



THE INFLUENCE OF SOCIAL MEDIA, INFLUENCERS AND CELEBRITIES ON DEMAND OF COSMETIC DENTISTRY AMONG GENERAL DENTAL PRACTITIONERS IN PUNE.

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Abstract: Objective: This study aimed to examine how general dentists perceive a range of cosmetic dental procedures as showcased by individuals on social media.

Methodology: This study was carried out among general dental practitioners in Pune through the means of google form and was circulated through social media (WhatsApp, Facebook, Twitter, Instagram). The data collected were analysed using Statistical Package for Social Sciences (SPSS) version 21 for windows (SPSS Inc, Chicago, IL).

Result: The majority (94.4%) of dentists considered that it is important to stay updated on cosmetic dentistry through social media. Additionally, 75.2% believe that social media has led to an increase in demand for certain cosmetic dental procedures. Highest demand was observed for smile designing (25.56%), followed by Teeth whitening (23.33%) and dental veneers (21.48%). While (58.2%) recognized social media's positive impact for patient education and communication within their practice. To heighten the awareness about benefits of cosmetic dentistry, most of dentists (78.1%) opted for the use of before-and-after photos.

Conclusion: Social media has created a demand for an aesthetically pleasing smile as people are exposed to idealized dental aesthetics through influencers and celebrities. This has led to an increase in the number of patients seeking cosmetic dentistry.

Index Terms - Social media, Cosmetic dentistry

I.INTRODUCTION

Cosmetic dentistry is a specialized field within dentistry dedicated to enhance the aesthetic aspects of individual's teeth, gums and their overall smile. Conventional dentistry prioritizes oral health and function whereas cosmetic dentistry primarily seeks to enhance the visual appearance of teeth and overall appearance of the mouth. It includes various procedures and treatments aimed at creating a more attractive and visually pleasing smile.¹

Social media has become an essential component in modern life. It is defined as a form of electronic communication that distributes user content to websites. Diverse technologies and gadgets such as mobile phones, tablets and computers are used to promote electronic inclusion, sharing, social interaction and collaboration in society.² According to data from the Indian statistics portal as of January 2022, around one-third (33.4%) of the population in India actively participates in social media platforms.^{3,4} India is one of the largest hubs for dental sciences in Asia having 2.7 lakh registered dentists.^{3,5} In recent years, social media has significantly impacted the field of cosmetic dentistry. This influence has been driven by the widespread use of platforms such as Instagram, Facebook, Snapchat, TikTok and Twitter where people share their personal journeys and experiences with cosmetic dentistry.⁶

The rise of social media and the emergence of influencers has ushered a new era of aesthetic dentistry, shifting the perspectives and approaches of both dentists and patients regarding cosmetic procedures.⁷ Social media has created a demand for an aesthetically pleasing smile as people are exposed to idealized dental aesthetics through influencers and celebrities.⁸ It is undeniable that especially the younger generations have always tried to look like their favourite celebrities, beauty bloggers or trendsetters. They often strive to attain what's commonly referred to as so called "celebrity smile," which includes pearly white straight teeth.⁹ This has led to an increase in the number of patients seeking cosmetic dentistry. However, it also puts pressure on dentists to meet these expectations and deliver perfect results.

The trend towards aesthetic dentistry is growing rapidly, certainly thanks to the increased use of social media in today's world, making it mandatory for dentists to offer procedures including veneers to imitate the Hollywood smile, veneers are thin, custom-made shells typically made of porcelain or composite resin. They are designed to cover the front surface of teeth, masking imperfections like stains, chips, or gaps, and providing a uniform, attractive appearance. Teeth whitening is one of the most popular aesthetic dentistry treatments. This involves using whitening agents to remove stains and discoloration from your teeth, resulting in a brighter, whiter smile. Gum contouring, or gum reshaping, is a procedure that involves removing excess gum tissue or reshaping the gumline to create a more balanced and aesthetically pleasing smile. Botox injections are used to give lips a fuller appearance, plasma-rich protein treatments and many other aesthetic procedures to satisfy patients.⁷

