



Systematic Review Article

## Digital Health Literacy and Health Information-Seeking Behaviour Among Young Adults: a systematic review

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### ABSTRACT

**Background:** Digital health literacy has become an essential determinant of health behaviour in the modern era, particularly among young adults who increasingly depend on digital platforms for accessing health information. The rapid expansion of internet usage, along with the growing influence of social media, has transformed traditional health information-seeking patterns. However, variability in the ability to critically appraise and utilize online health information raises important public health concerns.

**Objective:** This narrative review aims to explore the level of digital health literacy and patterns of health information-seeking behaviour among young adults, identify key determinants influencing these behaviours, and assess their impact on health outcomes and healthcare utilization.

**Methodology:** A narrative review approach was adopted, involving a comprehensive search of electronic databases including PubMed, Google Scholar, Scopus, and Web of Science for studies published between 2010 and 2025. Relevant literature focusing on young adults and digital health literacy was included. Studies were screened based on predefined inclusion and exclusion criteria, and data were extracted and synthesized into thematic domains such as literacy levels, sources of information, determinants, behavioural patterns, health outcomes, and challenges.

**Results:** The review found that a majority of young adults (approximately 70%–85%) rely on digital platforms as their primary source of health information. While access to digital resources is high, the level of critical evaluation skills remains inconsistent. Factors such as education, socioeconomic status, and digital access significantly influence digital health literacy. Higher literacy levels were associated with improved preventive health behaviours and appropriate healthcare utilization. However, exposure to misinformation was reported in nearly 40%–60% of individuals, particularly during the COVID-19, highlighting a significant gap between information access and its effective use.

**Conclusion:** Digital health literacy plays a pivotal role in shaping health behaviour and outcomes among young adults. Despite widespread access to digital information, challenges related to misinformation and limited critical appraisal skills persist. Strengthening digital health literacy through targeted public health interventions and integration into health education programs is essential to improve health decision-making and support digital health initiatives.

**Keywords:** Digital health literacy; eHealth literacy; Health information-seeking behaviour; Young adults; Misinformation; Social media; Public health.

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### INTRODUCTION

Digital health literacy has emerged as a critical determinant of health outcomes in the modern era, particularly among young adults who are increasingly reliant on digital platforms for accessing health-related information. Digital health literacy refers to the ability to seek, understand, evaluate, and apply health information obtained from electronic sources to make appropriate health decisions. With the rapid expansion of internet access and smartphone usage, health

information-seeking behaviour has shifted significantly from traditional sources to digital media, including websites, mobile applications, and social networking platforms [1].

Globally, the penetration of digital technologies has transformed healthcare communication and delivery systems. The proliferation of online health resources has empowered individuals to take an active role in managing their health; however, it has also introduced challenges related to the quality, reliability, and interpretation of available information. Young adults, being digital natives, are among the most frequent users of online health resources, yet their ability to critically appraise such information varies widely [2]. This variability in digital health literacy can influence health behaviours, adherence to medical advice, and overall health outcomes.

The COVID-19 further accelerated the use of digital platforms for health communication, telemedicine, and public health messaging. During this period, individuals increasingly relied on digital media for updates, preventive measures, and treatment-related information. While digital platforms facilitated rapid dissemination of information, they also contributed to the spread of misinformation and infodemics, posing significant challenges to public health efforts [3]. This highlights the importance of strengthening digital health literacy to enable individuals to distinguish credible information from misleading content.

In the Indian context, the rapid growth of internet users and government initiatives promoting digital health have significantly influenced health information-seeking patterns. Programs such as Ayushman Bharat Digital Mission aim to create an integrated digital health ecosystem, thereby increasing accessibility and utilization of health services through digital means [4]. However, disparities in education, socioeconomic status, and digital skills continue to affect the equitable distribution of digital health literacy across different population groups.

Studies have shown that young adults frequently use search engines, social media, and online forums as primary sources of health information, often without verifying the authenticity of the content. This behaviour may lead to self-diagnosis, delayed healthcare seeking, or inappropriate treatment practices [5]. Furthermore, the influence of peer-shared information and non-expert opinions on social media platforms can significantly shape health perceptions and behaviours among this age group.

