

The Effect of Social Media on the Perception and Demand of Aesthetic Dentistry

Dr. Sultan Binalrimal

Restorative Department, Riyadh Elm University, Riyadh, Saudi Arabia

* Corresponding author: Dr. Sultan Binalrimal

Abstract: The use of social media has become increasingly common nowadays, and most people rely on it for communication and data gathering. There is evidence that suggests the place social media has in health care education, but there is limited research on the impact social media has in aesthetic dentistry, especially in Saudi Arabia.

Aim: The goal of this study is to investigate the influence of popular social media platforms on the perception of, and the demand for aesthetic dentistry in Saudi Arabia.

Methods: Two surveys were developed targeting the population of Saudi Arabia and dental practitioners in Riyadh. A nationwide survey was posted to a random sample of the Saudi population requesting sociodemographic details and information about the provided aesthetic dental procedures and the demand for them. Another survey was conducted and physically distributed among dental practitioners in Riyadh, requesting sociodemographic details and their opinions regarding the effect of social media on their patient's perceptions of and demand for aesthetic dentistry.

Results: The total responses were 965 of the Saudi population, and 300 of dental practitioners in Riyadh. The majority reported that social media had an effect on the satisfaction of the appearance of their teeth (41.9%), and it contributed to their awareness about aesthetic dentistry (66.1%). On the other hand, similar patterns were observed with the dental practitioners' survey results. The results showed an increase in patients' aesthetic demand after using social media, and the percentage of patients asking for an aesthetic procedure solely because it was a social media trend was (78.3%).

Conclusion: Social media appears to have an impact on the perception of, and the demand for various aesthetic dental procedures in Saudi Arabia. It is also used as an effective way of marketing and as a communication tool in aesthetic dentistry.

Date of Submission: 14-06-2019

Date of acceptance: 29-06-2019

I. Introduction

Dentistry has evolved over the years, whereby not only oral diseases are being treated, but Also elective aesthetic procedures are being provided.(1,2)

The demand for aesthetic procedures is growing, and perhaps social media is the driving force behind this revolution. "Dentists have acknowledged media coverage as the main reason for the increase in demand for aesthetic dental procedures" (American Academy of Cosmetic Dentistry 2004).

Social media has been defined in many ways, most notably it is being defined as platforms that allow people to interact and exchange information. According to Burns K.S(3) "It refers to interactive technologies that enable humans to interact, collaborate, and connect". These include social networking sites and various blogging platforms, such as Facebook, Snapchat, Youtube, Twitter, and Instagram.(4)

Nowadays, the use of social media has become an essential part of our daily lives. Most people rely on social media for entertainment, data gathering, and communication. The use of social media has transformed our society into a village where people can create, share, exchange data and interact easily. In the Arab world, Saudi Arabia has one of the highest presences on social media, with a number of more than 13 million users. For instance, in 2014 alone, more than 31% of the Saudi populations were active social media users, with twitter and Facebook being the most used social platforms that year.

Social media has been also used in education, advertisement, as well as being used in self promotion. The medical community has tracked and analyzed the role of social media in dentistry. They found that the increased use of social media has a great effect on communication patterns of health care related topics across the world. Social media marketing is seen as beneficial in health care fields. Its benefits are manifested primarily in how effective it is in reaching potential patients. Furthermore, Bibhas Chandra(5) suggested, through his study investigating the attitudes towards online advertising on social media, that online advertising helps in purchases and results in lower prices. It also showed that the audiences have a positive attitude towards

advertising through social media and they trusted it. In addition to that, Elisabeta Ioanas, Ivona Stoica(6) stated that social networking sites have a significant role in influencing the behavior of consumers in the virtual environment. Therefore, it is evident that social media has a huge influence on people in the contemporary world.

Social media, with its wide spread use, has a great influence on today's society, as it affects our perception of beauty and aesthetics, hence the perception of our physical appearance changes. Consequently, the desire for physical improvement increases. Therefore, the demand for cosmetic intervention increases. This is especially true when it comes to aesthetic dentistry. Since a smile is considered to be an important factor in determining the face attractiveness. An esthetically pleasing smile is dependent on tooth position, size, shape, and color, not only that but also the amount of gingival display at smiling.

Despite the rapid growth of social media and its impact on the attitudes of users. Until now, there is no evidence about the effect of social media on the demand for aesthetic dentistry in Saudi Arabia. This study aims to investigate the manner in which social media platforms, such as Snapchat, Instagram, Twitter... etc. have affected the perception of, and the demand for aesthetic dentistry in Saudi Arabia, and the potential benefits of social media advertisement strategies for aesthetic dentistry.

