survey Respondents (n=85)

Characteristic	# or (%)
Gender	
Male	46%
Female	54%
Age (in years)	
Average	44
Range	28–64
Number of years in practice	
1–5	28 (33%)
6–10	19 (22%)
11–15	7 (8%)
16–20	10 (12%)
21 or more	21 (25%)
Profession	
Physician	72 (85%)
PA, NP, or midwife	13 (15%)
Specialty	
Family practice	40%
Internal medicine	22%
Pediatrics	18%
OB-GYN	14%
Other	6%

Table 4: Major Themes and Representative Narrative

Effective	"And also, her asthma medication...I put her on a steroid inhaler...And she's doing really well with that...And I got her a nebulizer machine to use at home. So, when she does have a flare up she does not have to go to the emergency room. And she has been really well controlled..."
Patient Centered	"Just trying to get to the bottom of whatever patient's concerns are, or trying to keep them healthy... just making sure that they're staying on track, taking their medicines, eating the right foods, whatever it takes."
Timely	"He came in, we worked him up, got everything set up pretty quickly for him to be treated and everything. So I think that's really important, the timing of things, especially when it's urgent matters."
Efficient	"I had an encounter recently with a patient I was able to accommodate on very short notice. I was able to have a nice conversation with her about her problem. I had time to do a complete exam and to review her file and discuss many aspects of the problem she was having, so that I felt I was able to give her a very complete visit and treat her effectively and to do the best I could for her." "And I was so happy to have found them and have his problem resolved. So, it's not a matter of doing more specific testing or doing a \$1 million workup. It's mostly having a good history and good physical examination and addressing the problem..."
Equitable	"...I've been trying to provide the best quality of care there is, whether it's in a community health setting or a very expensive place to go. It doesn't make any difference what the patient is paying, how much money they have, just trying to get the best for the patient in terms of their health." "Well, in terms of quality...I guess all patients should have the same health care, regardless of what kind of insurance they have or where they live or how much money they make, things like that. So, I just feel like whatever I do for someone that has a bunch of money and really great insurance, it should be the same with someone that has no insurance."
Relationships	"Medicine is part science, part art. Performance-productivity is one side of the coin, but the guidelines could be changed tomorrow or proven wrong. The other side, the art, is the human face of medicine. We should have both sides for real quality."
Prevention	"...Yearly eye exams by a qualified ophthalmologist or optometrist are essential, yearly foot exams to prevent complications like amputations are essential...immunizations, which are a part of the standard of care and evidence based to prevent them from getting hospitalization...prevent them from getting into the hospitals and thus reduce morbidity and health care costs. That is important."

patient leaves my care better off... emotionally, physically, psychologically, etc, than when they started." Others linked it to the delivery of evidence-based medicine in a general way: "...quality is that what you're doing is acceptable...within the medical community, which is based on scientific research...you follow some guidelines in...treating patients" or "So, to me, quality means making evidence-based medicine standards, incorporating them into my practice."

They felt that prevention was an important part of effective primary health care. Remarks about prevention included: "Making sure that [patients are] staying on track, taking their medicines, eating the right foods, whatever it takes. So I feel like that's quality..."

Patient Centeredness

Comments in this category mentioned respect and responsiveness to patient preferences, needs and values, and evidence that patient values guide clinical decisions. Eight interviewees described patient centeredness as a characteristic of quality care. They described it as a focus on caring for a person, rather than a set of symptoms to be managed, ie, "Quality now is...how they treat the patient, thereby we will have a view of the person we treat, not the symptom" or "high-quality health care... includes taking the time to listen to your patients and to help them in all aspects of their lives." For others it was "Just trying to get to the bottom of whatever (the) patient's concerns are..." or about responding to the issues of importance to the patient,

eg: "...rather than walking to the room and saying, 'Hello, your blood pressure's high, your cholesterol's high, here's your prescriptions, and see me in 3 months,' instead we sit down and talk about what are the issues that are important to the patient." Another physician described the nature of quality care in a manner that demonstrated respect for his patients: "[High-quality] health care [is] provided by qualified, caring staff with respect to a patient's educational and economic levels so they can actively participate in their health care decisions." One provider defined a low-quality encounter as one "where we didn't really know the needs of the patient...and we didn't address their needs. [They] had a problem...we didn't know about it, we didn't identify it, and it went

untreated and probably worsened. That's to me the worst quality."

Timeliness

Time was considered an important aspect of quality care in two ways. The first concerned the importance of having sufficient time during visits to deliver high-quality care, for example "to spend ample time with my patient [to] address their chronic illness..." One respondent defined the absence of time as low-quality care: "Being rushed beyond capacity and not being able to...see patients...addressing the patient's needs in a very spotty fashion." The issue of time was also described from the patient's perspective: "I feel that the patient does get enough time to express whatever is going on" compared to a low-quality visit being "...a visit in which the patient may feel rushed..." The issue of time was also present regarding the timeliness of care. Eight physicians noted that high-quality care should be timely, "without delay," yet not rushed "...especially if it's a serious diagnosis...I had a patient with cancer. He came in, we worked him up, got everything set up pretty quickly...I think that's really important, the timing of things, especially when it's urgent matters."

Efficiency

Efficiency was defined as care that avoids wasting physician and patient time, money, or equipment and that utilizes existing resources. Nine physicians endorsed this category as a characteristic of quality health care. One doctor described how his careful inquiries about a patient's lifestyle prevented costly imaging work: "A female who comes in with headaches, chronic headaches...almost every day, constant...instead of just prescribing a ...CT of the brain, and ...prescribing medications...or even...sending her off to a neurologist...I asked 'What's going on at home? What are your stressors?'" Other examples of this theme were descriptions of the impact of organizational inefficiency: "So if you were to...order

a test on somebody and the front desk didn't book it...so the patient never finds out (the result)...They may come in a couple of months later and then you're back at where you started 6 months ago." It was also described when existing resources were not fully utilized: "If...you are not availing of resources around you to help the patient, then that's, that's a very poor quality of management."

