www.ijarp.com ISSN 2456-9992 Page: 01-08

International Journal Advanced Research Publications

Research Article

Volume: 01
Issue: 03

ANALYSIS OF ONLINE HEALTH INFORMATION SEARCH BEHAVIOR AND ITS IMPACT ON COLLEGE STUDENTS' MEDICAL DECISIONS

Jumakil*

Biostatistics and Health Information Systems Departement, Faculty of Public Health, Halu Oleo University, Indonesia.

Article Received: 09 November 2025, Article Revised: 29 November 2025, Published on: 19 December 2025

***Corresponding Author: Jumakil**

Biostatistics and Health Information Systems Departement, Faculty of Public Health, Halu Oleo University, Indonesia.

DOI: https://doi-doi.org/101555/ijrpa.9335

ABSTRACT

Background: Behavioral change has important implications for the effectiveness and efficiency of healthcare systems. On the one hand, informed students can contribute positively to the treatment process. On the other hand, erroneous or incomplete information can disrupt the doctor-patient relationship, reduce treatment adherence, and even compromise patient safety. **Method:** This research is quantitative and explanatory. Sampling used accidental sampling. The sample size was 85 students from the Faculty of Public Health at Halu Oleo University. **Result:** There is a positive and significant influence of the intensity of online health information searches on the decision to undergo treatment with an original sample value of 0.449 and a p-value of 0.000 <0.05. Motivations for seeking health information online have a positive and significant influence on the decision to undergo treatment with an original sample value of 0.139 and a p-value of 0.040 <0.05. And online health information sources used have a positive and significant influence on the decision to undergo treatment with an original sample value of 0.451 and a p-value of 0.000>0.05. **Conclusion:** The impact of online health information search behavior by students is the decision to seek treatment.

KEYWORD: Decision to undergo treatment**,** Intensity of online health information searches, Motivations for seeking health information online, online health information sources used.

INTRODUCTION

The digital era has fundamentally changed the way people access and obtain health information. Internet penetration continues to increase in Indonesia, reaching 77.02%, or approximately 215.63 million users, by 2023 (1), has opened up widespread access to various online health information sources. This digital transformation has not only changed the communications landscape but has also had a significant impact on people's health information-seeking behavior.

For this digital era, especially in the health sector, adequate technological assets are needed, including officers, applications, and infrastructure to ensure the sustainability of digital health services. (2)

Online health information-seeking behavior has complex implications for the healthcare system. On the one hand, easy access to information can improve public health literacy, encourage early disease detection, and enhance treatment adherence. Well-informed patients tend to be more active participants in medical decision-making with healthcare professionals, a process known as shared decision-making.

Although access to online health information is increasingly easy, research shows there are significant gaps in people's ability to evaluate the credibility and quality of information (3). The ability to critically sort and understand information does not always align with the abundance of information available online. Digital health literacy, which encompasses the ability to search for, understand, evaluate, and apply health information from digital sources, remains a significant challenge, particularly for low-educated groups, the elderly, and those in rural areas.

These behavioral changes have important implications for the effectiveness and efficiency of the healthcare system. On the one hand, informed patients can contribute positively to the treatment process. On the other hand, erroneous or incomplete information can disrupt the doctor-patient relationship, reduce treatment adherence, and even compromise patient safety.

Although young people actively seek out digital health information, the existing literature does not adequately capture their evolving behavior. Much research lacks detail on how specific platform features influence trust and ease of use. This review highlights the need for

more targeted research on platform design and informs how digital contexts influence online health search and decision-making (4).

While the phenomenon of online health information seeking has become an integral part of modern public health behavior, comprehensive research on its impact on medical decisions, particularly in the Indonesian context, remains limited. Most existing studies focus on partial aspects such as the prevalence of information seeking or the type of information sought, but few have examined the causal relationship between online health information seeking behavior and medical decisions.

