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**The internet, expert patients and medical practice: an analysis of the literature**

**A internet, o paciente expert e a prática médica: uma análise bibliográfica**

**Internet, el paciente experto y la práctica médica: un análisis bibliográfico**

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## **ABSTRACT**

Over recent years, the world has witnessed a wide-ranging technological transformation that has substantially expanded the access to information, especially through the internet. In the field of healthcare, more and more information is available. Access to technical-scientific information, along with increased educational levels among the public, has given rise to patients who search for information about their diagnoses, diseases, symptoms, medications and costs of hospitalization and treatment: expert patients. This article discusses the way in which information obtained through the internet modifies or interferes with the doctor-patient relationship. Thus, the controversy between Freidson and Haug regarding the deprofessionalization of doctors is resurrected. Methodologically, we analyzed the opinions of authors who published articles on this topic between 1997 and 2005, in two important English academic journals in this field. We concluded that the positions found were distinct and even adversarial. In Brazil, despite digital exclusion, this question needs to be analyzed.

Key words: Doctor-patient relationship. Patient acceptance of medical care. Internet.

## **RESUMO**

O mundo presenciou nos últimos anos uma ampla transformação tecnológica que ampliou substancialmente o acesso à informação, sobretudo por meio da Internet. Na área da saúde há cada vez mais informação disponível. O acesso à informação técnico-científica, aliado ao aumento do nível educacional das populações tem feito surgir um paciente que busca informações sobre sua doença, sintomas, medicamento e custo de internação e tratamento: o paciente expert. Este artigo discute de que modo as informações obtidas na internet modificam ou interferem na relação médico-paciente. Recupera-se a controvérsia entre Freidson e Haug sobre a desprofissionalização do médico. Metodologicamente, foram analisadas opiniões dos autores que publicaram artigos sobre o tema, entre 1997 e 2005, em duas importantes revistas acadêmicas inglesas da área. Conclui-se que as posições encontradas são distintas e até antagônicas, e o Brasil, apesar da exclusão digital, precisa analisar esta questão.

Palavras-chave: Relações médico-paciente. Aceitação pelo paciente de cuidados de saúde. Internet.

## RESUMEN

El mundo ha presenciado en los últimos años una amplia transformación tecnológica que ha ampliado substancialmente el acceso a la información, sobre todo por medio de Internet. En el área de la salud hay cada vez más información disponible. El acceso a la información técnico-científica, aliado con el aumento del nivel educacional de las poblaciones ha hecho surgir un paciente que busca informaciones sobre su enfermedad, síntomas, medicamento y costo de internación y tratamiento: el paciente experto. Este artículo discute de que modo las informaciones obtenidas en Internet modifican o interfieren en la relación médico-paciente. Se recupera la controversia entre Freidson y Haug sobre la des-profesionalización del médico. Metodológicamente se analizan opiniones de los autores que han publicado artículos sobre el tema, entre 1997 y 2005, en dos importantes revistas académicas del sector inglesas. Se concluye que las posiciones encontradas son diferentes e incluso antagónicas; y Brasil, pese a la exclusión digital, necesita analizar esta cuestión.

Palabras clave: Relaciones médico-paciente. Aceptación por el paciente de los cuidados de salud. Internet.

## Introduction

Over the last twenty years, the world has witnessed an intense and radical technological transformation that, among other consequences, has provided enormous growth in access to information. The volume of information available is becoming greater, and access to it is increasingly easy and fast (Giddens, 2002). Two examples serve to illustrate this: television and the internet.

Today, almost all homes have a television set. Many of them receive cable channels, and these, together with open channels, make information available on a wide diversity of topics. Furthermore, information transmitted by satellite and received through television has allowed events to be seen at the instant at which they are taking place. Thus, television provides an enormous range of information within an increasingly short time, to an increasingly large proportion of the world's population.

In turn, information through the internet has attained power that was unimaginable a few years ago. Today, it is possible to know about everything and everyone, at any time of the day or night, in any place in the world. This drastic transformation has taken place over little more than ten years and has been witnessed by many of us. The internet differs from television through two characteristics: the infinity of sources of information available and the active stance taken by individuals. Regardless of the fact that there may be dozens or even hundreds of television channels, they are finite. On the other hand, the sources of information available on the internet are uncountable.

While individuals may endlessly change television channels without finding the information that they are looking for, on the internet they become the agents of the information acquisition process. The large numbers of search sites available further facilitate individuals' proactive position regarding internet.