The impact of social media, celebrities, and YouTube influencers on cosmetic dentistry can be both positive and challenging. It is essential to note that while social media can be a precious tool for promoting aesthetic dentistry, it also comes with challenges, such as maintaining patient privacy and managing online reputation. Dentists must use these platforms responsibly and ethically to ensure the well-being of their patients and the integrity of the profession.⁷

Dissatisfaction from the treatment can lead to negative influence on patients, further Celebrity and influencer photos can also sometimes create unrealistic expectations in patients, leading to disappointment when they are unable to achieve the exact same results. The visibility of successful cosmetic dental work on social media can lead to increased competition, making it important for dentists to stay updated and maintain high standards.⁶

The aim of this survey is to explore how social media platforms and celebrity endorsements are affecting the demand, preferences, and expectations of cosmetic dentistry among dentists in Pune.

II. RESEARCH METHODOLOGY

Study Setting

This study was carried out among general dental practitioners of Pune city. A questionnaire was created through the means of google form and was circulated through social media (WhatsApp, Facebook, Twitter, Instagram).

Study protocol

Convenience sampling method was utilized to determine the sample size. The estimated sample size for this study was 270 participants. Confidence interval was 95%, Level of significance (α error) was 5%, Power of study was 80%.

Study Questionnaire

A well-organized questionnaire was utilized for data collection, and a pilot study involving 20 participants was implemented to validate the questionnaire's reliability. The internal consistency of items tested with intra-class correlation showed a strong value of 0.847. The questionnaire included 27 predefined responses, covering demographic information, social media usage, and questions related to aesthetic dentistry.

The survey inquired about participants' daily social media activity, focus on aesthetic dentistry, posting about aesthetic procedures on social media, preferred platforms for sharing cosmetic dentistry work, reasons for non-sharing, the relationship between social media usage and demand for specific procedures, the role of social media in increasing awareness of aesthetic procedures, its benefits in patient education and communication, the influence of celebrities on the popularity of aesthetic dental procedures, whether the portrayal of cosmetic dental procedures on social media accurately reflects the reality of these procedures and the importance of staying informed on the latest aesthetic dentistry trends through social media.

Statistical Analysis

The data collected were analysed through Statistical Package for Social Sciences (SPSS) version 21 (SPSS Inc, Chicago, IL). Descriptive statistical analysis was conducted to compute the mean and standard deviation for continuous variables, along with determining the percentage distribution for categorical variables.

III. RESULTS AND DISCUSSION

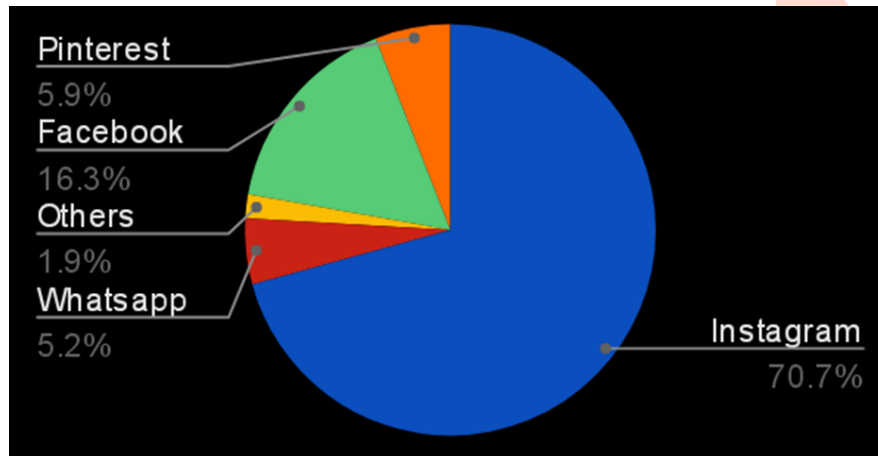
In this cross-sectional study a total no of 270 dental practitioners participated from across Pune by submitting the questionnaire.

