

Experiences of Non-Nursing College Students in Accessing Health Information Online

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ABSTRACT

Background: With the rapid growth of information and communication technology, the Internet has become a prevalent platform for seeking health information globally, with the Philippines ranking 10th in Internet usage. Hence, understanding the experiences of college students in accessing and evaluating such information is crucial. **Objective:** This study aimed to explore the lived experience of non-nursing college students with their health information-seeking behaviour and perceptions of source credibility on the internet. **Methods:** This study used a qualitative research design utilizing a phenomenological approach. Semi-structured interviews were used with sixteen (16) non-nursing participants through a purposive sampling technique. Colaizzi's method was employed for data analysis with the aid of *in vivo* software. **Results:** The following were the emergent themes: (1) experiences and behaviours related to seeking health information online; (2) challenges and preferences in seeking health information online; (3) the impact of online health information on healthcare decisions; and (4) the credibility of online health information sources. **Conclusion:** The study's findings highlight the convenience, accessibility, and cost-effectiveness of online platforms as significant factors driving the use of the Internet for health information among non-nursing college students. However, they face challenges like information overload, conflicting sources, accuracy concerns, technical language barriers, and the risks of self-diagnosis. Hence, the study emphasised the need to enhance information filtering, promote information literacy, ensure localised information, and improve accessibility and clarity.

Keywords: *Information-Seeking Behaviour; Internet Use; Qualitative Research; Students*

INTRODUCTION

With the dominance of information and communication technology, the use of the internet as a means for obtaining health information has emerged as a prevalent behaviour among individuals (Fernandes *et al.*, 2023). Among the five billion internet users in the world, the Philippines, with a total of 85.16 million internet users, ranks as the 10th highest in terms of internet user population globally (Statista, 2023). A staggering 80% of the country's population is engaging in online health information-seeking behaviour (Jia, Pang, & Liu, 2021). Given that Filipinos are connected to the internet for an average of 10 hours and 56 minutes per day, equating to 166 days per year, it is not surprising that the internet has become a crucial resource for acquiring information and making decisions (Licsi, n.d.). Its ability to revolutionize the world, provide individuals with valuable information, and transform patient-healthcare team relationships and communications cannot be overstated (Hsu, 2021). Such improvements have even changed the definition of healthcare, especially by making it more accessible to a wider range of people.

However, what appears to be an advantage also incurs considerable negative repercussions. In particular, the coronavirus disease (COVID-19) has accentuated the significance of precise and credible health information

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as well as exposed the serious threats posed by misinformation and disinformation, such as confusion and mistrust, to medical teams (Biswas & Sen, 2023; Vega *et al.*, 2023). Abdoh (2022) stated that during the peak of the outbreak, COVID-19 misinformation had been linked to increased public anxiety, underutilization of health services, and distrust of government communications. In some cases, it was also discovered to create tension among groups of people. On the other hand, Zakar *et al.* (2021) believe that the fast propagation of the virus resulted in a global “infodemic,” where both information and misinformation are being distributed at the same rate on the internet, making it more difficult for them to be distinguished. Unfortunately, considering their “reliance on technology,” Park and Kwon (2021) claim that students are particularly susceptible to the infodemic. As a result, it can affect their capacity to make timely decisions, make them perplexed, irritated, and upset, and increase their tendency to make low risk to serious mistakes, especially those that have direct implications for their health. It can be assumed that youth are among the most potential population groups who have excessive and easy exposure to the Internet, which sometimes leads to its irresponsible and hazardous use regarding acquiring health-related information (Khodabakhsh *et al.*, 2021).

Given the importance of the ability to evaluate accurate and reliable health information online in sustaining physical and emotional well-being, this research study found it imperative to explore the lived experience of non-nursing college students in terms of their health information-seeking behaviours and perceptions of source credibility on the internet. Non-nursing students were chosen as the participants of this study as the researchers assumed that their fields of study are not tailored to focus on medical subjects, making them susceptible to facing health risks. It is unclear how well these students are trained to evaluate the credibility of health information accessed on the internet, where they could encounter numerous medical jargons that they may find difficult to comprehend. There are plenty of quantitative studies regarding the online health-seeking behaviour of college students, but there are only limited qualitative studies exploring the phenomenon of the lived experience of non-medical college students in regard to their online health-seeking behaviour and perceptions of source credibility. Thus, this study can provide valuable insights into how non-medical college students maneuver their way through the internet, find meaning as to why they seek health information online, use these pieces of information for their health, identify potential threats connected with accessing health information online, and aid in creating solutions to mitigate such risks as well.

