

STUDENTS' PERCEPTION AND INTERPRETATION OF HEALTH INFORMATION: THE ROLE OF DIGITAL MEDIA AND SOCIETY

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Abstract

This study examined the impact of digital media and social factors on the health information behaviors of senior high school students in Bangkok, Thailand. Using in-depth interviews with 32 students from diverse educational backgrounds, the research identified their commonly used health information sources and explored their criteria for credibility evaluation, interpretation processes, experiences with conflicting content, and the influences that shape their health-related decisions. The findings indicated that social media platforms, such as TikTok, YouTube, and Instagram, were the primary sources of health information due to their accessibility and visual appeal. However, students faced challenges related to misinformation, inconsistent advice, and limited skills in assessing credibility. Demographic factors, including age, type of school, and location, affected these behaviors. Older students and those studying in urban and private schools demonstrated stronger digital health literacy. Family and peer influences also played a significant role in shaping students' understanding and actions regarding health content. These results underscore the importance of incorporating critical evaluation and media literacy skills into school-based digital health programs. Collaboration among educators, health professionals, and digital platforms is crucial for helping adolescents navigate online health information responsibly. The study also contributes to the global sustainability agenda by supporting the United Nations Sustainable Development Goals (SDGs), particularly SDG 3 (Good Health and Well-being) and SDG 4 (Quality Education), highlighting the role of digital health literacy in promoting equitable health and learning opportunities for young people in the digital age.

Keywords: Adolescents' Digital Health Literacy; Credibility Evaluation; Health Decision-Making; Health Information Sources; Interpretation of Health Content

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Introduction

In the digital age, senior high school students are increasingly dependent on online platforms as their primary sources of health information. Social media, video-sharing applications, and health-related websites offer rapid access to a wide range of content, from general wellness advice to specialized medical knowledge. While this accessibility enables adolescents to seek information independently, it also exposes them to significant challenges such as misinformation, conflicting recommendations, and difficulty in judging the credibility of online sources. These challenges underscore the importance of health literacy, particularly during adolescence, when individuals begin making autonomous decisions about their health and lifestyle (Nutbeam, 2008; Sørensen *et al.*, 2012).

According to Nutbeam's Health Literacy Framework, health literacy involves the ability to locate, comprehend, critically evaluate, and apply health-related information to make informed decisions (Nutbeam, 2008). For high school students, digital health literacy is especially vital in navigating complex topics, including mental well-being, nutrition, physical activity, and disease prevention, all of which shape future health outcomes (Levin-Zamir and Bertschi, 2018). The fast-changing and media-saturated online environment demands both technical and critical skills. Social and cultural factors, such as family expectations, peer influence, and societal norms, further affect how adolescents interpret and respond to health information (Chassiakos *et al.*, 2016).

In Thailand, senior high school students represent a crucial demographic for public health interventions. Their information behaviors not only affect their present well-being but also lay the foundation for long-term health habits. Despite global attention to digital health literacy, research on Thai adolescents remains limited, particularly regarding how socio-cultural factors interact with digital environments to influence their perceptions and decision-making (World Health Organization, 2019). This lack of evidence indicates a clear research gap: few studies have examined how Thai youths interpret online health content and assess credibility in contexts shaped by cultural values, family dynamics, and educational diversity.

Beyond the national perspective, this study addresses global priorities outlined in the United Nations Sustainable Development Goals (SDGs), which emphasize the interconnectedness of health, education, equality, and institutional trust. Strengthening adolescents' digital health literacy

directly supports SDG 3 (Good Health and Well-being) by encouraging informed health behaviors and preventive care. It also advances SDG 4 (Quality Education) by integrating media and health literacy into learning systems. Furthermore, observed gender-based differences in health information preferences relate to SDG 5 (Gender Equality), while identifying disparities in access between urban and suburban schools addresses the goals of SDG 10 (Reduced Inequalities). Tackling misinformation and promoting reliable information ecosystems connect with SDG 16 (Peace, Justice, and Strong Institutions), and promoting collaboration between educators, policymakers, health professionals, and digital platforms contributes to SDG 17 (Partnerships for the Goals; United Nations, 2015).

