

## IS THE INTERNET THE RIGHT SOURCE FOR CONQUERING KNOWLEDGE ON DISEASES?

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### ABSTRACT

**Aim.** The main aim of the project is to find out the opinions of the young people aged 18–30 on finding their disease symptoms on the Internet and about their emotions in order to establish the credibility of the sources they use and to understand the retrieved data.

**Methods.** The study involved 100 people aged 18–30 who voluntarily completed a proprietary electronic questionnaire examining the attitude of young people to searching for disease symptoms on the Internet. In this work, the method of diagnostic survey was used.

**Results and Conclusion.** Many of respondents found a diagnosis on the Internet based on their symptoms at least once in their life. Most of this information was searched for on the first pages appearing in a web browser after entering a given ailment into a search engine.

Most respondents, indicate anxiety about their health as the main reason for which they searched for disease symptoms on the Internet. A lot of respondents did not consult these with a doctor. A large group of respondents claims that the information retrieved resulted in them experiencing fear and/or panic. The

COVID-19 pandemic influenced the frequency of searching for health ailments on the Internet. The obtained results show the attitude of young people to searching the meaning of disease symptoms on the Internet.

**Cognitive value.** The cognitive value of this article is the selection of a specific research group, which has enjoyed the possibility of easy and universal access to the Internet from an early age and for whom the Internet has become the main source of obtaining information in almost all areas of science and life.

**Keywords:** Internet, symptoms, health, source, respondents.

## INTRODUCTION

Over the last several years, the Internet has become the main source of information in almost all areas of science and everyday life. Acquiring knowledge from the Internet has many advantages, including low costs, unlimited and wide access to content and ease of access. Countless articles and pages on health and lifestyle can contribute positively to increasing people's health awareness, which can affect the overall health of the population. Each user of the network, wishing to expand their knowledge in the field of health, can choose from many peer-reviewed articles, portals created by specialists as well as educational videos based on relevant literature. Unfortunately, the Internet also contains equally easily accessible portals that duplicate erroneous, untrue information, which in turn poses a huge threat to the Internet user. While browsing the Internet, one can come across Internet forums where users share their knowledge, views and experiences, creating informational chaos from which it is extremely difficult to extract true information. Therefore, research on this topic is extremely important, which should allow the scholars to confront the information with that provided on other platforms.

Health is one of the most important values in human life, therefore many people, fearing for their health, look for information about ailments and potential treatment. The chaos caused by the overwhelming amount of data may result in making bad health decisions, which can have long-term health effects as well as the fear of a real diagnosis. Hartzband and Groopman note that in the past, information about health contained in books and articles was intended only to supplement the information obtained from a physician. Therefore, the knowledge provided by the doctor was regarded as primary and undisputed due to the fewer available sources of information. In the current reality, many individuals, even before going to the doctor, already know a number of diseases that may be the cause of a given ailments, or resign from medical consultation when they decide that the accompanying symptoms do not herald a serious illness.

The COVID-19 pandemic is an incredible example of the impact of information obtained from Internet sources on human behaviour. Isolation, difficult contact with the general practitioner and fear related to the new situation contributed to the information chaos concerning the course of the disease, symptoms and vaccinations. Therefore, it was possible to notice a division of the society into those who adhere to the recommendations related to the pandemic and those who ignore or

even do not believe in the pandemic; people who wanted vaccinations and those who thought vaccination was dangerous. Regardless of your view, on the Internet we find reliable information on behaviour during a pandemic as well as content that promotes, among others, the harmful lack of vaccination.

The conducted and presented studies highlight the opinions of young people regarding the Internet as a reliable source of information when searching for diseases.

### MATERIAL AND METHODS

100 individuals aged 18 to 30 participated in the study. Women accounted for 62% of all respondents, and men for 38%.