METHODOLOGY

This study employed a qualitative descriptive phenomenological design using face-to-face and online interviews to explore non-nursing college students' experiences seeking health information online and their perceptions of source credibility on the internet. This was conducted at one of the reputable universities in Iligan City, Philippines. Data were gathered using semi-structured interviews among sixteen (16) non-nursing participants determined using a purposive sampling technique. Inclusion criteria include being a bona fide student from first year to fourth year under the academic year 2022-2023, taking non-nursing courses, being active internet users who experience seeking health information online, and following what is written online. The data gathered from this research was collected and analysed using the seven steps of Colaizzi's (1978) phenomenological method. All these steps in the analysis were done with the help of qualitative data analysis software, NVivo Software. Emergent and cluster themes were then formed and generated, and subsequently consolidated through the inclusion of examples for verification. The reliability and credibility of the results were maintained by offering a detailed account of the phenomenon, conducting member checks, and keeping records.

Ethical Consideration

The research study was given ethical approval by the Ethics Committee of Iligan Institute of Technology, College of Health Sciences, Mindanao State University, Philippines, with reference number E-2023-12 on 16th March, 2023.

RESULTS

There were 10 male and 6 female participants selected based on the criteria set by the researchers. Their age ranged from 21 to 23 years old. They are non-nursing college students from a reputable institute in Iligan City, Philippines. Themes were formed through exploration of the interviews, with each theme illustrated by verbatim extracts. Four themes emerged from the data analysis and are discussed in the following section (Table 1).

Table 1: Summary of Themes

Themes	Subthemes	Paraphrased Examples
Experiences and Behaviors Related to Seeking Health Information Online	Convenience and Accessibility	<p><i>“The Internet changed my traditional information -seeking behaviors related to health because it is easy to access. And mostly you can find health information online, if you just search carefully, you can find it all over the Internet.”</i> [Participant 1]</p> <p><i>“With the internet, I can access health information from anywhere, at any time. I can use any device or search for any health information. It is more convenient and accessible now compared to before.”</i> [Participant 4]</p> <p><i>“Today that the internet can be easily accessed, I can immediately search for the health -related information that I need.”</i> [Participant 16]</p> <p><i>“I am keen on saving up money so rather than spending the money to get checked by a doctor for every health concern that I’m experiencing, I usually turn to the internet for health information.”</i> [Participant 10]</p> <p><i>“For me, getting medical checkups every time, I face a health issue is costly and stressful because it involves the process of booking for a schedule, having to spend money for fare, and paying for the doctor’s fee. Meanwhile, when I seek health information online, it helps me save expenses and it’s a convenient way to access quick information because the information is just a few clicks away.”</i> [Participant 11]</p>
	Information Seeking Behavior Change	<p><i>“It changed a lot in terms of taking home remedies because from my experiences home remedies were just passed down from my parents, from their parents, and to their parents. So, with the help of the internet, I can change or alter those remedies to become better remedies for a home remedy.”</i> [Participant 2]</p> <p><i>“It has changed my traditional information -seeking behaviors related to health drastically because if there is just one minor concern when it comes to my health, I would immediately search for it on the Internet without checking with any doctors available.”</i> [Participant 9]</p> <p><i>“In seeking health information, I used to tell my parents I have these kinds of symptoms and they would give me the answer but if they couldn’t give one, they would bring me to a doctor who would give the health information that we seek, but now, I just type into Google what symptom I am experiencing and go on with that health information.”</i> [Participant 10]</p>
	Skills in Searching for Health Information Online	<p><i>“I find it easy to search for information on the Internet. There are a lot of websites or sites that are reliable enough or believable enough to provide me with the right health information.”</i> [Participant 1]</p> <p><i>“It was hard as an experience because the Internet has different information and I have to filter out that information to fit into my experience apart from theirs.”</i> [Participant 2]</p> <p><i>“On the internet, it is easier and faster to search for information. Based on my experience, it is also reliable, especially when authorized sources are used.”</i> [Participant 4]</p>
Challenges and Preferences in Seeking Health Information Online	<p>Challenges in Searching for Health Information on the Internet</p> <p><i>“The challenge is looking for the right information. Because a lot of information from different doctors or different organizations conflicts with each other. The challenges that I face usually is where to look or what to look with the right information.”</i> [Participant 1]</p> <p><i>“One of my most notable challenges is that most of the results on the internet are primarily focused on scientific studies or remedies from other countries, particularly Western countries. Many of their remedies are not applicable or available here in the Philippines. Even their household remedies are not available to us.”</i> [Participant 3]</p> <p><i>“There are various articles that pops up and there are contradictory results sometimes when you read too many articles there are contradicting views and perspectives from different health professionals.”</i> [Participant 7]</p> <p><i>“Another challenge is the medical terms that I am not familiar with that are so confusing.”</i> [Participant 8]</p>	