METHOD

This type of research is quantitative and explanatory research, which attempts to explain existing phenomena. Explanatory research is a research method that aims to explain the position of the variables being studied and the influence between one variable and another (5). This research uses an analytical survey method. Analytical survey research can determine the extent of a factor's involvement in an event through correlation analysis (6). The variables and indicators studied are presented in the research model as follows:

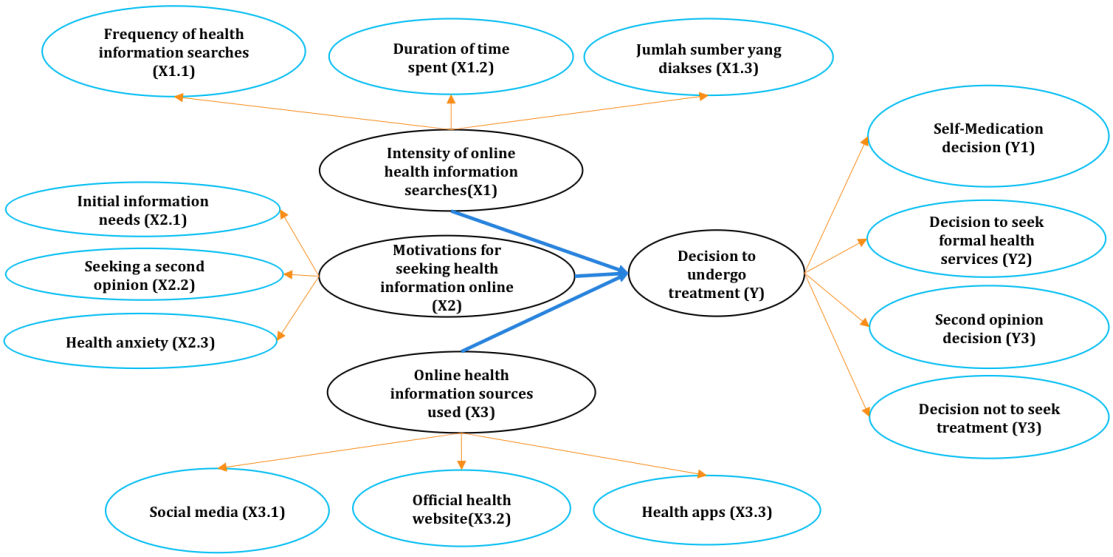

Figure 1. Research Model.

The sampling technique used was accidental sampling. The sample size was 83 final-semester students of the Faculty of Public Health, Halu Oleo University. The questionnaire was distributed using Google Forms. All incoming data was cleaned, and ineligible respondents were excluded. The inferential analysis used to prove the hypothesis in this study was SEM (Structural Equation Modeling) with the PLS (Partial Least Square) approach.

This study conducted two testing stages: outer model testing followed by inner model testing. The outer model test was conducted to determine the validity and reliability of the data used in the study. Convergent validity testing was conducted using the Average Variance Extracted (AVE) value or outer loading value, or both. The expected AVE value in the convergent validity test is greater than 0.7.

In the convergent validity test with outer loading, the expected value is greater than 0.7 in confirmatory research and greater than 0.5 in development research and can use a scale of 0.5 – 0.6 (7,8), where if there is an outer loading factor value that is smaller than 0.7 then it must be removed from the model (9,10).

After all variables and indicators meet the minimum test criteria, the next step is to test the inner model. The inner model test is used to examine the relationships between latent variables. Hypothesis testing involves testing the P-value, T-statistic, and original sample (7). The statistical application used is Smart-PLS.3.

RESULT

The target of this study was final-semester students who were more active in completing their education, particularly in writing their papers, and who used digital health consultation services. Of the 83 respondents, 75 (90.36%) were female, and the remaining 8 (9.64%) were male. Statistical analysis was then conducted using outer and inner model testing.