This study focuses on senior high school students in Bangkok and examines how digital and cultural dynamics intersect to influence their health information behavior. Unlike most previous research on digital health literacy, which has primarily focused on Western populations, this study investigates the distinct role of social media platforms, such as TikTok, YouTube, and Instagram, in shaping Thai adolescents' understanding of health-related content. It also investigates how family norms, peer relationships, and societal expectations guide their interpretations and health-related decisions.

Guided by Nutbeam's Health Literacy Framework, this research explores the sources students use for health information, the strategies they apply to assess credibility, and the impact of digital media and social influences on their interpretations and actions. The findings aim to fill the existing knowledge gap and inform the design of culturally relevant digital health literacy programs that empower adolescents to make well-informed decisions in the digital era.

Materials and Methods

Study Design and Setting

This study adopted a qualitative research design aimed at exploring how senior high school students perceive, interpret, and respond to health information in digital environments. The qualitative approach was chosen to capture the depth and diversity of students' experiences and social contexts that cannot be represented through quantitative methods. The study was conducted in Bangkok, Thailand, an urban area with varied socio-

economic and educational backgrounds, providing a suitable setting for understanding adolescents' digital health behaviors within a diverse metropolitan context.

Target Population and Sampling

The target population consisted of senior high school students from both public and private schools in Bangkok. Purposive sampling was used to recruit participants who had prior experience in seeking or engaging with health information through digital media. A total of 32 students were included to ensure diversity across school types (public and private), school locations (urban and suburban), and demographic characteristics, such as age and gender. This sampling strategy was selected to gather a wide range of perspectives relevant to the study's objectives and to enhance representativeness within the qualitative constraints.

Sample Size Determination

The sample size was determined based on the principle of data saturation, a fundamental criterion in qualitative research. Data collection continued until no new themes or insights emerged from the interviews, which occurred at 32 participants. This approach ensured both adequacy and depth of qualitative data for robust thematic analysis.

Data Collection Procedures

Data were collected between May and August 2025 through semi-structured, in-depth interviews conducted either face-to-face or via secure online platforms, depending on the participant's preference. Each interview lasted approximately 45-60 min and was audio-recorded after obtaining informed consent from all participants and their legal guardians.

A semi-structured interview guide, developed from an extensive literature review, was designed to explore five key domains:

1. Commonly used sources of health information
2. Criteria for evaluating credibility
3. Processes of interpreting health information
4. Experiences with conflicting or contradictory content
5. Social and cultural influences on health-related decision-making

Before the main data collection commenced, the interview guide was pilot-tested with three students to ensure clarity, cultural appropriateness, and contextual relevance. Minor revisions were made based on feedback to improve understanding and flow.

Research Instruments and Rigor

The primary research instrument was the semi-structured interview guide. To enhance methodological rigor, triangulation was employed through the analysis of supplementary content from online health-related materials frequently accessed by adolescents. Multiple strategies were used to strengthen the trustworthiness of the findings:

- Pre-testing of interview questions to confirm clarity and suitability.
- The use of NVivo software for systematic data coding, thematic categorization, and visualization of emerging themes.
- The application of investigator triangulation, whereby multiple researchers independently reviewed and cross-checked the coding to minimize interpretive bias.
- Maintenance of detailed audit trails and analytic memos to ensure transparency, confirmability, and reproducibility throughout the analytical process.

Reflexivity Statement

The research team consisted of experienced health communication researchers and graduate students trained in qualitative analysis. None of the researchers had prior relationships with the participants or their schools. To minimize bias, the researchers maintained a neutral stance during interviews and reflected on their own assumptions about adolescents' media use through ongoing peer debriefing sessions. Analytical notes were used to document potential preconceptions and to ensure that interpretations were grounded in participants' perspectives rather than researchers' expectations.