	<p>Preferences for Seeking Health Information on the Internet</p> <p>Types of Health Information Sought on the Internet</p>	<p><i>“When I search for health information online, it's usually free. In contrast, consulting doctors or professionals can be costly.” [Participant 4]</i></p> <p><i>“For me, I can save money through seeking health information on the internet because there is no need to pay for a doctor’s consultation fee.” Participant 1]</i></p> <p><i>“For me, it is due to privacy. Some people, like me, feel embarrassed or uncomfortable, especially when discussing personal matters with doctors or other people. So, I prefer seeking health information online.” [Participant 4]</i></p> <p><i>“Usually, I search for sickness with a set of symptoms and then I type the symptoms I usually feel, and then their causes, and then their remedies/cure.” [Participant 9]</i></p> <p><i>“The type of information I usually seek on the internet is about what are the common reasons why I am feeling sick or what causes these kinds of symptoms I am experiencing, or information about certain injuries.” [Participant 13]</i></p> <p><i>“Mostly, home remedies and mental health care.” [Participant 16]</i></p>
Impact of Online Health Information on Healthcare Decisions	<p>Reliance on Online Health Information</p>	<p><i>“It’s very convenient to know those symptoms or how to make simple remedies because they are easily accessible on the internet.” [Participant 2]</i></p> <p><i>“Well, it's very helpful because I find the Internet very useful, and giving me enough information when I search for health information. It gives me an opportunity or an avenue to have access to health information rather than going to a hospital or doctor.” [Participant 7]</i></p> <p><i>“Online health information gives me so much knowledge and broader understanding on my health issues and this helped me to make more informed decisions in dealing with my health and weighing various factors in making such decisions.” [Participant 8]</i></p>
	<p>Comparison with Doctors or Health Professionals</p>	<p><i>“Well, there is indeed a significant difference in terms of diagnosis. They are professionals after all, and they are more accurate in diagnosing you compared to diagnosing yourself.” [Participant 6]</i></p> <p><i>“Lately, I realized that the health information on the internet is not very reliable because I cannot understand and trust some of it. I just realized that it is different compared to health professionals or the health information that comes directly from doctors because they can explain to me face to face what I am feeling and give me the right treatment.” [Participant 13]</i></p> <p><i>“Of course, it's much easier now with the internet and it's free too. You don't have to spend money to book a schedule and travel to go to the doctor because you can just search online for the health information you're looking for.” [Participant 12]</i></p>
	<p>Application of Online Health Information</p>	<p><i>“I apply the health information I find on the internet. The positive effect is that I try to take preventive measures to avoid worsening my condition. The positive aspect is that it can benefit my health by providing knowledge about preventive measures and healthier lifestyle practices.” [Participant 3]</i></p> <p><i>“Well, for one instance when I have a stomachache, I just search on the internet how to deal with a stomachache. But when the pain is too much to endure, I go to the doctor or health professionals.” [Participant 2]</i></p> <p><i>“Yes, I apply the health information I find on the internet. And this increases my awareness and knowledge about my health, and it improves my healthcare decisions.” [Participant 8]</i></p>
<p>Credibility of Online Health Information Sources</p>	<p>Evaluation of Credibility</p>	<p><i>“Somewhat trustworthy because there are websites in which you can comment on it, from the health information itself. People can easily say or comment that the health information is not true, or people can say that the information is true and if it worked for them or not, so you can't be sure which is factual or not.” [Participant 10]</i></p>

