BRIEF REPORT: What Types of Internet Guidance Do Patients Want from Their Physicians?

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OBJECTIVES: To understand what patients expect from physicians regarding information seeking on the Internet.

DESIGN: Self-administered survey.

SETTING/PARTICIPANTS: Waiting rooms of 4 community-based primary care offices.

MEASUREMENTS/MAIN RESULTS: Of 494 patients invited to participate, 330 completed the survey for a response rate of 67%. Of 177 respondents who used the Internet for health information, only 15% agreed that physicians should ask them about their Internet searches. Most (62%) agreed that physicians should recommend specific web sites where patients can learn more about their health care.

CONCLUSIONS: Primary care physicians should recognize that many patients would like guidance as they turn to the Internet for medical information. Physicians can utilize quality assessment tools and existing resources that facilitate referring patients to authoritative, commercial-free, patient-oriented medical information on the Internet.

KEY WORDS: Internal use information seeking patient expectations; physician guidance.

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The prevalence of Internet access continues to increase as an estimated 75% of Americans now have Internet capability in their homes.¹ According to a 2003 report, approximately 80% of adult Internet users in the United States have searched for health or medical information online.² Despite the frequency with which patients search the Internet for health information, little is known about what patients expect from their physicians with regard to these searches.

Previous investigators have noted that most Internet health information seekers (62%) had rarely, or never, been encouraged to look for health information online.³ Reasons why doctors infrequently recommend specific web sites are poorly understood but beliefs that internet health information is unreliable may contribute.⁴⁻⁶ One study found that most health care providers (79.1%) had cautioned patients about the unreliability of health information from the Internet. However, the study also noted that 91.5% of 150 health care providers agreed that physicians and other health care providers should provide patients with a list of reliable web sites.⁷

We undertook this study to gain a preliminary understanding of what patients expect from their physicians regarding patient health information seeking over the Internet. Previous studies have shown that patients independently searching the Internet for health information can have both positive and negative effects on the doctor-patient relationship.^{3,6,8} A better understanding of patients' expectations concerning their Internet health searches might improve the doctor-patient relationship and facilitate shared decision-making processes.

METHODS

From May to August 2002, research assistants in waiting rooms of 4 primary care internal medicine practices approached patients to complete a self-administered survey. The 4 primary care practices were a convenience sample selected to represent urban and suburban community-based practices. Incentives to complete the survey included direct payment (\$20) and a lottery for a gift certificate to a local shopping center. Questions measuring age, gender, race, ethnicity, education level, health insurance status, having a primary care provider, number of primary care visits, perceived health status, health care satisfaction, and presence of any of 14 common chronic conditions were adapted from the Behavioral Risk Factor Surveillance System (BRFSS).⁹ The survey also included Ende's autonomy preference index, a measure of respondents' preferences for decision making and acquisition of information,¹⁰ and a measure of respondents' perceptions of the participatory decision-making style of their physician adapted from Kaplan et al.¹¹ Frequency of using the Internet for health information and ability to find what patients were looking for on the Internet were measured using standard survey items.² For this study, 5 questions were developed to measure patients' expectations and experiences regarding their physicians' role in their Internet health information searches. Three items asked for *yes/no* responses ("Over the past 6 months . . . , did you tell your doctor that you found medical information on the Internet?," " . . . did your doctor ask you if you used the Internet for health information?," and " . . . did your doctor recommend that you use the Internet to look for advice or information about your health?"). Two items asked respondents to indicate their level of agreement with the statements "My doctor should ask me whether or not I use the Internet to learn more about my health" and "My doctor should recommend specific web sites where I can learn more about my health or health care." These items were assessed on a 5-point Likert-type scale with responses ranging from *strongly disagree* to *strongly agree*. The survey was pilot tested to gauge length, readability, and comprehension among a convenience sample of patients. The study was approved by the hospital Institutional Review Board.

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Data Analysis

Descriptive characteristics are presented as frequencies. Comparisons between groups were performed using Wilcoxon rank sum test for continuous outcomes or Fisher exact test for categorical variables. Logistic regression analysis was carried out to examine the association between the response variables of interest ("My doctor should ask me whether or not I use the Internet to learn more about my health" and "My doctor should recommend specific web sites where I can learn more about my health or health care") and included gender, age, race, education level, presence of health insurance, having a primary care physician, number of provider visits over past year, presence of chronic disease, health care satisfaction, autonomy preference index, physician participatory decision-making style, and the 3 *yes/no* items described above measuring respondents' experiences with regard to their physicians' role in their Internet health information searches. All factors were included in the model, and nonsignificant variables were deleted by backward elimination (elimination criterion; $P > .10$). All data analyses were performed using Stata (version 8; Stata Corporation, College Station, TX).