This work used the diagnostic survey method. The study involved 100 people aged 18–30 who voluntarily completed a proprietary electronic questionnaire examining the attitude of young people to searching for disease symptoms on the Internet. An interview was also conducted among the research participants. In the survey was used a statistical method that allowed for the collecting and gathering the information and data related to the study. In the survey was used the quantitative method.

The survey was conducted in February, March and April 2022 by using a proprietary questionnaire, available in an electronic version, which was created in Google Forms. The method used to conduct the research was filling in an on-line questionnaire. Completing the questionnaire was equivalent to giving consent by the respondent, he was also informed about the purpose of the study. The study was approved by the Bioethics Committee of the Medical University of Wrocław (nr KB-239/2022, Wrocław, Polska). The conducted research allowed to verify the answers regarding whether the Internet is a suitable source for searching for disease symptoms and also highlighted how problematic searching for disease symptoms on the Internet can be.

In the study, groups were selected based on gender, age range, education and place of residence (tables 1, 2, 3). Women in the age group 18–22 constituted 19% of the participants (n=19), in the age group 23–27 they constituted 30% (n=30), while in the age group 28–30 they constituted 13% (n=13). In total, women constituted 62% of the respondents. Men in the 18–22 age group constituted 5% of the participants (n=5), in the 23–27 age group they constituted 20% (n=20) and 13% (n=13) were men in the age aged 28–30 years. In total, men accounted for 38% of the respondents.

People with higher education most often participated in the study as they constituted 55% (n=55) of the research participants, while people with secondary education constituted 32% (n=32) and people with vocational education constituted 13% (n=13).

The most numerous group were the people living in a city with over 500,000 residents: 44% (n=44); the next group were people living in villages: 26% (n=26); and people living in the cities with 1,000–200,000 residents: 22% (n=22). The small-

est group included the people living in the cities with 200,000–500,000 residents: 8% (n=8).

**Table 1**  
*Gender of the respondents*

Age of the study group	Age structure			
	Group of women		Group of men	
	n	%	n	%
18–22 years	19	19%	5	5%
23–27 years	30	30%	20	20%
28–30 years	13	13%	13	13%
Overall	62	62%	38	38%

n – number of people

Source: own research.

**Table 2**  
*Education of the respondents*

Age of the study group	Education					
	Vocational		Secondary		Higher	
	n	%	n	%	n	%
18–22 years	1	1%	18	18%	4	4%
23–27 years	7	7%	8	8%	37	37%
28–30 years	5	5%	6	6%	14	14%
Overall	13	13%	32	32%	55	55%

n – number of people

Source: own research.

**Table 3**  
*Place of residence of the respondents*

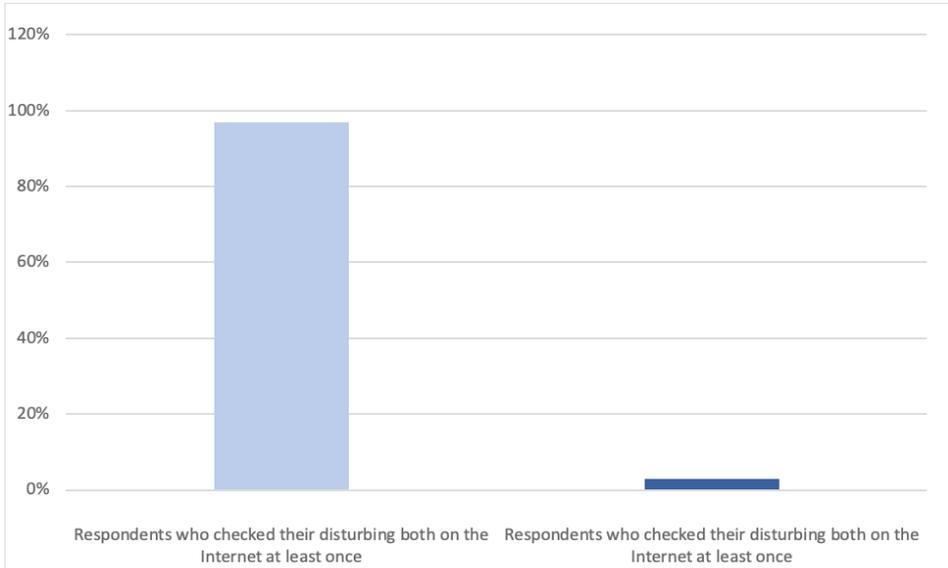
Age of the study group	Place of residence							
	Village		A city with a population of 1,000–200,000		A city with a population of 200,000–500,000		A city with over 500,000 inhabitants	
	N	%	N	%	N	%	n	%
18–22 years	8	8%	2	2%	2	2%	5	5%
23–27 years	7	7%	3	3%	3	3%	36	36%
28–30 years	11	11%	5	5%	3	3%	3	3%
Overall	26	26%	22	22%	8	8%	44	44%