From a public health perspective, enhancing digital health literacy is essential for improving health outcomes, promoting preventive practices, and ensuring effective utilization of healthcare services. It also plays a crucial role in achieving broader health system goals, including universal health coverage and patient-centered care. Strengthening digital competencies among young adults can contribute to better engagement with healthcare systems and improved decision-making capabilities [6].

Given the increasing reliance on digital platforms and the associated challenges, there is a need to comprehensively understand the patterns, determinants, and implications of digital health literacy and health information-seeking behaviour among young adults. This narrative review aims to synthesize existing evidence to provide insights into current trends, identify gaps, and inform strategies for improving digital health literacy in this population [7].

This narrative review aims to comprehensively explore digital health literacy and health information-seeking behaviour among young adults, with a focus on understanding how digital platforms influence health awareness, decision-making, and utilization of healthcare services. The objectives are to assess the level and patterns of digital health literacy, to examine common sources and behaviours related to online health information seeking, to identify determinants such as education, socioeconomic status, and digital access influencing these behaviours, and to analyze the impact of digital health literacy on health outcomes, including preventive practices, self-medication, and healthcare utilization. Furthermore, the review seeks to identify challenges such as misinformation, variable content quality, and disparities in digital access, and to highlight strategies for improving digital health literacy through public health interventions. The justification for this study lies in the rapid digitalization of healthcare, especially following the COVID-19, which has significantly increased reliance on online health information among young adults. Despite this shift, gaps persist in the ability to critically evaluate and appropriately use digital health information, leading to potential adverse health behaviours. Understanding these aspects is essential from a Community Medicine perspective to design targeted health education, strengthen digital health interventions, and support national initiatives such as Ayushman Bharat Digital Mission aimed at improving digital health access and equity.

## **METHODOLOGY**

This narrative review was conducted to synthesize existing literature on digital health literacy and health information-seeking behaviour among young adults using a structured yet flexible approach appropriate for narrative reviews. A comprehensive literature search was carried out across multiple electronic databases, including PubMed, Google Scholar, Scopus, and Web of Science, to identify relevant studies published between 2010 and 2025. Additional sources such as reports from international organizations like the World Health Organization and national policy documents were also reviewed to ensure contextual relevance. Keywords used for the search included combinations of “digital health literacy,” “eHealth literacy,” “health information-seeking behaviour,” “young adults,” “internet use,” and “social media health information.” Boolean operators (AND, OR) were applied to refine the search strategy.

Studies were included if they focused on young adults (generally aged 18–35 years), addressed digital or eHealth literacy, or examined patterns of online health information-seeking behaviour. Both qualitative and quantitative studies, as well as review articles, cross-sectional studies, and relevant reports, were considered to provide a comprehensive overview. Studies not available in English, those focusing exclusively on older populations or children, and articles lacking sufficient methodological clarity were excluded. Titles and abstracts of identified articles were screened for relevance, followed by full-text review of selected studies.

Data from the included literature were extracted and organized into thematic domains such as level of digital health literacy, sources of health information, determinants influencing behaviour, impact on health outcomes, and challenges including misinformation. A narrative synthesis approach was adopted, wherein findings from different studies were critically analyzed, compared, and integrated to highlight common patterns, variations, and research gaps. No formal meta-analysis or statistical pooling was performed, as the objective was to provide a descriptive and interpretative overview of the topic.

Quality appraisal of selected studies was performed informally by considering study design, sample size, methodological rigor, and relevance to the review objectives. Efforts were made to include diverse geographical settings, with particular emphasis on studies from India and other low- and middle-income countries to enhance applicability in a Community Medicine context. The findings are presented in a thematic manner to facilitate understanding of key concepts and to support public health implications and future research directions.

The study protocol outlines a structured approach for conducting a narrative review, beginning with topic identification and objective formulation, followed by a comprehensive literature search using multiple databases and predefined keywords. Relevant studies were screened, assessed for eligibility, and selected based on inclusion and exclusion criteria. Extracted data were organized into thematic domains, and findings were synthesized narratively to derive meaningful conclusions and public health implications.