II. Materials and Methods

Two mixed open and close ended questionnaires were formulated by the research team. Investigating the effect of social media on the perception of, and demand for aesthetic dentistry. The surveys were carried among the public in Saudi Arabia and dental practitioners in Riyadh. The questionnaires were developed in English and then translated to Arabic, to confirm the validity of the instruments. Both questionnaires were evaluated by an expert in the instrument and statistical analysis for feedback. After that, a pilot study was conducted on ten random people and ten random dentists who were not included in the study, for clarity and lack of ambiguity.

After testing the questionnaires, an online survey was distributed randomly to the public using SurveyMonkey, a web-based survey and evaluation system. The link to the questionnaire was posted on social media sites including twitter, Facebook and snapchat...etc.

The survey included 17 questions about sociodemographic information. The variables included in this section were (age, gender, region, and educational level), Most used social media platforms, and time spent on them. Which social media platform they found to have more informations about aesthetic dentistry, and whether or not social media has provided enough awareness about aesthetic dentistry. It also included a question about the effect of social media on the personal perception towards aesthetic dentistry, and whether or not social media has affected their satisfaction with the appearance of their teeth. Finally, which method of aesthetic dentistry advertising was found most effective, to find out where social media stands in regards to advertisement.

The second questionnaire was distributed physically to dental practitioners in Riyadh by the researchers. The questionnaire included 17 questions about sociodemographic information. The variables included in this section were (age, gender, years in practice and site of practice). Most used social media platform, and time spent on them. How much of the dental practitioners' online activity centers on aesthetic dentistry, if at all, and why. Those who utilize social media as a tool were asked if they used any photo editing program such as photoshop. We wanted to find out whether social media posts about aesthetic dentistry had translated to an increase in the demand of certain procedures. The questions were also aimed to find out whether or not social media has contributed to their knowledge as dentists, and to their patients' awareness about aesthetic dentistry, and if implementing social media as a tool to educate communicate and advertise are beneficial. To conclude the survey, dentists were asked which means of advertising they found most effective. By doing that, we hoped to determine where social media ranked among other promotional methods.

Both survey questionnaires had a cover letter explaining the purpose of the study. The questionnaires were answered anonymously to insure the privacy of the participants. After collecting the data, a univariate analysis was used to analyze the data which includes distribution in frequency and percentage, using the Statistical Package for Social Science (SPSS).

III. Results

The total number was 965 respondents of the Saudi population, and 300 dentists from Riyadh. The response rate of the population could not be calculated. However, the response rate for the dentists was (75%). Sociodemographic characteristics of the participants are summarized in Table 1 and Table 2. The majority of the respondents were females in both surveys. The median age group of the participants was 26-45 for the Saudi population survey, and 31-40 in regards to dentist's survey. The most commonly used social media platform by the population was Snapchat (39.2%), followed by Twitter (25.6%) and Instagram (15.3%). The majority (45.7%) spent 3-5 hours/day using social media. However, the most commonly used social media platform by

the dentists was Twitter (26.3%), followed by Snapchat (24.9%) and Instagram (21.3%). The majority (46.3%) spent 3-5 hours/day using social media as seen in Table 3. More than one third of the population (33.5%) reported following social media accounts related to aesthetic dentistry, and (57.3%) of the dentists post content about aesthetic dentistry. The majority of the population found Instagram (42%) to be the social media platform to find more information about aesthetic dentistry followed by Twitter (23%) and Snapchat (17%). Hollywood Smile (64.5%) was the most popular aesthetic dental procedures on social media followed by teeth whitening (28.9%). Results pictures (Before and after) (43%), and how popular the doctor/clinic is (36%) and commercial advertisement (10%) are the type of posts that draw attention more to a specific doctor/clinic. In addition, dentists' results revealed that Hollywood Smile (35%) was the most aesthetic procedure posted on social media followed by teeth whitening (28.7%) and cosmetic filling (20.3%). Cases (Before and after) (48.7%) was the common type of content posted on social media. (42%) of the respondents had an aesthetic dental procedure done or planning to get one. The majority (53%) reported personal need for having or planning to get any aesthetic dental procedures followed by doctor advice (19%).

The majority (41.9%) reported that social media had an effect on how satisfied they are with the appearance of their teeth. (66.1%) of the respondents believe social media has contributed to their awareness about aesthetic dentistry. On the other hand, (63%) of the respondents think social media is not a reliable source for information about aesthetic dentistry, and almost half the respondents (49.9%) think the pictures of aesthetic dental treatments posted on social media are edited using photo editing programs. More than half (57.3%) of the dentists reported using social media to post about aesthetic dentistry. (20.7%) admitted to using photo editing programs to edit their treatment photos before posting them on social media. (48.0%) of dentists saw an increase in patients' aesthetic demand when they started using social media. The majority of dentists (78.3%) had patients asking for an aesthetic procedure solely because it was a social media trend. As for dentists who do not post about aesthetic dentistry on social media, the majority reported that the reasons are they do not have time (38.9%), to avoid negative feedback (8.0%) or some ethical concerns (8.0%). (47.3%) of dentists think social media provided their patients with enough information about the options of aesthetic procedures. The majority of dentists (66.0%) believe that using social media to educate, advertise, and communicate would be beneficial to their patients. (57.7%) reported that social media contribute to their knowledge as dentists, and (41.7%) believe otherwise.

