Social Media and Aesthetic Dental Decisions: A Cross-Sectional Study of Student Behavior

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ABSTRACT

Introduction: Social media, with its visual appeal and influencer endorsements, strongly shapes public perception and drives demand for Aesthetic Dentistry, especially among youth. This study examines its impact on students' recent Aesthetic Dental treatment decisions.

Methods: A cross-sectional survey of 300 students gathered data on demographics, social media habits, and its influence on Aesthetic Dental treatments. Responses were analyzed descriptively using frequencies and percentages.

Results: Among 300 respondents (mostly aged 18–25), Instagram was the top platform, with most spending over two hours daily online; 76% reported social media influenced their choice of Aesthetic Dental treatments, chiefly teeth whitening, veneers, and crowns, with no notable gender differences.

Conclusion: Social media significantly shapes students' Aesthetic Dental choices through visually appealing content, irrespective of gender. Dental professionals can leverage it to share evidence-based information, set realistic expectations, and promote responsible decisions.

Keywords: Social media, Aesthetic Dentistry, Dental Aesthetics, Patient behavior, Influencer marketing, Student perception, Teeth whitening

INTRODUCTION

The early stage of the Internet, commonly referred to as Web 1.0[2], primarily functioned as a static platform where companies shared information with the public. User interaction was minimal[3]—limited to browsing and reading content[2]. However, significant advancements in web technologies, design, and user interfaces paved the way for a more dynamic online experience[4] This progression gave rise to Web 2.0[5], a term that encompasses a wide range of Internet applications characterized by interactivity, user participation, collaboration, and social connectivity.[3]

This shift transformed the Internet into a participatory medium, leading to the widespread use of blogs**,** social networking sites**,** and multimedia-sharing platforms.[6] According to the *Cambridge Dictionary*, social media refers to "websites and computer programs that allow people to communicate and share information on the Internet using a computer or mobile phone."[7] Prominent examples include blogs**,** wikis**,** podcasts**,** Facebook**,** Twitter**,** YouTube**,** andLinkedIn.[7,8]

In the past years, social media has permeatedourlives[9].Socialmediawasprimarilyabout personal communication and connections, but has shifted to be a means for organizations to market their products or services and fosterconnection[10]. Social media is now utilized in health care as a tool for health education, research, recruitment and marketing[11]. Marketing in dentistry is especially notable because marketing is an extension of one's clinical practice[12]. As a result, there are many social platforms that have generated a limitless amount of content about oral health, and almost always, they are marketing a particular dental product[13].

Dental websites often include promotional posts, which often include before-and-after pictures that have motivated some people to visit the dentist for treatment[14]. The dentist may also be running advertising for cosmetic dentistry, such as tooth whitening[15]. Some advertisements make it easy to access, and cosmetic dentistry is becoming increasingly popular as a result, particularly in light of a growing body of literature examining cosmetic dental treatment[16]. Much of the content that is being shared on social media is not created by dental professionals, but rather influencers, or users with a certain reach and engagement activities on social platforms[1]. Within the last few years, influencers have become very powerful communication modes[17].Nowthat aesthetic dental treatments are more common and moreaccessible[16], the influence of social media on people's perceptions of aesthetic dentistry is worth examining, especially given how frequently young adults are using social media, asthisisalsoademographicthatisveryimpressionable[18].

The rationale behind this study is that there is only few scientific data related to how social media practices turn into impact in the field of aesthetic dentistry[1]. Understanding this influence is important for professionals in the field, so they can deliver care to meet patient needs and expectations in their clinical setting[1].

The aim of this research was to evaluate the influence of social media on students who are going to get aesthetic dental treatment, seeing as there were variables such as sex and the type of treatment. The aim was to see if social media was a factor influencing the decision to undergo these treatments. The null hypothesis was that social media would not have a statistically significant influence on young people based on their sex and the type of aesthetic dental treatment.