### Theme 1: Concept and Components of Digital Health Literacy

Digital health literacy is a multidimensional construct that extends beyond basic reading ability to include skills such as information searching, critical appraisal, and application of digital health information in decision-making. It encompasses domains like traditional literacy, computer literacy, media literacy, and scientific literacy. Studies have emphasized that

young adults often possess high functional digital skills but may lack critical evaluation abilities, leading to challenges in distinguishing credible sources from unreliable ones. This gap between access and effective utilization highlights the need for strengthening higher-order cognitive skills within digital health literacy frameworks [8].

### **Theme 2: Patterns of Health Information-Seeking Behaviour Among Young Adults**

Young adults increasingly rely on digital platforms such as search engines, social media, and online forums as their primary sources of health information. The convenience, anonymity, and rapid accessibility of online resources have significantly influenced their health-seeking patterns. However, this behaviour is often characterized by superficial searching, preference for easily understandable content, and reliance on peer-shared information rather than expert-reviewed sources. Such trends may lead to incomplete understanding, misinterpretation, and inappropriate health decisions, especially in the absence of professional guidance [9,10].

### **Theme 3: Determinants Influencing Digital Health Literacy**

Multiple factors influence digital health literacy among young adults, including educational level, socioeconomic status, digital access, and prior exposure to health education. Individuals with higher education and better socioeconomic conditions tend to demonstrate improved ability to navigate and interpret digital health information. Conversely, digital divide issues—such as limited internet access, lack of digital skills, and language barriers—can significantly hinder effective information use. Cultural beliefs and social influences also play a crucial role in shaping health information-seeking behaviour and acceptance of digital health content [11].

### **Theme 4: Impact of Digital Health Literacy on Health Behaviour and Outcomes**

Digital health literacy has a direct impact on health-related behaviours, including preventive practices, treatment adherence, and healthcare utilization. Higher levels of digital health literacy are associated with better understanding of disease prevention, increased participation in screening programs, and improved engagement with healthcare services. In contrast, inadequate digital literacy can lead to self-medication, delayed healthcare seeking, and increased vulnerability to misinformation. Thus, digital health literacy is increasingly recognized as a key determinant of individual and community health outcomes [12,13].

### **Theme 5: Challenges of Misinformation and the Role of Public Health Interventions**

One of the major challenges associated with digital health information is the widespread presence of misinformation and unverified content. Social media platforms, in particular, facilitate rapid dissemination of misleading or false health information, which can adversely affect public health behaviours. Addressing this issue requires targeted public health interventions, including digital health education, promotion of credible sources, and integration of digital literacy into health promotion programs. Strengthening community awareness and developing critical appraisal skills among young adults are essential strategies to mitigate the negative impact of misinformation [14].

## **RESULTS**

This narrative review demonstrates that digital health literacy among young adults is moderate to variable, with significant disparities based on education, socioeconomic status, and access to digital resources. A large proportion of young adults rely on online platforms such as search engines and social media as their primary source of health information, with reported usage ranging from approximately 70% to 85% across studies. Despite high accessibility, the ability to critically evaluate and apply health information remains limited in many individuals. Determinants such as higher educational attainment and urban residence were associated with better digital health literacy levels. Furthermore, higher digital health literacy was positively associated with improved preventive health behaviours, appropriate healthcare utilization, and better health decision-making. However, a substantial proportion of individuals were found to be exposed to misinformation, with nearly 40%–60% encountering inaccurate or misleading health content, especially during the COVID-19. Overall, the findings highlight a gap between access to information and its appropriate utilization.

## **DISCUSSION**

The present narrative review highlights that digital health literacy among young adults is variable, with a noticeable gap between accessibility of digital resources and the ability to critically evaluate health information. Several studies have reported that while internet penetration and smartphone usage are high in this age group, only a proportion demonstrate adequate functional and critical digital health literacy. For instance, studies conducted in university settings have shown moderate levels of eHealth literacy scores, with a significant proportion of participants relying on superficial understanding rather than in-depth appraisal of information quality [15]. This suggests that mere exposure to digital platforms does not necessarily translate into informed health decision-making.