Most participant well within the age brackets of 29 + - 4 years. In terms of gender distribution, 126 male and 144 female participants took part in the study as presented in table no (1).

Table 1: Demographic distribution of participants

Demographics	Total	N
Gender	Male	126
	Female	144
Time spent on social media (in hours)	1-3	73
	3-6	129
	6-9	56
	>9	12
Mean Age (in years)	29.40 ± 4.37	
Total	270	

The social media preferences of dental practitioners lean towards Instagram (70.7%) as the primary platform, followed by facebook (16.3%), while small number of participants opt for Pinterest (5.9%), WhatsApp (5.2%), others(1.9%) etc. as represented in *figure no. 2*

**Figure no.2**

In terms of sharing content related to aesthetic dentistry, approximately 43.33% of dental practitioners posted about less than 3 posts per week, followed by 27.04% posted about 3-6 posts per week 11.11% posted about more than 6 posts per week on social media while 18.52% of dental practitioners refrained from sharing any content related to aesthetic dentistry on social media.

When asked about the impact of social media on the rise in demand for cosmetic procedure, the majority of dental practitioners (75.19%) answered affirmatively, While some answered negatively (7.04%). A portion of dental practitioners (17.78%) expressed uncertainty.

Regarding the most popular aesthetic procedure in demand smile designing took the lead as the most commonly chosen aesthetic procedure (25.56%), trailed by teeth whitening(23.33%), dental veneers (21.48%) Invisalign (13.33%) in popularity.

The majority of dental practitioners answered affirmatively when asked about patients considering cosmetic dental procedures influenced by social media(73.70%), while some answered negatively (9.26%).

(94.44%)of dental practitioners emphasized the importance of staying informed about the latest trends and techniques through social media channels. However, (5.56%) of dental practitioners held a negative viewpoint regarding this matter.

When gender distribution pattern of responses of selected items was assessed by chi-square test no significance difference was found($p>0.05$) as represented in table no.(5)

Table 3: Response analysis of study participants

Item	Frequency	Percentage	
Activity centred to aesthetic dentistry (per week)	0 posts	50	18.52
	Less than 3 posts	117	43.33
	3-6 posts	73	27.04
	More than 6 posts	30	11.11
Social media platforms do you find the most effective for sharing your work in cosmetic dentistry?	Facebook	44	16.30
	Instagram	191	70.74
	Pinterest	16	5.93
	Whatsapp	14	5.19
	Others	05	1.85
Use of social media led to the increase in the demand of certain cosmetic procedures?	Yes	203	75.19
	No	19	7.04
	Maybe	48	17.78
Most popular aesthetic procedure in demand?	Smile designing	69	25.56
	Dental veneers	58	21.48
	Invisalign	36	13.33
	Teeth whitening	63	23.33
	Others	44	16.30
Do celebrities influence the popularity of aesthetic dental procedures?	Yes	177	65.56
	No	11	4.07
	To some extent	82	30.37
Have you ever come across social media posts,videos or images featuring influencers or celebrities discussing cosmetic dental procedures?	Yes	140	51.85
	Sometimes	97	35.93
	Rarely	15	5.56
	Never	18	6.67

Have you ever collaborated with social media influencers, celebrities or brands through social media?	Yes	79	29.26
	No	191	70.74
Have you ever seen patients consider undergoing cosmetic dental procedures due to the influence of social media?	Yes	199	73.70
	No	25	9.26
	Maybe	46	17.04
You believe that social media has changed patients expectations or preferences regarding cosmetic dental procedures?	Yes	203	75.19
	No	15	5.56
	Maybe	52	19.26
Is it important for you to stay updated with the latest trends and techniques in aesthetic dentistry through social media channels ?	Yes	255	94.44
	No	15	5.56

