

Impact of Social Media on Dental Treatment Choices among Medical and Nonmedical Graduates in Nellore City: A Cross-sectional Survey

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ABSTRACT

Background: Social media has become an integral part of modern life and has great potential in marketing, including dentistry. Social media also helps to attract a diverse group of people to our day-to-day activities, which might also influence oral health.

Aim: To assess the impact of social media on dental treatment choices among the medical and nonmedical graduate students of Nellore city.

Materials and methods: The cross-sectional study was conducted to assess the impact of social media on dental treatment choices among the medical and non-medical graduate students of Nellore city. The present cross-sectional web-based survey was conducted using the Google Survey tool. The questionnaire covers demographic data, reasons for using social media, and the ways in which social media has an impact on their dental treatment choices. SPSS 21 was the chosen software for analyzing both descriptive and inferential statistics.

Results: The majority of the participants (66%) reported Instagram to be the most used app. Significantly, a greater number of participants (74.4%) use social media as a source of oral health information. The majority (75.1%) have improved their oral health due to social media.

Conclusion: A higher proportion of the participants claimed that social media plays an important role regarding dental treatment choices.

Keywords: Dental treatment choices, Instagram, Social media.

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INTRODUCTION

Social media serves as a communication platform, enabling individuals to generate and disseminate information among others. Facebook, Instagram, WhatsApp, and Twitter are some examples of social media. The term "Social Media" encompasses a wide and ever-changing range of internet-based tools, generally facilitating global communication and the sharing of information, ideas, images, and more.¹ Indeed, information accessible on the internet through social media platforms is increasingly being utilized as reference guides for sensitive health matters by non-professionals, physicians, and medical students alike. Absolutely, social media has sparked a revolution in healthcare services. Numerous social media tools are now accessible to healthcare professionals (HCPs), including social networking platforms, blogs, and media-sharing websites. These tools offer opportunities to enhance professional networking and education, improve patient care, provide patient education, and bolster public health programs, which are increasingly promoted in today's healthcare. Additionally, dental education and promotion are subject to the same influence. By using technologies efficiently and securely, oral health care for the patient can be improved in both face-to-face and virtual associations. The use of diverse digital technologies in educating patients is contributing to their overall health development these days. Furthermore, within their respective specialties, certain dentists utilize social networking platforms to showcase cases, including those in cosmetic dentistry, dental surgery, orthodontics, dental implants, and other dental services, which are often showcased through pictures or videos on social media platforms. Many dentists and dental clinics rely on social networking sites to market their services, finding them more

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effective than traditional marketing methods. However, despite this trend, there is a lack of studies examining the usage of social media sites and their effect on individuals' decisions to choose a dentist. Therefore, the aim of this research is to investigate the key factors influencing graduate students when selecting a dental practice and to explore how social media influences decision-making processes. Additionally, the study aims to examine how social media platforms may engage potential patients and attract new clients to dental practices.

MATERIALS AND METHODS

The current cross-sectional web-based survey was carried out among both medical and non-medical graduates residing in Nellore city. The online questionnaire link was created using Google Survey

and distributed through Gmail. The distribution method employed a snowball exchange approach, where the link was initially sent to friends or added contacts, who then forwarded it to their networks, creating a chain reaction of participation. It was guaranteed that a link would be sent to medical and nonmedical graduates of Nellore city. Data for the study were collected through a questionnaire consisting of 16 items (questions) focusing on the impact of social media use. The questionnaire was meticulously constructed and thoroughly reviewed. All questions were designed with closed-ended responses, providing predefined answer options. The survey encompassed demographic information, motives for utilizing social media, and the influence of social media on their decisions regarding dental treatment. The questionnaire included an introductory statement that succinctly explained the study's objective in clear and understandable language. The majority of the options for all the questions were on the dichotomous scale of Yes or No, and a few questions had distinct answers. An overall total of around 2453 was collected. Out of which, 2361 complete questionnaire responses were collected, excluding the incomplete responses from the analysis. All online responses were entered into an electronic database and subsequently analyzed utilizing SPSS-21 (IRMInc, Armonk, NY, USA). Principal component analysis was performed for data reduction.

