The Internet and primary care physicians: coping with different expectations[1–3]

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ABSTRACT   The birth of the Internet is one of the most important developments in the past 2 decades. It is a new medium, especially in the sense that the initiative now rests on the information user, who is no longer just a receiver of information. In part, the use of the Internet to find answers to health-related questions (medical, but also psychological, social, financial, legal) is linked to problems within existing practices. People use the Internet for several reasons: to obtain information that they could not get from their physicians, to verify a medical opinion or treatment, or to overcome reticence in discussing personal issues. Physicians' experience is changing because their patients are using the Internet. Many patients are better informed, and they ask more questions and demand more from their physicians. As a result, there is increased interaction concerning health issues. In addition, there is greater differentiation among patients, precisely because of their different information-seeking behavior. In coping with this inequality, physicians can select among 3 approaches, each with associated costs and benefits: *1*) the *medical model,* in which the physicians follow the "essentials" of the profession (treatment and advice); *2*) the *client-oriented model,* in which the physicians adapt to patients' needs, approaching patients as they would any other consumers; and *3*) the *educational model,* in which physicians promote the proper use of the Internet as a profitable and equalizing medium. *Am J Clin Nutr* 2003;77(suppl):1016S–8S.

KEY WORDS   Internet and health, communication about food, nutrition communication, communication by primary care physicians

INTRODUCTION

One of the most striking developments in the realm of culture and media in the past 2 decades is the rise of the Internet as a mass medium. This medium is interesting for 2 reasons. First, it is quite different from all other existing media. We must carefully consider these discriminating characteristics to understand its importance. Second, its presence also influences communication systems, including interpersonal relationships, such as contacts between primary care physicians and their patients. On the other hand, we will see that its use is influenced by these contacts.

The Internet differs from traditional media sources (eg, the press, film, radio, or television) in one main way: the direction of the communication process is different. Traditional media function under the sender-receiver model, as formulated in the famous Laswell formula: Who says what in which channel to whom with what effect (1–3)? The communication process is conceived as a process of sending and receiving, with an information source in the active role and the receiver in the more passive role. According to much existing theory on this model, the receiver is not that passive: the receiver is selecting, interpreting, and remembering. Thus, the receiver is *not* an empty vessel that can be filled with information but an active or even obstinate observer (4, 5). However, the general idea remains: information is being transmitted in one direction, from medium to receiver, and not the reverse.

The Internet is an alternative medium. In this case, the initiative is clearly with the participant, who is now not a receiver but a user. For instance, the user is active in solving a problem via the Internet or actively exchanges information with others about a subject of interest. Thus, the concept of communication must be taken away from the sender-receiver model and placed in another model where information retrieval and/or information exchange are the main options. The second reason why the Internet deserves our attention is its influence on the communication system as a whole. The introduction of the printing process considerably altered cultural history by changing human communication patterns. The same is also true for radio and television. Television, for instance, influenced the function of other media, but it did not replace other media; it drove newspapers from offering the latest news to providing more background information (6). Moreover, the Internet is changing our habits as communicative beings, both at home and in the world outside.

How can we apply these theoretical ideas to the consulting room of the physician? If communication via the Internet is increasingly about getting answers to questions and/or about exchanging ideas, does this alter the interaction between physician and patient? In line with the theory, the interaction is indeed altered. Consequently, it is not only the issue of the quality of the information that patients obtain from the Internet and take to their doctors' offices that is at stake, but also a different communication style in which the patient is more active and involved. Thus, physicians not only have to cope with a patient, misled by distorted information from the Internet, but also with a new type of patient: an active questioning and reasoning person, activated by the use of the Internet

This pattern cannot be neglected, especially in the area of nutrition and health. Nutrition and health are serious topics on the Internet, perhaps even more so than within the curricula of some university medical faculties. In general, it can be assumed that patients are now more active, particularly regarding these topics. The use of the Internet regarding health issues is well documented, as demonstrated by several studies recently assembled through a special Dutch project (7).

Two topics for further reflection are dealt with in the context of the Internet-active patient. One is the relationship between patient Internet use and physician-patient interaction. We attempt to demonstrate not only that the Internet influences events in the consulting room but also that patient interaction with the physician influences patient use of the Internet. A critical assumption is made: one of the reasons patients use the Internet is due to the restrictions regarding the exchange with their physicians. Another topic will be the way physicians cope with the increasing inequality between patients, which is an important and often neglected consequence of the Internet, because not all patients have Internet access or use the Internet in the same way.

NEW PHYSICIAN-PATIENT INTERACTION AND INTERNET USE

According to the Dutch report mentioned above (7), over 50% of US Internet users use their computers to find information on health issues. They take this knowledge gained from the computer into their physicians' consulting rooms, but the reversed relationship is also interesting. The motives for using the Internet are at least partly related to the way the exchange with the physician takes place. We identified many motives, 4 of which are discussed below (8).

The first reason for using the Internet stems from the lack of information patients receive from their physicians or the quality of information provided by the physicians. Eysenbach and Diepgen (9) analyzed the e-mail sent from various patients to a department of a university hospital. In approximately 1 in 3 cases, frustration with the information they received from their physician was a motivating factor. Perhaps their physicians did not have sufficient time to answer their questions, or the physicians were unwilling to spend adequate time, or they were unable to explain everything so that patients understood (9). The often problematic discourse in the consulting room regarding nutrition and health issues leads to the expectation that this first motive is quite imaginable here.

