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## **Online health information seeking behavior of Croatian urological patients and liability for the violation of an individual's right to health by misinformation<sup>1</sup>**

Katarina Knol Radoja (Faculty of Law, University of Osijek, Croatia), Ivan Radoja (Medical Faculty, University of Osijek, Croatia), Anita Papić (Department of Information Sciences, Faculty of Humanities and Social Sciences, University of Osijek, Croatia)

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### **Introduction**

Health information seeking behavior online includes anything regarding the symptoms, diagnoses, and treatments of different diseases or simply general information about weight loss, healthy diets or wellness tips (Jia et al. 2021). According to Eurostat's recent survey conducted in 2020, 55% of Europeans aged 16 to 74 have searched for health-related information online, with a 21% increase since 2010.

With the development of the Internet, it is no longer just a problem to find information, but also to judge its credibility and accuracy. The commercialization of the media leads to market-oriented journalism, which often tends to sensationalism and thus violates the personal rights of citizens (Boban 2012, 589). This problem comes to the fore especially in the field of medicine, since health information has a very large and direct impact on the user's health. Moreover, wrong information can directly endanger lives (Eysenbach, Powell, Kuss, Sa 2002, 2691). The problem of dissemination of false and intentionally manipulated information has been one of the most important challenges in the field of online platforms. It raises numerous issues in the area of rights, obligations and responsibilities. Therefore, in this research, an analysis of the prevalence of online

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search for health information and the legal framework of liability due to the violation of an individual's personal rights, especially their right to health, by misinformation, will be conducted.

### **Theoretical background**

The right to health is a basic human right. The World Health Organization (WHO) defines health as the state of complete physical, mental and social well-being and not merely the absence of disease. The right to health is a comprehensive right and is closely related to the right to access information. The right to information is one of the elements of medical treatment that could strengthen the active role of the patient in medical treatment. The patient stops being an object and becomes the responsible subject of medical treatment (Čizmić 2008). The question therefore arises as to the appropriate medical standard of care when health information is provided online. Infringement of one's personal right may occur due to the overstepping the limits of freedom of expression by persons who have provided health information, insufficient protection of users by the providers of Internet services, or even by carelessness of the users of Internet services. The European Union has developed several initiatives to address the problem of misinformation on the Internet. The basic and still valid legal framework was established in 2000 by Directive 2000/31/EC on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market. In December 2020, the proposal for the long-awaited Regulation on a Single Market for Digital Services was submitted to the legislative procedure, which aims to thoroughly reform the legal framework for the provision of digital services.

Wilson's model of Information Seeking Behavior has been preferred over the other information seeking behavior models because it focuses on information need as a key factor leading to information seeking (Wilson 1999). Longo's 2010 expanded model of HISB is used to develop the conceptual framework of this research, thus it encompasses the contextual and personal factors that influence HISB and also a model of online health information-seeking behavior constructed by (Liu 2022).

### **Research questions**

The aim of this paper was to explore online health information seeking behavior of urological patients with special emphasis on legal issues. The research questions raised in this study are as follows:

RQ1: What kind of online information sources do the urological patients consult when they search for online health information?

RQ2: Does the age of urological patients significantly influence the different patterns of their online health information seeking behavior?

RQ3: What level of trust in online health information do urological patients have?

RQ4: Does the age of urological patients significantly influence the different levels of trust in online health information?

RQ5: What level of trust do urological patients have in their physicians?

RQ6: What is the legal framework of liability due to the violation of an individual's right to health by misinformation?

## **Methodology**

The method used in this study was conducting a survey by means of a questionnaire which was distributed in person to the urological patients of the "Dr. Juraj Njavro" Hospital in Vukovar in Croatia, with the approval of the Ethics Committee in during December 2022 and January 2023. The results were analysed by the SPSS statistical package utilising descriptive and inferential statistical methods (Chi-square, Mann Whitney U test).

## **Results and discussion**

The research was conducted with 128 respondents, of whom 64 (50%) were born between 1930 and 1980, and the other 64 (50%) were born in 1980 and later. The average age of all respondents was 43 years (interquartile range from 32 to 63 years of age). All respondents born in 1980 or later know how to use the Internet compared to older respondents ( $\chi^2$  test,  $P < 0.001$ ). 73 (69 %) respondents agreed or strongly agreed with the statement that they research health information on websites, but without a significant difference with regard to the age of the respondents. 45 (42%) respondents agree or strongly agree with the statement that they research their health problems on the Internet before seeing a physician. 9 of them (9%) were familiar with the HON Code, a slightly higher number among respondents born between 1930 and 1980, but with no significant difference compared to younger respondents. In order to find health information, 32 (30 %) of the respondents use the portal *Pliva zdravlje* (Pliva health), and 30 (28 %) visit other portals, while 22 (21 %) use Facebook as a source of information. 14 (13%) respondents visit the website of the Croatian Institute of Public Health (*HZZJZ*), where the number of older respondents (aged 1930-1980) compared to younger respondents was significantly higher ( $\chi^2$  test,  $P < 0.001$ ). Respondents born between 1930 and 1980 were significantly more likely than younger respondents to agree with the statement that they often put off going to the physician because of information obtained on the Internet (Mann Whitney U test,  $P = 0.01$ ), while there are no significant differences in the other statements. 102 (79%) of the respondents agree or strongly agree that they can get all the necessary information about their health condition from a physician, and 124

(97%) of them agree with the statement that they trust the information about their health problems received from a physician. Looking only at the overall rating of trust in information given by the physician, older respondents have significantly more trust than younger respondents (Mann Whitney U test,  $P = 0,01$ ). Regarding the assessment of trust in information obtained from searches on the Internet and the assessment of trust in information received from physicians, we determined the degree of trust. 14 (13 %) respondents have a low level of trust in information obtained through research on the Internet, 74 (70 %) have a medium level of trust, and 18 (17 %) have a high level of trust, with no significant difference with regard to age. 18 (14 %) respondents have a medium level of trust in the information received from a physician, and 110 (86 %) have a high level of trust, with no significant difference with regard to age.

## **Conclusion**

The impact of technological achievements and a great flow of information have brought us to a time when it is necessary to approach every problem in a multidisciplinary way. The aim of this paper was to explore online health information seeking behavior of urological patients with special focus on legal issues. The research results obtained in this study revealed the worrying fact that only 9% of the respondents were familiar with the HON Code of Conduct that ensures the quality of online health information. Regarding the online information sources that urological patients consult when searching for health information online, as many as 21% of the respondents indicated that they searched for online health information on Facebook. The age of urological patients has a significant impact on their behavior when searching for online health information, such that older patients would be more likely to choose a reliable online information source than younger patients. Also the older patients are more likely to postpone physician visits than younger patients. The obtained research results point to the conclusion that urological patients have a medium level of trust in online health information. However, the research results show that urological patients have a high level of trust in their physicians, with no significant difference related to their age. The obtained research results indicate the need to increase the level of health literacy among patients in Croatia through various educational campaigns at the national and international level. The European Union has developed several initiatives to address the problem of online misinformation. However, despite the fact that the new Act provides an opportunity to regulate in more detail the procedure and responsibilities related to the filtering of online content, we can conclude that the task is only partially completed.

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