		<p><i>"I can evaluate the credibility by doing a lot of research. Like comparing sources from other sources. If they do tell the same things or suggest the same things that's when I can say that this kind of sources in online is credible enough for me to believe in these things."</i> [Participant 1]</p> <p><i>"For me, it will be more credible if the source where I get my health information is affiliated to a known organization, and if it is verified by a licensed medical professional."</i> [Participant 16]</p> <p><i>"My main sources for health information are Google, government websites, and reputable non-profit organizations."</i> [Participant 3]</p> <p><i>"I get my health information in multiple online platforms, first, browser internet search, which is one of the most common and very accessible, second, government websites, this is where I usually first go to when I search for health-related information because you can be sure that it provides you accurate and true information about health third, websites of nonprofit organizations sometimes they are very helpful their articles are more like very lengthy but at the same time, very detailed."</i> [Participant 7]</p>
	<p>Internet's Influence on Credibility Perception</p>	<p><i>"The Internet influenced my perception of credibility when it comes to having information sources. It influenced me sometimes negatively because there are also doctors that have their propaganda like, previously doctors got in jail because they did things not approved by the government. But overall credibility, my perception of credibility when it comes to information sources is positive and it influenced, and the internet influences this kind of credibility because I can, they are sources credible enough or the internet."</i> [Participant 1]</p> <p><i>The things they write are being backed or being supported by research also, where you can also see on the internet."</i> [Participant 1]</p> <p><i>"It affects me a lot, the Internet affects me a lot of my perceptions of credibility when it comes to health information sources, it's because we are talking about health. It is because we are talking about health. We must be careful of everything we read online, we need to justify and balance out how it is helpful to us or how it is not because we cannot just apply what we read but also understand what we are reading, if it is reliable and help us in reality so that's why we need to be careful and responsible users when we search health-related information online."</i> [Participant 7]</p>

Theme 1: Experiences and Behaviors Related to Seeking Health Information Online

Most of the participants have varied experiences seeking health information online. Participants emphasised the ease of accessing health information online and the benefits it provides. Participants also find online searching to be more efficient and convenient. They appreciated that online searches allow them to quickly find relevant information, and they trusted the accuracy and credibility of reputable websites.

Sub-theme: Convenience and Accessibility

Participants viewed online health-seeking as a cost-saving measure. They appreciated that online resources are often available for free, allowing them to gather health information without incurring expenses associated with medical consultations or purchasing printed materials. They perceived online health information as a cost-effective alternative.

Sub-theme: Information-Seeking Behaviour Change

This sub-theme highlights the shift in participants' behaviour from traditional methods of seeking health information to relying more on online searching. Participants described a change in their information-seeking habits and a preference for online platforms and search engines. They recognised the convenience, speed, and comprehensiveness of online searches, which have led to a change in their approach to gathering health information.

Sub-theme: Skills in Searching for Health Information Online

This sub-theme explores participants' experiences and perceptions when searching for health information online. Some find it easy, while others have some difficulty searching for information. They expressed the desire for tools or strategies to help them find reliable and trustworthy information amidst the vast array of options.

Theme 2: Challenges and Preferences in Seeking Health Information Online

Participants delve into their challenges and preferences when searching for health information online. Localization of health information was a challenge as many resources focused on Western countries, making it hard for participants from other regions to access relevant information. Online information was also seen as cost-effective compared to consulting healthcare professionals. They were also interested in finding self-care solutions for minor health issues or everyday concerns.

Sub-theme: Challenges in Searching for Health Information on the Internet

The issue of finding relevant and localized health information is one of the challenges. The participant mentioned the challenge of finding health information that is applicable and available locally in the Philippines. It emphasises the importance of ensuring information availability in diverse geographical contexts.

In addition, the participants discussed the challenge of determining the accuracy and reliability of health information found on the internet. They expressed the need to verify the credibility of sources and ensure that the information they access is trustworthy. Moreover, the participants expressed challenges in understanding health information online due to the use of medical terminology or technical language. This highlights the need for health information to be presented in a clear and accessible manner, avoiding jargon that may hinder understanding.

Sub-theme: Preferences for Seeking Health Information on the Internet

They appreciated the ability to search for information anytime and anywhere without the need for appointments or physical visits to healthcare professionals. The participants also desired to avoid the discomfort or embarrassment associated with discussing sensitive health topics in person. They prefer seeking health information online because it allows them to maintain privacy and anonymity. They felt more comfortable exploring sensitive topics online, where they could access information discreetly.