METHODOLOGY

Study design-
This cross-sectional study used a web-based questionnaire (WBQ). WBQs are a type of self-completed questionnaire that can be accessed through internet browsers on many devices (e.g., computers, smartphones, tablets) [19]. Because of the number of people using internet-based technologies, WBQs provide an appropriate remedy for traditional paper-based questionnaires[20]. Surprisingly, many studies have demonstrated that WBQs have much higher completion rates and fewer missing data points than paper questionnaires[21]. Currently, WBQs are highly popular in many research contexts[22].

Sample Recruitment-
The research focused on young individuals who a reactive users of social media. Therefore, inclusion criteria consisted of students aged 18 and older who consented to participate. Exclusion criteria included non-social media users. A non-probability sampling method was utilized.

Questionnaire-
In the sociodemographic section, participants were initially asked about their gender (male/female/other). Subsequently, they responded to multiple-choice items regarding age (18–23, 24–27, >27 years).

The social media behavior section began with a question on the number of social media platforms used(1/2/3/4/5/6/). Respondents who answered affirmatively completed four multiple-choice questions covering: platforms used (e.g., Facebook, Instagram, Snapchat, Youtube, Linkedin, Twitter, Whatsapp), frequency of use (daily, weekly, monthly occasionally etc.), and preferred time of use (morning, afternoon/evening, or night).

Participants were also asked whether they had been influenced on social media to seek any dental treatment (yes/no).

If yes, they were further questioned about the factor which influenced them whether it was
- Dental clinic/Dentists post
- Social media advertising
- Influencers who have undergone treatment
- Influencer collaborations
- Frequent treatments on social media

Those indicating an interest to get treatment were asked about which treatment are they planning to get?
- Teeth whitening
- Veneers and crowns
- Orthodontic treatment
- Invisible orthodontics

Only completed and returned questionnaires were included in analysis. Data were only available to the principal investigator. After data collection, data were exported in Excel format and the internet survey was erased for data security and confidentiality purposes.

DATA ANALYSIS

Total of 300 responses were taken as per the sample size.
Data from completed questionnaires were coded and entered into Microsoft Excel and later were analyzed. Descriptive statistics (frequencies, percentages, means, and standard deviations) were calculated for the sociodemographic characteristics, social media use, and the distribution of aesthetic dental therapies. The association between independent (gender, type of aesthetic dental treatment, type of social media content viewed, and frequency of social media use, and preferred time of use) and the dependent variables (self-reported influence of social media on treatment decision-making) was assessed using the Chi-square test (χ^2) for categorical data analysis. Fisher's exact test was used when any of the expected results landed below the acceptable threshold. For the analysis of variables with ordinal or continuous measures such as frequency of social media use, or perceived level of influence, non-parametric testing (the Mann–Whitney U test for two groups and Kruskal–Wallis test for more than two groups), were applied. Binary logistic regression analysis was done to determine the predictors of social media influence on treatment decisions, adjusted for confounders. A p-value of <0.05 was considered statistically significant. Results were displayed in tables, graphs and pie charts.

RESULT

A total of **300** students completed the survey. Of these, **228 (76.0%)** reported that they had been influenced by social media to seek an aesthetic dental treatment, while **72 (24.0%)** reported no such influence.

The pie chart illustrates the gender distribution of the study participants, showing that males comprised a slight majority at 51% (n = 153), while females accounted for 49% (n = 147). The proportion of respondents identifying as "Other" was negligible and not visually represented in the chart. This near-equal gender split suggests a balanced representation of male and female participants in the survey sample.
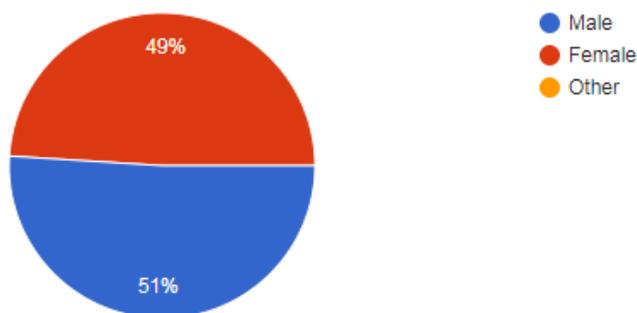