With regard to health information-seeking behaviour, the findings indicate that search engines and social media platforms are the most commonly used sources among young adults. Data from multiple cross-sectional studies reveal that more than 70–85% of young adults prefer online sources as their first point of reference for health-related queries, while a smaller proportion consult healthcare professionals initially [16]. This pattern reflects a shift toward self-directed learning; however, it also increases the risk of misinformation exposure. Studies comparing online versus professional consultation have demonstrated that individuals relying predominantly on digital sources are more likely to engage in self-medication and delay formal healthcare seeking [17].

The determinants of digital health literacy identified in this review are consistent with existing literature, with education, socioeconomic status, and digital access emerging as key influencing factors. Quantitative data indicate that individuals with higher educational attainment show significantly better eHealth literacy scores ( $p < 0.05$ ), whereas those from lower socioeconomic backgrounds demonstrate limited ability to navigate and interpret digital content [18]. Additionally, urban populations tend to have better access and utilization compared to rural counterparts, highlighting the persistent digital divide. These disparities have important implications for equitable healthcare delivery and digital health interventions.

The impact of digital health literacy on health behaviour is evident from studies demonstrating its association with preventive practices and healthcare utilization. Higher literacy levels are positively correlated with improved health-promoting behaviours such as vaccination uptake, healthy lifestyle adoption, and timely medical consultation. In contrast, inadequate digital literacy has been linked with poor adherence to treatment, increased reliance on unverified remedies, and inappropriate health practices. Some studies have quantified this relationship, showing that individuals with higher digital literacy scores are significantly more likely to engage in preventive health behaviours (Odds Ratio ranging from 1.5 to 2.3) [19].

A critical concern identified across studies is the widespread prevalence of misinformation on digital platforms. Evidence suggests that a substantial proportion of young adults are unable to distinguish between credible and non-credible sources, particularly on social media. During the COVID-19, misinformation related to prevention and treatment was widely circulated, influencing public perceptions and behaviours. Studies have reported that nearly 40–60% of respondents encountered misleading health information online, with a significant number acting upon it without verification [20]. This underscores the urgent need for targeted interventions focusing on digital health education, promotion of reliable sources, and integration of digital literacy into public health strategies.

Overall, the findings of this review emphasize that while digital platforms have enhanced access to health information, the variability in digital health literacy among young adults poses both opportunities and challenges. Strengthening digital competencies, addressing socioeconomic disparities, and implementing structured health education interventions are essential to maximize the benefits of digital health resources and minimize potential risks.

## CONCLUSION

- Digital health literacy is a crucial determinant of health behaviour and outcomes among young adults.
- Although access to digital health information is high, critical appraisal skills remain inadequate in a significant proportion.
- Online platforms have become the primary source of health information, influencing health-seeking behaviour and decision-making.
- Higher digital health literacy is associated with better preventive practices and appropriate healthcare utilization.
- Misinformation remains a major public health concern, affecting the reliability of health information accessed digitally.
- Strengthening digital health literacy is essential for improving individual and community health outcomes and supporting digital health initiatives such as Ayushman Bharat Digital Mission.

## LIMITATIONS OF THE STUDY

- Being a narrative review, the study lacks a systematic approach and may be subject to selection bias.
- No quantitative meta-analysis was performed to establish pooled estimates.
- Variability in study designs, populations, and measurement tools across included studies may affect comparability.
- Most studies included were cross-sectional, limiting causal inference.
- Limited availability of region-specific (especially Gujarat-based) data may affect local generalizability.
- Potential publication bias, as only published literature in English was included.

## RECOMMENDATIONS

- Digital health literacy should be incorporated into health education programs at school and college levels.
- Structured training programs should be developed for young adults to improve critical appraisal of online health information.
- Public health authorities should promote verified digital platforms and credible sources of health information.
- Integration of digital literacy components into national programs like National Health Mission can enhance outreach and effectiveness.
- Awareness campaigns should be conducted to address misinformation and improve responsible use of digital media.
- Further research, including longitudinal and interventional studies, is recommended to assess causal relationships and effectiveness of digital health literacy interventions.

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