Providing Patients Web-based Data to Inform Physician Choice: If You Build It, Will They Come?

Gary Fanjiang, MD, MBA[1], Ted von Glahn[2], Hong Chang, PhD[3], William H. Rogers, PhD[3], and Dana Gelb Safran, ScD[3]

[1]Massachusetts General Hospital for Children, Boston, MA, USA; [2]Pacific Business Group on Health, San Francisco, CA, USA; [3]The Health Institute, Tufts-New England Medical Center, Boston, MA, USA.

BACKGROUND: Despite growing emphasis on public reporting of health care quality data, available data are often ignored.

OBJECTIVE: To evaluate the usefulness of web-based physician-level data for patients choosing a new primary care physician (PCP).

DESIGN: Patients seeking a new PCP (n=2225) were invited to view web-based information including PCP credentials, personal characteristics, office location and hours, and patient experience scores. Patient experience scores included validated measures of interpersonal quality, appointment access, care coordination, health promotion, and patient recommendations of the PCP. After viewing the website, participants indicated their preferred PCP and completed a study questionnaire.

RESULTS: Of the invited participants, 17% visited the website (n=382). Patient experience scores were cited most frequently as important to physician choice (51%). Among these measures, patients' highest priorities were interpersonal quality (37%) and patient recommendations of the PCP (41%). For patients citing these priorities, the odds of choosing a highly scored physician after viewing the data was nearly 10 times that of choosing such a physician by chance (odds ratio (OR)= 9.52 and 9.71, respectively).

CONCLUSIONS: Targeting patients known to be making a health care decision appears to promote the use of performance data. Patients particularly valued data concerning other patients' experiences and, after viewing the data, made choices well-aligned with their priorities.

KEY WORDS: health care decision-making; physician performance measures; public reporting; patient care experience measures.
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INTRODUCTION

Despite the growing demand for health care transparency and public reporting of quality data, available evidence suggests that patients rarely use these data[1–4]. At least 3 factors appear to contribute to patients' relative lack of interest in health care quality data to date: (1) Studies consistently find that patients are most interested in physician-level quality information,[5,6] however, available data have focused primarily on large health care organizations and institutions (e.g., health plans, hospitals, medical groups). (2) The content and format of performance data are often difficult for patients to understand.[7,8] (3) At the point of decision-making, patients are often unaware of data that could inform their choice.[3,9–12]

In this study, patients known to be seeking a new primary care physician (PCP) were invited to view web-based information to inform their choice. We monitored the percent of patients who visited the website, and among those who did, evaluated their informational priorities and the role of the information in their PCP choice.

METHODS

Sampling

In 2004, adult patients seeking a new PCP at 2 California medical groups (San Fernando Valley) were invited by mail to view web-based information about the 14 adult PCPs comprising the groups. Those invited to view the website included: (1) all patients newly joining the practice (n=225) and (2) a random sample (n=2,000) of patients empanelled to 2 retiring PCPs ("switchers"). Patients were offered $20 to complete a web-based questionnaire after reviewing the website. A second invitation letter was sent to nonrespondents 2 weeks later.

The Website

The website provided the following physician-level information: credentials (i.e., years in practice, medical school, specialty certification, hospital affiliations), personal characteristics (i.e., age, gender, ethnicity, languages spoken), office location and hours, and patient experience scores from the Short-Form Ambulatory Care Experiences Survey (ACES). ACES is a validated questionnaire[13,14] that has been administered to medical groups throughout California since 2003. The survey produces 5 summary measures for physicians: interpersonal quality, appointment access, care coordination, health promotion, and patients' willingness to recommend the physician.

Four physicians did not have survey-based measures because they were new to the practice. For each of the remaining physicians, the website indicated performance on each measure based on the underlying score assigned to 1 of 4 categories: scored best, scored highly, scored average, scored lowest (http://www.tufts-nemc.org/icrhps/resprog/thi/fanjiang.asp).

