

## Overview awareness and satisfaction Universitas Jambi medical students towards the use of social media as an oral health literacy platform

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### Abstract

**Background:** Social media has changed how people view oral health literacy, thus potentially increasing user awareness and satisfaction with oral health knowledge, especially among medical students. **Objective:** Specifically observing the awareness and satisfaction of medical students at University of Jambi toward using social media as an oral health literacy platform **Methods:** This observational cross-sectional study uses a non-probability purposive sampling design with the criteria of medical students at University of Jambi who are still active and use social media to seek oral health literacy. This study uses a special questionnaire about what platforms are frequently used and what sources of information are commonly viewed to increase respondent literacy and a Likert scale to observe satisfaction. SPSS is used to find the frequency distribution. **Results:** The 292 respondents, the most widely used platform by medical students at University of Jambi is Instagram (10,3%) in the 19-59 age group (25,9%), in the class of 2025 (22%), and among female gender (22%). The most frequently viewed source of information by respondents is the account of a dentist/dental specialist (8,3%) in the 19-59 age group, the class of 2022 (27,7%), and most dominantly in female students (23,3%). The satisfaction level of the majority of respondents was "Satisfied" (53,3%), which was mostly felt by the 19-59 age group, women, and the class of 2023. **Conclusion:** The frequency distribution of awareness and satisfaction that studied respondents, specifically medical students, had unique and diverse frequency distribution in using social media as an oral health literacy platform.

**Keywords:** social media; oral health literacy; medical; awareness; satisfaction

### Cite This Article

Wijayanti, Z., Hardiningsih, D. T., Perkasa, T. A. B., & Amatullah, A. (2025). Overview awareness and satisfaction Universitas Jambi medical students towards the use of social media as an oral health literacy platform. *Proceedings Academic Universitas Jambi*, 1(2): 476-490.

### Editor

I Made Dwi Mertha Adnyana, M.Ked.Trop.

### Article info

Received: September 26, 2025. Revised: October 05, 2025. Accepted: November 09, 2025



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## INTRODUCTION

The development of digital technology, particularly social media, has changed the way people access and obtain health information, including oral health literacy. Social media, as an interactive platform that relies on user-generated content, enables the rapid and widespread dissemination of information.[1] In Sri Lanka, WhatsApp and YouTube stand out as the leading social media platforms for sharing and seeking health information, especially concerning oral health.[2] Medical students, being digitally savvy young adults, hold significant potential to leverage social media for accessing oral health knowledge. However, social media usage differs across age groups: younger users tend to engage more passively by browsing and scrolling, while older user participates actively by posting and commenting. In Indonesia, generation-based social media pattern reveals that 23,13% of Gen Z (aged 12-27) access health content, with Instagram (51,90%), Facebook (51,64%), TikTok (46,84%), and YouTube (38,63%) being the most popular platforms.[3,4]

Social media's interactive nature facilitates broad and easy dissemination of health information, which can enhance user awareness and satisfaction regarding oral health knowledge.[5] Studies show that social media intervention improve oral health knowledge, attitudes, and behaviors across various age groups, including adolescents and pregnant women.[6] Platforms like Telegram, Instagram, YouTube, WhatsApp, and Snapchat have been effectively used for oral health education, resulting in increased toothbrushing frequency, reduced plaque index, and lower anxiety about dental care. [6] Oral health literacy the ability to find, understand, and use basic oral health information and services is crucial for informed decision-making. A study in Saudi Arabia found a relatively high prevalence of good oral health behaviors: 78,2% of adult women brush their teeth at least once daily, yet only 70,9% visit the dentist regularly.[7] A study in China showed that 58.3% of medical students had significantly higher oral health literacy scores compared to non-medical students [8].

Social media facilitates various data and creates sustainable learning communities easily, and provides massively updated content and students who have good digital literacy and feel that social media is appropriate to their learning task needs tend to show higher levels of satisfaction and academic performance.[9,10] Social media serves as an effective tool for raising awareness, particularly in health education, by enabling students to access health information more easily, interactively, and collaboratively. This enhances their awareness, satisfaction with the learning process, and comprehension of oral health topics.[10,11] Many studies have explored the role of social media in promoting oral health literacy, there is limited research on how frequently medical students at the University of Jambi engage with these platforms for this purpose. Understanding this is crucial, as medical students are future healthcare professionals whose use of social media for oral health literacy impacts their knowledge and practices. This study offers a novelty preliminary investigation into the frequency of social media use and evaluates students' awareness and satisfaction in seeking oral health information through these channels. By doing so, it addresses a research gap and contributes valuable insights into the behavioral patterns of medical students regarding oral health information acquisition.