As for the factors that affect aesthetic dentistry advertisement greatly, the results of the population's survey showed that social media, and patient's previous experiences almost had equal proportions (46.4%), and (46.3%), respectfully. Similar patterns were reported by dentists that social media (74%) and previous patients' recommendation (60.7%) were the most effective ways of advertisement.

IV. Discussion

For the past couple of years, portable devices such as mobile phones, tablets, and laptops have become widely utilized with ease of access to information, connection, and communication regardless of the geographic location. A study that was conducted by Chiasson MA(7), revealed that using the newer communication technologies, such as mobile phones and social media networking sites, is replacing the old media forms such as television and radio. Today, everyone has access to these social media platforms regardless of age, social class, or academic level. In our modern society, dental appearance is an important feature in determining the attractiveness of a face, and plays a key role in human social interaction. (8)

Our study has found that the majority of the population reported that social media had an effect on the satisfaction of the appearance of their teeth.

In this study, over half of the respondents were females in both surveys. The median age group of the participants was 26-45 for the Saudi population survey, and 31-40 in regards to dentist's survey. A study in Sweden by Carlsson G et al (9) revealed that the majority of respondents in two different elderly age groups agreed that beautiful and perfect teeth are very important. This also corresponds with another study on elderly aged participants in Germany by Hassel A et al(10) that showed the importance of dental appearance to overall appearance. In this study, we found that dental appearance is becoming equally important in both older and younger adults, and social media could be the cause of this esthetic revolution.

Our study has also found that most respondents were from the central region of Saudi Arabia in the population's survey, and from central Riyadh in the dentists' survey. This supports the finding of Reid et al (11) which noted that most aesthetic dental procedures were more offered in large cities than in provisional cities, and the most likely reason behind that is patients in the city are more aware about their dental appearance, and dentists should be adapting their services to meet their demands.

In this study, we found that with cultural differences, and individuals' preferences, every country has a different popular social media platform. A study by Kristin L. et al(12) in the United States found that Facebook (74.6%) was the most commonly used social media platform among orthodontists followed by Youtube (29.1%). This contradicts the finding in our study that shows the most commonly used social media

platform is Snapchat (39.2 %) for the Saudi population and Twitter (26.3%) for the dentists in Riyadh. Hereby, Snapchat is the medium used to reach a larger crowd of the population, and with time Twitter could become a virtual community for dentists.

An interesting finding in our study is that almost one third of the Saudi population follows social media accounts related to aesthetic dentistry, and almost half of the Saudi population had an aesthetic dental procedure done or planning to get one. Which shows that the Saudi population is now interested in aesthetic dentistry more than ever?

(57.3%) of dentists reported posting content related to aesthetic dentistry. On the other hand, the remaining dentists stated that the reasons for not posting were lack of time (38.9%) and ethical concerns (17.3%). One of the solutions would be to release ethical guidelines for social media usage, similar to the American Medical Association policy.

More than half of the respondents of the population stated that social media contributed to their awareness about aesthetic dentistry. (47.3%) of the dentists in Riyadh supported this result by confirming that social media provided their patients with enough information about the options of aesthetic procedures. Not only had that, but more than half of them stated that social media contributed to their knowledge as dentists.

We found that (64.3%) of the Saudi population reported that Hollywood Smile is the most common aesthetic dental procedure on social media followed by teeth whitening. This result is similar to the result of the dentists' survey, which corresponds with a study by Qualtrough AJ and Burke FJ (13) that people desire the pearly white teeth appearance, and tooth color is the most determining factor with dental satisfaction. We also found that the before and after treatment photos are the type of posts that interest them the most.

(63%) of the Saudi population believe that social media is not a reliable source for information about aesthetic dentistry, almost half the respondents think that photos of aesthetic treatments posted on social media are edited using photo editing programs. Also, the majority of dentists reported using photo editing programs to edit their treatment photos before posting them on social media. With that being said, the Saudi population still ask and demand for aesthetic procedures based on social media trend as reported by (78.3%) of the dentists. Thus, we need to increase the awareness in using social media sites by dental practitioners to create trustworthy social media sites that provide evidence based information.