Outer Model

Validity Test

In the convergent validity test, the expected value for the outer loading is greater than 0.7. If the value is greater than 0.7, the indicator is declared valid. The results of the validity test are presented in the following figure:

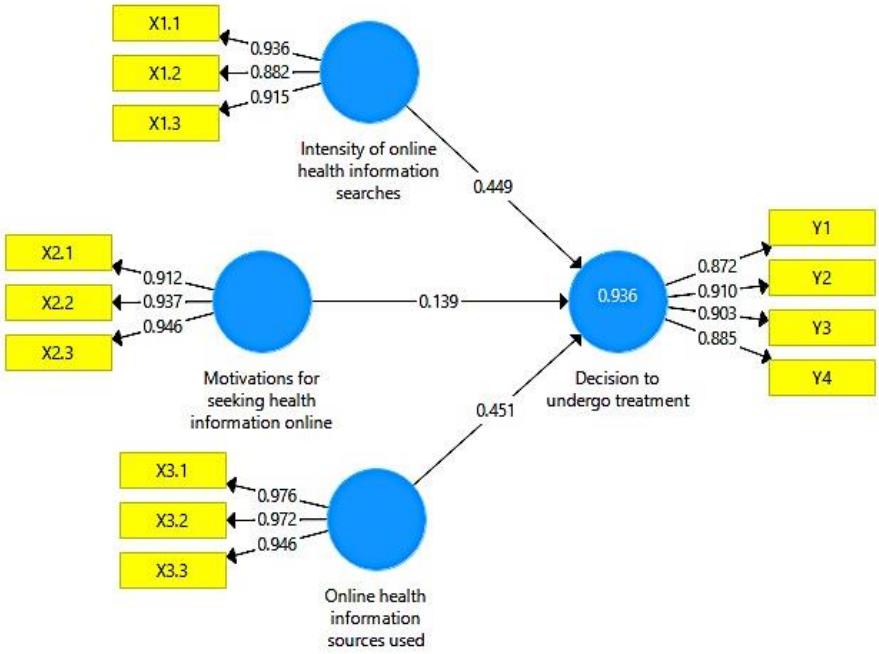

Figure 2. Outer Loading Indicator Value.

The image above shows that, based on the data analysis, the outer loading value for each indicator was obtained. All indicators had an outer loading value of more than 0.7, thus the indicators were declared valid.

Reliability Test

Next, a reliability test was carried out using Cronbach's alpha and composite reliability values, the results are presented in the following table:

Tabel 1. Reliability Test Results with Cronbach's Alpha and Composite Reliability Values.

Laten Variable	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Decision to undergo treatment	0,915	0,915	0,940	0,796
Intensity of online health information searches	0,898	0,906	0,936	0,830
Motivations for seeking health information online	0,924	0,924	0,952	0,868
Online health information sources used	0,963	0,965	0,976	0,931

The table above shows that all variables studied have Cronbach's alpha and composite reliability values of more than 0.7, so they are declared reliable.

Uji Inner Model

In the inner model test, a hypothesis test was conducted, including testing the Original Sample value, T-Statistic, and P-Value. The test results are presented in the following table:

Tabel 2. Original Sample Value, T-Statistic dan P-Value.

Influence between latent variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Intensity of online health information searches -> Decision to undergo treatment	0,449	0,455	0,059	7,576	**0,000**
Motivations for seeking health information online -> Decision to undergo treatment	0,139	0,135	0,067	2,084	**0,040**
Online health information sources used -> Decision to undergo treatment	0,451	0,449	0,062	7,296	**0,000**

The table above shows a positive and significant influence of the intensity of online health information searches on the decision to undergo treatment, with an original sample value of 0.449 and a p-value of 0.000 <0.05. Motivations for seeking health information online have a positive and significant influence on the decision to undergo treatment, with an original sample value of 0.139 and a p-value of 0.040 <0.05. And online health information sources used have a positive and significant influence on the decision to undergo treatment, with an original sample value of 0.451 and a p-value of 0.000>0.05.

