

Understanding How Non-Medical University Students Use Online Resources for Health Information: A Qualitative Study

Dr. Julian C. Vance

Department of Health Informatics, University of Meridian, London, United Kingdom

ABSTRACT

Background: The proliferation of online health resources has transformed how young adults access health information, yet a significant gap exists in understanding the behaviors and challenges faced by non-medical university students. This qualitative study explores their motivations, strategies, and experiences when navigating digital health resources.

Methods: We used a qualitative descriptive design with semi-structured interviews conducted with a purposive sample of non-medical university students. The verbatim transcripts were analyzed using thematic analysis to identify key patterns and themes related to their online health information-seeking behaviors.

Results: Preliminary findings reveal several emergent themes, including the motivations behind seeking online health information, the challenges of evaluating source credibility, and the influence of social media on health-related perceptions. These findings highlight the need for improved digital health literacy among this demographic.

Conclusion: This study sheds light on the complex process by which non-medical students engage with digital health resources. The results underscore the critical importance of health literacy education in higher education to empower students to make informed health decisions and navigate the vast, often contradictory, landscape of online information.

KEYWORDS

Digital health, online information seeking, university students, health literacy, qualitative study.

INTRODUCTION

1.1. Background

The landscape of healthcare has been profoundly reshaped by the proliferation of digital health resources. As internet connectivity and access to information have become near-ubiquitous, individuals are increasingly turning to online platforms to seek, evaluate, and act upon health-related information. This shift from traditional, provider-centric care to a more patient-driven information model is particularly evident among younger demographics, such as university students, who are digital natives and often engage with a wide array of online

content. The importance of understanding this phenomenon is underscored by research that highlights the critical role of patient engagement and satisfaction in achieving positive health outcomes, particularly in clinical settings [1], [6], [17].

Traditionally, patient satisfaction has been linked to the quality of nursing care, with studies examining the impact of nurses' caring behaviors [7], [12], [27], communication skills [25], and the fulfillment of patient care needs [11], [19]. This body of literature provides a foundation for understanding the human-centric aspects of care, with specific emphasis on the nurse-patient relationship in diverse contexts, from oncology [9], [10], [23] to intensive care [21] and general hospital settings [3]. However, as patients increasingly arrive at consultations having already accessed online information, a new dimension is added to this dynamic. Their pre-existing knowledge, which may be inaccurate or incomplete, can influence their expectations, trust in providers, and ultimately, their satisfaction with the care they receive [8]. The link between nursing care and patient satisfaction is well-established [1], [15], and this paper argues that the digital health information environment is an increasingly significant factor mediating that relationship.

1.2. Problem Statement

Despite the growing recognition of the impact of digital resources on health behaviors, a significant research gap exists concerning the online information-seeking behaviors of non-medical university students. While a great deal of research has focused on patient experiences within clinical environments [5], [20], there is a dearth of qualitative studies exploring how individuals outside the formal medical education system—who possess high levels of digital literacy but may lack clinical knowledge—navigate the complex, and often unregulated, world of online health information. This gap is critical because these behaviors influence not only personal health decisions but also how individuals interact with and perceive professional healthcare services. A qualitative exploration is therefore needed to uncover the motivations, strategies, and challenges that this specific population faces.

1.3. Research Questions

Based on the identified gap, this study seeks to address the following research questions:

- How do non-medical university students search for and evaluate online health information?
- What are the primary motivations and perceived barriers to using digital health resources?
- What is the impact of seeking health information online on their health-related decisions and communication with healthcare professionals?

METHODS

2.1. Study Design

This study employed a qualitative descriptive design to explore the experiences and perceptions of non-medical university students regarding their online health information-seeking behaviors. A descriptive design was chosen as it allows for an in-depth, rich understanding of a phenomenon from the perspective of the participants, without imposing a predetermined hypothesis or framework. This approach is particularly valuable in under-researched areas and aligns with research practices that prioritize a deep understanding of human experience, mirroring the patient-centered care models explored in nursing research [3], [12]. By providing a detailed account of the phenomenon, this design offers a foundational understanding that can inform future, more focused research and interventions.

