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The Internet as a source of information on health and disease

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Synopsis: The Internet has become a significant factor influencing the public health area. It contributes to higher awareness of the health problems in the society and to the greater self-reliance of the patients, it helps to carry out the health promotion campaigns and health education with more effectiveness. Having at our disposal an enormous reserves of specialized knowledge, we become more and more aware patients. One of the most frequent usages of the Internet in the context of one's health is searching for the medical information – whether it is for the diagnosis, finding the proper form of treatment, looking into the opinion of given specialist, make an appointment with a doctor, collect the results of examinations and so on. The Internet has become one of the most important sources of medical information, and the information on health. However, it also poses a certain threats to the health. It may be used to propagate disadvantageous or even dangerous behaviours, to distribute the addictive or other harmful substances, to promote substances of alleged healthy effectiveness, and to spread untested methods of treatment that is contradictory with modern medical knowledge.

Key words: The Internet, health, e-health

Introduction

The Internet, as a global communication network, stands as one of the main channels for information flow and information sharing, simultaneously becoming an important mean of interpersonal communication.

The accessibility of internet communication is a testimony to the mankind's progress. Its features, such as huge range, multidimensionality or possibility of implementing some interesting technological solutions for the users, are the basis for the thorough utilization of the Internet in the name of health, including building individual and social health potential. Usage of information technology in the medical field had been labelled as eHealth. The term is defined as "the tools and services that use information and communication technologies (ICTs) to improve prevention, diagnosis, treatment, monitoring and management of health and lifestyle" [European Commission]. The advancement in new technologies contributed to seeing a patient from a different perspective – as a partner in the process of treatment. He becomes an active participant of caretaking, capable of making decisions regarding his health and while being aware of the consequences that these decisions entail [Jurczak et al 2017, ss 422-426].

The eHealth functionality in the society is mostly about keeping a medical record, patient's registration or online medical consultation. The eHealth enables a wide range of actions utilized in the medical care. This includes the medical information in the virtual form, that can contribute to the health education aiming to promote healthy lifestyle on an individual and social scale. That is why the case of medical information on the Internet is classified or defined as e-promotion of health. Małgorzata Paszkowska, while weighing pros and cons of e-promotion of health, points out the majority of the former ones. Among them, most noted are:

1. wide range of influence
2. relatively low costs of reaching the target population
3. multimedia broadcasting
4. speed of information flow [Paszkowska 2008, ss. 244-252].

The dynamic advancement of computer technologies and the Internet created new possibilities for the medical staff, healthcare managers, as well as for the patients. The utilization of the specific eHealth tools may occur:

1. in the doctor-patient relation (in the form of medical e-consultations, online prescriptions, monitoring of patient's wellness)
2. in the services aimed directly towards patients (online health accounts, medical information and education sites, online pharmacies)

3. in the services aimed directly towards medical staff (sites for improving medical knowledge and study tools for the doctors)

In Poland more and more information technology used in the medical field can be seen – for example by implementing computer systems, such as Patient's Integrated Informer (ZIP), online Verification of Service Recipients' Entitlements (eWUŚ) or Online Health Insurance Card (eKUZ). It should be noted that majority of the government subjects connected to the healthcare exist in the network, publishing various information for the people interested. Due to the usage of these systems, the medical services accessibility rises [Czerwińska 2015, ss. 173-185].

One of the most frequent usages of the Internet in the context of one's health is searching for the medical information – whether it is for the diagnosis, finding the proper form of treatment, looking into the opinion of given specialist, make an appointment with a doctor, collect the results of examinations and so on. The Internet has become one of the most important sources of medical information, and the information on health. More and more users are looking for the information on healthy lifestyle, nutrition, diseases and treatment. Due to the fact that the Internet becomes often the first major source of information on the health and diseases, the quality of that information becomes an issue. The quality is that much more important because the case of substituting an online search for a real appointment at the doctor's office becomes more and more frequent [Czerwińska 2014, ss. 18-28].

Aside from various benefits of e-promotion of health there are also the drawbacks and restrictions to it, the kind that may significantly disrupt the initial intentions. The dynamic growth of the Internet results in the intense process of creating new sites and forums on the topic of health. This poses as a basic reason to the flood of online information on health, resulting in drop in the credibility of that information and more chaos. The other issue is that of self-treatment – dealing with the health problems without consulting the doctor, using only the knowledge found on the Internet. Moreover, the cyberspace environment creates friendly conditions for spreading medical myths, as well as creating and posting contradictory information [Kowalska et al 2013, ss. 300-304].

The aim

The aim was to examine the opinion of Garbów commune's residents on the threats to the health that come with the Internet's usage. The results of the research allowed us to illustrate what kind of information do users usually look for concerning health, as well as pros and cons of using the Internet for the medical purposes. The main issue focused on answering the question:

what kind of information that can affects one's health do users look for most often and how the health education is being carried out through the Internet.