Sub-theme: Types of Health Information Sought on the Internet

Participants seek health information related to common ailments, symptoms, home remedies, and general health tips. They are interested in finding self-care solutions for minor health issues or everyday concerns. In addition, some of them search for information on specific health conditions, illnesses, or injuries. They seek knowledge about symptoms, treatments, and management strategies related to those conditions.

Theme 3: Impact of Online Health Information on Healthcare Decisions

This theme focuses on the impact of online health information on the healthcare decisions of the participants. It encompasses various sub-themes that shed light on specific impacts on health care decisions encountered.

Sub-theme: Reliance on Online Health Information

Participants expressed that accessing online health information empowers them to make informed decisions about their health. They feel more in control of their health outcomes by gathering information and remedies online. The participants appreciate the autonomy and control over their health outcomes that online information provides. They believe that having access to a wealth of health information puts them in control of their health outcomes, allowing them to actively participate in their own healthcare decisions.

Sub-theme: Comparison with Doctors or Health Professionals

Some participants value the comprehensive and personalized care they receive from professionals, emphasizing the expertise, diagnostic accuracy, and tailored treatment recommendations that professionals provide. They believe that the expertise of doctors and healthcare professionals cannot be fully replaced by online sources. On the other hand, some participants consider online health information to be a more accessible and cost-effective alternative to seeking professional medical advice, especially in non-emergency situations.

Sub-theme: Application of Online Health Information

Some participants adopt self-management strategies and preventive measures based on the information they find online. They actively engage in monitoring their health, following lifestyle changes, or implementing remedies recommended by online sources. They perceive online health information as empowering, allowing them to take control of their health outcomes. However, some participants exercise caution when applying online health information. They recognize the limitations and potential risks associated with relying solely on online sources, and they selectively apply the information based on their judgement and in consultation with healthcare professionals when necessary.

Theme 4: Credibility of Online Health Information Sources

This theme focuses on how the participants evaluate the credibility of the online health information sources research to assess the accuracy and reliability of the information.

Sub-theme: Evaluation of Credibility

Participants express varying levels of trust in online health information, emphasising the importance of verifying and filtering the information they come across. They recognise that not all information found online can be fully trusted and acknowledge the presence of false or misleading information. The participants employed different strategies for source evaluation, such as considering the source's authority, expertise, and reputation, as well as comparing information from multiple sources.

Sub-theme: The Internet's Influence on Credibility Perception

This sub-theme explores the participants' perceptions of how the internet influences their perception of credibility regarding health information. The sub-theme highlights mixed perceptions, where participants acknowledge both positive and negative aspects of the internet's influence on credibility perception.

Based on the responses of the participants, it is clear that the internet has changed their perception of credibility when it comes to information sources, particularly health information. Overall, these individuals acknowledge that the internet has a significant influence on their perception of the credibility of health information sources. While they recognise the importance of caution and critical thinking, they also value the opportunity that the internet provides to obtain credible information and increase their awareness of trustworthy sources.

DISCUSSION

Research has indicated that non-medical college students commonly rely on the internet for health information due to its easy access. A study by Hassan and Masoud (2020) explored the online health information-seeking behaviour of non-medical college students and found that they often turn to online sources for quick and convenient access to information. In a more recent study by Adegbilero-Iwari, Oluwadare, and Adegbilero-Iwari (2023) among non-medical students, results revealed that sex, the college where the students belong, and having chronic illness were among the factors associated with online health-seeking behavior. The importance of online information for academic, personal, and health reasons among college students was emphasised in the study of Chalochiwawa, Chipeta, and Phiri (2024).

The study highlighted the accessibility of the internet as a significant factor in shaping their health information-seeking behaviors. Online health information-seeking behaviour is heavily influenced by

convenience, perceived usefulness, anonymity, and varied information (Wu & Zhang, 2022; Gunasekara, Fernando, & Karunarathne, 2022). The result of the study is no different from the result among older adult users; however, they require technology and social support to enhance the benefit of seeking health information online (Ma *et al.*, 2023). Similarly, Tegegne *et al.* (2022) and Fernandes *et al.* (2023) have found that owning a computer, having internet access, and being literate in using a computer were significantly associated with health information-seeking intention.