## METHODS

### *Study design and setting*

This study employed a cross-sectional observational design to specifically examine the frequency distribution of platforms used and the sources of information utilized by respondents, which influenced their awareness and search for oral health literacy on

social media, as well as respondents' satisfaction with the platforms they used. This study was conducted at the Medical Program, Faculty of Medicine and Health Sciences, University of Jambi in August – September 2025.

### ***Population, samples and sampling***

The population in this study consisted of all students in the Medical Program at the Faculty of Medicine and Health Sciences, University of Jambi. The sample was chosen using purposive sampling, carefully balancing gender and class of year to maintain representativeness. The criteria for this study included active students who were willing to participate as respondents and had access to social media. While the exclusion criteria in this study were students in the medical profession/co-ass, students who were inactive and unwilling to participate were excluded. The number of samples in this study uses Kish Leslie's [2] formula, as follows:

$$n = \frac{Z\alpha^2 \cdot p \cdot q}{d^2}$$

$$n = \frac{1,96^2 \cdot 0,2 \cdot 0,8}{0,05^2}$$

$$n = 246$$

Remarks:

Z = normal standard deviation (confidence level 0.95)

p = prevalence of interest denoted. This study was taken from the 2024 APJII survey, which included Gen Z users who access health content on social media.[4]

q = (1-p)

d = clinically expected variation was denoted

To address the issue of respondents who dropped out of the study, the sample size was increased by 20%. This resulted in a total of 292 respondents.

### ***Instruments and criteria***

This study used a questionnaire as an instrument to measure it, which was adapted from an instrument created by Jayasinghe et al.[2] This instrument is divided into several parts, namely the first part contains informed consent stating that respondents agree that the data provided will be used as research data, the second part contains sociodemographic data (age, gender and class of years), the third part contains social media platforms that provide content about oral health that can be accessed in Indonesia, and the fourth part contains sources of social media information that contain content about oral health. The fifth part contains the question "How satisfied are you with the oral health information you get from social media?".

In the second section, respondents were asked briefly about their age, gender, and class of years. This section did not ask for their names to avoid conflicts of interest. The third section asked about social media platforms that provided respondents with information about oral health literacy. The fourth section focused on identifying the sources respondents commonly use to improve their oral health literacy. For both the third and fourth sections, participants were allowed to select multiple options reflecting their experiences and perceptions. The fifth section asked respondents to rate their level of satisfaction with the oral health information available on social media, measured using a Likert scale (1 = very dissatisfied, 2 = dissatisfied, 3 = neutral, 4 = satisfied, 5 = very satisfied).

### ***Procedure and data collection***

The questionnaires were distributed after obtaining approval from the Research Ethics Committee of the Faculty of Medicine and Health Sciences at University of Jambi in August – September 2025. The research team visited each respondent's class according to their academic year, either when the respondent had no teaching hours or when teaching hours had finished. The questionnaires were provided in paper format, enabling respondents to complete them at their own convenience. To ensure proper distribution aligned with research goals, field coordinators from each class of year supported the research team throughout the process.

After collecting all data from the respondents, the research team entered the data into a Google Form to save time and simplify the data input process. Respondents who were declared unwilling to participate were those who did not return the questionnaire, those who did not agree to the informed consent, and those who agreed but did not use social media platforms to access content about dental and oral health literacy. Data from Excel was copied into SPSS to illustrate the frequency distribution of each variable (social media platform, information source used, and respondent satisfaction).

### ***Statistical analysis***

The data obtained from Excel was then copied and tested for frequency distribution using IBM SPSS Statistics 27 to observe and provide an overview of the sociodemographic frequency distribution, the frequency distribution of social media platforms (seen from the aspects of age group and class of years; gender and class of years), sources of information used (seen from the aspects of age group and class of years; gender and class of years), and the level of satisfaction (seen from the aspects of age group and class of years; gender and class of years).

### ***Ethical considerations***

This research has received ethical approval from the research ethics commission of the Faculty of Medicine and Health Sciences, University of Jambi, with number 2357/UN21.8/PT.01.014/2025.

## **RESULTS**

Of the 322 respondents who participated in this study, 292 respondents used social media as a platform to seek information about oral health literacy. Respondents were predominantly female (69.5%), while males comprised only 30.5% (Table 1). The majority of respondents were in the 19-59 age group (72.9%), and only 27.1% were in the 10-18 age group. The frequency of gender in these age groups indicates that women were more numerous in both age groups, particularly in the 19-59 age group, which accounted for 54.1%. This data indicates that the study population was predominantly composed of adult women.