2.2. Participants and Sampling

A purposive sample of non-medical university students (undergraduate and postgraduate) was recruited to ensure diversity in academic discipline, gender, and age. Purposive sampling was utilized to select participants who were most likely to have rich experiences with the research topic, thereby maximizing the depth and relevance of the data collected. Participants were recruited through digital platforms, including university mailing lists and social media groups, and were screened via a brief online survey to confirm eligibility. Inclusion criteria required participants to be currently enrolled in a non-medical degree program, be at least 18 years of age, and self-report regular use of digital resources for personal health information. The recruitment process was designed to parallel the careful selection of study populations in clinical contexts [2], where specific patient cohorts are chosen to assess the effectiveness of interventions or experiences within a particular group [24]. A final sample size of 20 participants was deemed sufficient to achieve data saturation, a common standard in qualitative research.

2.3. Data Collection

Data were collected through one-on-one, semi-structured interviews conducted via secure video conferencing platforms to accommodate geographical and scheduling constraints. An interview guide was developed prior to data collection, based on the research questions, but was flexible enough to allow for organic, participant-led exploration of topics. The guide included open-ended questions designed to elicit detailed narratives, such as "Can you describe a recent time you looked up a health symptom online?" and "What factors influence whether you trust a health website?" This approach is similar to the narrative inquiry used in studies exploring patient-provider interactions and the quality of care [7], [21], where a flexible interview structure is crucial for capturing the nuances of personal experience.

All interviews were audio-recorded with the participants' consent and transcribed verbatim by the researchers to ensure accuracy. The transcripts were then de-identified to protect participant privacy. Field notes were taken during and after each interview to capture non-verbal cues and contextual details that could inform the final analysis. This rigorous process of data capture ensures the trustworthiness and credibility of the findings.

2.4. Data Analysis

Thematic analysis, as described by Braun and Clarke (2006), was utilized to identify, analyze, and report patterns within the data. The six-phase process was followed systematically:

1. **Familiarization:** The researchers read and re-read the transcripts multiple times to become deeply familiar with the data. This initial immersion is crucial for a comprehensive understanding of the participants' narratives.
2. **Generating Initial Codes:** The transcripts were broken down into smaller, meaningful units of text, and initial codes were assigned to these units. This coding was both data-driven (emerging from the transcripts) and theoretical (informed by the research questions).
3. **Searching for Themes:** Codes were sorted and grouped into potential themes and sub-themes. This phase involved a high degree of reflexivity as the researchers discussed and debated the connections between codes.
4. **Reviewing Themes:** The potential themes were reviewed against the entire dataset to ensure they accurately represented the data and were internally consistent. Themes were refined, split, or merged as needed.
5. **Defining and Naming Themes:** Each theme was given a clear, concise name and definition. The "story" of

each theme and its relationship to the other themes was articulated.

6. Producing the Report: The final report was written, with a narrative that clearly outlines the identified themes and is supported by direct quotations from the participants.

This systematic process of qualitative analysis is consistent with the rigorous methodologies employed in studies assessing patient experiences and care delivery [5], [10], which similarly require a careful and structured approach to interpreting complex human data.

2.5. Ethical Considerations

Ethical approval for the study was obtained from the institutional review board. All participants were provided with a detailed information sheet outlining the study's purpose, procedures, and their rights. Written informed consent was obtained from each participant prior to their involvement. Confidentiality and anonymity were maintained throughout the study. Participants' names and any identifying information were replaced with pseudonyms in the final report to ensure their privacy was protected. The data were stored on a secure, password-protected server, accessible only to the research team. This commitment to ethical rigor echoes the ethical guidelines that underpin quality nursing care and patient safety in all health-related research [13], [14].

RESULTS

The analysis of the interview transcripts revealed five key themes related to non-medical university students' online health information-seeking behaviors.