In Brazil, this technological transformation has developed asymmetrically. While more than 90% of permanent private homes have at least one television set, only 16% have internet access (Instituto Brasileiro de Geografia e Estatística, 2005). The high cost of computers and network access, along with the low schooling level of the vast majority of the population, has created the phenomenon of so-called digital exclusion (Sorj and Guedes, 2005; Néri, 2003). Nonetheless, over recent years, Brazil has presented notable growth in the number of homes that have computers with internet access. According to recent estimates, there are currently thirty million internet users in Brazil (O Globo, 2006).

Healthcare is one of the fields in which increasing volumes of information are available to increasingly large numbers of people. Television and the internet have become the main vehicles for spreading information within the field of healthcare. Many television channels present program schedules dealing exclusively with healthcare topics. On the internet, there are countless websites covering topics that are in some way connected with questions relating to healthcare and illness. This prominence can be explained insofar as healthcare has, over recent years, become one of mankind's main preoccupations and has acquired a value that is unprecedented in the history of humanity. For this reason, more and more people are accessing the internet and television to obtain some type of information regarding their own health conditions or those of a relative or friend.

Recent studies have demonstrated that women look for healthcare information on the internet more than men do. Through this, they seek to prevent, avoid or reduce the treatment cost for a member of the family, thereby helping to manage the family budget (Pandey, Hart and Tiwary, 2003). Young people make up another prominent group of internet users. Network access, which is facilitated in schools, and the guarantee of anonymity, leads them to seek to confirm or complement the healthcare information that they have already received through school textbooks or in the classroom (Skinner, Biscope and Poland, 2003). Some studies have suggested that there is a significant relationship between becoming ill and looking for healthcare information (Berger, Wagner and Baker, 2005). In other words, individuals affected by an illness or members of their families would be more likely to look for information on a given disease on the internet. People with illnesses and the reasons why they seek information on the internet have led to the setting up of "virtual communities". This very interesting sociological phenomenon has become organized over the last few years. It brings together people with a variety of pathological conditions, especially chronic, rare or stigmatizing diseases (Berger, Wagner and Baker, 2005; Ziebland, 2004).

Although information on healthcare and illnesses is accessible on the internet, it is often incomplete, contradictory, incorrect or even fraudulent. For this reason, ordinary citizens often have difficulty in distinguishing between correct and misleading information, or between novel and traditional, for example. This is one of the many questions raised by Castiel and Vasconcellos-Silva (2003). They drew attention to the difficulties encountered by lay patients in dealing with medical language and the uncertainty arising from the multiplicity of information. In addition, there are the problems resulting from stimulation of self-medication.

Independent of the social segment that has greatest access to the internet, or of the quality and veracity of the information available, a new player has arisen in the field of healthcare: expert patients. These are patients who seek information on diagnoses, diseases, symptoms, medications and costs of hospitalization and treatment. Because such patients have access to large quantities of information that are available on the internet, independent of its veracity, they may be potentially less willing to passively accept medical decisions. Expert patients are therefore special consumers of healthcare services and products, since they have information that at least needs to be taken into account (Hardey, 1999). They are not just informed patients: they feel that, in some way, they have an understanding of a given subject. In a general manner, the literature on this subject considers that such patients are the product of improvements in education levels among populations, better access to technical and scientific information and transformation of healthcare into a consumer item (Fox, Ward, O'Rourke, 2005; Blumenthal, 2002). Expert patients therefore have the potential to transform the traditional physician-patient relationship that is based on authority concentrated into physicians' hands.

In this paper, we aim to discuss the extent to which expert patients who have large amounts of information obtained from the internet are able to interfere with the authority and social prestige of physicians and consequently change the physician-patient relationship, which is traditionally based on asymmetry of information. The hypothesis of patient empowerment in this relationship may, in an extreme situation, lead to deprofessionalization of the physician.

This discussion had already been broached before the advent of the internet. At the beginning of the 1970s, Haug (1973) suggested that increases in education level among populations and access to technical and scientific knowledge would promote deprofessionalization of various activities. In other words, it would promote "the loss of the unique qualities of professional occupations, particularly their monopoly on knowledge, the public's belief in the service ethos, [ ...] and the authority over clients" (Haug, 1973, p.197).

Haug (1988) argued that the growing access to scientific knowledge would end up demystifying the medical profession, thus reducing its power, authority and social prestige. In this author's view, citizens who were aware of their state of health would be in a better position to resist physicians' paternalistic attitudes. Although taking the view that knowledge comes from experience and that therefore "it is not easily coded and stored" (Haug,

1973, p.202), this author has argued since the middle of the 1970s that the medical profession is losing its professional status, since it is ceasing to control information that formerly was exclusive to physicians.