The second reason for patients consulting the Internet is the uncertainty they feel about the advice or treatment received from their physicians. In the worst case, this may be manifested as a feeling of distrust. The patient may perceive that the physician is not sufficiently competent or helpful regarding a particular subject. In most cases, there is doubt or a need to verify the decision made by the physician. According to a study by Widman and Tong, most patients who consulted a website on cardiovascular diseases were in fact seeking a second opinion (10). Again, what is the perceived competence of the physician on nutrition and health issues? According to Hiddink et al, the general image in the Netherlands is favorable (11), but this can differ in particular cases.

A third reason for using the Internet is the freedom to discuss health problems in which face-to-face interaction with a physician is considered embarrassing (12, 13)—for example, psychiatric problems, symptoms related to sexually transmitted diseases, or problems in the field of nutrition and health, such as weight problems in which feelings of guilt may exist. Patients may also prefer anonymous contact because of anxiety related to asking "stupid" questions or questions they consider too minor to pose to their busy doctors; many questions on nutrition and health could be placed in the latter category.

The last motive for using the Internet is to search for information for other people. It was once uncommon to consult a physician regarding the health problems of other people than, for instance, one's children. Yet the problems of other people can pose personal concerns. This may include issues of nutrition and health, which are often discussed informally, such as the growing concern about food ingredients and allergies.

These motives deserve closer attention and further research. The danger, of course, is that patients, as active information processors, may develop health strategies without consulting with their physician. And this may eventually affect the role of the physician as the main source of information on nutrition and health issues. Therefore, careful consideration of these developments is desirable. Furthermore, it may prove advantageous to closely examine the way physicians deal with patients who use the Internet.

PHYSICIAN INTERACTIONS WITH THE INTERNET-SAVVY PATIENT

In discussions about the consequences of Internet use, many people refer to individual responses, such as patients attempting to become experts on their own diseases or ordering medicine over the Internet. These issues are often viewed with a level of trepidation: Should the Internet-savvy patient not be treated both for the illness *and* for the way the patient is using the Internet, which makes the patient confused and offers the patient a lot of distorted information (13–20)? This raises another topic that applies to patients as a whole: we hypothesize that the Internet can significantly widen the gap between patients. How should physicians deal with these inequalities?

The starting point can be taken from the conclusion drawn by McQuail (4, page 358), who stated: "The differential diffusion of new computer-based information technology also works toward increasing the division between the information-rich and the information-poor. Knowledge gap theory would indicate a widening of the gaps as a result, because people who are already information-rich, with higher information skills and more resources, would move even further ahead of information-poor strata." In this context, the problem is not only the self-sufficient, misinformed, or self-assertive patient but also the large gap between 2 classes of patients: those who act as active information processors and those who do not.

How can physicians cope with these differences? Confronted with this question, physicians have at least 3 options, each with advantages as well as disadvantages. The first option is the ability of the physician to choose a new position within the communication system by restricting him- or herself to the standard medical protocol of the profession: diagnosis, treatment, and advice. This could be called the *medical model.* The main reasons behind this professional strategy are clear: diagnosis, treatment, and advice cannot be delivered via the Internet—at least not at the same quality level. Moreover, expending time on Internet-savvy patients requires a great deal of energy, because these patients like to be addressed as knowledgeable people and want

to interact more often than other patients. It may not be possible to accommodate this increased interaction within normal daily practice. In addition, it is unfair to spend much more time with certain patients at the expense of other patients who are less active. One could say that all patients deserve equal time in exchanges with their physicians.

The second strategy option, called the *patient-oriented model,* involves approaching the patient as a consumer with certain communication needs that have to be met according to a consumer-specified level. Thus, the criterion is the satisfaction of the patient. Under this strategy, the physician aims at the same level among patients, not of exchange but of satisfaction. This strategy can be maintained as long as Internet-savvy patients remain a minority. In this model, it is accepted that various patients can use physicians in different ways.

The last option is to equalize the opportunities of patients. This is a serious attempt by the physician to equalize the informational activities of patients to improve their communicative context. Physicians can develop their own websites, with links to other trustworthy websites; they can offer the opportunity for patients to contact them by e-mail; and they can recommend websites and opportunities for Internet interaction during their contact with patients who may not typically use the Internet. In short, physicians can act as mediators. We could call this the *educational model.* This model allows physicians to balance the expectations of different patient segments and real information needs, thus creating comparable quality levels for all patients. Of course, this option costs time and energy. The question remains as to whether this time and energy are available.

These 3 strategies will shape physician practices in the years to come. They could also result in differences among physicians that may conflict with common professional standards. As such, the different strategies could elicit a debate among physicians as they formulate general approaches to their core tasks.

CONCLUSION

This article introduced and examined the use of the Internet as an important catalyst for change in the communication system regarding nutrition and health issues, and it analyzed the role of both physician and patient. The patient will actively use the physician as an information source in the context of new possibilities offered via the Internet. What patients cannot obtain from their physicians, they will try to get from the Internet. This will change the way patients enter the consulting room. It is now time for physicians to consider alternative strategies in coping with Internet-savvy patients, especially regarding the inequalities among patients associated with the use of the Internet. In time, this will change how physicians approach their practices and how the profession is defined.

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