Equity

Equity was defined as "care...provided free of discrimination" and "...should include respect and dignity regardless of patient's race, gender, sexual orientation, cognitive abilities, education, etc." Other physicians said "High-quality care is...provided...regardless of ability to pay, ethnicity, age, gender, or legal status" and "...whatever I do for someone that has a bunch of money and really great insurance, it should be the same with someone that has no insurance." A number of physicians suggested that high-quality care was necessarily accessible care, implying that inaccessibility was a form of inequity. The difficulty of overcoming health inequities in their patients and achieving quality outcomes was also described: "...some quality measures like A1c<6.5 [are] hard to attain in underserved areas because a lot of patients are noncompliant in regard to taking medication..." suggesting that the role of economic hardship is linked to health compliance and outcomes.

Relationships

Half of the respondents commented that meaningful interactions between physicians and patients contributed to high-quality care. One provider remarked, "To me, quality is...about how much care we share with our patients..." and another described his interaction with a patient, demonstrating empathy: "One patient told me [that] today is his first anniversary of quitting smoking. I gave him a big hug. I said 'Good for you. How did you do it? How are you managing? How

does it feel?'" Another physician described the practice of medicine in a more humanist manner: "Medicine is part science, part art. Performance-productivity is one side of the coin, but the guidelines could be changed tomorrow or proven wrong. The other side, the art, is the human face of medicine. We should have both sides for real quality." Quality care was described as addressing "...the human things...the things you don't get any direct return on your dollar...being able to talk to somebody who is having a significant problem. To spend time with this person and really talk to them."

Discussion

Our findings suggest that primary care clinicians who are far removed from the level of national policy identify many of the same elements of quality as the experts who formulate national health care policy. Importantly, these clinicians placed greater emphasis on relationships, a feature of quality that is highly valued in primary care yet not reported among the six characteristics of high quality identified by the Institute of Medicine in 2001.¹ If relationships are as important to quality as these clinicians suggest, efforts to enhance relationships should be prioritized, especially within the Patient-centered Medical Home, a concept that has gained widespread attention in recent years. The greater emphasis on relationships may also reflect a value that outpatient primary care physicians espouse in contrast to their inpatient counterparts whose relationships with patients may be more intense but brief in duration. It is unclear how patients value their relationships with physicians. Some patients might value relationships very highly while others may prioritize other elements of care (eg, timeliness, patient centeredness, and efficiency). The way in which patients value relationships with their physicians deserves greater attention.

These physicians identified all six characteristics of high-quality

health care cited by the Institute of Medicine,¹ confirming that these physicians' beliefs about quality are generally consistent with expert definitions of quality. This finding contrasts with a previous study of hospital-based physicians' perceptions of quality, which bore little resemblance to expert definitions of quality.³ Physicians in our study reported that high-quality care should be effective at providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse). Care should be patient centered, that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions. Care should be timely, avoiding unnecessary waits and sometimes harmful delays for both those who receive and those who give care. High-quality care should be efficient by avoiding waste, in particular waste of equipment, supplies, ideas, and energy. Finally, quality care should be equitable or without inappropriate variations that are attributable to personal characteristics such as gender, ethnicity, geographic location, or socioeconomic status.

Safety, one of six elements cited by the IOM, was mentioned rarely by physicians in our study. That patient care should be safe, avoiding injuries to patients from the care that is intended to help them, ought to be self-evident. Yet, our study of outpatient clinicians suggests either that these clinicians deemphasized safety or, more likely, that they simply did not mention it because they viewed safety as too obvious to warrant mention. Alternatively, the consequences of unsafe outpatient care may not be immediately apparent, whereas the consequences of unsafe inpatient or surgical care may be more obvious. Or perhaps this reflects the emphasis within the national patient safety movement on hospital care and surgery

and that safety has not significantly penetrated the consciousness of these ambulatory-based outpatient physicians. A final possible explanation is that these clinicians believe that attention to patient safety has already been addressed extensively by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and other accrediting bodies. Likewise, these physicians mention issues of equity less frequently than other IOM qualities, but those who did mention quality spoke passionately about equity in access to care and eliminating health disparities. Since all clinicians interviewed for this study work for community health centers where equity and access to care are central to their mission, the fact that fewer physicians in this study discussed equity is likely to reflect a constant awareness of the importance of equity rather than the opposite.

This study has limitations. All the clinicians included in this study worked in urban underserved ambulatory settings. Although clinicians working in hospital-based settings, or other geographic ambulatory settings (eg, suburban or rural areas) were not included in this study, it is hard to imagine why clinicians in other settings would disagree with these clinicians' perceptions of quality. Nonetheless, further research is needed to characterize the extent to which the perceptions of clinicians in this study apply more generally to other physicians. Additional research is also necessary to understand if physicians perceive equitability and patient safety as less important features of high-quality care or whether, as suggested above, these qualities are self-evident and not worth mentioning.

Primary care clinicians employed in this community health setting hold beliefs about quality that are consistent with experts' definitions of high-quality health care and build upon these principles by placing great emphasis on relationships with patients. To our knowledge, ours is

the first qualitative study of outpatient primary care clinicians' perceptions of quality, yet major efforts are underway nationally and regionally in the United States to incent primary care clinicians to adhere more faithfully to standards of quality before the nature of quality of care in this setting is fully understood. To the extent that primary care physicians' viewpoints are critical to the success of these national efforts, clinician-patient relationships should be considered an important part of any serious effort to improve health care quality.

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