Data Analysis

The data were analyzed using thematic analysis based on Braun and Clarke's (2006) six-phase framework: (1) familiarization with data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the final report. NVivo software facilitated systematic coding, theme development, and data visualization. A supplementary document analysis of digital health content provided contextual depth and cross-validation of emergent themes.

To ensure analytical rigor, the research team conducted peer debriefing sessions throughout the coding and theme refinement stages. Although complete member checking was not implemented, selected thematic summaries were shared

informally with multiple participants to confirm interpretive accuracy. Investigator triangulation and the use of analytic memos further enhanced credibility and transparency during the analytical process.

Ethical Considerations

This study complied with the ethical principles outlined in the Declaration of Helsinki. Ethical approval was obtained from the Institutional Review Board of Shinawatra University, Thailand (Approval No.: SE 090/2025), and written informed consent was obtained prior to participation. Confidentiality and anonymity were strictly maintained through the anonymization of transcripts and secure data storage. Participation was entirely voluntary, and students could withdraw at any stage without consequences.

Methodological Limitations

The study was limited to students in Bangkok, which may restrict the generalizability of findings to other regions of Thailand. Nevertheless, the qualitative approach provided in-depth insights into how digital media and socio-cultural contexts influence adolescents' engagement with health information, offering a strong foundation for future mixed-methods or nationwide studies.

Results and Discussion

Demographic Characteristics

A total of 32 senior high school students from Bangkok participated in the study. The majority (62.5%) were female, while males accounted for

37.5%. Participants were aged between 15 and 18 years, with most students aged 16 to 17 (75.0%). Regarding grade levels, Grade 6 students represented the largest group (59.4%), followed by Grade 5 (28.1%) and Grade 4 (12.5%).

Participants came from both public (56.3%) and private (43.8%) schools, as well as from urban (37.5%) and suburban (62.5%) areas. This distribution ensured a diverse sample in terms of differences in socio-economic background, school setting, and access to digital media. The diversity of participants also provided a strong foundation for analyzing how demographic factors shape information-seeking patterns, credibility evaluation, and interpretation processes among adolescents in Bangkok.

The demographic characteristics of the study participants, including gender, age, grade level, school type, and location, are summarized in Table 1.

Health Information Sources Frequently Used by Students

Social media platforms such as TikTok, YouTube, Instagram, and Facebook were the most frequently used sources of health information. These platforms were valued for their accessibility, visual presentation, and algorithm-driven personalization, which made health-related content easily discoverable. Students appreciated how short video formats and visual storytelling helped simplify complex health topics. Female students were more inclined to explore skincare and diet-related content, while male students focused on fitness and sports performance.

Table 1. Demographic Characteristics of Study Participants

Category	Frequency	Percent (%)	Std. Deviation
Gender			
Male	12	37.50	0.49187
Female	20	62.50	
Age (Years)			
15 years	4	12.50	0.87471
16 years	9	28.10	
17 years	15	46.90	
18 years	4	12.50	
Grade Level			
Grade 4	4	12.50	0.71772
Grade 5	9	28.10	
Grade 6	19	59.40	
School Area			
Urban	12	37.50	0.49187
Suburban	20	62.50	
Type of School			
Public	18	56.30	0.50402
Private	14	43.80	

Note: n = 32 students. Percentages are rounded to two decimal places. The data represent frequencies and percentages of participants by gender, age, grade level, school area, and school type. Standard deviation values are calculated for each category where applicable.

Students from private and urban schools tended to prefer visually rich and fast-paced platforms, such as TikTok and Instagram, whereas students from public and suburban schools favored Facebook and YouTube due to their familiarity and ease of access. In addition to these platforms, some students reported visiting hospital websites, Healthline, and local forums, such as Pantip, when seeking reliable information, particularly for sensitive or medically specific topics. Grade 6 students were more likely to consult official or institutional websites, whereas younger students preferred informal blogs and peer-generated content.

