

Original Research Article

Assessment of attitudes and practices related to social media usage among Dental practitioners in their Dental practice in Sangli-Miraj-Kupwad city: a cross-sectional survey.

Abstract:

Background:

In the last few decades, information and communication technology in social media has brought tremendous changes in the whole business, educational and political system; Dentistry is not an exception. The rise of social media has transformed how health professionals interact with their patients and deliver different types of health care services.

Aim:

To assess the attitudes and practices related to social media usage among dental practitioners in Sangli-Miraj-Kupwad city.

Methods:

A self-designed questionnaire survey was conducted among all dental practitioners in Sangli-Miraj-Kupwad city, Maharashtra, India. The questionnaire consisted of first part with socio-demographic variables like age, gender, years of experience and area of expertise and second part to assess attitudes and practices towards social media usage.

Results:

Among total of 138 dental practitioners, majority (68.1%) were belonging to age of 36-44 years followed by those above 45 years of age (17.4%). Around 49.3% dental practitioners were practicing dentistry since less than 5 years. Gender wise comparison showed no significant difference between attitudes and practices for social media usage. Although significant difference was found for question 3, 6 and 11 for $P < 0.05$.

Conclusion:

There has been wide adoption of social media among dental practitioners and shows no significant difference with different genders for both attitudes and practices.

Keywords: Social media, dental practitioners, dentistry

Introduction: In the last few decades, information and communication technology in social media has brought tremendous changes in the whole business, educational and political

system; Dentistry is not an exception. Social media have been defined as “a group of internet based applications that build on ideological and technological foundations of web 2.0 that allow the creation and exchange of user generated content.”¹ Social media includes social networking sites such as Facebook, Twitter, You tube, Whatsapp and LinkedIn. The technology has become so popular that the term ‘Health 2.0’ has been cited in numerous articles and is related to communication between patients and health care providers.^{2,3} Almost entire population in the world is using social networking sites for sharing and gaining information and also for marketing purposes. With just one click the same information can be shared with hundreds or even thousands of people within seconds. The rise of social media has transformed how health professionals interact with their patients and deliver different types of health care services. This may create various challenges because, from a professional point of view, dentists must uphold the established image, principles and procedures.⁴ This may also create concerns for the patients about privacy issues such as whether dentists use their information on social media.⁵ The use of social media is prevalent across all ages and professions and is pervasive worldwide. According to the statistics portal in India, 16.69% of India’s population used social media in the year 2018 and the numbers are said to be increase to 18.86% in 2019.⁶ India, has nearly 100,000 dentists, we are probably one of the largest hubs for dental sciences in Asia. As per a survey report, in India, 90% of the dentists used social media for their personal use and interestingly >65% made use of it for their work as well.⁷ To this day we still lack a clear understanding of how dentists think about social media usage in dentistry. Hence a cross-sectional survey was planned to assess the attitudes and practices related to social media usage among the Dental practitioners in Sangli-Miraj-Kupwad city. This research explored the attitudes and practices of dentists toward social media as well as their current online behaviors to uncover key challenges and potential opportunities for using social media in this professional context. The survey, from a

totalitarian perspective, attempted to accentuate the modernistic outlook of Dental practitioners towards their own profession.

Material and Methods:

The present study was a descriptive cross-sectional survey conducted among all dental practitioners in Sangli-Miraj-Kupwad city, Maharashtra, India (Whole sample). The data was collected by the secondary investigators in the respective clinics of the dental practitioners across Sangli-Miraj-Kupwad city after obtaining the ethical approval from the concerned Dental Institution. (IEC NO. IEC/D-21/19) Written informed consent was taken from the participants after explaining purpose of the survey. Dental practitioners who did not give written informed consent were excluded from the study. The participants were given a duration of 30 minutes for answering the questionnaire. They were also instructed to approach the investigators for clarifications if needed.