Figure 4 : Percentage distribution of study participants for selected items

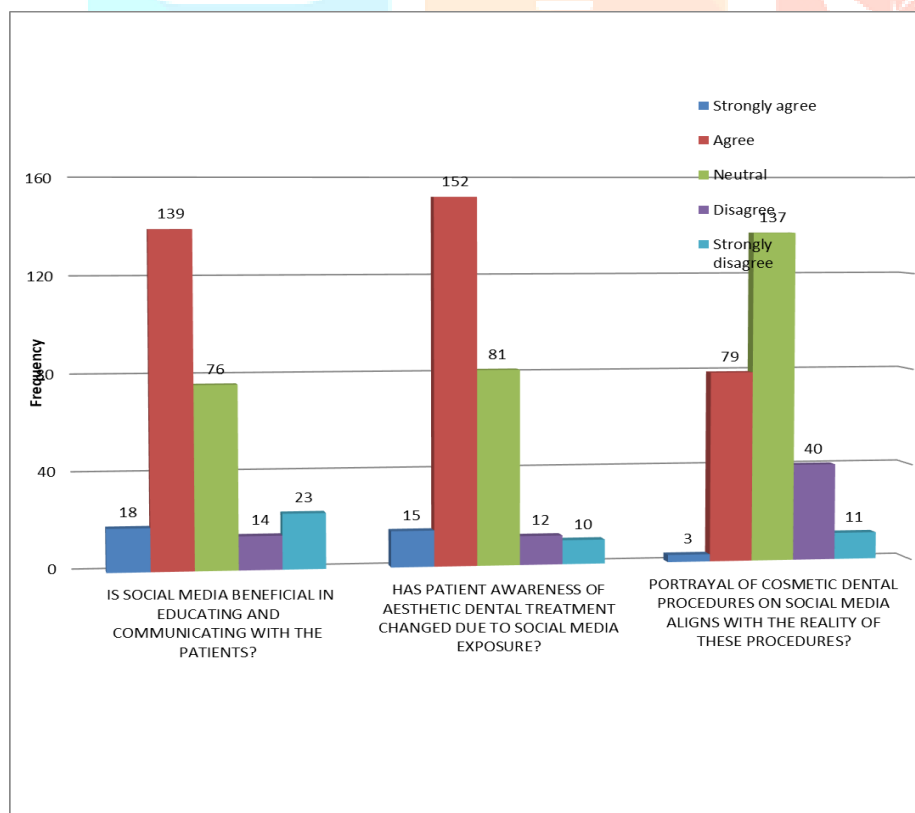


Table 5: Comparison of responses of selected items based on gender

Item	Male	Female	p-value
Social media platforms do you find the most effective for sharing your work in cosmetic dentistry?	Facebook	18	0.093
	Instagram	93	
	Pinterest	8	
	Whatsapp	5	
	Others	2	
Do celebrities influence the popularity of aesthetic dental procedures?	Yes	84	0.088
	No	6	
	To some extent	36	
Is social media beneficial in educating and communicating with the parents?	Strongly agree	7	0.06
	Agree	79	
	Neutral	24	
	Disagree	5	
	Strongly disagree	11	
Have you ever seen patients consider undergoing cosmetic dental procedures due to the influence of social media?	Yes	94	0.082
	No	13	
	Maybe	19	
Is it important for you to stay updated with the latest trends and techniques in aesthetic dentistry through social media channels ?	Yes	119	0.094
	No	7	

IV. DISCUSSION

This study aims to assess the demand for cosmetic procedures in dental practices, with a specific focus on the influence of social media influencers and celebrities. It explores how dentists use social media to promote their skills and popular aesthetic trends. The use of social media is prevalent across all ages and professions and is spreading worldwide. Various research studies have examined the use of social media among dentists throughout the world such as in US, South Africa and Saudi Arabia;^{10,11,12} however, few studies have been conducted in India by Jamkhanda A et.al, Venkateswaran V ,Makkar N et.al and these Studies indicate that dentists' use of social media varies, with reported percentages ranging from 63% to 90% for both professional and personal purposes^{3,13,14} This suggest that considerable number of dentists are incorporating social media in their dental practice, indicating a growing popularity of these platforms within the dental field.