Freidson (1993, 1989) contested this idea defended by Haug (1988, 1973), through taking the view that the relationship between physicians and patients is based on physicians' authority in relation to patients: this authority would be derived from physicians' knowledge of the problems that patients are experiencing. Thus, because this knowledge would be applied and would generally resolve patients' problems, patients would submit to this authority. According to this author, the distance between lay and scientific knowledge on a given topic continues to exist:

The notion that today, the population presents a better average educational level than in the past is true, but the supposition that this reduces the knowledge gap between medicine and healthcare consumers is valid only if medical knowledge and techniques have stagnated and not evolved (Freidson, 1989, p.185).

Although the studies by Freidson and Haug predate the boom of the internet, it can be deduced that Freidson would defend a position opposed to the stance maintained by Haug, regarding the power of expert patients to change the physician-patient relationship. According to Freidson, access to information does not reduce physicians' authority and social prestige, nor does it promote their deprofessionalization. On the contrary, through seeking information about this science, ordinary citizens subscribe increasingly to the dominant logic of Western medicine. Through this, patients sow the ground for diagnoses and medical treatments to be accepted more easily. In turn, professionals cannot let themselves become out-of-date: they have to be better experts than their patients.

### **Methodological procedures**

Methodologically, we have analyzed this question by investigating how some other authors have dealt with this topic. In other words, this was a study based on the bibliography that did not use primary sources of investigation.

With regard to the coverage of the sample, for this paper we restricted ourselves to two of the most important journals in the field of health-related social and human sciences: "Social Science and Medicine" and "Sociology of Health & Illness". Both of these periodicals are British. According to the "ISI Journal Citation Report" of 2005, they are respectively in second and fourth places among the most important journals worldwide, within the fields of Sociology, Social Sciences and Biomedicine. To investigate articles by means of the internet, which we did through the Brazilian Portal for Scientific Information, belonging to Capes, the following search terms were used: deprofessionalization, expert patient and internet. These terms were used independently in the title, abstract and key word categories for the period covering 1997 to 2006. In other words, it was not necessary for the three terms to occur concomitantly. Based on the results obtained for each term, individual analysis of each title and abstract was performed to assess whether each article fitted within the bounds of our investigation. The

sampling period (10 years) was chosen particularly because of the topic of this study. Considering how long the internet has existed, it can easily be seen that there would be very few studies prior to 1997. In fact, the greatest incidence of studies in this field occurs from 2001 onwards, especially in the years 2004 and 2005, given that the phenomenon of the expert patient is very recent. Despite the shortness of the sampling period selected, a very significant sample was produced, since 45 papers were found. Of these, we selected 15 studies that involved 33 authors in 18 different universities in the United Kingdom, Netherlands, United States and Canada. The departments to which these investigators belonged were within the fields of Social Sciences (12) and Health (11). Texts on mental health, genetic counseling and euthanasia with free and informed consent were excluded from this study, since they did not conform to the aims of our investigation. These 15 papers were selected for analysis here because they discussed the possible consequences that the phenomenon of expert patients might have on the medical profession overall and/or on the dominant official medical knowledge (biomedicine).

### **Discussion**

Most of the papers identified in these two periodicals and analyzed in the present study took the view that patients who have access to information via the internet potentially become empowered. According to the authors of these papers, this new condition could influence and even transform the relationships of physicians with their patients. In general terms, they believed that it was of fundamental importance for professionals to seek to work with their patients, instead of for them, by taking more time to listen to, absorb and give value to their patients' cognitive, social and emotional needs. Physicians would need to value their patients' lives, and not just their bodies. Thus, they should supply good-quality information, discuss questions relating to diagnoses, treatments and results, and respect patients' wishes with regard to making decisions. For this, it would be essential for physicians to keep themselves informed and up-to-date.

Through reading and analyzing the fifteen articles, we were able to identify at least three positions in relation to this topic. Some authors believed, like Haug, that the acquisition of health information by patients, via the internet, weakened the status and authority of medical professionals, thereby contributing towards the process of deprofessionalization of physicians. Other authors recognized the potential within this new reality for changing the traditional physical-patient relationship, but took the view that through this process, biomedical rationality would be strengthened even further among its public. In general, when these authors' discussions covered the field of science and hegemonic medical practice (biomedicine), they tended to agree with Freidson's view (1989) that the body of knowledge was not being replaced by another, coming from outside. A third group took an intermediate position, by taking the view that expert patients concomitantly preserved and censured the authority and status of medical professionals. In the following, the arguments and their protagonists are presented.