DISCUSSION

The decision to seek medical treatment among college students is influenced by the intensity of online health information searches. The more frequently they search for health information, the more certain they are about their decision to seek medical treatment. The amount of time spent searching for health information online contributes to this decision. Furthermore, the number of sources accessed also contributes to the intensity of online information searches.

Another factor influencing students' decisions to seek medical treatment is their motivation to search for health information online. This motivation stems from the need for initial information about their health, or about past or current illnesses, and the need to verify a

doctor's diagnosis of their symptoms. Other motivators for seeking information include the need for a second opinion and health anxiety.

The decision to seek medical treatment among college students is also influenced by the online health resources they use. Social media is the most popular source, while websites and health apps are also sources of information, although not as frequently as social media.

Online health information-seeking behavior impacts outpatient service utilization both directly and indirectly through perceptions of online health information and significantly increases the frequency of clinic visits after controlling for other variables. Interventions can be explored to improve residents' healthcare utilization by improving their perceptions of online health information (11). Internet-protected communication devices can provide insights into how to use internet big data to better achieve disease surveillance and prevention goals (12).

Increasing patients' exposure to online health information through simple search approaches (i.e., matching strategies) and complex search approaches (i.e., elaboration strategies) may encourage them to use the information appropriately to consult with doctors and others (13).

CONCLUSION

The decision to seek medical treatment among college students is influenced by the intensity of online health information searches, the motivation for online health information searches, and the online health information sources used. Therefore, online health information-seeking behavior by college students impacts the decision to seek medical treatment. Future research should focus on the general public to understand the benefits of online health information searches for the community.

REFERENCES

1. ndonesian Internet Service Providers Association. Indonesian internet penetration survey. 2023.
2. Jumakil J, Syaifuddin DT, Jaya MG, Yuniar N. The Effect of Health Information Technology Assets on the Sustainability of Health Management Information Systems Usage Moderated by Strategy in Kendari City. Public Heal Indones [Internet]. 2024 Jun 25;10(2):118–32. Available from: https://stikbar.org/ycabpublisher/index.php/PHI/article/view/782

3. Nurhidayati, N., Rahmatullah, M.F., & Kholifah N. Analysis of digital health literacy of Indonesian society during the COVID-19 pandemic. J Komun Kesehat. 2022;13(1):45–57.
4. Stifjell K, Sandanger TM, Wien C. Exploring Online Health Information–Seeking Behavior Among Young Adults: Scoping Review. J Med Internet Res. 2025;27.
5. Sugiyono. Quantitative and Qualitative Research Methods dan R&D. Bandung: CV. Alfabeta; 2017.
6. Notoadmojo S. Health Research Methodology. Jakarta: Rineka Cipta; 2018.
7. Chin WW. The partial least squares approach to structural equation modeling. 1998.
8. Ghozali I, Latan H. Partial least square concepts, methods and applications using the WarpPLS 5.0 program. Semarang: Universitas Diponegoro; 2014.
9. Sarwono J, Narimawati U. Membuat skripsi, tesis, dan disertasi dengan partial least square sem (pls-sem). (. Yogyakarta: ANDI; 2015.
10. Fornell C, Larcker DF. Structural equation models with unobservable variables and measurement error: Algebra and statistics. 1981.
11. Li H, Li D, Zhai M, Lin L, Cao Z. Associations Among Online Health Information Seeking Behavior, Online Health Information Perception, and Health Service Utilization: Cross-Sectional Study. J Med Internet Res. 2025;27.
12. Li X, DPhil Tang K. The Effects of Online Health Information–Seeking Behavior on Sexually Transmitted Disease in China: Infodemiology Study of the Internet Search Queries. J Med Internet Res. 2023;25.
13. Chiu Y-L, Tsai C-C, Liang J-C. Laypeople's Online Health Information Search Strategies and Use for Health-Related Problems: Cross-sectional Survey. J Med Internet Res. 2022;29(9).