n – number of people

Source: own research.

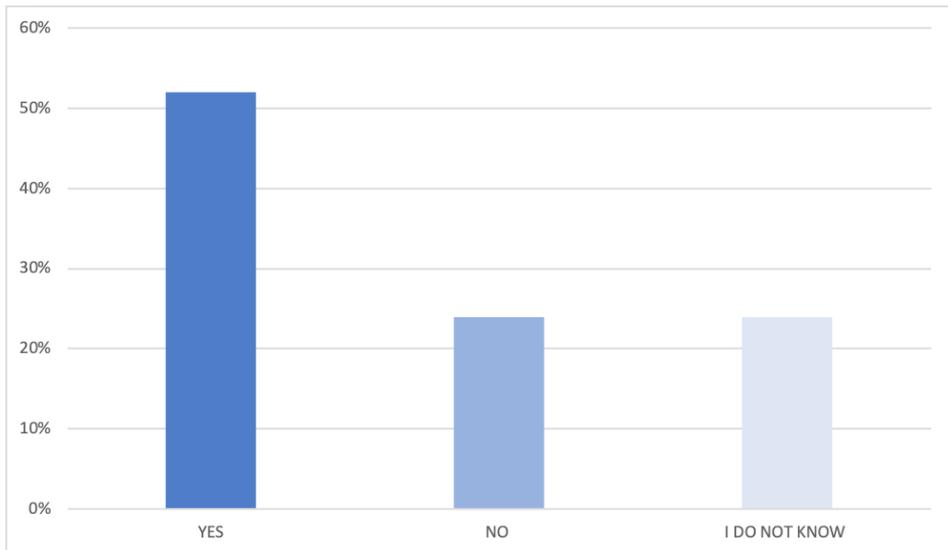
RESULTS AND DISCUSSION

**Figure 1.**  
*Have you checked your symptoms on the Internet at least once?*



Source: own research.

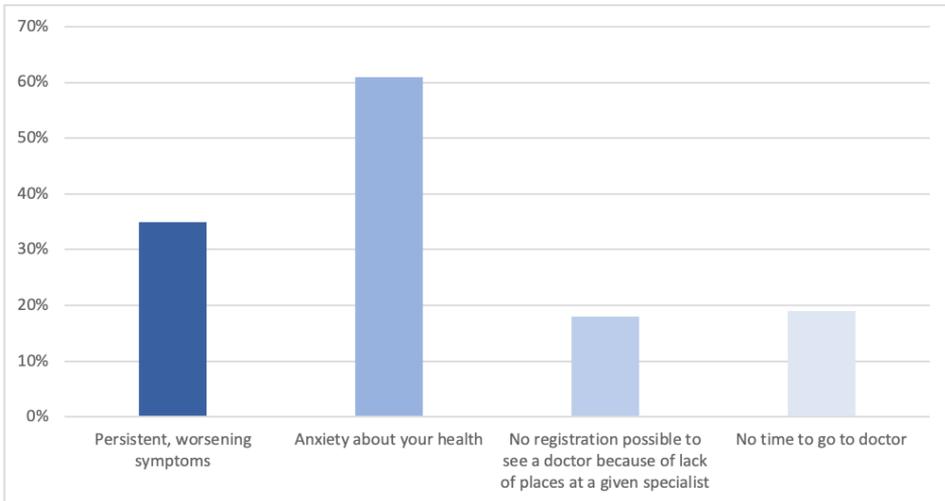
**Figure 2**  
*In your opinion, was the information presented on the website a reliable source of information?*



Source: own research.