Further analysis by class year shows that the frequency distribution of respondents is relatively even between 2022 and 2025, with the highest number in the class of 2025 at 28.1%. In this class of year, there were slightly more males than in other classes of the same year, at 12.7%. The 10-18 age group was predominantly comprised of respondents from the class of 2025, with 68 (23.3%) participants, while the 19-59 age group was dominated by participants from the class of 2022, with 72 (24.7%) respondents (Table 1).

**Table 1.** Frequency Distribution based on Sociodemographics

	Total n (%)	Gender		Age Group	
		Male n (%)	Female n (%)	10-18 n (%)	19-59 n (%)
<b>Gender</b>					
Male	89 (30,5)	-	-	29(9,9)	55(18,8)
Female	203 (69,5)	-	-	50(17,1)	158(54,1)
<b>Age group</b>					
10-18	79 (27,1)	29 (9,9)	50 (17,1)		
19-59	213 (72,9)	55 (18,8)	158 (54,1)		
Mean (SD)	(1,73 ± 0,445)				
<b>Class of years</b>					
2022	72 (24,7)	13 (4,5)	59 (20,2)	-	72 (24,7)
2023	64 (21,9)	15 (5,1)	49 (16,8)	1 (0,3)	63 (21,6)
2024	69 (23,6)	23 (7,9)	46 (15,8)	10 (3,4)	59 (20,2)
2025	82 (28,1)	37 (12,7)	45 (15,4)	68 (23,3)	14 (4,8)
Other	5 (1,7)	1 (0,3)	4 (1,4)	-	5 (1,7)

**Table 2.** Frequency distribution based on social media platforms reviewed from the aspect of age groups and class of years

Social media platform	Total n (%)	Age group n (%)	Class of years				
			2022 n (%)	2023 n (%)	2024 n (%)	2025 n (%)	Other n (%)
Instagram	255(10,3)	10-18		1(0,4)	7(2,7)	56(22,0)	
		19-59	66(25,9)	56(22,0)	51(20,0)	13(5,1)	5(2,0)
Facebook	15(0,6)	10-18			1(6,7)	4(26,7)	
		19-59	1(6,7)	5(33,3)	3(20,0)	1(6,7)	
Youtube	166(6,7)	10-18			6(3,6)	41(24,7)	
		19-59	40(24,1)	38(22,9)	33(19,9)	6(3,6)	2(1,2)
Tiktok	208(8,4)	10-18			7(3,4)	53(25,5)	
		19-59	50(24,0)	46(22,1)	41(19,7)	8(3,8)	3(1,4)
X	62(2,5)	10-18			1 (1,6)	17(27,4)	
		19-59	17(27,4)	12(19,4)	12(19,4)	2(3,2)	1(1,6)
Pinterest	16(0,6)	10-18				6(37,5)	
		19-59	4(25,0)	3(18,8)	3(18,8)		
WhatsApp	95(3,8)	10-18			3(3,2)	23(24,2)	
		19-59	26(27,4)	22(23,2)	20(21,1)	1(1,1)	
Other social media apps	6(0,2)	10-18					
		19-59		2(33,3)	2(33,3)	2(33,3)	

The study's results showed that Instagram is the most widely used social media platform among medical students at the University of Jambi for searching information on oral health literacy, with a total of 255 respondents (10.3%). Instagram use is spread across various age groups, especially among those aged 19-59, with 66 respondents (25.9%), and among the class of 2025, with 56 respondents (22.0%). Another popular platform is TikTok, which is used by 208 respondents (8.4%). The platform is particularly dominant among users in the 10-18 age group, with seven respondents (3.4%), and among the class of 2025, with 53 respondents (25.5%). YouTube is also a significant choice, with 166 respondents (6.7%), particularly among the 19-59 age group, where 40 respondents (24.1%) fall, and among the class of 2025, with 41 respondents (24.7%). Facebook and Pinterest showed lower usage, with 15

respondents (0.6%) and 16 respondents (0.6%) respectively, with smaller proportions across all age groups and class of years (Table 2).