The pie chart shows the age distribution of participants, with the largest group being those aged 18–23 years, comprising 57.7% of the sample. Participants aged 24–27 years accounted for 31.7%, while those over 27 years made up the smallest proportion at 10.7%. This indicates that the study sample was predominantly young adults, with over half falling within the early adult age range.
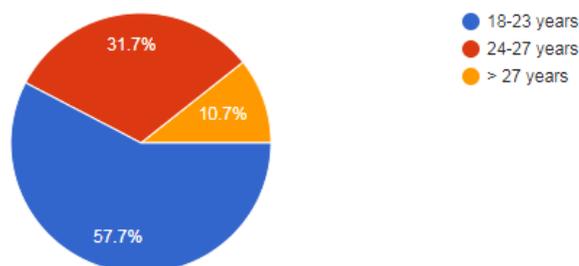
The following pie chart diagram shows the number of social media platforms used by the 300 participants. The largest proportion reported using two platforms (30.7%), followed by three platforms (27.3%) and four platforms (19.7%). A smaller percentage used only one platform (11.3%), while 5.0% used five platforms and approximately 6.0% reported using six platforms. Overall, most participants engaged with multiple social media platforms, with two to three being the most common.
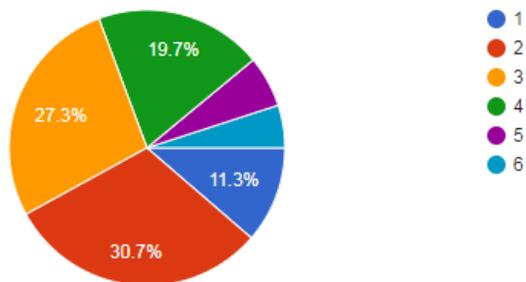

The bar chart shows the most used social media platforms among the 300 respondents, with participants able to select multiple options. Survey results showed that 58% of participants used Instagram, making it the most favored platform. Snapchat followed with a usage rate of 39.7%, with YouTube (38%), WhatsApp (37%), and Facebook (36.7%) trailing closely behind. Usage of LinkedIn (12%) and Twitter (10.7%) was comparatively lower, and just 0.3% mentioned using other platforms. These findings suggest that visually focused and instant-messaging platforms dominate participants' social media preferences.
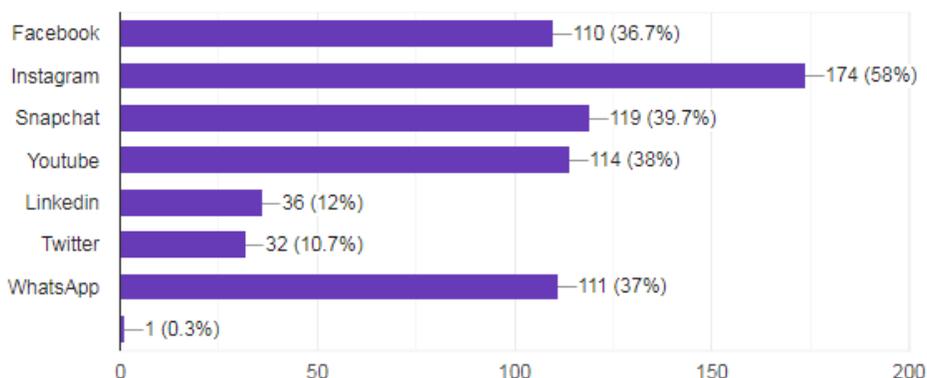