**Figure 3**

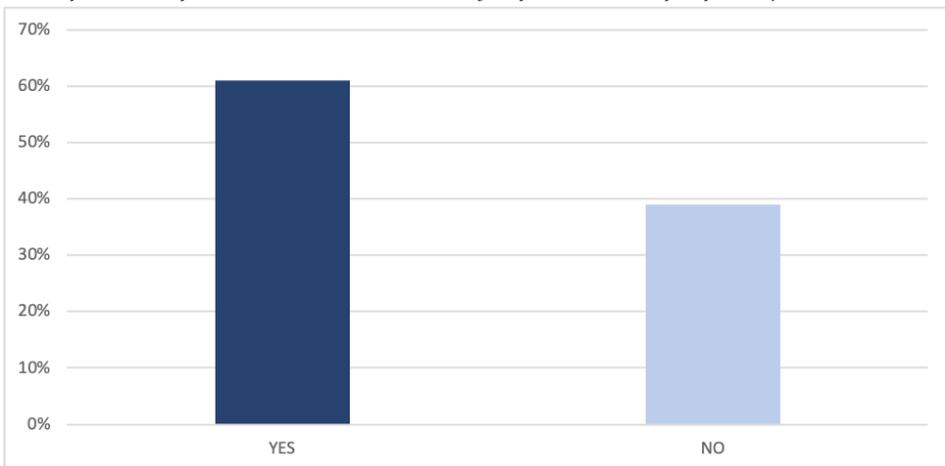
*What was the reason for searching for the symptoms you felt on the Internet?*



Source: own research.

**Figure 4**

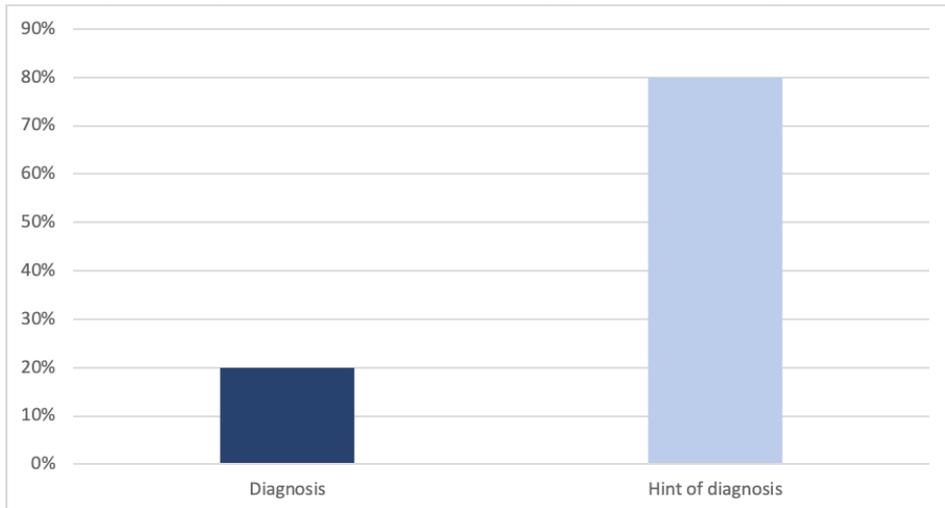
*Has information found on the internet made you feel anxious / fearful or panicked?*



Source: own research.

**Figure 5**

*Are the information found on the Internet treated by you as a hint or diagnosis?*



Source: own research.