Questionnaire details: A self-designed questionnaire was prepared by testing for the face validity, content validity and test-retest reliability. The questionnaire consisted of two sections. The first part gathered information on socio-demographic variables such as age, gender, years of experience and area of specialties. The second part consisted of questions regarding knowledge, attitudes and practices related to social media usage. The questionnaire consisted of a total 11 questions out of which 6 questions each assessed the attitudes and 5 questions assessed the practices related to social media. Questionnaire was assessed for relevance, simplicity, clarity and ambiguity. Content validity index for relevance was 0.78, clarity, simplicity and ambiguity was 0.76, 0.84 and 0.74 respectively. The questions having low content validity were changed and replaced. The components had a CVI score more than 0.6 hence it was validated. Test- retest reliability was assessed for the questionnaire and accordingly changes were made.

Statistical analysis: All the data was compiled in Microsoft excel which was retrieved in SPSS version 20 (IBM, NY, USA) for statistical analysis. Statistical significance was fixed at 5%. Pearson's Chi-squared test was used to analyse the data.

Results: A total of 138 Dental practitioners participated in the survey. **Table 1** shows the age distribution of the survey participants. Majority of the survey participants, 94 (68.1%) were aged between 36-44 years followed by 24 (17.4%) participants who were >45 years. **Table 2** shows distribution of survey participants according to their years of practice. 68 (49.3%) of the survey participants were practicing Dentistry since <5 years followed by 36 (26.1%) practitioners who practiced since >10 years. **Table 3** shows distribution of study participants according to the branch of specialisation. 23 (16.66%) Dental practitioners had completed their BDS. 21(15.21%) Dental practitioners had completed their specialisation in Endodontics and Operative Dentistry followed by Prosthodontics 19 (13.76%). **Table 4** shows gender wise comparison of attitudes and practices related to Social media usage in Dentistry. There was no statistically significant difference between the attitudes and practices in males and females related to social media usage. **Table 5** shows comparison of attitudes and practices related to Social media usage according to years of practice in Dentistry. There was statistically significant difference observed in the attitudes and practices related to social media usage for question 3 (p-value 0.04), 6 (p-value 0.03) and 11 (p-value 0.05).

Discussion: Fundamentally social media has revolutionized how individuals communicate virtually about every other topic including health.⁸ And based on the precursors such as recognition, reach and engagement, social media started taking major impact on how awareness and health behavior can be brought upon effectively.^{9,10} The impact of user generated information on social media platforms has been found to have profound impact on

consumers, and field of dentistry was not spared from this furrow. With aim to assess the attitudes and practices towards use of such social media platforms for daily routine dental practice disclosed some precedented/unprecedented outcome. The maximum participants for this study were falling into 36-44 years of age (68.1%), which is in tandem with the findings put forth by Al-Khalifa et al (2021).¹¹ With this, the trendline for using social media in dental practices decline with increasing age. Although, the least amount of clinical practice experience outnumbered the most experience owing to the fact that purposive sampling technique was used. During the process of contacting and enrolling participants towards study, efforts were made to enroll all specialties of dentistry including graduate practitioners; without making any intentional balancing efforts.

Among the consented study participants (Table 3), around 16% were graduate practitioners closely followed by Endodontists (15.2%), Prosthodontists and Oral Medicine – Radiology (13.8%), Orthodontist (12.3%), Periodontists (11.6%), Oral Surgery (8%) followed by Pedodontists (8%) and least from Oral Pathology (5.7%) and Public Health Dentists (1%). Although the gender-wise comparison of individual questions showed no significant difference in attitudes and practices related to social media usage (Table 4). Also, similar results were found in previously conducted studies where individual genders had least impact on the usage of social media irrespective of the number of hours spent.¹² Attitudes and practices associated with social media usage among dental practitioners based on their years of experience since their inception revealed similar results as gender wise comparison with few exceptions (Table 5). Questions like ‘Social media can be used as an effective tool for reaching new patients?’ and ‘The dental practice will get affected if you stop using social media’ showed statistically significant difference. The individually perceived easiest and cheapest or most often free of charge mode of spreading word of existence regarding presence of dental practice with geotags of their dental office, has convinced significant

amount of dental practitioners to acquire some footfall.^{13,14} And some numbers related to social media usage among the younger generations with definition of social media getting into wider spectrum day by day has made dental practitioners believe that continued presence on social media platform will help keep tab on previous patient about continued existence of dental practice in vicinity.^{15,16}