**Table 3.** Frequency distribution based on information sources reviewed from the aspect of age groups and class of years

Information sources	Total n (%)	Age group n (%)	Class of years				Other n (%)
			2022 n (%)	2023 n (%)	2024 n (%)	2025 n (%)	
Indonesia Dental Association account	127(5,1)	10-18		1(0,8)	2(1,6)	35(27,6)	
		19-59	31(24,4)	28(22,0)	20(15,7)	7(5,5)	3(2,4)
Dentist/specialist account	206(8,3)	10-18		1(0,5)	5(2,4)	43(20,9)	
		19-59	57(27,7)	46(22,3)	41(19,9)	9(4,4)	4(1,9)
Oral health influencer	182(7,4)	10-18		1(0,5)	5(2,7)	46(25,3)	
		19-59	41(22,5)	39(21,4)	37(20,3)	8(4,4)	5(2,7)
Oral health website/blog	98(4,0)	10-18			5(5,1)	24(24,5)	
		19-59	19(19,4)	23(23,5)	24(24,5)	3(3,1)	
Oral care product advertisement	94(3,8)	10-18			5(5,3)	24(25,5)	
		19-59	21(22,3)	17(18,1)	22(23,4)	3(3,2)	2(2,1)
Friend/family	89(3,6)	10-18			2(2,2)	28(31,5)	
		19-59	20(22,5)	20(22,5)	16(18,0)	1(1,1)	2(2,2)
Other information source	2(0,1)	10-18					
		19-59	1(50,0)		1(50,0)		

The distribution of social media platform usage by age group indicates that students aged 19-59 years are more active in using Instagram, YouTube, and WhatsApp to seek oral health literacy, with a significant percentage ranging from 22% to 27% on some platforms. In contrast, the 10-18-year age group is more dominant in using TikTok and Pinterest, although with a smaller proportion overall. In terms of year-over-year cohort, students in the class of 2025 showed a high tendency to use Instagram and TikTok as primary media, with percentages of 22.0% and 25.5%, respectively. In contrast, the classes of 2024 and 2023 showed a more even distribution across several platforms, including YouTube and Facebook. Other platforms, such as X and other social media, showed very low usage and were spread sporadically across various age groups and class of years, indicating a strong preference for several primary platforms in the context of oral health literacy among medical students at the University of Jambi.

The frequency distribution of information sources from social media used by medical students at University of Jambi for awareness of oral health literacy reveals that dentist/specialist accounts are the most frequently accessed information source, with a total of 206 respondents (8.3%). This information source is predominantly used by students in the 19-59 age group, especially in the 2022 intake, with 57 respondents (27.7%), and in the class of 2023, with 46 respondents (22.3%). The Indonesia Dental Association account is also a significant source of information, with a total of 127 respondents (5.1%), most frequently used by the 19-59 age group in the class of 2025, comprising 35 respondents (27.6%). Oral health influencers also play a significant role as a source of information, with a total of 182 respondents (7.4%), predominantly in the 10-18 age group, as seen in the class of 2025, where 46 respondents (25.3%) fall within this category (Table 3).

In addition, oral health websites/blogs and oral care product advertisements are also sources of information that are frequently accessed by students, with 98 respondents (4%) and 94 (3.8%), respectively. Websites/blogs are more widely used by the 19-59 age group in the classes of 2024 and 2025, with a percentage of 24.5%, while product advertisements are more dominantly accessed by the 10-18 age group in the class of 2025, with 24 respondents (25.5%). Sources of information from friends/family also play a significant role, with a total of 89 respondents (3.6%), particularly in the 10-18 age group of the class 2025, comprising 28 respondents (31.5%).

**Table 4.** Frequency distribution based on social media platforms reviewed from the aspect of gender and class of years

Social media platform	Total n (%)	Age group n (%)	Class of years				
			2022 n (%)	2023 n (%)	2024 n (%)	2025 n (%)	Other n (%)
Instagram	255(10,3)	Male	10(3,9)	14(5,5)	19(7,5)	32(12,5)	1(0,4)
		Female	56(22,0)	43(16,9)	40(15,7)	36(14,1)	4(1,6)
Facebook	15(0,6)	Male	1(6,7)	4(26,7)	3(20,0)	4(26,7)	
		Female		1(6,7)	1(6,7)	1(6,7)	
Youtube	166(6,7)	Male	6(3,6)	10(6,0)	15(9,0)	21(12,7)	1(0,6)
		Female	34(20,5)	27(16,3)	25(15,1)	26(15,7)	1(0,6)
Tiktok	208(8,4)	Male	7(3,4)	5(2,4)	13(6,3)	21(10,1)	1(0,5)
		Female	43(20,7)	41(19,7)	35(16,8)	40(19,2)	2(1,0)
X	62(2,5)	Male	2(3,2)	4(6,5)	2(3,2)	5(8,1)	
		Female	15(24,2)	8(12,9)	11(17,7)	14(22,6)	1(1,6)
Pinterest	16(0,6)	Male			1(6,3)		
		Female	4(25,0)	3(18,8)	2(12,5)	6(37,5)	
WhatsApp	95(3,8)	Male	2(2,1)	8(8,4)	9(9,5)	13(13,7)	
		Female	24(25,3)	14(14,7)	14(14,7)	11(11,6)	
Other social media apps	6(0,2)	Male				1(16,7)	
		Female		2(33,3)	2(33,3)	1(16,7)	

