

Analyzing Physician's Viewpoints on Health Communication

Dr. Amirmasoud Amir Mazaheri¹, Loya Izadi²

1-Islamic Azad University, Central Tehran Branch, Department of Sociology, Tehran, Iran

2- Islamic Azad University, Central Tehran Branch, Department of Social Communication Sciences, Tehran, Iran

Abstract

Information nowadays is easily accessible by electronic communication technologies and internet has a privileged status as the primary information source in the public sphere. For this reason and in order to identifying the role of internet on developing health information in this article, researcher intends to provide information about "e-health" and the "communication and e-health", "computer mediated communication (CMC)", Customer Health Informatics (CHI) and "e-health literacy". Then it will provide information regarding "internet effects on accessing health information regarding the physician's viewpoints" and will determine if in their viewpoints "skills of using internet, motivation for using it, interaction with others by the internet, reliance on the internet and social positions of physicians have any effects on gaining health information via internet or not on physician's viewpoints. A total of 50 physicians were given questionnaires. The research was conducted in five big hospitals of Tehran that were selected according to the highest index of number of active bed. The measurement tool of the research is questionnaire. The results of this research indicate that on physician's viewpoints, skills of using internet have a role on assessing health information and relying on the internet in order to assess health information also plays role, and physician's interaction with patients and also their social conditions influence on assessing health information via internet. Through analyzing human communication and health promotion necessities such as internet, the researcher came to understand that communication will have a key role on facilitating human interaction on health information.

Keywords: e-health literacy, e-health, health communication, computer mediated communication, customer health informatics

Introduction

Mere strengthening of information circulation is not sufficient to access development opportunities that knowledge offers. (Shokrkah, 2005, 22) Digital technologies by changing current methods and developing different possibilities had enormous effect on traditional media. According to "Trend" (Trend 2001:1) one of the characteristics of new digital culture is, its Mediation Rule". equal accessing to education, media, information and communication technologies will be prepared (Kennedy and Hills, 2009, 170). This will make possible a kind of independent and responsibility- based life in the field of human right, living in democracy and sustainable development (Motamed- Nejad, 2005, 38). Internet is a virtual public meeting of citizens of the world. A point of general concurrence that millions of people from 155 countries are relating together and it's a huge organization that its order has been considered

¹ . Assistant Professor

² .M.A. Student, Corresponding author, niloofar63_j@yahoo.com

somehow before. General rules of using information in internet are based on free regulation. In fact we can consider it as an important chapter in information society. (Mohseni, 2008, 79) "Gunther Eysenbach" offers the following succinct definition on his homepage about e-health: "E-health = Medicine + Communication + Information + Society" [Gunther Eysenbach]

The question here is what is information society? Different assumptions were expressed about definition of Information Society. For example "Abdul Waheed Khan" director manager of information and communication at UNESCO, in its viewpoint uses "knowledge society" instead of "information society". Because mere strengthening of information circulation is not sufficient to access development opportunities that knowledge offers. (Shokrkah, 2005, 22) Digital technologies by changing current methods and developing different possibilities had enormous effect on traditional media. According to "Trend" one of the characteristics of new digital culture is its "Mediation Rule" (Trend 2001:1).

According to critics, combination of technology and knowledge for society's development should be accomplished by attention to current realities and structuring a shared viewpoint about stable and sustainable knowledge society based on the following principles (Kennedy and Hills, 2009, (170): Knowledge is the heritage of humanity and is humanity's property. In another word, it is "the Common Good" of the human beings and must be available equally for all and should be protected for future generation.

Commercial actions of general knowledge should be forbidden and sharing them should be encouraged as a kind of sustainable development research instrument, creation of social innovations and development of strengthening information in the public field.

Public cooperation possibilities, especially women should be encouraged in general affairs and they would benefit freely from communicating means and the right of being informed of all general and media sources of information independently and without any intervention and control.

Equal accessing to education, media, information and communication technologies will be prepared. This will make possible a kind of independent and responsibility- based life in the field of human right, living in democracy and sustainable development. (Motamed- Nejad, 2005, 38)

Communicating through internet for self helping and social support in the fields like health treatments is a main example of this kind of communication. A base of this kind of social support is "self helping". Quality of "virtual social support" differs from "social support". Although virtual self helping system is a kind of preparation for social, information and personal self esteem support, it cannot produce a supportive or practical instrument. While using virtual social support, people are not able to have physical appointment. Form of virtual relation cannot be like a real cooperatives group. In fact, since the concept and content of virtual social support has a new structure, it brings into existence and has no previous historical records and at the same time it is various, uncountable and difficult to assess, so future research will clarify its different dimensions. (Mohseni, 2008, 144)