Limitations:

To achieve more conclusive output further studies must be targeted at more diverse study population with incorporation of tool to measure the exact amount of social media usage exclusively for their dental practice. Also, the behavioral changes in social media usage during Covid – 19 impacted geographic area might have different outcome altogether. Both pharmacological and non – pharmacological methods need to be analyzed for outcome effects of overt usage related to social media.

Conclusion:

With changing times, the use of social media is being widely adopted for various reasons including dental practice. This social media usage has helped expand the reach to the needy. This social media can be used mainstream for private dental practice with regulatory norms.

COMPETING INTERESTS DISCLAIMER:

Authors have declared that no competing interests exist. The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

References:

1. Kalpan A, Haenlein M. Users of the world, unite! The challenges and opportunities of social media. *Business Horiz* 2010;53:59–68
2. Van De Belt TH, Engelen L, Berben SA, Schoonhoven L. Definition of health 2.0 and medicine 2.0: A systematic review. *J Med Internet Res* Apr-Jun 2010; 12(2): e18.
3. Eyesenbach G. Medicine 2.0: Social networking, collaboration, participation, apomediation and openness. *J Med Internet Res* Jul-Sep 2008; 10(3):e22.
4. Evetts J. Short note: The sociology of professional groups. *Current Sociology*. 2016 Jun 29;54(1):133–143.
5. Sinha A, Porter T, Wilson A. The use of online health forums by patients with chronic cough: Qualitative study. *J Med Internet Res*. 2018 Jan 24;20(1):e19.
6. The statistics portal. Social network user penetration in India from 2015-2022. Available from <https://www.statista.com/statistics/240960/share-of-indian-population-using-social-networks/>. [last accessed on 2019 Feb 05; at 12:22 pm]
7. VikramVenkateswaran. Social Media Adoption among Dental Surgeons in Metros in India. Indian Dental Congress 2015, Bengaluru, India. Available from: <http://www.dentalcongress.com/india/abstract/2015/social-media-adoptionamong-dental-surgeons-in-metros-in-india>. [Last accessed on 2019 Feb 01; at 15:34 pm].
8. Bonnevie E, Rosenberg SD, Kummeth C, Goldbarg J, Wartella E, Smyser J. Using social media influencers to increase knowledge and positive attitudes toward the flu vaccine. *PLoS One*. 2020;15(10).

9. Hair, E., Pitzer, L., Bennett, M., Halenar, M., Rath, J., Cantrell, J., . . . Vallone, D. (2017). Harnessing youth and young adult culture: Improving the reach and engagement of the truth® campaign. *Journal of Health Communication*, 22(7), 568–575.
10. Lelutiu-Weinberger, C., Pachankis, J. E., Gamarel, K. E., Surace, A., Golub, S. A., Parsons, J. T. (2015). Feasibility, acceptability, and preliminary efficacy of a live-chat social media intervention to reduce HIV risk among young men who have sex with men. *AIDS and Behavior*, 19(7), 1214–1227.
11. Al-Khalifa, K.S., Al-Swuailem, A.S., AlSheikh, R. et al. The use of social media for professional purposes among dentists in Saudi Arabia. *BMC Oral Health* 21, 26 (2021).
12. Deogade SC, Saxena S, Mishra P. Adverse health effects and unhealthy behaviors among dental undergraduates surfing social networking sites. *Ind Psychiatry J*. 2017;26(2):207-214.
13. Lenhart A, Purcell K, Smith A, Zickuhr K. Social Media and Mobile Internet Use Among Teens and Young Adults. Pew Internet and American Life Project. Online. <http://pewinternet.org/Reports/2010/Social-Media-and-Young-Adults.aspx>. 3 February 2010. Accessed 29 June 2021.
14. Henry RK, Molnar A, Henry JC. A Survey of US Dental Practices' use of Social Media. *J Contemp Dent Pract* 2012; 13 (2):137-141.
15. Tomassi M. 50 Definitions of Social Media. Website. Online. http://thesocialmediaguide.com/social_media/50-definitions-of-social-media. Accessed 28 June 2021.
16. Lipscomb J. Top 5 reasons dentists will not use social media. *Dentaltown* June 2010; 74-76.

