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Impact of social media on patient awareness and attitudes towards oral and maxillofacial surgery procedures

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ABSTRACT

Background: *Social media has become a major source of health-related information, influencing perceptions and decision-making about surgical care. In oral and maxillofacial surgery (OMFS), digital platforms shape awareness, attitudes, and expectations, yet data on this influence within regional populations remain limited.*

Objective: *To evaluate the role of social media in shaping patient awareness, attitudes, and decision-making regarding OMFS procedures.*

Materials and Methods: *A cross-sectional survey was conducted among adults (≥18 years) who actively used social media platforms and had either undergone or considered maxillofacial surgery. Participants without exposure to surgery-related content online were excluded. A 19-item Google Forms questionnaire assessed demographics, social media habits, and attitudes toward OMFS. Closed- and open-ended items explored platform use, information sources, perceived reliability, and the influence of content on risk perception, benefits, and choice of surgeon. Descriptive statistics summarized demographics and usage patterns, while chi-square tests examined associations between social media exposure, demographic variables, and patient attitudes. Statistical significance was set at $p < 0.05$.*

Results: *A total of 207 participants completed the survey. Most were young, single females with a bachelor's degree. Instagram and Facebook were the most commonly used platforms. While 68.6% followed doctors on social media, only 36.2% consulted them via these channels. About 44.4% believed social media promoted OMFS, but 39.1% questioned the reliability of online information. Surgeon selection through social media was reported by 35.7%. Significant differences were observed across demographics regarding platform preference, time spent online, and perceived trustworthiness of information $p < 0.05$.*

Conclusion: *Social media substantially influences awareness and attitudes toward OMFS, though concerns about credibility persist. Strengthened professional engagement and improved quality control in digital communication are essential for optimizing patient education and decision-making.*

Keywords: *Attitude, Health communication, Maxillofacial surgery, Patient awareness, Social media.*

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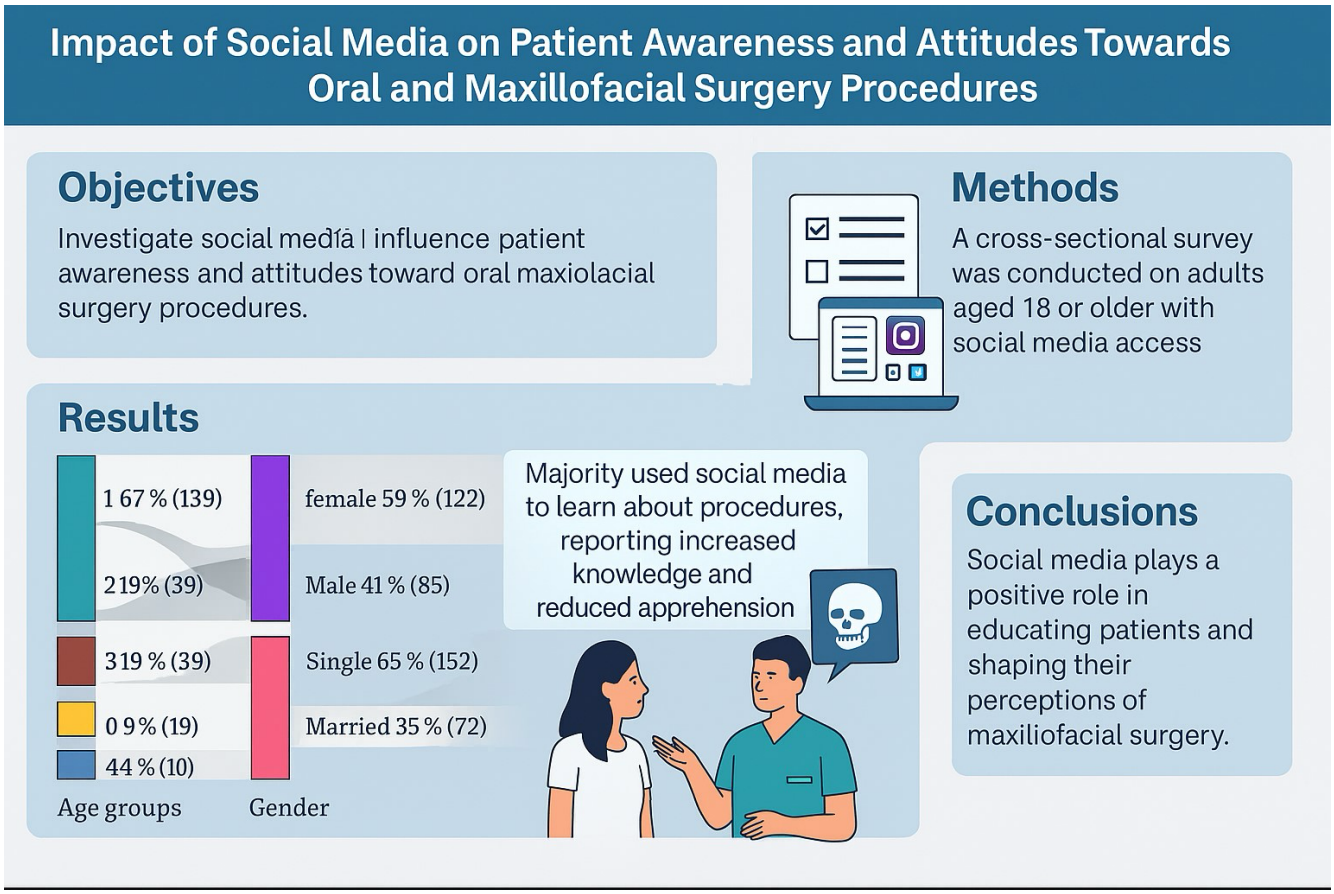