About communication and e-health, one should say that e-health communication can improve behavioral outcomes .(Neuhauser and Kreps, 2003,7) Health behavior models that have shaped health communication strategies are drawn primarily from the fields of communication, psychology, sociology, and medicine. These models are heavily influenced by literatures on relational communication, persuasion and social marketing (Kreps, Bonagoro and Query,1998). E-health includes medical informatics, telehealth, telemedicine, consumer health informatics, public health informatics, among others. E-health communication strategies include, but are not limited to: health information on the internet; computer assisted learning; online support

groups; online collaborative communities; information tailored by computer technologies; computer-controlled in-home telephone counseling ; bio-metric assessment and transmission; and patient-provider e-mail contact. "Marshall McLuhan" (1964, p. 23) asserted, famously, that 'the medium is the message'. E-health communication has the potential to address the five criteria for successful health communication. Psychological factors that mediate change are as follows: promoting interactivity and participation, providing customized and contextualized information, expanding the mix of media channels, prospects for leadership and investment in e-health communication, implications for research, theory and practice (Neuhauser and Kreps, 2003, 12-18).

Now, the other question here is; what's the computer mediated communication? The answer is according to "John December" (1997), computer-mediated communication is a human communication by internet that covers people in different fields and consist of processes that media uses for different targets. Computer - mediated communication is a kind of communication by computer among humans. This is a new kind of relationship; this is a new experience of relation and still is a relationship. Communication never creates in vacuum. Communication channels are social (cultural), psychological (symbolic), and physical (technical). According to this point scientists identified layers of factors related to the text that effects on relation as a mediator (Thurlow and et al, 2004, 31-36).

While computer-mediated communication use and research are proliferating rapidly, findings offer contrasting images regarding the interpersonal character of this technology. Research trends over the history of these media are reviewed with observations across trends suggested so as providing integrative principles with which to apply media to different circumstances. First, the notion that media reduce personal influences, newer theories and research are noted explaining normative "interpersonal" uses of the media. From this vantage point, recognizing that impersonal communication is sometimes advantageous, strategies for the intentional depersonalization of media use is inferred, with implications for Group Decision Support Systems effects. Additionally, recognizing that media sometimes facilitate communication that surpasses normal interpersonal levels, a new perspective on "hyper personal" communication is introduced. Sub-processes are discussed pertaining to receivers, senders, channels, and feedback elements in computer-mediated communication that may enhance impressions and interpersonal relations (Walther, 2011, 1).

Consumer Health Informatics (CHI) helps bridge the gap between patients and health resources. Consumer Health Informatics includes technologies focused on patients as the primary users to health information. Consumer Health Informatics includes: Information Resources, Communications, Remote Monitoring, Videoconferencing, and Tele-presence. Medical informatics has expanded rapidly over the past couple of years. After decades of development of information systems designed primarily for physicians and other healthcare managers and professionals, there is an increasing interest in reaching consumers and patients directly through computers and telecommunications systems. Consumer health informatics is the branch of medical informatics that analyses consumers' needs for information; studies and implements methods of making information accessible to consumers; and models and integrates consumers' preferences into medical information systems. Consumer informatics stands at the crossroads of other disciplines, such as nursing informatics, public health, health promotion, health education, library science, and communication science, and is perhaps the most challenging and rapidly expanding field in medical informatics; it is paving the way for health care in the information age. Consumer Health Informatics is a subspecialty of medical informatics which studies from a patient/ consumer perspective the use of electronic information and communication to improve

medical outcomes and the health care decision-making process (www.Wikipedia.com November 2010).

The concept of e-health literacy is introduced as the ability to seek, find, understand, and appraise health information from electronic sources and apply the knowledge gained to addressing or solving a health problem. E-health literacy at its heart has six core skills (or illiteracies) which are organized into two central types 1. Analytic (traditional, media, information) 2. Context-specific (computer, scientific, health). The analytic component involves skills that are applicable to a broad range of information sources irrespective of the topic or context, while the context-specific component relies on more situation-specific skills. E-health literacy is influenced by a person's presenting health issue, educational background, health status at the time of the e-health encounter, motivation for seeking the information, and the technologies used. Traditional Literacy encompasses basic literacy skills such as the ability to read text, understand written passages, and speak and write a language coherently. An information literate person knows what potential resources to consult to find information on a specific topic, can develop appropriate search strategies, and can filter results to extract relevant knowledge. Media Literacy is a means of critically thinking about media content and is defined as a process to "develop metacognitive reflective strategies by means of study" about media content and context. The American Medical Association considers a health literate person as having "a constellation of skills, including the ability to perform basic reading and numerical tasks required functioning in the health care environment. Computer literacy is the ability to use computers to solve problems, and the ability to adapt new technologies and software. Scientific Literacy is broadly conceived as an understanding of the nature, aims, methods, application, limitations, and politics of creating knowledge in a systematic manner taken together, these six literacy types combine to form the foundational skills required to fully optimize consumers' experiences with e-health. (Norman & Harvey, 2006)

