

Virtual Mentor

American Medical Association Journal of Ethics
March 2009, Volume 11, Number 3: 202-206.

CLINICAL CASE

Low-Tech Solution to a High-Tech Problem

Commentary by David Anthony, MD, MSc

Mr. Jones visited Dr. Green because he had developed an infection on the bottom of his right foot. Before his appointment, Mr. Jones looked up his symptoms on the Internet and found that they could be indicative of type 2 diabetes. After examining Mr. Jones, Dr. Green ordered a fasting glucose test.

The test results showed a glucose level of 250 mg/dL, which indicated that Mr. Jones did indeed have type 2 diabetes. Dr. Green informed Mr. Jones of the results by telephone and asked him to come in to discuss treatment options and lifestyle changes that would help him get control of his diabetes.

“I have read about diet and exercise options for diabetic patients on the Internet, but I don’t think that I can make that sort of change,” Mr. Jones said. “I would prefer to start on medication right away.”

During the next visit, Dr. Green agreed that if Mr. Jones was not willing to make lifestyle changes he should start medication. He wrote a prescription for metformin, a first-line treatment for type 2 diabetes. When Mr. Jones looked at it, he said to Dr. Green, “I have also researched treatments for type 2 diabetes and would prefer to have the newest and best treatment. I can’t remember the name but it is a combination of two drugs.” While Dr. Green knew that this treatment was often an effective option, he was also concerned about using a more potent and expensive treatment before he had seen the effects that metformin had on Mr. Jones’s glucose levels.

Commentary

This scenario is becoming increasingly common as more patients access web-based health information prior to and after visiting a physician. The case displays the potential advantages and pitfalls of this new dynamic in medicine. Mr. Jones’s preparations for his second visit with Dr. Green have allowed him to make an informed choice about pursuing diet (or not, in his case), which most likely abbreviated Dr. Green’s efforts. Mr. Jones was also led to ask for a medication that, in Dr. Green’s judgment, might possibly harm him. The knowledge imbalance between patients and physicians has changed, producing situations in which physicians must learn to communicate with web-savvy patients and harness the power of the most potent source of information in history [1].

In 2005, an estimated 117 million Americans searched for health information on the web, a number that has increased dramatically over the past 10 years [2]. Approximately half of these individuals report discussing the results of their web-surfing with their doctors [2]. Another study found that 80 percent of adult Internet users reported searching for information about their own health [3]. The percentage of each age group that uses the Internet to access health information decreases as age increases [4]. Such individuals also tend to be from more affluent communities and are predominantly women [4-7].

A New Dynamic in the Office

The rise of web-savvy patients alters the power dynamic in the patient-doctor relationship. In the older model of care, physicians served as unchallenged content experts who were called upon to lay out therapeutic plans for patients. Patients were expected to trust their physicians and comply with the prescribed plans. This marked asymmetry simplified communication in the office (inasmuch as it was almost uniformly one-way), but it also led to misunderstandings and paternalistic patient-doctor relationships. Even before the Internet became such a tool, physicians and researchers recognized the challenges in the uneven relationship and began to develop a more patient-centered model of care.

Patient-centered medicine aims to level the playing field in the office so that the patient and his or her caregivers have an active role in the development of a treatment plan. The movement emphasizes understanding a patient's cultural background, lifestyle, health beliefs, and personal preferences as essential to successfully negotiating a plan. Once a patient's concerns and beliefs are understood, a physician can find common ground with the patient and settle upon mutual goals and plans. The rise of patient-centered medicine, which grew in part out of research conducted by family physician Ian McWinney and colleagues, is detailed in *Patient-Centered Medicine: Transforming the Clinical Method* [8]. Physicians who maintain more patient-centered relationships gain higher levels of trust and adherence to therapy from their patients [9-11]. The Institute of Medicine now considers patient-centered care one of the six domains of quality health care.

Patients with Information

The patient-centered model of care offers Dr. Green solutions in treating Mr. Jones. Patients have always come to physicians' offices with varying levels of knowledge of allopathic medicine. Along with cultural background, personal preferences, and prior experiences, a patient's understanding of medical information contributes to his or her health beliefs and expectations for treatment. Before the rise of the Internet, people obtained information from their family members, colleagues, books, newspapers, magazines, and television and tended to trust these sources, despite the fact that they could be remarkably misleading. The Internet simply ups the ante by providing access to a dramatically increased amount of medical information in an easily searchable format.

Patients' ability to become well-informed about their health conditions through the Internet has potential advantages. Greater patient understanding can close the knowledge gap between patients and physicians slightly and thus ease physicians' efforts to achieve common ground. Particularly in cases of chronic disease such as diabetes, where successful treatment requires patients to take an active role in understanding and applying their treatment plans (e.g., diet, exercise, glucose testing), quality information can improve patients' ability to care for themselves. Unfortunately, physicians often make the mistake of reacting negatively to an assertive, informed patient, taking it as an affront to their authority and expertise. Such responses handicap the physician's ability to establish a connection with a patient and can inhibit trust and adherence.

