

Influence of Social Media on Patient's Decision on Various Dental Procedures among General Population - A Cross Sectional Study

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Abstract: ***Introduction:** A large part of day to day interaction takes place through social media. Social media has begun to proliferate across the fields of medicine and dentistry also. It opens up new avenues of communication. **Aim:** The study aims to examine how social media platforms have influenced patient's decisions about dental treatments. **Materials and methods:** The current cross-sectional questionnaire study was carried out among Facebook, Instagram, and WhatsApp users. Through Gmail, a Google survey form was created, which was distributed using the "snowball exchange" method. The questionnaire consists of 21 questions divided under 3 headings a) Demographic details. b) Patients opinion regarding dental practice and social media. c) Factors related to choosing a dental practice or clinic. **Result:** Total 394 responses were collected, in which the highest number of respondents were of 18 - 25 of age group (54.6%). All the respondents were given a chance to choose the social media account they use frequently and the result were WhatsApp (91%), Instagram (71.6%), around 57% browsing YouTube and the least (20.6%) uses LinkedIn. 84% of respondents were agrees that dental practice should have an online presence. 62% of participants states that they give an online review of their visit to a dentist or a treatment option, and about 95% states that they refer an online review before visiting a dentist or before getting a treatment done. **Conclusion:** Social media is expanding the scope of healthcare by offering a platform for use by patients and healthcare workers*

Keywords: Dentist, internet, social media, education, treatment

1. Introduction

Social media is a platform that allows for the creation and sharing of information and ideas via online networks. It has become an essential component of modern life. Meanwhile Cell phones, tablets, and laptops, among other technology and devices, are used to electronically encourage participation, sharing, social connection, and cooperation within society.

From millennials through Gen Z and beyond, technology has had a profound impact on each successive generation. According to the statistics, an average Indian spends 2.36 hours a day on social media [4]. Although social media's original intent was to be used for sharing daily events, it slowly attracts majority of the population and developed into a valuable platform for a variety of worthwhile activities like education, business, marketing, and advertising. Additionally, dentists find it handy to submit instructional videos and slideshows that describe different dental

treatments. Furthermore for the benefit of their peers as well as dental students, dental professionals also find it easy to publish instructional films and presentations outlining various dental treatments. Dental professionals frequently promote their clinics on social media, as well as professional events like workshops and conferences. The most widely used social media platforms worldwide are Facebook, YouTube, Twitter, LinkedIn, and Instagram, although there are a lot more options.

Similarly, the relevance of social media platforms in promoting dental services and drawing in new customers was highlighted by a recent study by Radu et al. [3] that looked into patients who never had treatment in a specific clinic but had been persuaded to do so via the Internet. Therefore, it is important to recognize the influence social media has on patients' decisions on various dental procedures. Due to the growing popularity of social media, this study aims to examine how social media platforms have

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influenced patients' decisions about dental treatment choices, clinics, and practitioners.

2. Materials and Methods

The current cross-sectional web survey was carried out among Facebook, Instagram, and WhatsApp users. The study was carried out in the general population of Maharashtra. All the participants who do not belong to dental profession, use social media and are above 13 years of age are included in this study. Those participants who are below 13 years of age and who do not use social media are excluded from the study. Through Gmail, a Google form (Google LLC, Mountain View, California, United States) was created. The survey was distributed using the "snowball exchange" method, in which the link was circulated to the next friend circle or family members after being provided to friends or a phone contact that had been added.

In accordance with the objectives of our research, the research questionnaire was prepared utilizing information from past investigations. The survey questions used in the study were taken from Taneja et al. [1] and Abdullah Alalawi et al. [2] study and are modified. Every question had predetermined response alternatives and closed-ended answers. The majority of all the question options were on a dichotomous scale of "Yes" or "No" and just a few questions featured more than one answer. A concise and straightforward introduction to the study's goal was included in the questionnaire.

The first component of the research questionnaire included inquiries about demographic information and personal social networking site usage. The questions in the second round centred on interactions between patients and their dentist on social media. The questions in the last section are meant to help researchers better understand what factors people consider most important when choosing a dentist and what they think about dental care in general.

The pilot study had 30 participants. The 30 people who participated in the pilot trial were not included in the current data analysis. With a Cronbach's alpha of 0.897, the pilot study's findings demonstrated satisfactory validity.