Methodology

The Method of this research is applied-oriented and data collection method is descriptive. A total of 50 physicians were given questionnaires. The research was conducted in five big hospitals of Tehran that were selected according to the highest index of number of active bed. A researcher's made questionnaire is used for data gathering. Face and content related validity was obtained by using the available sources and connoisseurs' opinions and their validity through tentative execution of Cronbach's Alpha Coefficient was calculated $.89$.

Results and Discussion

According to the results the first hypothesis of the research was confirmed. Based on this hypothesis "there is a relationship between skills of using internet and accessing health information from internet," among 50 physicians who answered the part of questionnaire about skills, 26 physicians disagree, 8 physicians with in the middle viewpoint and 14 physicians agree with the mentioned hypothesis. The chi-square test was used for the analysis is 34.800, asymp. Sig. is 0.000 so p-values < 0.05 was considered statistically significant. (Table 1)

Table 1: Descriptive statistics: skills and using internet

	N	Mean	Std. Deviation	Minimum	Maximum	Chi-Square	df	Asymp. Sig.
skill	50	7.6800	2.17068	3.00	11.00	34.800	3	0.000

According to the results the second hypothesis of the research was confirmed too. Based on the second hypothesis “on physician’s viewpoints, there is a relationship between motivation of using internet and accessing health information from internet.” Among 50 physicians who answered the part of questionnaire about motivation, 20 physicians disagree, 2 physicians have in the middle viewpoint and 28 physicians agree with the mentioned hypothesis. The chi-square test was used for the analysis is 6.640, Asymp. Sig. is 0.084 so p-values < 0.05 was considered statistically significant. (Table 2)

Table 2: Descriptive statistics: motivation and using internet

	N	Mean	Std. Deviation	Minimum	Maximum	Chi-Square	df	Asymp. Sig.
motivation	50	16.2400	4.35450	10.00	22.00	6.640	3	0.084

According to the results, the third hypothesis of the research was also confirmed. Based on the hypothesis “on physician’s viewpoints, there is a relationship between reliance on the internet and using it in order to accessing health information.” Among 50 physicians who answered the part of questionnaire about reliance on the health information on the internet, 8 physicians have in the middle viewpoint. 22 physicians agree and 20 patients disagree with the mentioned hypothesis. The chi-square test was used for the analysis is 36.640a, Asymp. Sig. is 0.000 so p values < 0.05 was considered statistically significant. (Table 3)

Table 3. Descriptive Statistics: content of internet

	N	Mean	Std. Deviation	Minimum	Maximum	Chi-Square	df	Asymp. Sig.
content	50	12.1200	2.42975	7.00	16.00	36.640a	2	0.000

The results indicates, the fourth hypothesis of the research was confirmed. According to the hypothesis, namely “on physician’s viewpoints, there is a relationship between interaction of physician’s and their patients and using internet in order to accessing health information.” Among 50 physicians who answered the part of questionnaire about interaction of physicians with their patients, 22 physicians agree, 2 physicians have in the middle viewpoint, and 26 physicians disagree with the mentioned hypothesis. The chi-square test was used for the analysis is 41.440, Asymp. Sig. is 0.000 so p-values < 0.05 was considered statistically significant. (Table 4)

Table 4. Descriptive Statistics: interaction

	N	Mean	Std. Deviation	Minimum	Maximum	Chi-Square	df	Asymp. Sig.
interaction	50	24.1600	4.40482	15.00	33.00	41.440a	2	0.000

According to the results, the fifth hypothesis of the research was confirmed, too. According to the hypothesis namely, “on physician’s viewpoints, there is a relationship between social position of physicians and using internet in order to accessing health information.” Among 50 physicians who answered the part of questionnaire about social position, 4 physicians have in the middle viewpoint, 44 physicians agree and 2 physicians disagree with the mentioned

hypothesis. The chi-square test was used for the analysis is 0.080a, Asymp. Sig. is 0.777 so p-values < 0.05 was considered statistically significant. (Table 5)

Table 5. Descriptive Statistics: social position of patients and using internet

	N	Mean	Std. Deviation	Minimum	Maximum	Chi-Square	df	Asymp. Sig.
social position	50	10.5600	1.03332	8.00	12.00	0.080a	1	0.777