UNDER PEER REVIEW

Tables

Table 1: Age distribution of the survey participants

SI NO.	Age	Frequency (Percentage)
1	<25 years	8 (5.8)
2	26-35 years	12 (8.7)
3	36-44 years	94 (68.1)
4	>45 years	24 (17.4)
5	Total	138 (100)

Table 2: Distribution of survey participants according to the years of practice

SI NO.	Years of Dental practice	Frequency (Percentage)
1	<5 years	68 (49.3)
2	5-10 years	34 (24.6)
3	>10 years	36 (26.1)
4	Total	138 (100)

Table 3: Branch of specialisation of the survey participants

SI NO.	Speciality	Frequency (percentage)
1	Oral Medicine And Radiology	10 (13.8)
2	Oral Pathology	08 (5.7)
3	Public Health Dentistry	01 (0.72)
4	Orthodontics	17 (12.31)
5	Prosthodontics	19 (13.76)
6	Pedodontics	11 (7.97)
7	Oral Surgery	12 (8.69)
8	Endodontics and Operative Dentistry	21 (15.21)
9	Periodontics	16 (11.59)
10	BDS	23 (16.66)
11	Total	138 (100)

Table 4: Gender wise comparison of attitudes and practices related to Social media usage in Dentistry

SI NO.	Questions related to attitudes and practices related to social media usage in Dentistry	Pearson's Chi-squared value (p-value)
1.	What are the different types of social media you use?	0.131
2.	A modern day Dental practice is affected by social media	0.359
3.	Social media can be used as an effective tool for reaching new patients	0.837
4.	Social media can help in improvement of treatment skills	0.299
5.	Asking patient's permission before sharing their photos on social media	0.344
6.	The Dental practice will get affected if you stop using social media	0.338
7.	Which of the following type of information have you posted online yourself?	0.463
8.	Which of the following type of information have you seen posted	0.968

	online by your colleagues?	
9.	For how long approximately you use social media?	0.423
10.	What do you use social media for?	0.233
11.	Do you use social media for marketing purposes?	0.913
12.	Do you fully trust the credibility of the content posted on social media?	0.145

Table 5: Comparison of attitudes and practices related to Social media usage according to years of practice in Dentistry

SI NO.	Comparison of attitudes and practices according to years of practice in Dentistry	Pearson's Chi-squared value
1.	What are the different types of social media you use	0.19
2.	A modern day Dental practice is affected by social media	0.073
3.	Social media can be used as an effective tool for reaching new patients	0.04*
4.	Social media can help in improvement of treatment skills	0.359
5.	Asking patient's permission before sharing their photos on social media	0.745
6.	The Dental practice will get affected if you stop using social media	0.03*
7.	Which of the following type of information have you posted online yourself	0.930
8.	Which of the following type of information have you seen posted online by your colleagues	0.501
9.	For how long approximately you use social media	0.754
10.	What do you use social media for	0.960
11.	Do you use social media for marketing purposes	0.05*
12.	Do you fully trust the credibility of the content posted on social media	0.703

* indicates significant difference for p-value less than or equal to 0.05