Traditional printed magazines and school-based health programs were seldom used. Students perceived them as outdated and less responsive to their interests. The move toward self-directed digital exploration reflects adolescents' growing autonomy in seeking health information. This pattern aligns with earlier studies showing that adolescents prefer brief, visually engaging digital formats (Chassiakos *et al.*, 2016; Levin-Zamir and Bertschi, 2018) and reflects the global trend toward social media as a dominant source of health information.

From a sustainability perspective, these findings are pertinent to SDG 3 (Good Health and Well-being) and SDG 4 (Quality Education), which emphasize empowering adolescents to access and evaluate credible health information. The use of the Thai-specific Pantip website highlights how local digital culture shapes information-seeking behaviors, underscoring the need for context-sensitive interventions (United Nations, 2015).

Criteria for Evaluating Credibility

Students used a combination of cues to judge credibility, including the professional identity of the source, presentation quality, and the inclusion of evidence. Posts associated with experts such as doctors or nurses were perceived as more trustworthy, especially when shared by institutions like the World Health Organization or the Thai Ministry of Public Health. Private and urban school students exhibited a stronger preference for international sources, while public and suburban students tended to trust national or local organizations.

Older students demonstrated higher critical awareness, valuing evidence-based materials that included graphs, infographics, or citations. Younger students relied more on popularity indicators such as likes, shares, and follower counts. These patterns reveal apparent differences in digital literacy and evaluative strategies among subgroups of adolescents.

This finding is consistent with previous research by Taba *et al.* (2022), which emphasized the relevance of media literacy in adolescents' interactions with online health information. In the present study, students with greater access to high-quality education, particularly in private schools, reported higher confidence in evaluating the credibility of information.

The findings of this study can inform efforts to achieve SDG 3, SDG 4, and SDG 16 (Peace, Justice and Strong Institutions). Enhancing credibility assessment supports health protection, educational advancement, and institutional transparency by fostering informed decision-making among young people (United Nations, 2015).

Interpretation Process of Health Information

Participants reported employing various strategies to interpret and verify online health information. Many students checked information across multiple websites before accepting it as accurate. Urban students were more likely to use digital verification tools, whereas suburban students preferred discussing questionable content with family members or peers. For instance, some participants mentioned consulting their parents when they were uncertain, reflecting the enduring role of family as a source of trusted advice in Thai culture.

Students with higher levels of digital literacy and critical reasoning were more likely to question biases, check multiple perspectives, and seek scientific evidence. Conversely, students with lower media literacy tended to rely on social validation and emotional appeal. Pre-existing beliefs also influenced interpretation; for example, students favoring natural or traditional remedies were more inclined to trust herbal information than modern medical guidance.

These findings align with the cognitive development literature, which suggests that adolescents develop an increasing capacity for abstract reasoning and critical evaluation with age (Levin-Zamir and Bertschi, 2018). The perceived need for cross-verification and critical thinking in digital environments is directly related to SDG 3, as it can help foster informed health behavior, and to SDG 4 by reinforcing digital and media literacy. The variation between urban and suburban students is relevant to SDG 10 (Reduced Inequalities), as it illustrates uneven access to technology and quality health information (United Nations, 2015).

Experiences with Conflicting Health Information

Conflicting messages about diet, exercise, and skincare were among the most frequently reported

challenges by participants. Students described feeling confused or uncertain when exposed to contradictory information from different influencers or platforms. Many admitted that they tended to trust influencers they followed regularly, even when their content lacked scientific references.

This behavior mirrors global trends. Recent studies have shown that exposure to contradictory or conflicting health information can lead to cognitive dissonance, reduced trust in expert sources, and a tendency to rely on non-professional figures. Deroover (2023) demonstrated that conflicting health messages often lead to decision paralysis and skepticism regarding scientific credibility, while Liu and Chen (2024) found that such exposure triggers information avoidance and erodes confidence in expert communication. These findings align with the current study's observation that Thai adolescents tend to trust familiar influencers over institutional sources when faced with contradictory health advice. Similarly, Livingstone and Helsper (2007) observed that adolescents in the United Kingdom often find online influencers more relatable than institutional communicators. The findings from Bangkok confirm this pattern but also highlight

a cultural nuance: when uncertainty arises, Thai students tend to seek clarification from parents or teachers rather than disengaging completely, demonstrating the persistent value of family guidance in Thai society.