RESULTS

Of 494 individuals approached, 330 completed the survey, for a response rate of 67%. The mean age of respondents was 45.7 years; 73.5% were female and 52.3% were college graduates. The majority of respondents were white (92.3%), had health insurance (91.8%), and had a primary care physician (94.4%). Most (77.5%) had at least 1 chronic medical condition. Among respondents, 51% (177 of 330) indicated that they used the Internet for advice or information about health or health care. Of the 177 respondents who used the Internet for health information, 15.3% agreed that their doctors should ask them whether or not they use the Internet for information about their health, 27.8% disagreed, while 56.8% felt neutral (Table 1). Of respondents, 62.1% agreed that their doctors should recommend specific web sites where they can learn more about their health or health care, 7.3% disagreed, and 30.5% felt neutral. Only 28.2% of respondents who used the Internet for health information told their doctor about the health information they found online. Few respondents reported that their doctor either asked them about their Internet use (4.7%) or recommended that they use the Internet to obtain health information (3.0%). Attitudes regarding patient expectations were consistent across demographics, medical history, respondents' level of health care satisfaction, preferences for decision making and information acquisition, physician participatory decision-making style, and frequency of using the Internet for health information based on bivariate and multivariate analyses. The only significant difference observed was that males were more likely to agree that doctors should ask about patients' Internet use (OR, 3.08; 95% CI, 1.28 to 7.39).

DISCUSSION

Although more than half of U.S. adults have searched for health information online,^{2,12} far fewer communicate these searches with their doctors. Because of this lack of communication, much of what patients learn on the Internet is never discussed with their doctor, though it may impact the way patients care for themselves. What is clear from this study is that although most primary care patients do not expect doctors to

Table 1. Internet-related Experiences and Expectations

	Percent (N = 177)
Frequency of Internet use	
At least every few months	55.7
Less often	44.3
Ability to find what looking for on net	
At least "almost always"	71.4
"Sometimes or less"	28.6
Over the past 6 months, did you tell your doctor that you found medical information on the Internet?	
Yes	28.2
No	71.8
Over the past 6 months, did your doctor ask you whether you used the Internet for health information?	
Yes	4.7
No	95.3
Over the past 6 months, did your doctor recommend that you use the Internet to look for advice or information about your health?	
Yes	3.0
No	97.0
My doctor should ask me whether or not I use the Internet to learn more about my health.	
Agree	15.3
Disagree	27.8
Neutral	56.8
My doctor should recommend specific web sites where I can learn more about my health or health care.	
Agree	62.1
Disagree	7.3
Neutral	30.5

ask them about their Internet health searches, a majority (62%) expect their doctor to recommend specific web sites where they can learn more about their health.

Although only 15% of patients in this study agreed that doctors should ask them whether or not they use the Internet for health information, men, compared to women, were more likely to agree that doctors should ask patients about their Internet searches. These gender differences are interesting and may be due to differences in how men and women communicate with their physicians, such as previous observations that men were less engaged in participatory decision making with physicians.¹³

A major limitation to our findings is the underlying assumption that doctors are able to guide patients to web sites that provide accurate information. Although questions about the quality of information on the Internet are well described,^{14,15} accuracy has been found to be generally good.¹⁶ Additionally, Eysenbach and Köhler observed that most subjects using the Internet were successful when attempting to find answers to a series of health questions.¹⁷ Another limitation to this study is that the survey was only conducted in 4 primary care practices in Rhode Island. Therefore, results may not be generalizable to other populations or settings. However, the 4 practices represent community-based urban and suburban practices with affiliations to several community-based and tertiary care hospitals, and the rate of Internet health searches in our sample is consistent with national samples in the United States.^{2,12,18} Given that the goal of this study was to gain a preliminary understanding of patients' expectations of their physicians regarding health information seeking on the In-

ternet, further studies will be needed to understand whether our findings generalize to other patient populations.

Concerns remain about the quality, and measuring the quality of information available on the Internet. Patients however, continue to go online for medical information; a recent report indicated that 67% of patients considered health web sites recommended by their physicians to be the most trustworthy and credible.¹⁹ Providing patients with specific web sites may help to alleviate concerns many physicians have about patients finding poor-quality information on the Internet. Physicians can utilize quality assessment tools^{14,15} and resources such as the American College of Physicians (ACP) Foundation and the National Library of Medicine's Information Rx Project, to facilitate referring patients to authoritative, commercial-free, patient-oriented medical information on the Internet.²⁰ Such a practice would help to mitigate some physicians feeling challenged by the health information that patients amass during their Internet searches, an attitude which has been shown to degrade the doctor-patient relationship,³ and may set the stage for more productive interactions between patients and physicians.

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