In terms of gender, Instagram usage is dominated by female students, with 56 respondents (22.0%), compared to male students, who account for 10 respondents (3.9%). Distribution by year shows that in the class of 2025, Instagram is most used by 32 male respondents (12.5%) and 36 female respondents (14.1%). The TikTok platform also has a high usage rate, with a total of 208 respondents (8.4%). Women are more dominant in using this platform, with 43 respondents (20.7%), compared to men, who make up seven respondents (3.4%). TikTok usage is evenly distributed across various class years, with the highest number in the class of 2025, namely 21 male respondents (10.1%) and 40 female respondents (19.2%). YouTube is the third most used platform, with a total of 166 respondents (6.7%), with a dominance of female users (34 respondents, 20.5%) compared to male (6 respondents, 3.6%).

Further analysis revealed that Facebook, WhatsApp, and X platforms had lower usage rates than Instagram, TikTok, and YouTube, but still showed significant differences by gender. Facebook was used by 15 respondents (0.6%), with a slightly higher proportion of females (1.6%) than males (0.6%). WhatsApp was used by 95 respondents (3.8%), with female dominating usage (24 respondents, 25.3%) compared to male (2 respondents, 2.1%). Platform X also showed higher usage among female (15 respondents, 24.2%) than male (2 respondents, 3.2%). The distribution of social media

platform usage also varied across classes, with the class of 2025 showing the highest usage rates on most platforms, particularly Instagram, TikTok, and YouTube. Pinterest and other social media platforms showed very low usage, with female being the primary users.

**Table 5.** Frequency distribution based on information sources reviewed from the aspect of gender and class of years

Information sources	Total n (%)	Age group n (%)	Class of years				
			2022 n (%)	2023 n (%)	2024 n (%)	2025 n (%)	Other n (%)
Indonesia Dental Association account	127(5,1)	Male	4(3,1)	4(3,1)	4(3,1)	20(15,7)	1(0,8)
		Female	27(21,3)	25(19,7)	18(14,2)	22(17,3)	2(1,6)
Dentist/specialist account	206(8,3)	Male	9(4,4)	9(4,4)	14(6,8)	20(9,7)	1(0,5)
		Female	48(23,3)	38(18,4)	32(15,5)	32(15,5)	3(1,5)
Oral health influencer	182(7,4)	Male	8(4,4)	11(6,0)	16(8,8)	28(15,4)	1(0,5)
		Female	33(18,1)	29(15,9)	26(14,3)	26(14,3)	4(2,2)
Oral health website/blog	98(4,0)	Male	4(4,1)	5(5,1)	10(10,2)	4(4,1)	
		Female	15(15,3)	18(18,4)	19(19,4)	23(23,5)	
Oral care product advertisement	94 (3,8)	Male	1 (1,1)	3(3,2)	8(8,5)	7(7,4)	
		Female	20(21,3)	14(14,9)	19(20,2)	20(21,3)	2(2,1)
Friend/family	89(3,6)	Male	4(4,5)	3(3,4)	5(5,6)	11(12,4)	
		Female	16(18,0)	17(19,1)	13(14,6)	18(20,2)	2(2,2)
Other information source	2(0,1)	Male			1(50)		
		Female	1(50)				

The frequency distribution of information sources from social media used by University of Jambi medical students for awareness of oral health literacy revealed that dentist/specialist accounts were the most widely used source of information among respondents, with 206 respondents (8.3%). The use of dentist/specialist accounts was more prevalent among female students, with percentages of 23.3% for the class of 2022, 18.4% for the class of 2023, 15.5% for the class of 2024, and 15.5% for the class of 2025. Meanwhile, among male students, the percentage was relatively lower, ranging from 4.4% to 9.7% in various classes of years. In addition, Indonesia Dental Association accounts were also an important source of information, especially among female, with the highest percentages in the classes of 2022 (21.3%) and 2025 (17.3%). (Table 5).