To address misinformation, collaboration between government health agencies and credible digital influencers could serve as an effective communication strategy. This approach would align with SDG 3, SDG 16, and SDG 17 (Partnerships for the Goals) and would help to ensure that accurate, youth-centered health messages are widely disseminated through channels adolescents already trust (United Nations, 2015).

Factors Influencing Health Decision-Making

Adolescents' health-related decisions were shaped by multiple social and cultural influences. Gender played a notable role: female students were more engaged in beauty and diet-related topics, while males focused on physical fitness and sports performance. Differences were also evident across school type and location. Students from private and urban schools accessed a wider variety of platforms and content, whereas those from public and

Table 2. Mapping of Research Objectives to Key Findings

Research Objectives	Key Findings (with Thematic Insights and SDG Linkages)
1. To examine the sources of health information accessed by senior high school students and the role of digital media	Social media platforms, such as TikTok, YouTube, and Instagram, were the primary sources of health information because of their accessibility and engaging visual format. Thai students also used local forums such as Pantip and official hospital websites for verification. Traditional sources such as printed materials and school programs were rarely used. These findings inform efforts to address SDG 3 (Good Health and Well-being) and SDG 4 (Quality Education), emphasizing the importance of equipping adolescents with the skills to navigate diverse digital platforms responsibly.
2. To analyze the criteria and strategies used by students to evaluate the credibility of health information	Students assessed credibility based on professional identity (e.g., WHO, Ministry of Public Health), scientific evidence, and presentation quality. Private and urban school students were more likely to trust international sources, while public and suburban students preferred national or familiar ones. Age also influenced evaluation: older students prioritized evidence-based content, while younger students relied on popularity indicators such as likes or shares. These findings can support SDG 4 and SDG 16 (Peace, Justice and Strong Institutions), stressing the need for trustworthy information ecosystems and critical media evaluation skills.
3. To investigate the interpretative processes applied by students when engaging with online health information	Students commonly cross-verified information by consulting multiple websites or discussing with parents and peers. Those in urban schools demonstrated higher digital literacy and critical reflection, while suburban students relied more on interpersonal discussion. Individual belief systems also influenced interpretation, such as preference for natural remedies or skepticism toward pharmaceuticals. These findings are relevant to SDG 3 and SDG 10 (Reduced Inequalities), highlighting disparities in digital access and literacy between urban and suburban learners.
4. To explore students' experiences in managing and responding to conflicting or contradictory health information	Adolescents frequently faced contradictory advice, especially about dieting, skincare, and fitness. Common reactions included confusion, distrust, disengagement, or reliance on family guidance. Many students preferred influencers they followed regularly, even without scientific backing. This pattern is important for achieving SDG 3 and SDG 17 (Partnerships for the Goals), underlining the need for collaboration between public health agencies and digital content creators to counter misinformation.
5. To identify social and cultural factors that shape health-related decisions in the context of digital media	Family and peer influences strongly shaped students' health-related decisions. Female students prioritized skincare and nutrition, while males focused on fitness and performance. Private school and urban students accessed a wider range of platforms and content types, while public school and suburban students relied on familiar and accessible sources. These patterns reflect cultural norms and social expectations in Thailand, making them relevant to SDG 5 (Gender Equality) and SDG 10 (Reduced Inequalities) by emphasizing the need for inclusive digital health literacy strategies that consider gender and socio-economic diversity.

suburban schools relied on familiar ones such as Facebook and YouTube.

Older students displayed stronger critical evaluation skills and a greater preference for evidence-based content, while younger students were more influenced by visually appealing or trend-driven information. These patterns are consistent with Bandura's Social Cognitive Theory (Bandura, 1986), which emphasizes that social interactions and environmental reinforcement shape learning and behavior.