V. Conclusion

This study confirms that social media has a measurable impact on dental practitioners and the Saudi population's perception towards aesthetic dentistry. Although our study concluded that social media has a positive effect, we cannot ignore the adverse effect on patients' perception as it might fuel their unrealistic expectations. Social media is an opportunity being ignored by a lot of dental practitioners and should be considered as a tool to educate, communicate, and advertise.

References

- [1]. Mandel ID. THE IMAGE OF DENTISTRY IN CONTEMPORARY CULTURE. *J Am Dent Assoc.* 1998 May 1;129(5):607–13.
- [2]. J M. The role of cosmetic dentistry in restoring a youthful appearance. - *J Am Dent Assoc* 1999, pp. 1166-1172.
- [3]. Burns, K.S. A historical Examination of the Development of Social Media and its Application to the Public Relations Industry. In: ICA Pre-conference, Montreal, Quebec, Canada.2018
- [4]. Saudi Arabia Social Media Statistics 2018 - Official GMI Blog [Internet]. [cited 2019 May 28]. Available from: <https://www.globalmediainsight.com/blog/saudi-arabia-social-media-statistics/>
- [5]. I Bibhas C, Shubham G, Vineet. Investigating Attitude Towards Online Advertising On Social Media - An Empirical Study, *management insight*, 2012. 8(1), pp. 1-13
- [6]. Elisabeta I. Social Media and its Impact on Consumers Behavior. *Int J Econ Pract Theor.* 2014 Jan 1;4.
- [7]. Chiasson MA, Hirshfield S, Rietmeijer C. HIV prevention and care in the digital age. *J Acquir Immune Defic Syndr* 1999. 2010 Dec;55 Suppl 2:S94-97.
- [8]. Tin-Oo MM, Saddki N, Hassan N. Factors influencing patient satisfaction with dental appearance and treatments they desire to improve aesthetics. *BMC Oral Health.* 2011 Feb 23;11:6.
- [9]. Carlsson GE, Johansson A, Johansson A-K, Ordell S, Ekbäck G, Unell L. Attitudes toward dental appearance in 50- and 60-Year-old subjects living in Sweden. *J Esthet Restor Dent Off Publ Am Acad Esthet Dent AI.* 2008;20(1):46–55; discussion 56.
- [10]. Hassel AJ, Wegener I, Rolko C, Nitschke I. Self-rating of satisfaction with dental appearance in an elderly German population. *Int Dent J.* 2008 Apr;58(2):98–102.
- [11]. Reid D, Leichter JW, Thomson WM. Dental implant use in New Zealand in 2004. *N Z Dent J.* 2005 Mar;101(1):12–6.
- [12]. Nelson KL, Shroff B, Best AM, Lindauer SJ. Orthodontic marketing through social media networks: the patient and practitioner's perspective. *Angle Orthod.* 2015 Nov;85(6):1035–41.
- [13]. Qualtrough AJ, Burke FJ. A look at dental esthetics. *Quintessence Int Berl Ger* 1985. 1994 Jan;25(1):7–14.

Table 1. Socio-demographics of Saudi population.

		No.	%
Gender	Female	577	59.8
	Male	351	36.4
	Unknown	37	3.8
Age	Under 18	78	8.1
	18 - 25	358	37.1
	26 - 45	424	43.9
	46 and above	105	10.9
Level of education	Less than High school	51	5.3
	Bachelor degree	532	55.1
	High school graduate	229	23.7
	Higher degree	153	15.9
Region	Central	626	64.9
	Eastern	80	8.3
	Northern	77	8.0
	Southern	29	3.0
	Western	153	15.9

Table 2. Socio-demographics of Riyadh's dentists.

		No	%
Gender	Female	163	54.3
	Male	137	45.7
Age in years	25 - 30	102	34.0
	31 - 40	120	40.0
	41 - 50	60	20.0
	51 and above	18	6.0
Specialty	Consultant in aesthetics	85	28.3
	Consultant in other speciality	83	27.7
	General practitioner	132	44.0
Years of practice	1 - 5	109	36.3
	6 - 10	84	28.0
	11 - 20	77	25.7
	25 and above	30	10.0
Region	Central	86	28.7
	Eastern	60	20.0
	Northern	68	22.7
	Southern	58	19.3
	Western	28	9.3

Table 3. Most used social media platforms, and time spent on them.

		Population		Dentists	
		No.	%	No.	%
Most used social media platform	Facebook	37	3.8	148	26.3
	Instagram	148	15.3	140	24.9
	Snapchat	378	39.2	88	15.6
	Twitter	247	25.6	63	11.2
	Youtube	60	6.2	4	0.7
	Others	95	9.8	120	21.3
Time spent using social media	0 - 2 hours	230	23.8	102	34.0
	3 - 5 hours	441	45.7	139	46.3
	6 - 8 hours	185	19.2	49	16.3
	More than 8 hours	109	11.3	10	3.3