Another significant source of information is the use of oral health influencers by 182 respondents (7.4%), with a predominance of female users, ranging from 18.1% to 15.9% in the classes of 2022 and 2023, and 14.3% in the classes of 2024 and 2025. Oral health websites/blogs are also a choice among 98 respondents (4.0%), with female students showing a higher tendency to access this source, reaching 23.5% in the class of 2025. Oral care product advertisements and information sources from friends/family have a smaller proportion, but still play a role in the search for health literacy. Oral care product advertisements are used by 94 respondents (3.8%), with female in the class of 2024 and 2025 being the most active users of this source, at 20.2% and 21.3%, respectively. Friends/family were used as information sources by 89 respondents (3.6%), with the highest percentage among the class of 2025 at 20.2%. This frequency distribution reveals variations in information source preferences based on gender and class of years, which could be important considerations in developing

oral health education strategies through social media among medical students at the University of Jambi.

**Table 6.** Frequency distribution based on satisfaction level viewed from the aspect of age group and class of years

Level of satisfaction	Total n (%)	Age group n (%)	Class of years				
			2022 n (%)	2023 n (%)	2024 n (%)	2025 n (%)	Other n (%)
Very dissatisfied	1(0,3)	10-18					
		19-59			1(0,3)		
Dissatisfied	6(2,0)	10-18				1(0,3)	
		19-59	1 (0,3)	4 (1,4)			
Neutral	73(25,1)	10-18			1(0,3)	21(7,2)	
		19-59	13(4,5)	16(5,5)	16(5,5)	4(1,4)	2(0,7)
Satisfied	156(53,3)	10-18		1(0,3)	8(2,7)	33(11,3)	
		19-59	43(14,7)	33(11,3)	28(9,6)	8(2,7)	2(0,7)
Very satisfied	56(19,1)	10-18			1(0,3)	13(4,5)	
		19-59	15(5,1)	10(3,4)	14(4,8)	2(0,7)	1(0,3)

**Table 7.** Frequency distribution based on satisfaction level reviewed from the aspect of gender and class of years

Level of satisfaction	Total n (%)	Gender n (%)	Class of years				
			2022 n (%)	2023 n (%)	2024 n (%)	2025 n (%)	Other n (%)
Very dissatisfied	1(0,3)	Male			1(0,3)		
		Female					
Dissatisfied	6(1,9)	Male		1(0,3)			
		Female	1(0,3)	3(1)		1(0,3)	
Neutral	73(25)	Male	2(0,7)	5(1,7)	8(2,7)	12(4,1)	1(0,3)
		Female	11(3,8)	11(3,8)	9(3,1)	13(4,5)	1(0,3)
Satisfied	156(53,3)	Laki-laki	10(3,4)	7(2,4)	9(3,1)	20(6,8)	
		Wanita	33(11,3)	27(9,2)	27(9,2)	21(7,2)	2(0,7)
Very satisfied	56(19)	Laki-laki	1(0,3)	2(0,7)	5(1,7)	5(1,7)	
		Wanita	14 (4,8)	8(2,7)	10(3,4)	10(3,4)	1(0,3)

Of the total of 292 respondents, significant variations in satisfaction levels were found based on age group and class of year, with the majority indicating a level of “Satisfied” (53.3%, n=156), “Neutral” (25.1%, n=73), and “Very Satisfied” (19.1%, n=56). The level of dissatisfaction was relatively low, with “Dissatisfied” at 2.0% (n=6) and “Very dissatisfied” at only 0.3% (n=1). Among the 19-59 age group, most respondents from the class of 2022 to 2025 enrollment years reported high satisfaction, with the highest figures observed in the class of 2023 (33 respondents, or 11.3%) and the class of 2024 (28 respondents, or 9.6%). In the 10-18, the distribution of satisfaction was more spread out, with the majority falling in the “Neutral” and “Satisfied” categories (Table 6).

Analysis by class of years revealed that respondents from the class of 2025 had a relatively high proportion of satisfaction, particularly in the “Satisfied” (33 respondents or 11.3%) and “Very Satisfied” (13 respondents or 4.5%) categories, indicating a positive trend in the use of social media as a source of oral health literacy. The level of dissatisfaction tended to be low and sporadic across several class years and

age groups, for example, in the class of 2024 and 2025, with one respondent each (0.3%) in the "Dissatisfied" and "Very Satisfied" categories.