In Thailand's collectivist cultural context, family guidance and peer influence continue to be significant determinants of health decisions. Family discussions reinforce health-related norms, while peers motivate one another to engage in popular fitness and lifestyle trends. Promoting positive peer influence and family-supported communication would align with SDG 3 (Good Health and Well-being) and SDG 5 (Gender Equality) could be supported by encouraging equitable participation and shared responsibility for health outcomes. Moreover, addressing structural disparities in digital access supports SDG 10 (Reduced Inequalities; United Nations, 2015).

The alignment between the research objectives and the key thematic findings is presented in Table 2.

Global and Local Dynamics in Adolescent Digital Health Literacy

The behavioral patterns observed among Thai adolescents reflect global trends in digital health engagement. Worldwide, social media platforms such as TikTok and Instagram dominate youth information ecosystems, offering rapid, entertaining content that blurs the boundaries between education and promotion (Braun and Clarke, 2006; De Veirman *et al.*, 2017).

However, a uniquely Thai characteristic lies in the coexistence of global and local information sources. Students frequently accessed Pantip, a culturally embedded online forum, alongside global platforms, showing a blend of global digital culture and trusted local networks. Thai students also continued to seek advice from family members to a greater extent than Western adolescents, reflecting the collectivist nature of Thai society.

These insights highlight the importance of cultural adaptation in designing digital health literacy interventions. For example, while South Korea's structured, school-based programs have proven successful in enhancing students' critical evaluation abilities (Taba *et al.*, 2022), adaptation to Thailand's socio-cultural environment is essential. Integrating such programs within the school curriculum would promote sustainability and

inclusiveness, directly advancing SDG 4, SDG 10, and SDG 17 by strengthening education, reducing inequalities, and fostering partnerships across sectors (United Nations, 2015).

Overall, the findings demonstrate that adolescent digital health literacy in Thailand is shaped by a combination of global media influences and culturally rooted social values. Strengthening evidence-based health communication, enhancing school-based literacy programs, and fostering multisectoral collaboration can jointly contribute to sustainable improvements in adolescent health behaviors and equitable access to trustworthy information in the digital era.

Recommendations

The study highlights an urgent need to strengthen digital health literacy among Thai adolescents through practical, educational, and institutional initiatives. A national strategy should focus on integrating digital and health literacy into formal school curricula. Classroom learning should emphasize practical verification skills, critical evaluation of online content, and the ability to identify and distinguish between misinformation and accurate information. These competencies will help students make informed decisions and navigate the digital environment with greater confidence and responsibility.

Collaboration between public health agencies, educational institutions, and digital platforms is equally important. Partnerships that promote fact-checking systems, trusted-source labeling, and clear communication guidelines can improve the accuracy and reliability of online health content. Such collaboration can also enhance the credibility of digital health information, encouraging adolescents to engage with verified and evidence-based resources.

Youth participation is another essential element. Encouraging students to co-create digital health campaigns, design peer-led content, and take part in community outreach activities will increase relevance and engagement. When young people take an active role in health communication, they develop a sense of ownership and contribute to sustainable change in attitudes and behaviors.

These recommendations are closely aligned with the Sustainable Development Goals (SDGs). Strengthening educational and critical thinking skills supports SDG 4 (Quality Education), while promoting preventive and informed health behaviors advances SDG 3 (Good Health and Well-being). Encouraging transparent communication and institutional collaboration aligns with SDG 16

(Peace, Justice, and Strong Institutions), and forming partnerships among schools, health organizations, and technology providers directly supports SDG 17 (Partnerships for the Goals; United Nations, 2015).

By implementing these recommendations, Thailand can establish a more resilient framework for digital health education that not only enhances adolescents' health literacy but also contributes to sustainable social development and equitable access to reliable information in the digital era.

Limitations and Future Research Directions

This study provides valuable insights into how Thai adolescents engage with digital health information; however, several limitations should be acknowledged. First, the findings are based solely on participants from Bangkok, which limits the generalizability of the results to other regions of Thailand. Adolescents in rural areas may face different challenges related to digital access, cultural norms, and health communication environments. Future research should therefore expand to include rural and regional populations to capture a more comprehensive understanding of national patterns.