The chart indicates that the majority of respondents (67.3%) use social media daily, making it a significant part of their routine. Weekly use was reported by 20.7% of participants, while 8% engage with social media on a monthly basis. Only a small portion, 4%, use it occasionally. These results highlight that social media usage is predominantly frequent, with most individuals engaging with it on a daily or weekly basis.
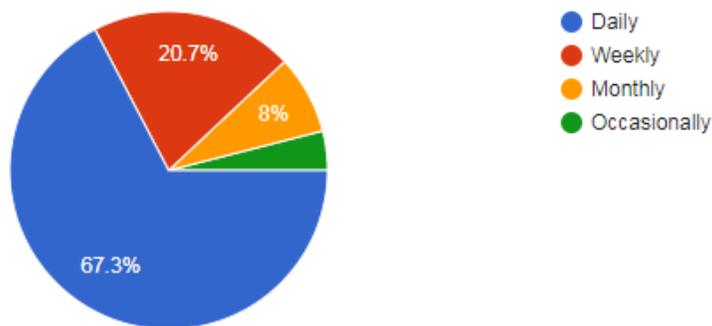

The results show that social media usage is most common in the afternoon/evening (37.7%) and at night (37.3%), with both times being almost equally preferred by respondents. Morning use accounts for the remaining 25%, indicating that while some individuals engage with social media early in the day, the majority prefer using these platforms later, either after work/school hours or before bedtime.
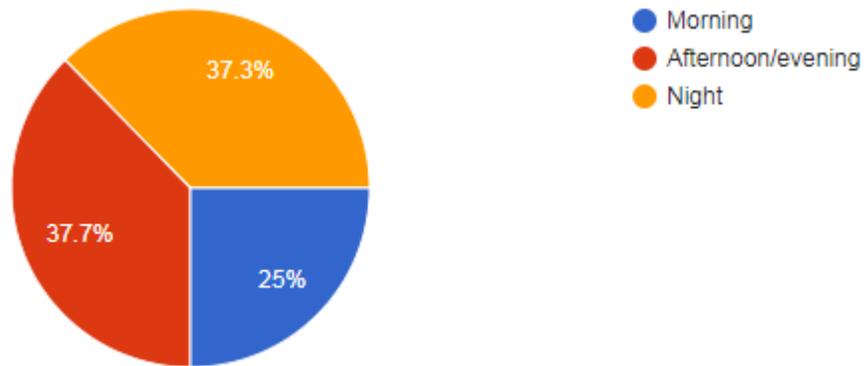
The results reveal that a significant majority of respondents (76%) reported being influenced by social media to seek aesthetic dental treatment, while only 24% stated they were not influenced. This suggests that social media plays a strong role in shaping perceptions and decisions related to dental aesthetics.
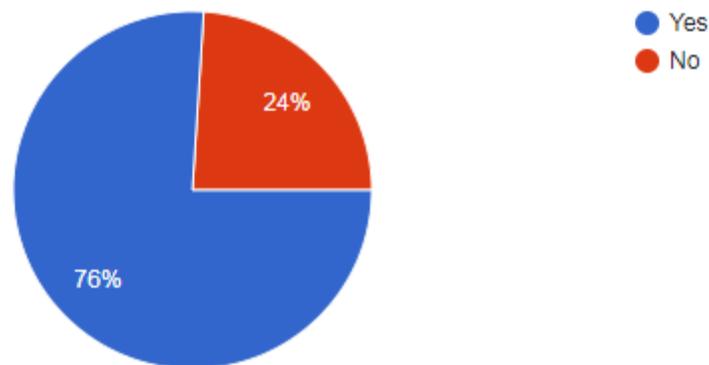
Among those influenced by social media to seek aesthetic dental treatment, the most common factor was posts from dental clinics or dentists (36%), followed by social media advertising (24.7%) and influencers who have undergone treatment (21.3%). Smaller proportions cited frequent treatments showcased on social media (10%) and influencer collaborations (8%) as their primary source of influence, indicating that professional and promotional content play the strongest roles in shaping decision
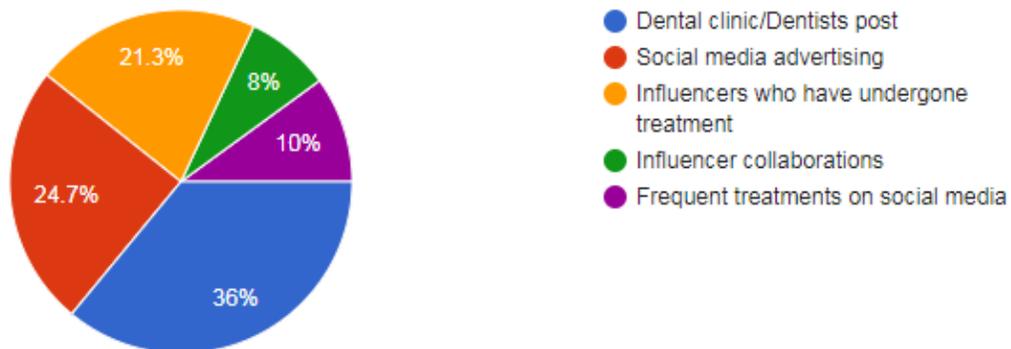