INTRODUCTION

Social media refers to a wide array of internet-based platforms such as Facebook, Instagram, WhatsApp, and Twitter that facilitate the sharing of information, images, and personal experiences.[1]

As of 2024, more than 5 billion individuals, representing approximately 62% of the global population, actively use these platforms.[2] In recent years, social media has become deeply integrated into healthcare communication, offering accessible and immediate sources of information to the public.[3] It promotes health awareness, supports decision-making, and bridges geographic and informational gaps, largely due to the widespread availability of mobile technology and internet connectivity.[4,5]

Patients now turn to social media to learn about symptoms, treatment options, and preventive strategies, often engaging with both healthcare professionals and peer communities.[6] Online forums and support groups enable users to share personal experiences and seek informal advice.[7]

Reports indicate that 74.4% of users utilize social media to access oral health information; however, much of this content originates from non-expert sources, raising concerns regarding credibility, accuracy, and its impact on clinical decision-making.[8,9]

Additionally, the vast volume of unverified information can lead to information overload, patient confusion, anxiety, and inappropriate self-diagnosis.[10] The rapid dissemination of misinformation is further exacerbated by the lack of real-time content moderation or fact-checking.[11]

Despite these limitations, healthcare providers increasingly use social media for public education, health promotion, and professional marketing.[12] Nevertheless, inappropriate use may compromise ethical standards and patient confidentiality, potentially damaging the perception of dental and medical professionalism.[13]

From a systems perspective, social media can also enhance institutional visibility, strengthen patient engagement,

and support strategic communication goals within healthcare organizations.[14,15]

In the field of facial aesthetics, the influence of social media is particularly significant. Exposure to idealized, digitally enhanced images often shapes patient expectations, which can lead to dissatisfaction when actual surgical outcomes fall short.[16] In response, techniques such as the Tri-Lift Suspension lip lift have emerged to address these evolving esthetic demands.[17]

This study aims to investigate how social media influences patient awareness, attitudes, and decision-making regarding oral and maxillofacial surgery (OMFS). Understanding these patterns may support more effective communication strategies, improved patient engagement, and ethically responsible digital health practices.