Conclusion

It is necessary for the health organizations to monitor the accuracy of the provided information on cyber space. Preparation of basic training on healthcare methods from early years of education in order to develop public's health literacy is necessary specially on accessing to internet. Women are necessitous member of society and need more support than others on using internet for accessing health information. Communicating through internet for self helping and social support in health treatments fields should be considered. The World Health Organization should pay attention to the countries' differences like health infrastructures, life expectancy, health expenditures, ICT development index, internet users (per 100 populations) and while writing the operational global plans about Global Observatory for e-health should not forget close attention on "e-health Communication and e-health literacy". Access to technology in all parts of the country should be possible; Extensive e-health infrastructures are now viewed as central to the future provision of safe, efficient, high quality, citizen-centered health care so high-speed internet connection should be establish in all region.

According to "Everett Rogers", decision for innovation is a "mental process" and e-health was defined as "the use of information and communication technologies (ICT) for health", "state-of-mind" and "a way of thinking" which is also a kind of innovation in health care. E-health is the single-most important revolution in health care since the advent of modern medicine, vaccines, or even public health measures like sanitation and clean water. Self-based helping is an important factor for changing life style, so one should also consider five stages of this mental process, which are "awareness, persuasion, decision, implementation and stabilization. According to five mentioned stages and definition of "diffusion of innovation", in case media supports innovation, it will have good effects. According to "Rogers", every innovation creates a kind of uncertainty. Communication and healthcare organizations should foresight necessary implementations for encouraging public for using internet in order to access health information. Health Information on the internet can help reforming of life style and reducing disease meanwhile physicians and patients should be highlighted in this section.

Consumer informatics stands at the crossroads of other disciplines, such as nursing informatics, public health, health promotion, health education, library science, and communication science, and is the most challenging field in medical informatics; CHI is a sub-specialty of medical informatics which studies from a patient/consumer perspective the use of electronic. Health communication is more effective when it reaches people on an emotional as well as rational level, when it relates to peoples social or life contexts. A combination of the effectiveness of personal communication and the reach of mass media communication is needed to change population behavior. Tailored (customized) communication is more effective than generic

messages. (Improvement communication approaches with diverse audiences and finally interactive communication is more effective than one-way communication.

Establishing a 'comprehensive website for health' a highly professional site to guide users to carefully select health information and interactive tools is necessary. So by integration, users can rely on the provided health information and this could provide the public with easy-to-use, credible, interactive, relevant, private and secure information that could theoretically be expected to improve health.

There is a gap between the electronic health resources available and consumers' skills for using them. Consumer e-health requires basic reading and writing skills, working knowledge of computers, a basic understanding of science, and an appreciation of the social context that mediates how online health information is produced, transmitted, and received or what can be called e-health literacy. So this subject should be considered and educational plans must be conducted in this regard.

References

- Mohseni, Manochehr,, Sociology of information society, Nashre Didar, Tehran, 2008 ,79
- Shokrkah, Yones, Information society, some fundamental viewpoints, a quarterly journal of media studies and research ,center for media studies and research (CMSR) Vol.16, No.2., Tehran, Summer 2005, pp.22
- Motamednejad, kazem, Critic viewpoints about global regulations summit on information society, a quarterly journal of media studies and research ,center for media studies and research (CMSR) Vol.16, No.2., Tehran, Summer 2005, pp.38
- Eileen Kennedy & Laura hills ,sport, media and society, New York ,BERG, 2009, pp.169
- Cameron D Norman, and Harvey A Skinner, e-health literacy : essential skills for consumer health in a networked world , 2006
- WHO, E-health Definition, <http://www.who.int/goe/en/>, World Health Organisation, 2011.
- OpenClinical , knowledge management for medical care , www.OpenClinical.com
- WHO, World Health Organization, E-health, <http://www.who.int/topics/ehealth/en> , 2011
- Thurlow . Crispin, Tomic . Alice & Legel B. laura ,Computer Mediated Communication. Social interaction and the internet, 2004, translator Sarvenaz Torbati, printed in Iran: Jameeshanasan, 2004 ,pp.31-36
- Wikipedia, Consumer health informatics, www.Wikipedia.com November, 2010
- Neuhauser Linda, Kreps Gary, Rethinking Communication in the E-health Era, Journal of Health Psychology, University of California, Berkeley, USA, National Cancer Institute, Maryland, USA, London, Thousand Oaks and New Delhi, SAGE Publications, 2003, pp.7
- Kreps, G. L., Bonaguro, E. W., & Query, J. L. The history and development of the field of health communication Greenwood Press, 1998