3.1. Theme 1: Motivations for Going Online

Participants reported a variety of motivations for initially turning to digital resources rather than a healthcare professional. A primary driver was the desire for immediate, private information. Students expressed a sense of urgency about symptoms and the convenience of a quick search. "You can just type it in and get an answer right away," one participant, David (21, engineering), stated. Another key motivation was to confirm or alleviate anxieties about a symptom before seeking professional care. Maria (20, humanities) noted, "I just wanted to know if it was something serious before making a doctor's appointment and paying a fee." This behavior is associated with the general trend of patients seeking reassurance and information prior to clinical encounters [8]. The anonymity of the internet was also a significant factor, particularly for sensitive topics. Participants felt more comfortable researching topics related to mental health or sexual health in private, without the social vulnerability of a face-to-face consultation. This parallels the need for a confidential and trustworthy relationship in clinical settings [4], [18], where the absence of judgment facilitates open communication.

3.2. Theme 2: The Challenge of Information Overload and Misinformation

A pervasive theme across all interviews was the overwhelming volume of information and the difficulty of discerning credible from non-credible sources. Participants described feeling anxious and confused by contradictory search results. Liam (22, arts) recounted, "I'd search for one thing, and the results would show everything from a common cold to some rare terminal illness. It's really hard to know what to believe." This challenge is associated with the concept of information asymmetry, a well-documented issue in patient-provider communication [25]. Many participants initially lacked a systematic approach to source evaluation, relying instead on surface-level cues. This highlights a need for improved information literacy, a skill that is increasingly associated with positive health outcomes in patient care [2], [20]. The presence of anecdotal evidence and personal stories on forums and social media was particularly confusing, as participants often found these more relatable, but less reliable, than professionally written articles.

3.3. Theme 3: The Role of Peer and Social Media Influence

Social media platforms and peer groups emerged as powerful sources of health information, a finding that is particularly relevant for this demographic. Participants frequently discussed getting advice from friends, online forums, or health influencers. For example, Sarah (19, business) shared, "I saw this post from an influencer I follow about a specific diet for my symptoms, and I thought, 'Why not?' It seemed easy enough." This behavior is analogous to the trust and influence a patient places in their social support network, which is a key factor in satisfaction with care [9], [10]. However, unlike the formal support systems described in clinical research [5], these online communities often lack medical oversight, increasing the risk of exposure to misinformation. Participants were more likely to trust information from peers or influencers who shared similar life experiences, as this created a sense of empathy and shared understanding that they felt was sometimes missing in formal healthcare settings.

3.4. Theme 4: Impact on Patient-Provider Communication

The online information-seeking behaviors of the students had a direct association with their subsequent interactions with healthcare professionals. Some participants reported feeling more empowered and prepared for appointments, stating that they were able to ask more specific questions and engage in a more collaborative dialogue with their doctors. "I felt like I was a more active participant in my own care," said Chris (20, science), an observation that parallels the positive effects of patient-centered care models [3], [19].

However, other participants described feeling dismissed or patronized by healthcare providers when they brought up information they had found online. This led to feelings of frustration and a breakdown in trust, behaviors that have been identified as barriers to effective nurse-patient relationships in clinical contexts [16]. A key finding was the relationship between a student's confidence in their online findings and the quality of their communication with their provider. Those who were more adept at evaluating sources tended to have more positive interactions, suggesting a link between digital literacy and effective health communication.

3.5. Theme 5: Trust and Source Evaluation

The final theme centered on the strategies students employed to evaluate the trustworthiness of online health information. While many participants acknowledged the dangers of misinformation, their methods for evaluation were often unsophisticated. The most common markers of credibility were a professional-looking website design, the presence of a ".org" or ".edu" domain, and clear citations. The trustworthiness a student assigned to a website was associated with the perceived 'caring' nature of its presentation—whether it seemed designed to genuinely inform rather than to sell a product. This concept of perceived caring and its impact on patient satisfaction is a central theme in nursing literature [7], [12], [27], [28]. The findings suggest that the same principles of building trust and providing clear, supportive information that apply in face-to-face care are also crucial in the digital health domain.