MATERIALS AND METHODS

A cross-sectional survey was designed to evaluate the influence of social media on patient awareness and attitudes toward oral and maxillofacial surgery. The study population included adults aged 18 years and above who actively used platforms such as Facebook, Instagram, or Twitter, and who either had previously undergone maxillofacial surgery or were considering such procedures. Individuals without exposure to social media or those who had never encountered surgery-related content online were excluded. Participation was voluntary, and informed consent was obtained electronically through a checkbox at the start of the questionnaire, which also collected basic demographic data including age and gender.

Data collection was performed using a structured 19-item questionnaire developed in Google Forms. The survey combined closed- and open-ended questions to assess demographic information, patterns of social media use, familiarity with maxillofacial surgical procedures, and changes in perception influenced by online content. Participants reported the frequency and type of platform usage, as well as the extent to which social media shaped their understanding and expectations of surgical outcomes. Additionally, the questionnaire examined how respondents judged the reliability of online information and how such content affected their perception of risks, benefits, and the decision to pursue treatment.

A total of 207 participants completed the survey. Descriptive statistics were used to summarize demographic characteristics and usage patterns, while chi-square tests were applied to evaluate associations between demographic variables, exposure to surgery-related content, and participants' awareness and attitudes toward oral and maxillofacial surgery. A p-value < 0.05 was considered statistically significant.

The study was approved by the Ethics Committee of the College of Dentistry, University of Sulaimani (Approval No: 27/23; 5 November 2023). Written informed consent was obtained from all participants, and the research adhered to the Declaration of Helsinki.

RESULTS

A total of 207 individuals participated in the study, with the majority being young, females holding a bachelor's degree. The most prominent age group was 18 to 28 years. In terms of marital status, 65% (n = 135) were single, regarding the educational level, 73% held a bachelor's degree and 26.6% had completed only high school. The demographic profile of the participants is presented in Table 1, and the interrelationships between these variables are illustrated in Figure 1.

Table 1: Demographic distribution of the sample (n = 207).

Age groups (n=207)	Gender		Marital status		Education level	
	Male	Female	Single	Married	Bachelor	High school
18-28 yrs	52 (61.2%)	87 (71.3%)	122 (90.4%)	17 (23.6%)	104 (68.4%)	35 (63.6%)
28-38 yrs	13 (15.3%)	26 (21.3%)	8 (5.9%)	31 (43.1%)	32 (21.1%)	7 (12.7%)
38-48 yrs	12 (14.1%)	7 (5.7%)	3 (2.2%)	16 (22.2%)	10 (6.6%)	9 (16.4%)
48-58 yrs	8 (9.4%)	2 (1.6%)	2 (1.5%)	8 (11.1%)	6 (3.9%)	4 (7.3%)
Totals	85 (41%)	122 (59%)	135 (65%)	72 (35%)	152 (73.4%)	55 (26.6%)