RESULTS

The cross-sectional research sought to examine how social media usage affects the dental treatment preferences of both medical and non-medical graduates in Nellore city. The total number of students participating in our study is 2,936. Out of which, the active participants who completed the online survey questionnaire, there were 2,361 students.

Table 1 shows the demographic details of the number of participants in our study, of which 55.7% are females when compared to males, the age-group was about 18–21 years (53.1%), and 64.3% are medical graduates (Fig. 1).

Table 2 data revealed that 64.9% of the respondents were active on social media for personal, professional, and business purposes. Out of this 64.9% of active usage of social media, Instagram was the most commonly preferred social media platform (66%), 16% of

people were active on WhatsApp, and 13% of people were active on Facebook. Least of around 5% were active on Twitter (Fig. 2).

The majority of people, accounting for 74.4%, reported using social media platforms to seek oral health information. A high proportion (75.1%) of people answered that they had improvement in their oral health using social media. Around 75.2% of participants expressed their preference for dentists to utilize social media as their primary communication channel, as opposed to traditional media methods. Most (74.5%) of the people answered the question that they agree with the statement: "social media provides useful information for dental treatment choices." Participants' opinions on the effect of social media on dental treatment choices varied, reflecting differing perspectives and experiences, as shown in Table 3 and Figure 3.

DISCUSSION

Recently, there has been a considerable increase in internet accessibility and the usage of social media platforms. Social media platforms provide a means for individuals to create and distribute information. The genesis of social media can be traced back to 1997, with Andrew Weinreich² credited with creating the first social media site. Today, most people utilize social media for activities such as learning, marketing, shopping, and decision-making. With the continuous advancement of these technologies, they hold the promise to influence practices and procedures across numerous sectors. There has been a noticeable increase in the use of social

Table 1: The demographic data from this survey

Category	Subdivisions	Percentage
Gender	Male	44.3%
	Female	55.7%
Age	18–21 years	53.1%
	22–25 years	36.2%
	26–30 years	6.3%
	Above 30 years	1.6%
Education	Medical graduates	64.3%
	Non-medical graduates	35.7%

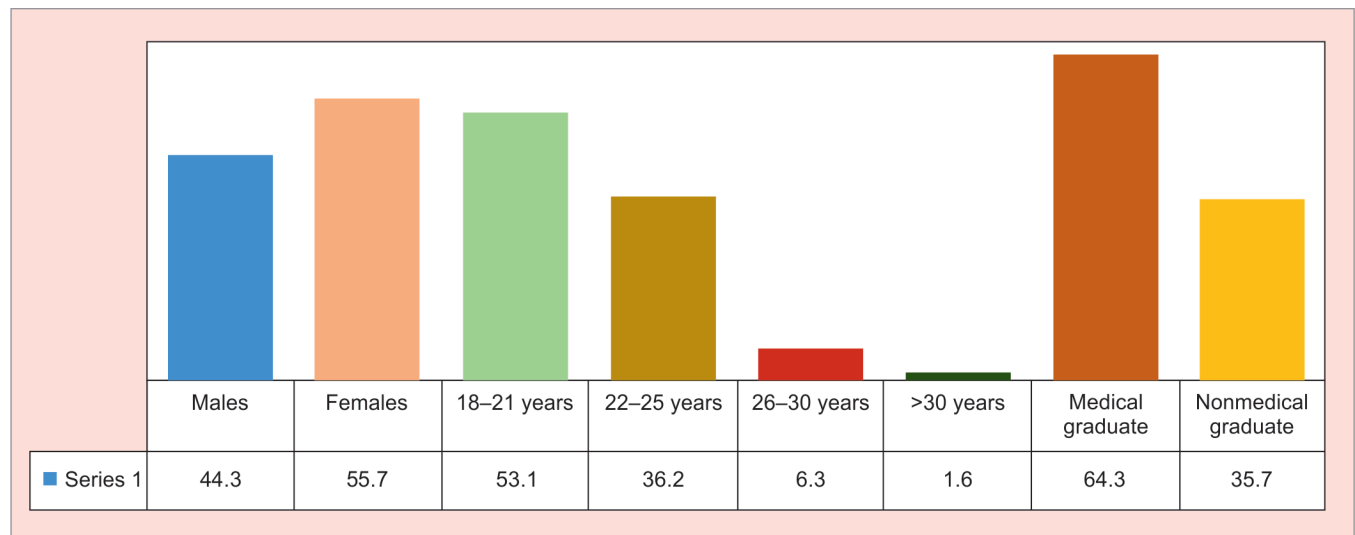


Fig. 1: Age-group and gender and education-wise distribution

networking sites by healthcare providers and patients in recent times, and it is also being used in the dental sector, which is showing good benefits not only to the dentists practicing but also boosting good knowledge among the patients.