Data Collection

After viewing the web-based information, patients were asked to complete a study questionnaire. Patients were first asked to select their preferred PCP. Patients were told they would need to contact the practice to formalize this choice (i.e., web-based selections were not linked to the practice). Next, patients were asked to indicate up to 3 types of information that had been important in their choice, including physician credentials, personal characteristics, office location and hours, patient experience scores, advice from professionals, and advice from friends. The latter 2 categories were based on participants' personal experience, whereas the others corresponded to the web-based information. Next, patients were asked to rank the importance of the 5 ACES measures. Finally, patients were asked about their overall assessment of the website.

Statistical Analysis

Characteristics of all patients invited to view the website were compared with those who visited the site and completed the study questionnaire using two-sample *t* tests. In addition, two-sample *t* tests were used to compare the importance of the survey-based ACES measures against each of 5 other types of information (i.e., physician credentials, physician personal characteristics, office location/hours, advice from professionals, advice from friends). Subgroup analyses were conducted based on patient gender, age, education, number of chronic diseases, and enrollment status (new versus switcher). Finally, we computed (1) the odds of choosing a physician who scored highly on a particular ACES measure given a stated priority related to performance on that measure and (2) the odds of randomly choosing a physician who scored highly on that measure. The ratio of these 2 odds then gave us the odds of choosing a high performing physician given a particular performance priority over that of choosing such a physician by chance.

RESULTS

Of the invited sample (n=2,225), approximately 17% visited the website (n=382). Patients newly joining the practice were more likely to visit the website than "switchers" (24% vs 12%; p <0.01). Of those visiting the site, 80% completed the questionnaire (n=306). Compared to the starting sample, those who participated were significantly younger (<60 years) and more likely to have HMO-based insurance (p<.001), but did not differ in terms of gender or years of plan enrollment.

Table 1 summarizes the information priorities cited by patients who viewed the website. Half of the participants cited patient experience scores as important to informing their PCP choice (51%). Patient experience scores significantly exceeded each of the 5 other types of information in their importance to patients choosing a PCP (p<.001). Office convenience (39%) and physician credentials (38%) were cited as important by more than one-third of patients. Older adults (≥60 years) particularly valued advice from professionals (41%) and placed less importance on patient experience scores (28%) than younger adults. For patients with 2 or more health conditions, office location and hours (46%) and

Table 1. Percentage of Participants Who Cited Each Type of Information as Important to Their Physician Choice

	Patient experience scores (ACES)	Office location and hours	Physician personal characteristics	Physician credentials	Advice from professionals	Advice from friends
Total (n=306)	51	39*	25†	38†	27†	24†
Gender						
Male (n=144)	47	42	28†	40	27†	29†
Female (n=159)	54	38	22†	37*	26†	20†
Age (y)						
18 to 34 (n=74)	54	41‡	22†	38‡	19†	19†
35 to 59 (n=181)	56	39†	25†	39†	24†	25†
60 to 96 (n=51)	28	37	26	37	45	28
No. of chronic diseases						
None (n=171)	52	39*	27†	44	23†	25†
1–2 diseases (n=113)	49	39	22†	30*	29*	23†
More than 2 diseases (n=22)	59	46	18*	31‡	41	23*
Education						
HS or less (n=43)	40	44	30	35	23	21‡
Some college (n=107)	52	35*	28†	33*	25†	22†
4 y in college (n=84)	55	45	18†	39‡	20†	23†
More than 4 y in college (n=70)	53	37‡	23†	47	37‡	31*
Patient status						
New to practice (n=56)	52	41	21†	39	23†	18†
Switching physicians (n=250)	51	39	25†	38	27†	26†

P values are based on pair-wise comparisons against the survey-based ACES measures
*0.01>p≥0.001
†p<0.001
‡0.05>p≥0.01

advice from professionals (41%) emerged as important to PCP selection, as did patient experience scores (59%).

Of the 5 ACES measures, interpersonal quality (37%) and patients' willingness to recommend the physician (40%) were ranked most important survey-based measures by the largest share of patients (data not shown). These priorities did not differ by age, gender, education or number of chronic conditions. Of the participants, 90% reported that they would recommend the patient experience measures from the website. Two-thirds (68%) were confident that their experiences would be similar to the survey-based scores.