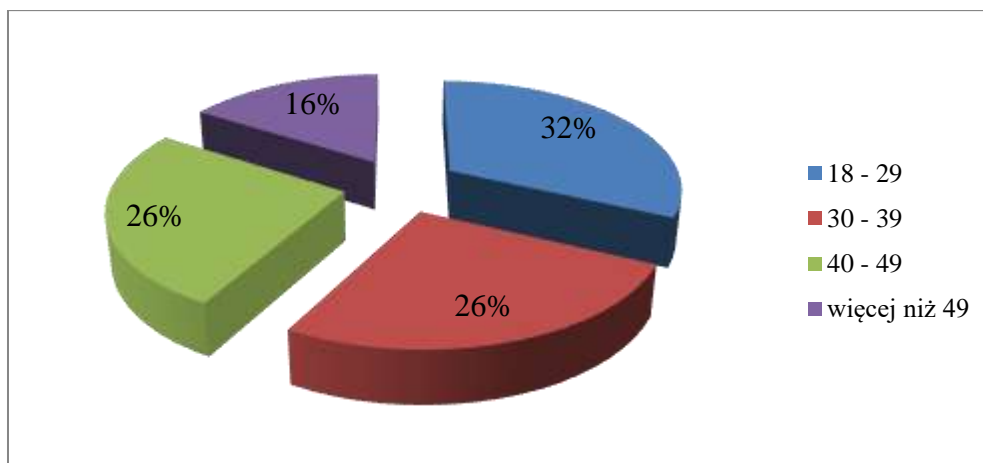
The material and the method

The research focused on a group of 100 people. Examined were the residents of Garbów commune. In the opinion research the method of diagnostic survey was used. The technique of poll was used, as a research tool a specific questionnaire poll was designed. The survey was to be individually filled in by the respondents and was anonymous, the participation remained completely voluntary. The questionnaire consisted of 16 multiple choice questions, 5 of them had sociometric character, the remaining 11 dealt with the analysis of threat to the health coming from the Internet usage. The research was carried out in the period from January to May of 2014.

The results

Among the 100 respondents, 57% were female and 43% were male. The largest age group created the respondents aged 18-29, 32%. The smallest group consisted of respondents aged above 49, 16%. The detailed age groups chart is shown in table no. 1.

Table no. 1 *The number of respondents in specific age groups*

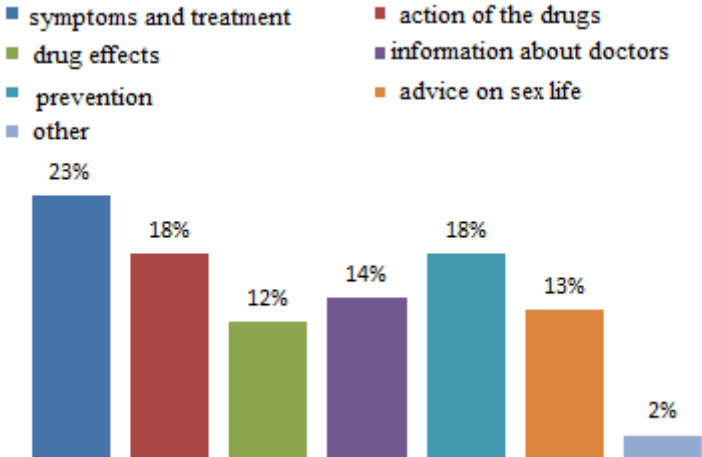


Most of the respondents (42%) had higher education. The rest as follows: 23% secondary education, 33% vocational education, 2% primary education.

The first question was about the amount of hours that the respondents spend using the Internet. Nearly half of them (46%) spends 1-2 hours daily using the net, 39% spends daily 3-4 hours. Five people admitted to spend above 4 hours of daily Internet usage. The respondents

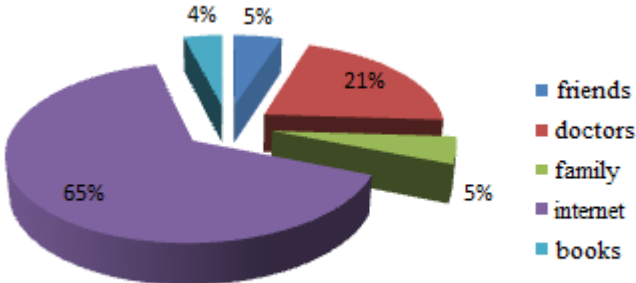
were then asked the usual purpose of their Internet usage. Most of them use social media (59%), use e-mails (51%), do internet shopping (50%). Very popular among the respondents was also using the Internet for the health purposes such as searching information on the diseases (40%) and health and beauty (37%)