In this study focusing on evaluating the “effect of social media on treatment decisions among medical and non-medical graduates in Nellore city,” the age group we concentrated on was mostly the young, who are now more involved in social media. More than half of the participants – around 64.9% – are active on social media. The active usage of social media percentage (49.2%) and age group of 18–21 years old is more important in our study than the usage of social media in day-to-day life in comparison with the study conducted by Taneja et al.³

The current survey showed that 66% of study participants were using Instagram, when compared to other social media platforms.

Table 2: Details of active and preferred social media platforms

Category	Subdivision	Yes%	No%
Active on social media		64.9%	35.1%
Preferred social media	Instagram	66%	–
	WhatsApp	16%	–
	Facebook	13%	–
	Twitter	5%	–

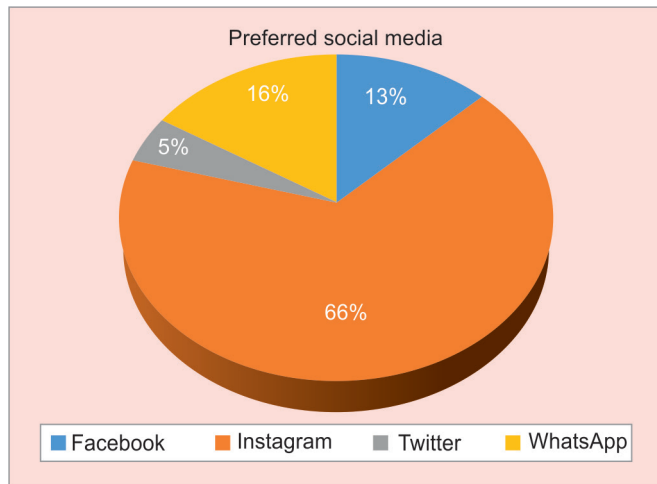


Fig. 2: Most used social media platform by participants

This was contradictory to the survey report by AudienceNet, where 60.11% used WhatsApp as the social media platform more than any other social media app when it came to their choice of messaging app.⁴ As there is an improvement in technology, pre- and posttreatment information is nowadays posted on the common platform. Those who had an ID but not at all in the contact group might be the choice, where Instagram is mostly nowadays seen and used where contact and non-contact dentists can also post their views.

It was also observed that a high frequency (81.8%) of people were using social media apps multiple times a day. Approximately 60% of HCPs view social media as a platform for enhancing their patients’ quality of life. Certainly, concerns may arise regarding the utilization of online networking platforms. For example, the utilization of Facebook can sometimes result in adverse consequences, such as the dissemination of misleading information regarding healthcare services. Nevertheless, delving into the influence of digital networking on worldwide healthcare is crucial, given the substantial advantages and disadvantages it can entail for both healthcare seekers and HCPs.

In the present study, around 70.1% of participants agreed that they follow dentists on social media, as if the young generation is seeking new updates of good oral health and the latest advanced treatments, which is more when compared with the research carried out by Awdah et al. In the study, it was found that 53% of participants related to dentists on online networking platforms.⁵ This study revealed that a notable portion of respondents (74.4%) rely on social media as a source for obtaining knowledge about oral health. As per the findings of Hamm et al., a significant portion of people often turn to the Internet for health information, resulting in it being the third most popular online activity on the Internet.⁶ Almost 65.3% of the participants trusted the dentistry-related information they obtained from social media, which is more compared to the study led by Awdah et al., which reports that 55% of individuals trust information about dentistry on social media.⁷ Due to the daily updates of oral health information by dentists from different sectors on social media, many of the participants (75.1%) agreed with the statement that there’s an improvement in oral health because of social media.