Research shows that 97% of the respondents searched the Internet for their accompanying symptoms at least once. Research conducted Staniszewski, Bujnowska-Fedek & Andrzej Steciwko (2008) also indicated that 48.2% of respondents considered the World Wide Web an important source of information in the field of health, while 23.4% of all respondents disagreed with this thesis.

Information found on the websites may also be inaccurate or exaggerated. Many researchers emphasise that a lot depends for example on which disease we are looking for informations and which website we use. (Azer, S. A., AlOlayan, T. I., AlGhamdi, M. A. & AlSanea, M. A., 2017). Among the most popular health-related platforms 30% of respondents used the Medonet website. Another large percentage of respondents used online health guides to obtain information. A slightly smaller number of people used the MP - Practical Medicine portal: 20%. The fewest people used scientific articles available on the Internet to obtain information on symptoms.

The vast majority (52%) believe that the information presented on the websites were a reliable source of information, while 24% of respondents did not share this sentiment.

The most common reason why the respondents searched for disease symptoms on the Internet was anxiety about their health: 61% and constant, worsening disease symptoms: 35%. Subsequently, the respondents indicated the reasons for the lack of time to consult a doctor: 19% and the inability to register for a doctor's appointment due to the lack of free appointments with a given specialist: 18%.

61% of the respondents did not consult their symptoms with a doctor, while 39% of the respondents went to a doctor for advice. Życińska and Krupa (2006) in their work showed that only 4% of adult respondents use the Internet as a source

of information about their disease, 38.49% refer to doctors in these matters, and 14.11% talk to their relatives. According to Staniszewski, Bujnowska-Fedek & Steciwko (2008), the most common way of using the medical Internet in 92.3% of cases was searching and then reading selected data. Information was also searched for that would assist in making a decision about the need to consult with a medical professional.

According to Siuda and Pluta (2020), in the age of the Internet, the doctor is no longer the main authority. There are more and more situations in which the patient knows better than the doctor what is wrong with his health, because he searched for his symptoms on the Internet.

The respondents are divided as to whether the information obtained by them from the Internet about a potential disease may be helpful for the physician in establishing a diagnosis. A slight majority (55%) believe that the information found is of no use to the doctor. Unfortunately, the vast majority (61%) of respondents felt anxiety, stress or panic after reading information about a potential diagnosis. 80% of respondents treat the information found on the Internet only as a hint of a possible disease or illness.

Respondents have a clearly divided opinion on whether the Internet is an appropriate source of knowledge in the field of health; 50% believe that the Internet is the right source of information and 50% of them think that the Internet is not an appropriate source of knowledge.

The COVID-19 pandemic influenced the frequency of searching for disease symptoms by the respondents, which is believed by 59% of respondents. According to Grzega (2021), during the pandemic 11% of the Internet users made an appointment online to see a doctor. This study shows how much the use of the Internet during a pandemic had an impact on a telemedicine and for a searching disease symptoms on the Internet.

## CONCLUSIONS

The Internet in the 21st century has undoubtedly become a source of unlimited access to knowledge and information from almost all areas, which greatly contributes to increasing people's health awareness. Unfortunately, not all websites, articles and forums contain reliable, truthful information. In the context of health, suggesting false information that the Internet user does not confront with other sources may have negative health effects.

This study analysed the opinion of young people on whether the Internet is an appropriate source of information on disease ailments. The uniqueness of the research group lies in the fact that from an early age they had the opportunity to use the Internet, and the subsequent years of education and scientific progress made the Internet an important source of information and knowledge. The conducted research has shown that the respondents have a divided opinion as to whether the Internet is an appropriate source for searching for disease symptoms. As many as 80% of them treat information about their health as a hint, while only

20% consider the retrieved information as a real diagnosis. The obtained results indicate that the respondents, despite searching for ailments on the Internet, treat the obtained information with reserve, which is a positive feature in searching for information and supports the prevention of improper health behaviours. The conducted research indicates that the Internet is a valuable source of information in the field of diseases and ailments that worry or wonder the respondents, but most respondents approach the information obtained with caution.

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