The survey shows that teeth whitening is the most planned aesthetic dental treatment, chosen by 37% of respondents, followed by veneers and crowns at 28.7%. Orthodontic treatment (17%) and invisible orthodontics (17.3%) were equally less common choices, indicating a stronger preference for cosmetic enhancements aimed at improving tooth color and shape over corrective alignment procedures
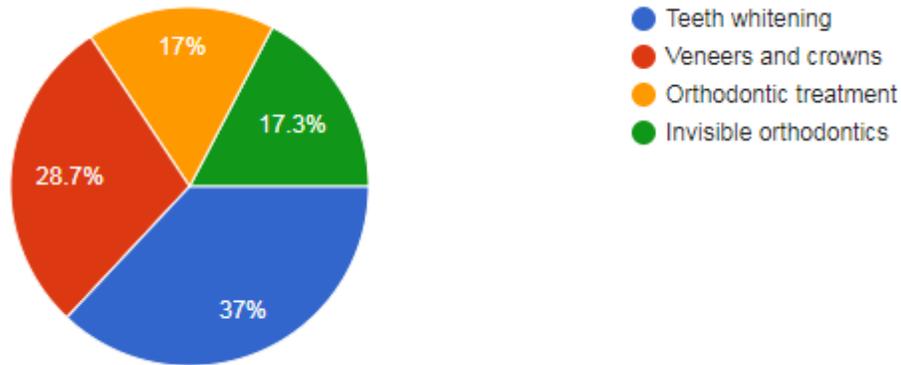
Question	Category/Option	Percentage	No. of Responses (out of 300)
Gender	Male	34.3%	103
	Female	65.7%	197
Age	18–25 years	47.3%	142
	26–35 years	33%	99
	36–45 years	13.3%	40
	46+ years	6.3%	19
Number of social media platforms used	1–2 platforms	23.3%	70
	3–4 platforms	54.7%	164
	5 or more platforms	22%	66
Type of platforms used	Instagram	87.3%	262
	Facebook	73%	219
	TikTok	58%	174
	YouTube	64.3%	193
	Twitter/X	28%	84
Frequency of use of social media	Daily	67.3%	202
	Weekly	20.7%	62
	Monthly	8%	24
	Occasionally	4%	12
At what time do you use these platforms the most?	Morning	25%	75
	Afternoon/evening	37.7%	113
	Night	37.3%	112
Influenced by social media for treatment	Yes	76%	228
	No	24%	72
Factor influencing decision	Dental clinic/Dentists post	36%	108
	Social media advertising	24.7%	74
	Influencers who have undergone treatment	21.3%	64
	Influencer collaborations	8%	24
	Frequent treatments on social media	10%	30
Planned aesthetic dental treatment	Teeth whitening	37%	111
	Veneers and crowns	28.7%	86
	Orthodontic treatment	17%	51
	Invisible orthodontics	17.3%	52

DISCUSSION

The present study investigated the influence of social media on the demand for aesthetic dental treatments among students, with a particular focus on usage patterns, influencing factors, and preferred treatment choices. Findings revealed that the

majority of respondents were female (65.7%) and that social media use was highly prevalent, with over two-thirds (67.3%) engaging daily. Afternoon/evening and nighttime emerged as the most common periods for social media activity, suggesting that these time frames may be optimal for targeted dental marketing.