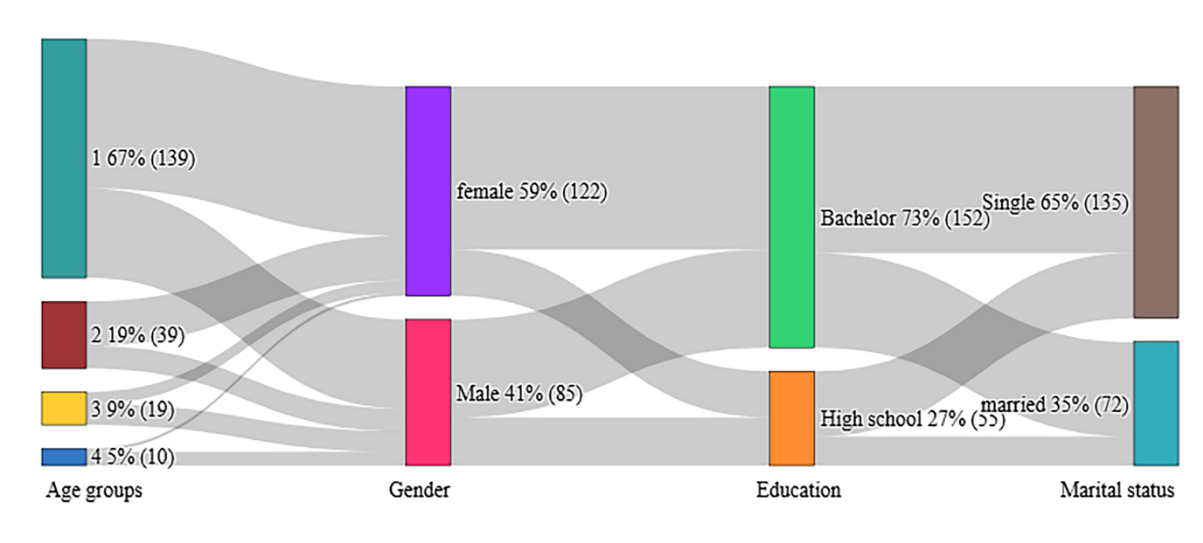

Figure 1: Sankey Diagram showing the interrelationship between demographic data.

Regarding social media usage, most participants reported spending between one to four hours daily on these platforms, with 29.0% (n = 60) spending 1–2 hours and 39.4% (n = 81) spending 2–4 hours. Instagram (42.5%) and Facebook (24.6%) were identified as the most commonly used platforms. When asked about the use of facial filters, the majority (60.9%) stated that they did not use filters to modify their facial appearance in photographs.

Concerning professional engagement, 68.6% of respondents reported following doctors on social media, although only 36.2% had consulted a healthcare professional through these platforms. When asked about the availability of updated information related to oral and maxillofacial surgery, 35.7% expressed uncertainty. Similarly, 28.0% indicated that they were only occasionally influenced by content on social media. Regarding the perceived reliability of surgical information, 39.1% of participants were unsure whether social media provided trustworthy content. In terms of the promotional impact of social media, 44.4% believed that it encourages maxillofacial surgery. The complete distribution of awareness responses is shown in Table 2.

Table 2: Awareness of social media usage related to oral and maxillofacial surgery.

Questions	Answers				
Time spent on social media	Less than 1 hour	1-2 hours	2-4 hours	More than 6 hours	
	16 (7.7%)	60 (29.0%)	81 (39.1%)	50 (24.2%)	
Most used platform	Snapchat	Instagram	TikTok	Facebook	
	25 (12.1%)	88 (42.5%)	24 (11.5%)	51 (24.6%)	
	Twitter (X)	Telegram	WhatsApp	Others	
	5 (2.4%)	2 (1.0%)	2 (1.0%)	10 (4.8%)	
Do you use filters when taking a picture to modify your facial appearance?	Yes	No			
	81 (39.1%)	126 (60.9%)			
Do you follow doctors on social media platforms?	Yes	No			
	142 (68.6%)	65 (31.4%)			
Have you consulted a doctor on social media about your condition?	Yes	No			
	75 (36.2%)	132 (63.8%)			
Do you find updated information regarding maxillofacial surgery on social media?	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	14 (6.8%)	68 (32.9%)	74 (35.7%)	34 (16.4%)	17 (8.2%)
Have you been influenced by social media for maxillofacial surgeries?	I have been	Somewhat been	Somewhat not been	Not been	
	34 (16.4%)	58 (28.0%)	59 (28.5%)	56 (27.1%)	
Do you believe social media provides reliable information about maxillofacial surgery?	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
	12 (5.8%)	56 (27.1%)	81 (39.1%)	40 (19.3%)	18 (8.7%)
Do you think social media promotes maxillofacial surgery?	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
	26 (12.6%)	92 (44.4%)	52 (25.1%)	28 (13.5%)	8 (3.9%)

However, 64.3% of participants did not choose their surgeons based on social media presence. Among those who did, the leading factor influencing their choice (46%) was the perceived expertise of the surgeon. On whether social media contributes to quality-of-life improvements via surgical interventions, 44.4% expressed uncertainty. Table 3.