The majority of respondents (53.3%, n = 156) indicated a satisfaction level of "Satisfied", with a higher proportion of female (33.3%) than male (16.4%). The satisfaction level of "Very Satisfied" also showed a similar trend with female at 15.1% and male at 4.8%. The satisfaction level of "Neutral" at 25% was also filled more by female (11.6%) than by male (6.8%). The level of dissatisfaction was relatively low, with "Dissatisfied" at 1.9% and "Very Dissatisfied" at 0.3%, evenly distributed between the genders. (Table 7) The distribution of satisfaction by class year shows that the class of 2025 has the highest proportion of students in the "Satisfied" (14%) and "Neutral" (8.6%) categories. The classes of 2023 and 2024 also show significant levels of satisfaction, with 9.2% of females reporting a "Satisfied" rating, and 6.8% and 3.1% of male reporting a "Satisfied" rating. The class of 2022 has a lower satisfaction rate compared to other classes. Overall, female students showed higher levels of satisfaction across almost all categories and classes of years, indicating that social media as an educational and awareness tool is more effective and well-received by female students.

## DISCUSSION

This study employed a cross-sectional observational design to investigate the frequency distribution of medical students' awareness of seeking information or literacy about oral health on social media platforms and their satisfaction with using these platforms. We did not review analytical study in this study because the respondents we used were specifically medical students, so we needed preliminary data and further epidemiological observations of the distribution of awareness and satisfaction of medical students at the Faculty of Medicine and Health Sciences, University of Jambi, towards a social media platform for seeking literacy (including knowledge, attitudes, and behavior) about oral health.

Instagram, TikTok, and YouTube are the most widely used social media platforms today because they offer a highly visual and interactive experience that modern users highly seek after. TikTok has transformed content consumption by offering short, easily digestible video paired with personalized algorithms that help users quickly find relevant and engaging material.[12] Similarly, Instagram enhances user interaction through features like Stories, Reels, and IGTV, which support fast and visually appealing information sharing. [13] Meanwhile, YouTube stands out as the largest video platform, delivering comprehensive and detailed educational content, earning its reputation as a trusted information source.[14] The combination of these features makes these three platforms superior in meeting the needs of users who want information in an easy, fast, and engaging way.

Medical students between the ages of 19-59 actively use Instagram, YouTube, and WhatsApp to improve their oral health literacy. These platforms provide diverse content formats that cater specifically to their learning preferences. YouTube, in particular, stands out by offering detailed and visually rich educational videos, including dental care tutorials and explanations of medical conditions.[15] Instagram and WhatsApp, on the other hand, excel at two-way communication and sharing concise information, which can accelerate informal discussions and consultations among peers. This is crucial for college students who need fast and reliable information.

Generational differences significantly influence social media platform preferences, reflecting broader shifts in digital trends. Students in the class of 2025 tend to prefer Instagram and TikTok, which offer short, interactive video content, in line with the

information consumption styles of the younger generation, who prefer speed and engaging visuals. [16] Conversely, students in the classes of 2024 and 2023, who prefer YouTube and Facebook, tend to be more familiar with platforms that offer long-form video content and text-based discussions, demonstrating differences in technology adaptation and learning style preferences still influenced by previous habits.[17,18]

Information sources from dentist/specialist accounts, the official accounts of the Indonesia Dental Association, and oral health influencers were most frequently accessed by respondents because they were perceived as credible and trustworthy sources. Trusted oral health influencers play a crucial role by delivering evidence-based information in an engaging and accessible way, which enhances user trust and interactions.[19] These influencers effectively bridge the gap between professional knowledge and the general public, making health messages more acceptable. For example, medical students from the class of 2022 showed a stronger preference for obtaining oral health literacy information from dentist or specialist accounts. This trend likely stems from heightened personal health awareness following the COVID-19 pandemic, which increased the demand for accurate and reliable information. Consequently, these students tend to critically evaluate their sources, favoring highly credible professional accounts.[19]

In contrast, individuals aged 10-18 primarily receive oral health information through advertisements for oral care products. This age group is the main target of digital marketing campaigns that leverage social media, using appealing visual and relatable young influencers to capture teenagers' attention and encourage product trials.[20] While digital marketing effectively reaches this demographic, it must be complemented by critical education to help teenager distinguish promotional content from authentic health information. Additionally, information from friends and family remains a significant source due to the strong interpersonal trust within social networks. Recommendations from close friends are often a crucial factor in health-related decision-making, including dental and oral health. This social factor reinforces how information is spread and received within the social media user community.[21] The trust formed through these social interactions is a crucial asset in building adequate health literacy.