Aesthetic dentistry is blend of artistry and dental expertise, where the patient's happiness depends on their subjective assessment of the cosmetic improvements achieved through various procedures. According to our research, the most commonly used social media platform for sharing work in cosmetic dentistry was Instagram which is in contrast with other studies where Facebook was the most commonly used platform^{10,11,13} This

information is crucial because it helps dentists figure out which platform is most effective in their region. This way, they can choose the best place to share and promote their skills.

In the present study 55.9% of dentists agreed that they used social media platforms to post aesthetic procedures. This percentage is in accordance with the study conducted by Salim et al, where 57% of dentists mentioned sharing positive content regarding aesthetic dental procedures.¹⁵ Further, 44.1% of dentist reported that they did not post their content related to cosmetic dentistry. The main reasons included privacy concerns (58.8%) followed by lack of consent (55.2%). While a study conducted in South Africa stated that primary reason for not choosing social media marketing was time constraints (65.4%), lack of knowledge (53.6%) and security concerns (47.9%).¹¹

In addition, a substantial number of dentists 75.2% have noted an increase in the demand for cosmetic procedures within their dental practices. This observation is consistent with findings from a study conducted in the Gulf region, which reported a comparable trend (53%).¹⁶ Furthermore, there are various methods through which dentists can promote their clinical skills making it easier to connect with patients. In the present study, 78% of dental practitioners acknowledged that displaying before-and-after pictures proves to be an impactful method for sparking interest among patients in cosmetic dental procedures. Similar findings were reported by Abbasi et.al in which 50% of the general dentists reported that before and after pictures of the procedures drew the attention of patients toward their practices.⁷ This could be because of the use of visual representations, such as images, helps in visualizing the state of a procedure of both before and after treatment.

The present study reveals that a significant number of participants 58.2% recognize social media as a valuable tool for education, advertising, and effective communication with patients. This aligns with a study by Bahabri et al., which found that 41% of participants use social media for personal, professional, and business purposes.²

Based on our research, 65.6% of dentists acknowledge that patients express interest in cosmetic procedures influenced by social media, trends, and celebrities. Additionally, our results indicate that 48.89% of dental practitioners identify Smile designing and Teeth whitening as the most favoured and in-demand cosmetic procedures. Similar findings were reported by Tin-Oo et al., where teeth whitening (48.1%) was most desired treatment by the patients.¹⁷ Hence, with the rise of platforms showcasing flawless smiles by public figures, there is an increased interest and aspiration for perfect teeth and smile.

Our study highlighted the fact that 50.9% of respondents maintained a neutral perspective on whether the portrayal of cosmetic dental procedures on social media aligns with the reality of these procedures. This could be attributed by factors such as varied expectations, sources of information and subjective interpretation. The influence of social media on cosmetic dentistry procedures may give rise to unrealistic expectations among patients. People often expect quick and dramatic results in cosmetic dentistry, influenced by social media. However, these expectations may not always match what is practical or advisable, leading to potential disappointment. This highlights the importance of patient education and the necessity to carefully manage expectations within the field of cosmetic dentistry.⁶

V. CONCLUSION

This study reveals a notable impact of social media, influencers and celebrities on the demand for cosmetic dentistry among general dental practitioners in Pune. The majority acknowledge that social media plays a crucial role in shaping patient expectations and influencing treatment choices. While social media serves as a powerful tool for promoting aesthetic dentistry, it highlights the necessity for dental practitioner to stay updated about these influential factors, changing preferences and expectations influenced by trends in social media and they must navigate carefully to maintain ethical standards and ensure patient understanding.

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