Table 3: Relationship between social media and surgeon selection.

Questions	**Answers**				
Did social media help improve your quality of life through surgical correction in the maxillofacial region?	***Agree***	***Neutral***	***Disagree***	***Strongly Disagree***	
	34 (16.4%)	92 (44.4%)	52 (25.1%)	29 (14.0%)	
Did you find answers to your concerns on social media?	***Strongly agree***	***Agree***	***Neutral***	***Disagree***	***Strongly Disagree***
	20 (9.7%)	71 (34.3%)	70 (33.8%)	36 (17.4%)	10 (4.8%)
Did you find postoperative instructions on social media?	***Agree***	***Neutral***	***Disagree***	***Strongly Disagree***	
	60 (29.0%)	88 (42.5%)	45 (21.7%)	14 (6.8%)	
Did you find information about post-operative complications on social media?	***Strongly agree***	***Agree***	***Neutral***	***Disagree***	***Strongly Disagree***
	20 (9.7%)	63 (30.4%)	69 (33.3%)	39 (18.8%)	16 (7.7%)

A majority of participants (34.3%) agreed that social media can help address their concerns, though many remained uncertain about the availability of postoperative instructions and information about complications. Specifically, 42.5% were unsure whether such instructions were provided, and 33.3% did not know whether postoperative care guidance could be found through these channels. Table 4.

Table 4: Participant perceptions of social media's role in postoperative awareness.

Questions	**Answers**		
Did you pick your surgeon through social media?	Yes	No	
	74 (35.7%)	133 (64.3%)	
If yes, why did you choose the surgeon?	Expertise in the surgical correction of the jaws	Activity on social media	Other
	34 (46%)	24 (32.4%)	22 (21.6%)

Chi-square tests were performed to explore statistically significant differences between demographic groups. Gender differences were significant for platform preference (df = 7, $p < 0.001$) and filter use (df = 1, $p < 0.001$). Significant variations by age were found across most survey items. Differences by education level were notable in platform preference (df = 7, $p = 0.017$). Marital status was also significantly associated with several variables, including time spent on social media ($p < 0.001$), platform used ($p < 0.001$), following doctors ($p < 0.001$), finding updated surgical information ($p = 0.021$), and awareness of postoperative complications ($p = 0.012$). Detailed statistical outcomes are summarized in Table 5.

Table 5: Chi-square analysis of awareness and demographics.

Questions	Sex		Age groups		Education level		Marital status	
	df	p-value	df	p-value	df	p-value	df	p-value
Time spent on social media	3	0.487	9	<0.001	3	0.690	3	<0.001
Most used platform	7	<0.001	21	<0.001	7	0.017	7	<0.001
Do you use filters when taking a picture to modify your facial appearance?	1	<0.001	3	0.164	1	0.149	1	0.959
Do you follow doctors on social media platforms?	1	0.106	3	0.054	1	0.109	1	<0.001
Have you consulted a doctor on social media about your condition?	1	0.159	3	0.048	1	0.097	1	0.741
Do you find updated information regarding maxillofacial surgery on social media?	4	0.106	12	0.220	4	0.932	4	0.021
Have you been influenced by social media for maxillofacial surgeries?	3	0.648	9	0.126	3	0.032	3	0.689
Do you believe social media provides reliable information about maxillofacial surgery?	4	0.446	12	0.109	4	0.649	4	0.323
Do you think social media promotes maxillofacial surgery?	4	0.566	12	0.051	4	0.928	4	0.081
Did you pick your surgeon through social media?	1	0.482	3	0.002	1	0.828	1	0.081
If yes, why did you choose the surgeon?	2	0.868	4	0.211	2	0.140	2	0.106
Did social media help improve your quality of life through surgical correction in the maxillofacial region?	3	0.641	9	0.232	3	0.958	3	0.674
Did you find answers to your concerns on social media?	4	0.403	12	0.016	4	0.171	4	0.360
Did you find postoperative instructions on social media?	3	0.720	9	0.022	3	0.746	3	0.114
Did you find information about post-operative complications on social media?	4	0.844	12	0.235	4	0.414	4	0.012