Formula $N = Z^2 (P [1 - P]) / d^2$ was used to calculate the sample size. Where N is the sample size, Z is the standardised normal deviation at 95% confidence level, 1.96 is the expected prevalence of social media use (as determined by the pilot study), and 5% is the absolute precision that must be maintained on either side of the prevalence. Therefore, 384 was the required minimum sample size to carry out this study.

A significant portion of social media users were sent the survey link via email due to the unpredictability of the results. It was impossible to analyze a questionnaire with even one incorrect response, thus, the final analysis incorporated all of the questionnaire replies in their entirety. All of the responses were examined within a span of week. Total 394 responses were collected and are analyzed.

The data was entered into a Microsoft Excel spreadsheet (Statistical programme for social science). For analysis, IBM Chicago, Illinois, United States' SPSS 23.0 version software was employed.

The statistics of the data are presented in the form of tables and graphs.

Personal social media account.

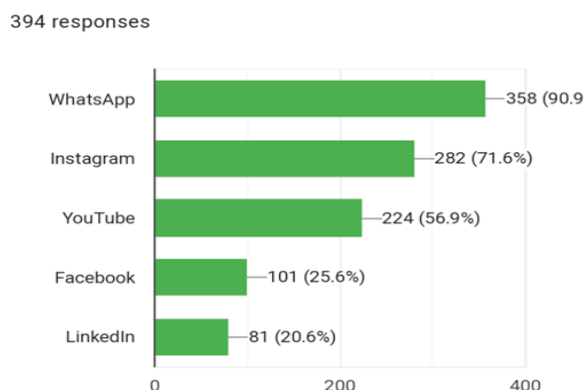


Figure:-1

3. Result

Around 98% percent of the respondents reported that they are using or browsing social media websites and 92.2% of them have personal accounts on the social media. In table 1, total shows that 394 responses were received, where females constituted 52.8% of the total respondent. The majority of the survey respondent's ages ranged from 18 - 25 years old (54.6%), followed by 34.5% at the age range of 26 - 35 years, 8.1% were at the age range of 36 - 46 years and the least were above 46 years of age represented with 3.8%. The high interest rate reported with the youngest age groups could be a reflection of their high interest and involvement in new technologies and usually they are more active in social media. Approximately 91.6% of respondents said they use social media every day (Table 1).

When the participants were asked about which social media applications they are usually browsing, they were given the chance to choose more than one options and the results were WhatsApp (90.9%), followed by Instagram (71.6%), 56.9% were browsing YouTube and the least were browsing of LinkedIn with 20.6% (Figure 1).

In this study we found that (Table 2) 42.6% of interviewees agreed that dental practices should have an online presence. According to 51.8% of the participants, the positivity of online reviews is very important and 61.9% of the respondents shares that the before and after image of dental procedures helps them to build up trust on a dentist or a dental procedure (Table 2).

The research revealed that (Table 3) the majority of survey participants (87.8%) were influenced by the dental experiences of their family and friends. The majority of participants (58.1%) do follow a dentist or a dental clinic and (Table 3). They (92.4%) overwhelmingly concur that

dentists should interact with people on social media rather than through traditional media (Table 3).85.8% of the participants agreed that they watch instructional videos that were posted on the social media by the dentist.61.9% of the respondents gives review about their visit to a dentist or a dental clinic and 71.3% of the participants agreed that they read the review and criticisms before visiting a dentist or a dental clinic and these reviews does affects their decision for a visit (Table 3).

4. Discussion

Regarding the research's study objects, it is possible to see the emergence of subjects related to the theoretical and empirical knowledge of social media in dentistry education and professional practice.

Information and knowledge are constantly being created as a result of the interaction between the numerous elements involved in the process of knowledge creation, notably from social networking platforms. This is a key factor in the growth of learning and innovation. This tendency appears to be being followed by the area of dentistry. Given the difficulty of the subject, it is conceivable to picture a more comprehensive epistemological and practical approach that will involve future social media content in the field of dentistry.

In this study we have found that females are more active in social media (58%) then males (47.2%) this is in similarity with the study done by Abdullah Alalawi [2]. A study done by Krasnova H. [5] reported that females uses about 10 mins social media networking every day whereas males uses less than 7 mins.