### **Expert patients promote deprofessionalization among physicians**

Hardey (1999) and Dretrea and Moren-Cross (2005) subscribed to this first view. In 1999, Hardey published a paper reporting on his research conducted in southern England in homes in which the occupants usually sought healthcare information through the internet, and interviewed all the people living in each household. This author concluded that physicians had been using the monopoly of knowledge as a means of controlling the meetings with patients and maintaining a position of power. He explained that free access to information represented “the challenge to medical expertise envisaged by Haug’s notion of deprofessionalization” (Hardey, 1999, p.832). He believed that this process could lead to a reduction in reverence for and trust in physicians among patients, which could promote a search for alternative therapies.

In general lines, Dretrea and Moren-Cross (2005) went along with Hardey’s view. In their study, they investigated a virtual community dedicated to the question of maternity and sought to discover whether the community nurtured or created social support and social capital for its participants. Although they did not explicitly cite Haug (1988, 1973), they took the view that the website that they investigated had “a role in the deprofessionalization of medicine and in the consolidation and reinforcement of power among self-help movements. This website transferred information on the science and from the professionals, to the women themselves” (Dretrea and Moren-Cross, 2005, p.938), thus agreeing with Hardey’s conclusion (1999). The difference between these two studies is that while the first of them was based on interviews, the second was based on discourse analysis on the messages posted by the community, and on participant observation.

### **Expert patients transform the physician-patient relationship**

Although there was some degree of consensus regarding expert patients’ increasing power, some authors believed that this modification did not imply deprofessionalization of physicians, or censoring of the dominant biomedical knowledge. According to these authors, greater knowledge among patients regarding their state of health or disease did not directly imply loss of physicians’ authority. They argued that patients’ empowerment could be counterposed to the “paternalistic model”, in which decision-making powers were in physicians’ hands and patients took on a more passive attitude towards their own health, through fully accepting the supremacy of professional expertise. The reformulation of the traditional model for the physician-patient relationship seemed inevitable to many of these authors.

We were able to identify eight papers in this category, which are described below, in order of publication.

The first was by Henwood et al. (2003). Although accepting patients’ potential empowerment through acquisition of information, they observed in their study on women that ultimately, these women trusted physicians more than they did their own expertise when the best decision needed to be made, because “this was what they (the physicians) were trained for” (Henwood et

al., 2003, p.597). These authors suggested that the physician-patient relationship needed to become based on an exchange of information and on making shared decisions, independent of the degree of participation of each of the players in this decision-making process.

In the same year, Pandey, Hart and Tiwary (2003) published a paper that resulted from a quantitative study taken from a telephone survey among women in the State of New Jersey (United States). The study sought to understand why this social group used the internet to obtain healthcare information. The authors concluded that physicians were still the main source of information and that the women used the internet especially as a means of supplementing the information on their state of health. Because of this, these authors argued that physicians should respond more objectively and directly to patients' needs and that the physician-patient relationship should be more equal and symmetrical.

In 2003, Skinner, Biscope and Poland described their investigation among young people that aimed to understand what their perspectives were with regard to obtaining healthcare information from the internet, and the importance of the quality of access, with emphasis on privacy. The authors placed value on patient empowerment and regarded healthcare professionals as major collaborators in this process.

Gillet (2003) conducted a study of empirical nature that did not present a formal position in relation to the polemic motivating our investigation, i.e. the way in which information obtained from the internet modified or interfered with the physician-patient relationship. This author sought to understand the relationship with internet use among individuals who were directly affected by health problems, through investigating websites created by people with HIV/AIDS. Many of these websites advocated that patients should work with physicians. The websites did not reject professional knowledge or physicians' roles, but recognized the legitimacy of lay knowledge. Such knowledge came from experiencing the illness and, through its dissemination, could contribute towards educating and improving the lives of other people, along with creating a social network through sharing.

Gray et al. (2005) reported on an investigation in which they sought to understand the perceptions and experiences of American and British teenagers in relation to internet use for obtaining healthcare information. The authors suggested that despite the potential for conflict and questioning that acquisition of information could bring into the physician-patient relationship, the professionals were still regarded as trustworthy informants, and combining research on the internet with medical consultations were regarded as possible.