Around 74.5% of the participants think that social media plays an important role regarding dental treatment choices, in contrast to the study conducted by Moorhead et al.,⁸ which states that only a fewer percentage of the desired population (42.4%) agree with that statement. According to a survey conducted by the Pew

Table 3: Responses of participants to the social media on dental treatment choices

Questions	Yes	No
Q1. Are you active on social media?	64.9%	35.1%
Q2. Do you follow dentists on social media?	70.1%	29.9%
Q3. Do you use social media as a source of oral health information?	74.4%	25.5%
Q4. Improvement of oral health using social media.	75.1%	24.9%
Q5. If you want to get information about dental treatment, is social media your first choice of information?	65.3%	34.7%
Q6. Do you think social media plays an important role regarding dental treatment choices?	74.5%	25.5%
Q7. Do you trust the information you get on social media about dental treatment choices?	65.5%	34.5%
Q8. Do you think that dentists should communicate with people through social media rather than conventional media (TV, magazine, newspaper)?	75.2%	24.8%
Q9. Do you choose dentists based on advertisements by celebrities on social media?	68.1%	31.9%
Q10. Do you visit a dental clinic because you saw before and after pictures on social media sites?	64.4%	35.6%
Q11. When you read a criticism of a dentist on social media, would that affect your personal decision to visit the dentist?	31.6%	68.4%

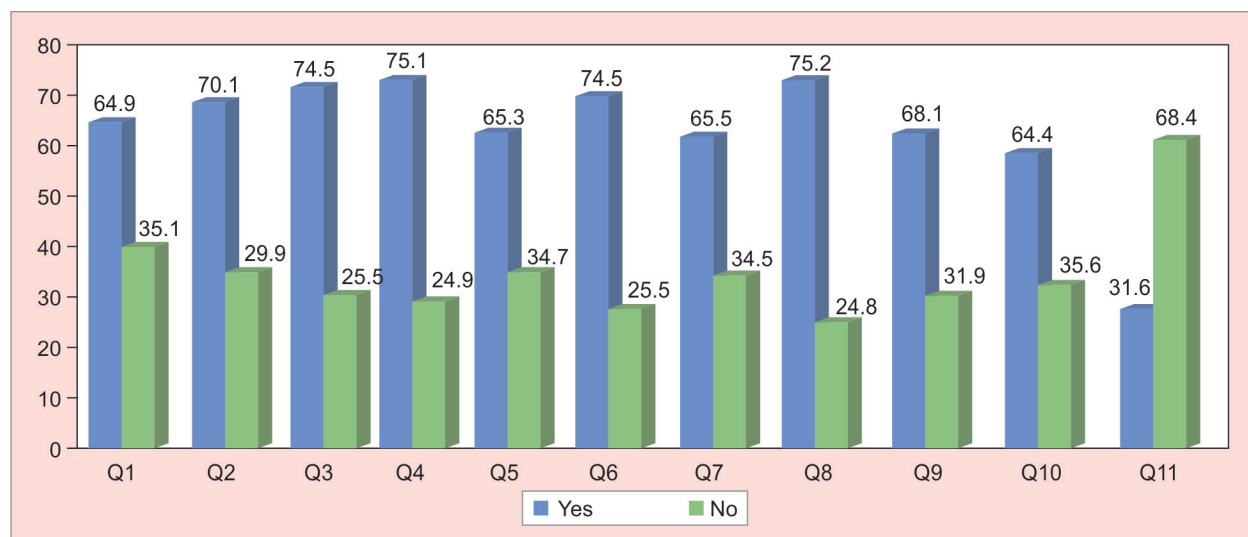


Fig. 3: Responses of participants for the questionnaire

Research Center in 2013, 72% of internet-using adults sought medical information online.⁹ Might be the reason for the availability of pretreatment remedies and precautions for the maintenance of oral health.

A considerable proportion of participants (75.2%) expressed the belief that Dentists should interact with the public via social media platforms, aligning with the findings of the research carried out by Thackeray et al., reported that 74.9% of participants indicated a preference for healthcare providers to communicate via social media platforms rather than traditional media outlets like newspapers and magazines.¹⁰ Due to this, improvements in technology and greater inventions have brought tremendous changes in day-to-day life, which improve communication through social media.

CONCLUSION

The majority of participants recognize the significant role of social media in disseminating information about oral health, and they also indicate that social media influences people's decisions regarding treatment choices and agree that social media is more appropriate for influencing than conventional media.

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