In this study majority of participants around 58.1% do follow a dentist or a dental clinic in contrast to the study done by Taneja et al. [1] in which 60.9% are not following any dentist or a dental clinic. Approximately 92.4% of the respondents agree that dentist should communicate with people through social media rather than conventional media this is in similarity with the study done by Taneja et al. [1].

90.9% of the respondents in the present study reported that the WhatsApp is the most powerful platform for advertising; this is in contrast with the study done by Rayan H. [6] where Instagram is found to be most relevant platform for advertisement.

Moreover; in the study done by Al Awdah et al. [4], they discovered that 68% of all participants in their survey seek advice from friends or family members concerning their health on the influence of social media on dental treatment decisions showed similar results.

Around 75.1% of respondents trust the information given in the social media by the dentist and according to the study done by Sumayyia et al. [7] which states that, addressing information accurately may reduce the risk of misleading information to the patients. These findings highlight the necessity of encouraging dental practitioners to devote more time and energy to creating engaging social media profiles.

All raised questions were about the professionalization of the use of social media by dentists, the effectiveness of communication, patient education, their perceptions and attitudes towards connectivity, studies about treatment experiences, ethical skills, standards of professional practice, access, quantity, and type of content in social platform profiles, plus studies aimed at understanding professional profiles of patients, dimensioning teeth.

5. Conclusion

By providing a platform for usage by patients and healthcare professionals, social media is adding a new dimension to the field of health care. More people than ever before are receiving health information because to these networks. Additionally, they are extending access to populations like younger individuals, minorities, and those of lower socioeconomic levels who might find it difficult to get health information using conventional ways. The potential benefits and results of social media applications for dental knowledge obviously require additional study. However, social media use is expanding quickly, and there may be good potential for raising awareness of dental information.

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Conflicts of interest

The author has no conflicts of interest to declare.

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Table 1: General Demographic Details.

Sr. No.		Responses	Number (N)	Percentage (%)
1.	Age.	18 - 25	215	54.6
		26 - 35	136	34.5
		36 - 45	32	8.1
		46+	11	3.8
2.	Gender.	Male	186	47.2
		Female	208	52.8
3.	Frequency of account use.	Everyday	361	91.6
		Once a week	10	2.5
		Once a month	03	0.8
		Sometimes	20	5.1
		Rarely	00	00
Total			394	100

Table 2: Patients Opinions Regarding Dental Practice and Social Media.

Sr. No.	Questions	Responses	Number (N)	Percentage (%)
1.	Dental practice Should have an online presence.	Strongly Disagree	25	6.3
		Disagree	39	9.9
		Agree	168	42.6
		Strongly Agree	162	41.1
2.	Social media presence is effective to engage and obtain new patients.	Strongly Disagree	18	4.5
		Disagree	18	4.6
		Agree	184	46.7
		Strongly Agree	174	44.2
3.	Recommendations from friends/family.	Not Important	17	4.3
		Important	163	41.4
		Very Important	214	54.3
4.	Positivity of online review.	Not Important	18	4.5
		Important	172	43.7
		Very Important	204	51.8
5.	Before and after image of dental treatment.	Not Important	11	2.8
		Important	139	35.3
		Very Important	244	61.9
Total			394	100

Table 3: Factors Related To Choosing A Dental Practice or Clinic.

Sr. No.	Questions	Responses	Number (N)	Percentage (%)
1.	Do you follow (dentist/dental clinic) in social media?	Yes	229	58.1
		No	165	41.9
2.	Do you think that dentist should communicate with people through social media rather than conventional media (TV, newspapers, magazine) ?	Yes	364	92.4
		No	30	7.6
3.	Do you write about your visit to the dentist or dental clinic in social media?	Yes	244	61.9
		No	150	38.1
4.	Do you watch instructional videos uploaded on social media?	Yes	338	85.8
		No	56	14.2
5.	When you read a criticism to a dentist or dental clinic in social media, would that affect your personal decision to visit the dentist or clinic?	Yes	281	71.3
		No	113	28.7
6.	If you saw on social media a friend or family member with a new smile, would you ask about the dentist or dental clinic they were treated in	Yes	347	87.8
		No	48	12.2
Total			394	100

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