Solutions

In responding to Mr. Jones's statements, Dr. Green should seek further understanding of his patient's beliefs, by saying, for example, "I'm interested by your comment about metformin; can you explain why you believe newer medicines are better for you?" Or asking, "What have you read that led you to say that you cannot make dietary changes?" Dr. Green should ask Mr. Jones where he found the information on which he is basing his beliefs; blogs and Internet forums are far less reliable sources than sites devoted to patient education. Upon hearing about his patient's beliefs, an affirming statement can help generate trust without placing undue support on those beliefs: "I can understand how reading that could lead you to say you do not want to take metformin."

Dr. Green should then share his own beliefs with Mr. Jones, formulating his comments to respond to his patient's specific concerns and needs. If Mr. Jones thinks he will need two medications to control his sugar because his mother is diabetic and she takes two, Dr. Green can describe the natural history of diabetes and its tendency to worsen with time. Alternately, if Mr. Jones wants the newer combination pill because "the latest advances are always better," Dr. Green can explain his concerns about the safety record of new medications, perhaps citing the recent association of rosiglitazone (a compound in the newer drug) with incidence of heart disease in the management of diabetes. Finally, before settling upon a plan, Dr. Green can seek common ground by clarifying their shared goals, "I am impressed by your concern about your new diagnosis, and I assure you that I will strive to help you achieve excellent control of your sugar."

The skills described above are basic communication tools that can help resolve most perceived disagreements between patients and physicians. There is one important skill, however, that is specific to working with web-savvy patients: physicians should become familiar with trustworthy web resources and be able to guide their patients' web surfing. There are many excellent patient-education web sites. With regard to diabetes, for example, Dr. Green could direct Mr. Jones to the National Diabetes Clearinghouse for current information in English and Spanish from the National Institutes of Health.

The rise of the Internet has exponentially increased patients' access to health information, potentially altering the patient-physician relationship by raising the level of patients' medical knowledge (and perhaps their level of misunderstanding). While the Internet is a high-tech tool, the key to communicating with web-savvy patients is remarkably low-tech. A patient-centered approach emphasizes understanding patients' concerns, beliefs, and goals, as well as establishing common ground in the development of a mutually understood plan. Physicians who successfully negotiate treatment plans with their patients will achieve higher levels of trust and adherence in return and increase the likelihood that patients will log onto recommended sites, further improving their understanding and treatment.

References

1. Wald HS, Dube CE, Anthony DC. Untangling the web—the impact of Internet use on healthcare and the physician-patient relationship. *Patient Edu Couns.* 2007;68(3):218-224.
2. Krane D. Number of cyberchondriacs—U.S. adults who go online for health information—increases to estimated 117 million. *Healthcare News.* 2005;5(8):1-7.
http://www.harrisinteractive.com/news/newsletters/healthnews/HI_HealthCareNews2005Vol5_Iss08.pdf.
3. Fox S. Online health search 2006. *Pew Internet & American Life Project.* http://www.pewinternet.org/pdfs/PIP_Online_Health_2006.pdf. Accessed January 30, 2009.
4. Taylor H. Cyberchondriac update. 2002.
http://www.harrisinteractive.com/harris_poll/index.asp?PID=299. Accessed January 30, 2009.
5. Campbell RJ, Nolfi DA. Teaching elderly adults to use the internet to access health care information: before-after study. *J Med Internet Res.* 2005;7(2):e19.
6. Ferguson T. Online patient-helpers and physicians working together: a new partnership for high quality health care. *BMJ.* 2000;321(7269):1129-1132.
7. Robinson C, Flowers CW, Alperson BL, Norris KC. Internet access and use among disadvantaged inner-city patients. *JAMA.* 1999;281(11):988-989.
8. Stewart M, Brown JB, Weston WW, McWhinney IR, McWilliam C, Freeman TR. *Patient-Centered Medicine: Transforming the Clinical Method.* Thousand Oaks, California: Sage Publications; 1995.
9. Stewart M, Brown JB, Donner A, et al. The impact of patient-centered care on outcomes. *J Fam Pract.* 2000;49(9):796-804.
10. Fiscella K, Meldrum S, Franks P, et al. Patient trust: is it related to patient-centered behavior of primary care physicians? *Med Care.* 2004;42(11):1049-1055.
11. Mauksch LB, Dugdale DC, Dodson S, Epstein R. Relationship, communication, and efficiency in the medical encounter: creating a clinical model from a literature review. *Arch Intern Med.* 2008;168(13):1387-1395.

David Anthony, MD, MSc, is an assistant professor of family medicine and the director of the Family Medicine Clerkship at the Warren Alpert School of Medicine at Brown University in Providence, Rhode Island. His interests include quality of care at hospital discharge, statistics in primary care, and electronic solutions to the model family practice.

Related in VM

[Type 2 Diabetes: Lifestyle Changes and Drug Treatment](#), March 2009

[Through the Physician's Eyes: The Patient \(Internet\)-Physician Relationship](#),
November 2001

The people and events in this case are fictional. Resemblance to real events or to names of people, living or dead, is entirely coincidental.

The viewpoints expressed on this site are those of the authors and do not necessarily reflect the views and policies of the AMA.

Copyright 2009 American Medical Association. All rights reserved.