The results of the study showed that participants encountered various challenges when searching for health information online. The most notable challenge experienced by the participants is the unavailability of resources in the local setting; however, the rest of the identified challenges aligned with previous studies. Non-medical college students have shown a clear shift from traditional information-seeking methods to online searching. Individuals who use the internet regularly tend to look for health information online, which can be individual-related or source-related (Zhao, Zhao, & Song, 2022). The type of health information sought online is like that of Zhao, Zhao, and Song (2022), wherein most older adults searched for general ideas and treatments for mental health conditions, physical illnesses, chronic diseases, and cancers. In the study of Bach *et al.* (2024), the most common searches among 18-to-35-year-old respondents were related to pregnancy, contraception methods, nutrition, exercise, and self-care. Moreover, the study by Wong and Cheung (2019) stated that symptoms, medication, and treatment are also frequently searched topics. According to Jokic-Begic *et al.* (2019), individuals familiar with Internet search methods easily filter out useful information based on the purpose of the search and the source of the data. On the other hand, individuals who lack familiarity with these techniques can get easily sidetracked by irrelevant information, which impairs their judgements' accuracy and usefulness. Furthermore, individuals who are exposed to a large amount of online health information and are unable to critique and make good use of this information may suffer negative effects, which can lead to feelings of anxiety.

The study's results on the impact of searching for health information online support those of Jamiu *et al.* (2023), wherein participants expressed that accessing online health information empowers them to make informed decisions about their health, and those of Mayukh (2024), wherein university students can critically evaluate health information online, thus avoiding being overly anxious about their health. The result is also comparable to the previous studies of Abdoh (2022) among undergraduate students and of Gharegouzloei, Zare, and Heidari (2022) among women regarding the use of social media, including YouTube and search engines, as among the preferred sources of health information. In addition, government health sources, doctors' websites, and news from television were found to be trustworthy sources of information online (Htay *et al.*, 2022; Covolo *et al.*, 2022). Among patients in Malaysia (Lim *et al.*, 2021) and university students in Croatia (Pavlovic, Zuric, & Kolaric., 2023), higher trust is given to healthcare providers and experts in the field compared to websites and social media. In Germany, specialised health websites such as those of medical doctors, hospitals, and nursing services were the most popular sources of health information (Bachl *et al.*, 2024).

Moreover, the result of the study aligns with the findings of a study by Barnwell, Fedorenko and Contrada (2021), which found that those who read the article with conflicting information were more confused, leading to confusion and difficulty in determining trustworthy sources. Furthermore, it was found that university students have trouble determining credible and accurate sources of health information online (Dissen, Qadiri, & Middleton, 2021). With this information, increasing the individual's digital health literacy is important to positively impact self-care behaviour (Soroya, Rehman, & Faiola, 2023). However, participants encountered conflicting and inconsistent information on the internet, making it challenging to determine reliable sources. This challenge highlights the importance of promoting trustworthy information sources and providing guidance on evaluating the credibility of online health information.

Limitations

This study presents potential limitations. The results are applicable only among the non-nursing students within the locale of the study and cannot be generalized to the broader population group. With the limited number of participants, not all non-nursing courses were represented. Therefore, further studies must take into

account a larger and more diverse sample size that includes students from various non-nursing disciplines to enhance the generalizability of the findings.

CONCLUSION

In this phenomenological study, the lived experience of non-nursing college students in seeking health information online heavily relies on the experience of convenience, accessibility, and cost-effectiveness as significant factors driving the use of the internet for health information. However, caution is needed in evaluating the reliability and accuracy of the information found online to avoid misinformation and anxiety. Hence, the study emphasised the need to enhance information filtering, promote information literacy, ensure localized information, improve accessibility and clarity, and promote responsible information-seeking behaviors. By integrating the findings of this qualitative research study with the existing literature, stakeholders such as policymakers, healthcare professionals, and educators can develop targeted interventions and educational programmes to enhance students' health information-seeking experiences, improve their critical evaluation skills, and promote the use of reliable sources in their decision-making processes. For future studies, it is recommended to widen the scope of participants with unique cases of online health-seeking behaviour from various universities and conduct comparative studies among students taking medical-related and non-medical-related courses.

Conflict of Interest

The authors declare that they have no competing interests.

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