Table no. 2 The Internet usage for the purpose of health information



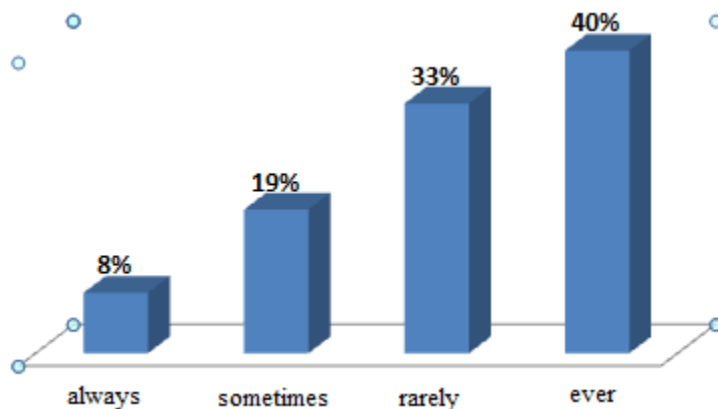
The most frequently searched information among the respondents on the topic of health include: symptoms and treatment (23%), drug effects (18%) and prevention (18%) (table no. 2). As the most important sources of information the respondents pointed out: the doctors and nurses (33%), family (27%), the Internet (30%). Only 7% of them use books or guides. The Internet is the main source of information in the case of the initial symptoms occurrence (65%). Only 21% of the respondents go the doctor in that scenario. (Table no. 3)

Table no. 3 The source of information in the face of the initial symptoms



Most of the respondents (68%) purchases the medical supplies (drugs, supplements) through the Internet. The most frequent of these are the supplements for the athletes (18%), vitamins and minerals (17%), prescription-free drugs (14%), fat-loss products (12%), cosmetics (10%) and feminine hygiene products (8%). Alarming is the fact that only 8% consult the usage of the online-bought product with the doctor or the pharmacy worker, while 40% never does so (table no. 4).

Table no. 4 The consultation with the doctor on the online-bought medical products



The respondents were also asked if they think that the Internet is a dependable source of information regarding health. One third of them consider it a good source of knowledge. The benefits of the Internet usage regarding health had been listed as: money saving (42%), time saving (26%), discretion (21%), dependability of the information (11%). The main drawbacks included: lack of dependability/credibility (38%), the feeling of commercialism of searched information (30%).

The discussion

The knowledge on the harmful influence of various factors on the human organism and the knowledge on the risk factors of diseases are significant part of health prevention. The results of the research had shown that the main source of information regarding prevention and symptoms is the Internet. According to Czerwińska and Duplaga, the Internet currently stands as a main source of obtaining information on health, diseases and treatment [Duplaga 2013, ss. 689-691; Czerwińska 2013, ss. 539-551]. The research conducted by the Polish Internet Research (PBI) in 2011 shows, that in order to obtain information on health, diseases or treatment, the Poles are mostly using the Internet, the second place falling to the doctors and members of healthcare (73%), and third in the line was the television (56%) [Polish Internet

Research]. The research conducted on the Polish workers reveals, that there is a solid basis to treat the Internet as one of the influential tools for health education campaigns and the health promotion projects aimed at the employees [Korzeniowska and Puchalski 2014, ss. 1-13].

The research shows clearly how big of an influence the Internet has regarding health problems occurrence, looking at the fact that the respondents as their first pick for seeking help chose the Internet (65%), nonetheless their credible source of information still is the doctor and nurse. The research conducted by Szymczuk and co. as well as Furmakiewicz and co. are also consistent with the private research [Szymczuk et al 2011, ss. 165-168; Furmakiewicz et al 2015, ss. 42-45]. The private research shows that the respondents do appreciate the Internet usage in the health matters, pointing to time and money saving. They complain however about the lack of credibility of found information.

The interest in online shopping for drugs keeps rising. The online pharmacies stand as a new channel of distribution in the pharmaceutical market. The internet sites pose a strong competition for the traditional shops thanks to the lower costs of running a business. The capacity of the market is also completely different, due to the fact that online pharmacies cover the area of the whole country, more often than not offering international deliveries [Holecki et al 2013, ss. 262-266]. Worrying is the fact, that 40% of the respondents never consult doctor or the pharmacist regarding online bought medical products. The most frequently bought are supplements for the athletes as well as vitamins and minerals.

The author's research shows that the most frequently searched information on the Internet are disease symptoms and treatment, drug effects and prevention. The research by Ziuziański and Furmakiewicz also states that most frequent searches are for symptoms and information on medical facilities [Ziuziański and Furmakiewicz 2014, ss. 61-74].

The Internet has become a significant factor influencing the social health field. It helps to raise awareness to health problems in the society and to grow patients' self-reliance, it helps to realize health promotion programs and health education. The Internet has changed the role of the patient in the healthcare. Having access to huge reserves of professional knowledge, we become more and more aware patients. However, the Internet also brings threats for the health. It may be used to propagate disadvantageous or even dangerous behaviours, to distribute the addictive or other harmful substances, to promote substances of alleged healthy effectiveness, and to spread untested methods of treatment that is contradictory with modern medical knowledge.

Conclusion

1. The Internet is the basic source of information. More and more people using the Internet look for the information regarding health. The most frequently searched are the causes, symptoms and prevention. Majority of the respondents when noticing initial symptoms firstly use the information posted on the Internet instead of consulting the doctor.
2. The interest rises among the respondents with online pharmacy shopping. More than half of them ordered drugs, supplements or other medical supplies through the Internet at least once. Considering that, the government should take serious steps in order to ensure security for the people deciding to this kind of shopping.

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