Table 2 shows the extent to which patients chose PCPs whose performance was well-aligned with their stated priorities. Among patients who prioritized physician interpersonal quality, nearly all (88%) selected a physician who scored highly on that measure. Similarly, among patients prioritizing other patients' recommendations of a PCP, 84% selected a PCP scoring highly on that measure. For patients with these priorities, the odds of selecting a highly scored physician after viewing the web-based data were nearly 10 times those of selecting such a physician by chance (odds ratio (OR)=9.5 and 9.7, respectively). Similarly, among patients citing "appointment access" as their highest priority, the odds of choosing a physician who performed highly on that measure after viewing the data were 14.1 times those of choosing such a physician by chance.

DISCUSSION

This study contributes several relevant findings to national efforts to engage patients with quality data. First, with minimal outreach, one-sixth of patients seeking a new PCP and one-quarter of those newly joining a practice used web-based physician-level information. This higher use of performance data than is generally observed[1–4] suggests the value of strategies directing patients to quality data at a point that it has particular relevance to them. Second, of the types of information presented, survey-based measures of physician performance were most frequently cited as important, and among survey-based measures, patients particularly valued measures of physician interpersonal quality and other patients' recommendations of the physician. This is consistent with a considerable literature demonstrating the importance of relational aspects of care to patients,[15–17] but to our knowledge, is the first demonstration of patients using such data to inform an actual physician choice. Finally, patients using web-based quality information made choices that were well-aligned with their stated priorities. This initial demonstration of patients' successfully employing performance data to inform a health care choice is encouraging but should continue to be evaluated as efforts to engage patients in this way are extended to other populations, other settings, and other types of health care choices.

Limitations

There are several relevant study limitations. First, the study included adult patients of 2 California medical groups. Interest in health care quality data and willingness to use web-based tools may differ in other markets and other patient groups. Second, whereas study participants indicated their preferred PCP, we do not know if they contacted the practice to formalize this choice. Finally, because the website lacked information on clinical performance measures, the study cannot evaluate how these would figure into patients' priorities. A recent study, using simulated quality data, found that patients often prioritized technical dimensions of quality over interpersonal ones.[18] Whereas that study involved a hypothetical physician choice, the results suggest the value of providing both clinical and patient experience data to inform patient choice.

CONCLUSIONS

Targeting patients known to be making a health care decision appears to promote the use of performance data. With minimal outreach, one-quarter of patients newly joining 2 practices and 12% of those switching PCPs within these practice used web-based data to inform their choice. Patients particularly valued information concerning other patients' experiences and, after viewing the data, made choices well-aligned with their priorities. The results underscore the value of current work to develop and implement a national standard for measuring patient care experiences with individual physicians,[19,20] but also highlight the importance of ensuring that the performance

Table 2. Odds of Choosing a Physician with High Performance on a Given Patient Experience Measure

Patient experience measure cited as most important	Random choice		Informed choice	
	Percentage of physicians who were rated highly (N_{MD}=14) (%)	Odds of randomly choosing a highly rated physician*	Percentage of patients selecting a highly rated physician given a stated priority (%)	Odds of choosing highly rated physician given stated priority versus choosing that physician by chance
Willingness to recommend physician (n=64)	36	0.6	84	9.7 (CI=3.3, 28.5)
Interpersonal quality (n=57)	43	0.8	88	9.5 (CI=3.4, 26.6)
Appointment access (n=25)	21	0.1	52	14.1 (CI=1.6, 114.7)
Coordination of care (n=7)	7	0.3	57	4.88 (CI=0.9, 28.4)
Health promotion (n=3)	21	0.3	0	0.00 (CI=NA)

*$\text{Odds of randomly choosing a highly rated physician} = \frac{\text{number of physicians who were rated highly}}{(\text{total number of physicians}) - (\text{number of physicians who were highly rated})}$

distinctions highlighted in public reports are meaningful, legitimate, and easy to understand.

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Corresponding Author: *Dana Gelb Safran, ScD; The Health Institute, Tufts-New England Medical Center, 750 Washington Street, NEMC Box 345, Boston, MA 02111, USA (e-mail: dsafran@tufts-nemc.org).*

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