

Discussing Health Issues on the Internet

Jane Moon

Monash University, Australia

INTRODUCTION

This article provides an overview of the trend in Internet usage; in particular, the trend that relates particularly to health-information-seeking behavior. It discusses a paradigm shift in patient-doctor relationships that has resulted from social changes; that is, lack of consultation time, thirst for medical knowledge, mass-media medical information and an explosion in the number of health Web sites. The Internet has become an important medium for bridging the gap in the patient-doctor relationship.

Issues of Internet quality are explored. While the Internet can help consumers by providing immediate feedback as far as treatment and medication are concerned, without proper standards and quality assurance it can give rise to diabolical consequences (Crocco, Villasis-Keever, & Jadad, 2002). Ciolek describes information on the Internet as mediocre and argues that health information on the Internet is subject to "Multi Media Mediocrity" (MMM) (Ciolek, 1997).

General Trends of Using Internet for Health Advice

The Internet has become a vital tool for individuals, families, the health profession and the health industry. One Web site reports that there are more than 10,000 health sites on the Internet, and others report more than 100,000 health-related Web sites (Eysenbach, Sa, & Diepgen, 1999). No one knows the exact number, but what is clear is that there are numerous health sites available.

Health sites vary, from academic sites to health-provider institutions and government sites. Recently, there have been an increasing number of pharmaceutical companies disseminating information or selling products and services in a variety of ways on Web sites luring consumers (Risk & Dzenowagis, 2001).

Since the emergence of the Internet in 1991, the Internet use has grown exponentially. A recent survey shows that 86% of the 168 million American adults have visited health Web sites, compared with 55% of the 60 million in Germany. Ninety percent of American primary-care physicians have used the Internet (Risk & Dzenowagis, 2001). According to Harris Interactive consulting firm, health Internet users grew steadily from 50 million in 1998 to 69

million in 1999, 97 million in 2001 and 110 million in 2002 (Harris Interactive, 2000).

Demographical Difference

No significant difference in information-seeking habits between different age groups were found (Brodie, Flournay, Altman, Blendon, Benson, & Rosenbaum, 2000). Also, there is a direct correlation between computer usage and access to health information:

Once people gain access to the Internet, its use at home to get health information is similar across income, education, race and age. Therefore, the number of persons using the Internet to access health information should rise along with computer use. (Brodie, 2000, p.262)

According to Brodie's report, gender, age and background do not make much difference in Internet search behavior.

A significant difference between countries is noted in research results from a questionnaire survey among the users of a dermatology atlas Web site. Pictures were used to minimize language barriers between countries (Eysenbach et al., 1999). The survey was conducted over seven months, from July 1998 to February 1999, and was answered by 6,441 users from all over the world.

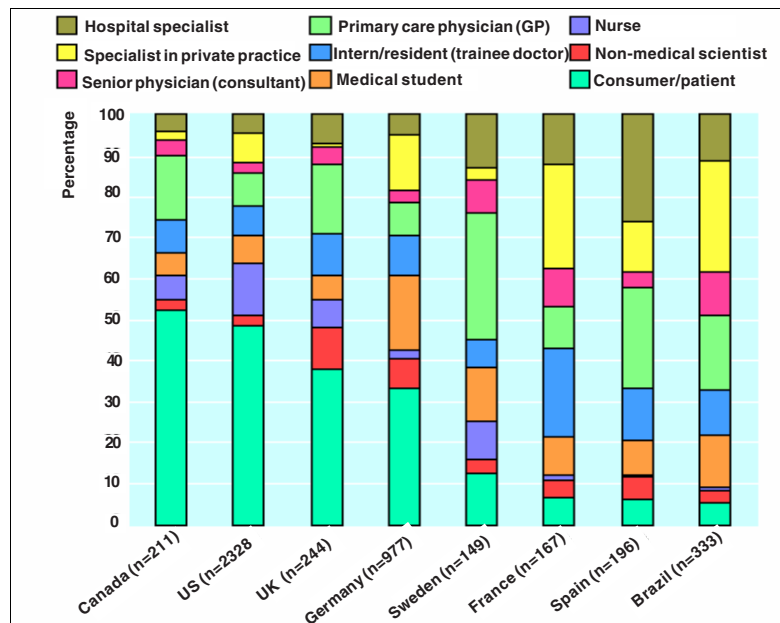
Figure 1 shows the distribution of the 4,605 users who completed survey from the eight countries that showed the highest absolute numbers of users. Of those eight, Canada shows the highest percentage of users, followed by the United States (U.S.) and United Kingdom (UK), with Brazil the lowest.

There was a high proportion of general practitioners in Canada, UK, Spain and Sweden, and a high proportion of specialists in Brazil, France, Germany, Spain and U.S.

A high proportion of hospital specialists were noted in Spain, Sweden, France and Brazil compared to a large number of specialists in private practice in Brazil, France and Germany. This is a reflection of the actual ratio of specialists in private practice compared with the public sector in the respective countries.

Looking at the percentage of nurses visiting the Internet, the highest percentage was noted in the U.S., Canada, UK and Sweden, as opposed to almost none in other countries, probably reflecting the differing roles

Figure 1. User profile of dermatology atlas Web site intended for health professional



and levels of responsibility nurses have in those countries.

While these data have been gathered in a specialist setting; that is, dermatology, and may be prone to self-selection bias and thus not representative of the whole, nevertheless, they tell us that there are significant differences between countries in Internet use. These differences are not only technological ones, but they also reflect differences in the health system as well as other cultural, sociological factors and economic factors—for example, capacity to afford Internet facilities (Eysenbach et al., 1999).

What causes the behavioral shift in consumers towards the Internet over traditional face-to-face contact with doctors?

Changing Medical Practices

In the field of information technology, doctors still seem to be lagging behind other professionals. In many industrialized nations, consumers have taken a leading role in retrieving and exchanging health information (Eysenbach et al., 1999). While telemedicine (diagnostic and curative medicine) is influenced by “technological push,” cybermedicine (preventive medicine and public health) is influenced by “consumer pull”; the traditional family doctor-patient relationship has to change to meet the demands of these social changes (Eysenbach et al., 1999).

Consumer Empowerment

The availability of the Internet has provided consumers with easy access to information. “The empowered, computer-literate public is exerting tremendous influence on healthcare delivery” (Ball & Lillis, 2001, p. 2). Consumers are actively seeking health information using the Internet as a major tool. Users get access to as many of the resources and databases as physicians do, although some databases are specifically available for physicians. This empowers consumers to make informed decisions and reduces their dependency on the physician. The Internet is, thus, a motor for evidence-based medicine for both physicians and consumers. It gives “increasing consumer involvement in health care decision making and increasing the pressure on caregivers to deliver high quality health services” (Eysenbach et al., 1999, p.2).

As can be seen in Figure 2, consumers’ access to health information on the Internet has increased tremendously; they have access to physicians’ Web pages and databases and retrieve a wealth of knowledge on medical conditions and treatments. As computer-literate consumers become empowered, they can become involved in decision making in evidence-based medicine (Eysenbach et al., 1999).

This transformation driven by the Internet can be a challenge to physicians, as users are better informed than before (Ball & Lillis, 2001). Whether consumers are ca-

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