Second, as a qualitative inquiry, the study provides rich contextual and interpretive data but does not allow for statistical generalization. To deepen understanding and enhance transferability, future studies are encouraged to employ mixed-methods approaches that combine qualitative insights with quantitative analysis. Such designs could measure the prevalence of specific digital health behaviors, test relationships among variables, and evaluate the effectiveness of health literacy interventions.

Third, digital platforms and online health communication trends evolve rapidly. Content formats, influencer dynamics, and algorithmic visibility are subject to continuous change. Longitudinal and follow-up studies are necessary to monitor how adolescents' digital health behaviors evolve over time and to identify strategies for maintaining relevance and effectiveness in a rapidly changing digital landscape.

Despite these limitations, this study contributes meaningfully to the growing field of adolescent health communication and digital literacy. It highlights the importance of context-sensitive and evidence-informed approaches for promoting responsible health engagement among young people.

Furthermore, the implications extend beyond health and education to the broader sustainability agenda. The increasing integration of digital technologies parallels innovations in other sectors

where computational modeling and data analytics enhance efficiency, resource use, and environmental responsibility. For example, Nabudda *et al.* (2025) demonstrated the use of computational fluid dynamics to optimize polylactic acid (PLA)-based coatings in sustainable wire manufacturing, illustrating how digital innovation supports sustainability in both industrial and social systems. Similarly, advancements in digital health literacy represent a form of social sustainability, aligning with SDG 3 (Good Health and Well-being) and SDG 12 (Responsible Consumption and Production) by promoting informed decision-making, reducing misinformation, and fostering responsible engagement with digital resources.

In sum, continued interdisciplinary research will be essential for bridging the gaps between public health, education, and technology, ensuring that digital transformation contributes not only to individual well-being but also to sustainable development at the societal level.

Conclusions

This study demonstrates how digital media and socio-cultural factors shape the ways senior high school students in Bangkok access, evaluate, and act upon health information. Social media platforms such as TikTok, YouTube, and Instagram have become the dominant sources of health-related information, offering convenience and engagement but also exposing adolescents to misinformation and unequal access to reliable information. Students showed developing but uneven digital health literacy, with differences influenced by age, school type, and social context. Family and peer relationships remained important mediating forces in shaping how adolescents interpret and apply health advice.

To strengthen adolescent digital health literacy, national education and health policies should integrate media evaluation skills into school curricula, promote collaboration between public health institutions and digital platforms, and encourage youth participation in the design of health communication initiatives. Such strategies would help adolescents build the competence to critically assess information, make responsible health choices, and engage with digital platforms safely.

The findings of this study have strong implications for advancing the United Nations Sustainable Development Goals (SDGs). In detailing adolescents' ability to critically assess and interpret digital health information, the research contributes to achieving SDG 3 (Good Health and Well-being) by underscoring the need to promote preventive

health behaviors and informed decision-making. Evidence supporting the integration of digital health literacy within school curricula further aligns with SDG 4 (Quality Education) by ensuring that young people develop lifelong competencies in critical thinking and information evaluation. Identifying gender-based differences in information preferences aligns with SDG 5 (Gender Equality), promoting equal opportunities for both male and female students to access and apply health knowledge effectively. Moreover, reducing disparities between urban and suburban schools in terms of digital literacy would help fulfill the objectives of SDG 10 (Reduced Inequalities), thereby creating a more inclusive educational environment. Finally, fostering collaboration among schools, health authorities, and digital platforms advances SDG 16 (Peace, Justice and Strong Institutions) and SDG 17 (Partnerships for the Goals) by strengthening institutional trust and establishing sustainable multi-sector partnerships that support the development of credible and culturally relevant health communication systems. Together, these connections underscore how enhancing adolescent digital health literacy not only improves individual well-being but also contributes to Thailand's broader progress toward equitable, knowledge-based, and sustainable development.

Conflict of Interest

The authors declare no potential conflicts of interest.

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