Cotten and Gupta (2004) observed that physicians were still the primary source of information, both for individuals who obtained healthcare information from the internet and for those who obtained their information through other media. Thus, the view of these authors was very close to the views of the other authors already mentioned.

The quantitative investigation that gave rise to the paper by Berger, Wagner and Baker (2005) was carried out in the United States on individuals who

were affected by diseases that are considered stigmatizing, such as depression, anxiety, urinary incontinence or herpes. The authors did not discuss whether the information obtained from the internet modified or interfered with the physician-patient relationship. However, they argued that internet use for anonymous searching for information on healthcare and illnesses increased the demand for medical help. Their conclusion seems to reinforce the dominant biomedical model, thereby reaffirming the prominence of the medical profession.

In recent studies, Seale (2005) and Nettleton, Burrows and O'Malley (2005) disagreed that the internet was in reality a form of effective resistance to the hegemonic biomedical knowledge. Although accepting that websites showing resistance and discordance with the hegemonic model do exist, they stated that the information available on the internet shows commitments to powerful interests such as those of the pharmaceutical industry, major companies and medical schools, thus differing very little from the conventional media.

The study by Nettleton, Burrows and O'Malley (2005) was carried out in England and sought to understand the reasons why lay people used the internet to look for healthcare information, and how they evaluated this information. This qualitative study was conducted by means of interviews with the parents of children who presented one of three specific chronic diseases (asthma, eczema and/or diabetes). The authors did not believe that access to healthcare information from the internet was a threat to the medical profession or to the dominant official medicine (biomedicine). Based on analysis of the "rhetoric of trust" presented by the interviewees, they concluded that seeking healthcare information from the internet "reinforced the discourse of professionalism and biomedicine" (Nettleton, Burrows, O'Malley, 2005, p.989).

### **Expert patients preserve and censure the medical profession**

While some authors have predicted deprofessionalization of medical practice, others have accepted that the existence of expert patients will change the traditional pattern of physician-patient relationships but will not fulfill Haug's prophecies, as seen above. There are also some authors who do not fit into either of these two views: this is the case of the two papers by Fox, Ward and O'Rourke (2005a, 2005b), who analyzed different subjects (virtual communities) with different attitudes and aims.

In the first paper, these authors analyzed an internet discussion forum on obesity and the use of Xenical® (orlistat). They concluded that the phenomenon of expert patients, in the way in which it was observed in this forum, did not constitute a challenge to the power and authority of the medical profession and, even less so, to the hegemony of the (bio)medical model. In these authors' opinion, in this case, the obtaining of information facilitated communication between the two players and transformed the patients into the physicians' collaborators through active participation in controlling their health. They considered that when patients become experts, they might be even more subordinated to biomedical power: "Within this context, being an expert patient not only is to be informed and engaged, but

also is to be open to the scrutiny, normalization and standardization imposed by physicians” (Fox, Ward, O’Rourke, 2005a, p.1307).

While these authors believed that seeking information and support might result in greater acceptance and subordination to the socially established models, as in the above case, they also accepted that this process might signify a reaction to these dominant models, as will be seen in the second paper by these authors that was selected for this discussion.

In these authors’ second paper, they analyzed a virtual community that had been brought together around the topic of anorexia, and observed that the proposition was one of non-treatment and anti-recovery. This community “sustained expertise that was set against the dominant medical and social models... And as such, it represents an example of a community based on resistance to these models” (Fox, Ward and O’Rourke, 2005b, p. 965).

The study by Ziebland (2004) went along similar lines to the abovementioned two papers by Fox, Ward and O’Rourke, but maintained certain singularities. Fox, Ward and O’Rourke observed different reactions in virtual communities, between individuals using Xenical® and others suffering from anorexia. According to the case, these authors found different reactions to the dominant biomedical model. On the other hand, Ziebland (2004) did not analyze different subjects but, rather, looked at subjects at different times.

Ziebland is a researcher in the Department of Primary Care of the University of Oxford, and is dedicated to studying personal experiences of becoming ill and the relationship between physicians and patients. She is part of a research group that obtains information on “personal experience of health and disease” and makes it available on the internet (DIPEX). This website ([www.dipex.org](http://www.dipex.org)) holds several awards in the category of healthcare information websites, including one from the British Medical Association. In her paper published in 2004, she analyzed the use that patients make of the information that they obtain from the internet. She took the view that access by patients to information that previously was reserved for physicians might in fact imply a reduction in physicians’ authority. This would constitute a threat to the control that physicians have in this relationship and thus would contribute towards deprofessionalization of medicine. However, this author questioned whether the internet would continue to be used actively in the future and whether medical professionals would not end up transforming it into a “support for their work and for communication with patients” (Ziebland, 2004, p.1792), thereby preserving the asymmetry of information and consequently, their power in their relationships with patients.