DISCUSSION

Social media has emerged as a dominant source of health-related content, significantly shaping public perception and influencing behavior toward medical issues, including oral and maxillofacial surgery.[18-20] This study highlights the growing role of social media in increasing awareness and shaping attitudes toward maxillofacial procedures, particularly among young, educated females a demographic most engaged with platforms like Instagram (42.5%) and Facebook (24.6%).[20,21] This trend aligns with global usage data and esthetic priorities among digitally active populations.[22]

As shown in previous research, social media strongly influences self-image and esthetic preferences, especially among younger individuals.[19] While females often use beauty filters due to higher esthetic awareness, 60.9% of our respondents reported not using them, reflecting the complex link between digital behavior and personal cosmetic

perception.[13,23]

This aligns with prior surgical literature showing that exposure to idealized facial features on social media drives demand for esthetic procedures like blepharoplasty with lateral canthopexy, especially among younger users. These digitally influenced beauty standards highlight the need for clinicians to manage expectations and focus on realistic, evidence-based outcomes.[24]

Most participants reported spending one to four hours daily on social media, with Instagram and Facebook being the most frequently used platforms emphasizing their role in engaging younger audiences with esthetic and health-related content.[20,21] Although 68.6% followed doctors on these platforms, only 36.2% had consulted a healthcare professional online, revealing a gap between passive interest and active trust in digital medical sources.[23,24]

Additionally, 28% of respondents indicated being only occasionally influenced by social media content, reflecting rising skepticism toward overly promotional or exaggerated claims. About 39.1% were uncertain about the accuracy of surgical information shared online, underscoring persistent concerns about misinformation and the lack of standardized digital health education.[23,25]

Nevertheless, 44.4% believed that social media helps promote maxillofacial surgery and can influence surgeon selection, a pattern also supported by earlier studies on digital impact in surgical decision-making.[26] While 34.3% of participants believed social media could help address their healthcare concerns, many expressed uncertainties about the availability of accurate postoperative instructions and complication-related content online. Similar studies have identified this gap and emphasized the importance of enhancing professional digital presence to deliver reliable, patient-centered information.[20,22]

Interestingly, 35.7% of participants selected their surgeon based on their social media presence and expertise, especially in jaw correction procedures. This demonstrates that a professionally managed digital profile can significantly influence patient trust and engagement.[21,26] The increasing reliance on digital platforms in healthcare decisions emphasizes the need for ethical, evidence-based content strategies by practitioners.[22]

This study has limitations, including a homogeneous participant pool in terms of age and education, which may affect generalizability. Also, the reliance on self-reported data may introduce response bias, a limitation consistent with findings from similar studies.[27] Future research should involve more diverse populations and explore the impact of social media use on actual surgical outcomes and patient satisfaction.

Overall, social media plays a significant role in shaping awareness, perceptions, and decision-making in maxillofacial surgery. Despite its potential to educate and engage, challenges remain regarding content accuracy, trustworthiness, and accessibility. Healthcare professionals must actively enhance their digital communication strategies to improve transparency, ensure ethical standards, and promote informed decision-making among patients.[18,22]

CONCLUSION

This study underscores social media's role in shaping health perceptions and choices. While many users follow healthcare professionals, few use these platforms for direct consultation or surgeon selection. Younger, educated females are the most influenced, highlighting age and gender as key factors in digital engagement. Clearer, more reliable content particularly on postoperative care is needed. Broader studies are recommended to evaluate its impact on outcomes and satisfaction.

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