A significant proportion (76%) reported being influenced by social media to seek aesthetic dental treatment, highlighting the substantial role digital platforms play in shaping patient decision-making. Among the specific influencing factors, dental clinic or dentist posts accounted for the largest share (36%), followed by social media advertisements (24.7%) and influencers who had undergone treatment (21.3%). This pattern underscores the combined impact of professional content and peer-like testimonials in fostering interest in aesthetic procedures.

In terms of planned treatments, teeth whitening was the most popular choice (37%), followed by veneers and crowns (28.7%), with orthodontic and invisible orthodontic treatments being less frequently considered (17% and 17.3%, respectively). These preferences indicate that cosmetic enhancements aimed at improving tooth color and shape are currently more in demand than corrective alignment procedures within this demographic.

The findings suggest that social media is not only a significant information source but also a persuasive tool in aesthetic dentistry, with female participants representing a higher proportion of the audience but without significant gender-based differences in influence. The high daily engagement rate presents a valuable opportunity for dental practitioners to strategically position their services in the digital space, particularly through visually engaging and educational content that aligns with peak usage times.

Overall, this study reinforces the growing importance of social media as a driver for aesthetic dental care decisions, particularly among young, digitally active populations. Dental professionals aiming to expand their patient base for aesthetic treatments may benefit from targeted, platform-specific campaigns that combine professional credibility with relatable patient experiences

CONCLUSION

The present study provides clear evidence that social media has become an influential factor in shaping the attitudes, preferences, and decisions of students toward aesthetic dental treatments. With a substantial majority of participants reporting that their choice to pursue such treatments was influenced by online content, this research confirms the increasing power of digital platforms in the dental health domain. Importantly, the influence was found to be consistent across genders, suggesting that the persuasive impact of social media marketing and visual content is broadly effective, regardless of demographic differences in sex.

Among the different forms of influence, posts and advertisements from dental clinics, dentists, and social media influencers who have undergone aesthetic procedures emerged as the most impactful. This indicates that both professional authority and relatable, peer-like endorsements play important roles in influencing treatment decisions. Teeth whitening was identified as the most frequently planned treatment, followed by veneers and crowns, suggesting that students prioritize procedures that deliver immediate and visible improvements in dental aesthetics over longer-term corrective treatments such as orthodontics.

Furthermore, the high levels of daily engagement with social media — particularly in the afternoons and evenings — provide valuable insights for optimizing the timing and targeting of digital marketing campaigns in dentistry. This finding suggests that carefully planned content scheduling could maximize visibility and audience responsiveness.

From a broader perspective, the results of this study underscore the shifting landscape of patient education and motivation, where traditional word-of-mouth recommendations are increasingly being supplemented — and in many cases replaced — by curated visual content on digital platforms. Dental professionals who wish to remain competitive and relevant must therefore adapt by creating credible, visually appealing, and evidence-based online content that can capture attention while also promoting informed decision-making.

In conclusion, social media is not merely a passive information source; it is an active driver of patient demand for aesthetic dental treatments. Leveraging this influence responsibly offers a unique opportunity for dental practitioners to enhance patient engagement, promote realistic expectations, and encourage a higher standard of oral care awareness among the younger population. Future studies could expand on these findings by exploring long-term behavioral changes linked to social media exposure, as well as differences in influence across various cultural and socioeconomic contexts

ACKNOWLEDGEMENT

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