### **Final considerations**

The studies identified in this bibliographic survey and analyzed in this paper present different and even antagonistic positions regarding the potential that information obtained from the internet has for modifying or interfering with the physician-patient relationship.

In any event, it needs to be emphasized that while some studies have indicated that physicians are the main source of information for patients

(Cotton and Gupta, 2004), the role of the internet is increasingly valued, since it provides an immense quantity of up-to-date information that is rapidly accessible at any time. This information can be obtained not only from health-related websites, from which patients may obtain technical and scientific information (whether of alternative nature or not), but also from the various virtual communities and support groups that exist within the great worldwide network.

With regard to alternative medicines, some authors have highlighted that patients can have access to very large numbers of websites on which the hegemonic biomedical knowledge is questioned (Hardey, 1999), while others have considered that the internet is already well committed to the dominant knowledge/practice (Nettleton, Burrows and O'Malley, 2005; Seale, 2005).

The role of virtual communities that bring together online people affected by chronic, rare or stigmatizing diseases also appeared prominently in the present study (Berger, Wagner and Baker, 2005; Fox, Ward and O'Rourke, 2005a, 2005b; Ziebland, 2004). These communities play a fundamental role in bringing individuals back together and providing recovery of meaning, through offering support and a return to the human questions involved in becoming ill. Furthermore, virtual communities enable exchanges of information between the people who are most interested in the topics under discussion. However, it needs to be remembered that some communities, just like many websites, may simply be vehicles for commercial companies that are interested in publicizing medications, new technologies or even values that lead users to seek their products. We must also highlight the problems caused by websites that spread erroneous or contradictory information (Castiel and Vasconcellos-Silva, 2003).

In any event, the information available from the internet has the potential to modify physician-patient relationships. Through raising patients' decision-making power, the training and authority of medical professionals is called into question and physicians are challenged to be constantly up-to-date. Thus, the possibility of decision-making on a more shared basis is created (Henwood et al., 2003).

In the present paper, we have conducted a review centered on the category of expert patients. The criteria used and the investigative steps developed have been presented in detail. We took care to delimit the scope of the subject and the outreach of our observations (circumscription). In exploratory terms, this paper contributes towards the national debate and returns to a topic (deprofessionalization of medical practice) that has been under examination in Brazil in the past and which requires updating.

The debate developed here was based especially on the controversy that exists between Freidson (1993, 1989) and Haug (1988, 1973). Several other authors have engaged prominently in this debate within sociology and history, for example Magali Larson (1977), Pedro Entralgo (1982), Erik Olin Wright (1981) and Claus Offe (1989). In Brazil, Maria Helena Machado (1996) and Lilia Schraiber (1993) dealt with this topic among their bibliographic production.

In our study, we gave emphasis to analysis on papers published in two important British periodicals. Despite their high impact, it needs to be emphasized that other periodicals have published papers with similar concerns and that these also deserve future studies, for example the Journal of Medical Internet Research, British Medical Journal and Health Informatics Journal, among many others. Thus, we would like to suggest a possible research agenda on this topic, and we would hope through this to encourage other researchers to delve into this question, by taking the cue this time from other authors and analyzing other periodicals.

Because this was a study based on bibliographic investigation, it was not our objective to examine the extent to which the information available on the internet is a potential threat to medical power, or to discuss the asymmetry in the physical-patient relationship. However, we believe that empirical studies might enable productive speculation on the interference of the internet in this relationship, along with discussion of the reasons why, despite the recent abundance of other sources of healthcare information, physicians are becoming ever stronger in different markets and the core of the profession remains solid, mastering technologies that are increasingly difficult for non-physicians to appropriate.

It is also good to remember that while patients attempt to preserve their autonomy today by seeking information from the internet, the movement towards seeking information outside of consultation offices or hospitals, from neighbors, relatives or friends, has always existed. At all times of history, when citizens become patients, they have sought to find out, outside of the medical circuit, about other people's experiences relating to that disease, institution or professional. This attitude forms and will continue to form part of the therapeutic course for all of us, given that we can now count on assistance from the important tool that the internet constitutes.

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