The female students in the class of 2022 showed a higher level of awareness of oral health, reaching 23.3%. This is consistent with findings that female generally more health-conscious and more actively seek health information than male.[22] Psychosocial and cultural factors also play a role in increasing female's awareness of personal health, including oral health.[23] However, nearly 21% of female in the classes of 2024-2025 still rely on oral care product advertisements as a source of oral health information. The significant impact of digital marketing on consumer behavior is evident, underscoring the urgent need for enhanced education to help consumers differentiate between promotional content and reliable health information.[20]

In a survey, 53,3% of respondents reported satisfaction with obtaining oral health information via social media. This satisfaction is attributed to the platform's easy accessibility, diverse content, and the ability to quickly deliver personalized information that meets users' specific needs and preferences.[24] Social media also provides a space for users to interact directly with information providers, thus strengthening their sense of satisfaction and trust in the source.

Additionally, social media facilitates direct interaction between users and information providers, which further boosts users' trust and satisfaction with the sources. However, respondents aged 10 to 18 generally expressed neutral satisfaction levels when using social media for oral health information. This may be due to the still-

developing levels of digital and health literacy in this age group, which means they are not yet fully capable of assessing the quality and accuracy of the information they receive.[24] In contrast, the 19-59 age group showed a dominant level of satisfaction. They have better digital literacy skills, broader experience using social media, and the ability to assess and select valid and relevant information.[19]

Females tend to be more satisfied with using social media to seek oral health information. They are more active in seeking, processing, and evaluating health information and are more responsive to educational and personalized content often found on social media platforms.[25] However, the class of 2022 showed a lower proportion of satisfaction compared to other classes of the year. This may be due to the transition period of adapting to social media as a primary source of health information during the COVID-19 pandemic, when uncertainty and doubt about the quality of information remained high.[19] This situation requires more intensive improvement in digital and health literacy to increase satisfaction and effectiveness of using social media as a source of health education.

## CONCLUSIONS

Based on the results of a study conducted on medical students at University of Jambi regarding the use of social media as a platform for oral health literacy, it can be concluded that the frequency distribution of students' awareness and satisfaction with social media platforms for accessing/searching for oral health literacy has unique and diverse characteristics. Instagram, TikTok, and YouTube stand out as the most popular social media platforms, especially among users aged 19 to 59 and students from the class of 2025, with a notable majority being female. The primary sources of oral health information accessed on these platforms include accounts managed by dentist and specialists, the official Indonesia Dental Association account, and influencers focused on oral health. Over half of the respondents (53,3%) reported feeling satisfied with the informatio they received, suggesting that social media serves as an effective channel for promoting oral health literacy among medical students.

This study identified notable differences in preferences for information sources and satisfaction levels across age, gender, and class of years. Younger individuals (age 10-18) primarily accessed oral care product content via TikTok, whereas older adults favored platforms like Instagram, YouTube, and WhatsApp for oral care product advertisements. Females demonstrated greater awareness and satisfaction compared to males, highlighting the influence of psychosocial and cultural factors in health information-seeking behaviors. Despite this, some students still depended on product advertisements as their main information source, underscoring the need for critical education to help distinguish between promorional content and reliable health education. As a recommendation, further in-depth research is needed to determine the determinants of medical students' awareness of accessing oral health literacy on social media. Furthermore, intervention research aimed at changing students' behavior in accessing and filtering oral health content on social media is crucial. This intervention could take the form of a digital health literacy education program specifically designed to improve students' ability to select and utilize accurate and reliable health information, thereby increasing the effectiveness of social media as a health education platform among medical students.

## CONFLICT OF INTEREST

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

## FUNDING

This research was funded by the BISMA grant for novice lecturers from the Institute for Research and Community Service, University of Jambi, based on Decree Number 1715/UN21/PT/2025 and Agreement/Contract Number 327/UN21.11/PT.01.05/SPK/2025.

## ACKNOWLEDGMENT

The researcher would like to thank the Institute for Research and Community Service University of Jambi for funding this research, as well as all those who contributed to and supported this research, both in terms of direct assistance and the field team, which made this research successful in achieving its expected objectives.

support from a department chairperson.

## DECLARATION OF ARTIFICIAL INTELLIGENCE USE

This research utilizes artificial intelligence (AI) tools to support manuscript writing, leveraging ChatGPT to assist with writing results, paraphrasing discussions, and drawing conclusions. We confirm that all AI-assisted processes were critically reviewed by the authors to ensure the integrity and reliability of the results. The final decisions and interpretations presented in this article were solely made by the authors.

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