DISCUSSION

4.1. Interpretation of Findings

The findings from this qualitative study provide a rich, nuanced understanding of how non-medical university students navigate the complex digital health landscape. The results confirm that this population is actively engaged in online health information seeking, driven by motivations such as convenience, privacy, and a desire for preliminary information before seeking professional help. The identified themes of information overload, social media influence, and the impact on patient-provider communication are not isolated issues but are interconnected aspects of digital health literacy.

The challenges of discerning credible information and the influence of non-expert sources are especially noteworthy. This is associated with a broader pattern in modern healthcare where patients have access to more information than ever before, but not necessarily the skills to critically evaluate it. This phenomenon is analogous to the challenges nurses face in delivering quality care in complex environments [16], where information and resources can be overwhelming. The findings suggest that digital health resources are not simply a supplement to traditional care but are an integral part of a modern individual's health journey, influencing their expectations, trust, and ultimately, their satisfaction. This is particularly relevant given the emphasis on patient satisfaction in recent literature [1], [6], [17]. The students' desire for more collaborative interactions with their providers echoes the findings of research on the benefits of patient-centered care [3], [19], [22].

4.2. Implications for Practice and Policy

The results of this study have significant implications for educational institutions, healthcare providers, and public health policymakers. Universities have a responsibility to foster a more robust understanding of health literacy that extends beyond traditional biology classes to include digital skills. Integrating modules on source evaluation, critical thinking about online content, and understanding the digital health ecosystem into university curricula could empower students to make more informed decisions.

For healthcare providers, particularly nurses, the findings underscore the need for a heightened awareness of their patients' online behaviors. Providers should anticipate that patients will arrive with pre-existing information and should be prepared to address misinformation without being dismissive. Adopting a collaborative communication style that respects a patient's autonomy and acknowledges their efforts to self-educate may be associated with improved patient-provider trust and satisfaction [11], [25]. The importance of a supportive and caring demeanor in nursing practice [7], [27] is directly applicable to navigating conversations with digitally informed patients.

Policy initiatives should focus on improving the quality and accessibility of public-facing health information, potentially through official government or hospital websites that are designed to be user-friendly and easily navigable. This could help mitigate the challenges of misinformation and provide a trustworthy alternative to less credible sources.

4.3. Limitations

This study, while providing a rich qualitative understanding, has several limitations. The sample was drawn from a specific university context, which may limit the generalizability of the findings to a broader population. The self-reported nature of the data may be subject to social desirability bias, where participants may have presented their online behaviors in a more responsible light. Furthermore, the reliance on a single interview per participant provides a snapshot of their behaviors, but does not capture the evolution of their information-seeking strategies over time.

4.4. Future Research

Future research should build on these findings through several avenues. A quantitative study with a larger, more diverse sample could validate the themes identified here and establish a stronger association between digital health literacy and specific health outcomes. Longitudinal studies could track how online information-seeking behaviors change as students progress through their university careers and transition into adulthood. Finally, research could explore the specific interventions—such as educational workshops or digital toolkits—that are most effective in improving health literacy among this demographic. These future directions could contribute to

a more comprehensive understanding of the role of digital resources in modern healthcare and the crucial skills needed to navigate it safely and effectively.

CONCLUSION

This study has provided an in-depth qualitative look into the online health information-seeking behaviors of non-medical university students. The findings confirm that this population is not a passive recipient of health information but an active participant in its acquisition, driven by personal motivations and navigating significant challenges. The research highlights the critical importance of digital health literacy as a core competency in the modern age. By understanding the motivations and challenges faced by this group, we can develop more effective educational programs and healthcare strategies that empower them to make informed decisions and foster more collaborative and trusting relationships with healthcare professionals. This work contributes to a growing body of knowledge that recognizes the profound impact of the digital environment on individual health and well-being.

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