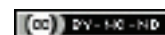


Influence of Social Media on the Patients for Choosing the Dental Clinic- A Cross-sectional Survey

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ABSTRACT

Introduction: Social media has great potential in marketing, including dentistry. The choice of dental clinic by the patients is a complex phenomenon and depends on various factors. Many studies have been done to find the factors which influence the clinic selection but not much literature exists to assess the relationship of social media in it.

Aim: To evaluate the influence of social media on the patients for choosing the dental clinic.

Materials and Methods: This cross-sectional study was conducted in Riyadh city with the help of self-administered and closed ended questionnaire. Patients visiting the dental hospital were asked about demographic information and questions related to use of social media and factors that are most important to him/her when looking at the account of his/her dentist on social networking sites. Chi-square test was used

to compare differences in social media effect and use between gender and age and level of significance was kept at $p < 0.05$.

Results: The total number of respondents were 442 (167 males and 275 females) Significant difference was found only to use Instagram where 10% of females reported when searching for dental clinics compared to males (3%) ($p < 0.05$). Most of the patients considered recommendations from friends/family as a very important factor ($n=236$) and quality of website and online reviews were also considered important ($n=279$ and 241 , respectively). Chi-square test was used to compare differences in social media effect and use between gender and age with cut-off point set at (0.05).

Conclusion: With the increasing trend of revolutionary social media usage, it is now essential for dentist to be marketing their practice at these platforms; also to keep up with the futuristic trends.

Keywords: Dentist, Internet, Selection

INTRODUCTION

Social media is a revolutionary communication method that allows sharing ideas and information through its platforms [1]. The use of social media platforms has boosted in recent years where (65%) of American adults use them [2]. This increasing penetration of web 2.0 applications opens doors for increasing sales, marketing and customer service through wide spread and accessible platforms [3]. There is great potential in marketing through social media to recruit prospective patients [4]. Different businesses are now relying on the use of social media to affect consumers' decision making and increase loyalty to their brand [5].

The most well known social networking sites are Facebook, Twitter, Instagram, Snap Chat, LinkedIn, YouTube, WhatsApp, and different social media size that are expanding in the size and usage continuously [6,7]. These locales are mainstream among residents and occupants of the Middle East, particularly in Saudi Arabia. As indicated by Global Media Sight's statistics in May 2018, the quantity of Internet clients in Saudi Arabia expanded to 30 million in the start of 2018, and the penetration arrived at 91% in the country [8,9].

Several dental specialists and dental centres have preferred social networking site to promote and broadcast their services where they publish pictures or recording of their work [10]. Yet, it is an important matter to the populace picking a dental specialist and a dental office. Depending on an assortment of factors, dental specialist is chosen by the patients [11,12]. These choices can range from conventional criteria (based on confidence, on suggestion from someone close, credentials of treating dentist) to recent criteria (website page of dental office/dental specialist, online ads) [13,14].

Many studies have been done to find the factors which influence the clinic selection based on old concept but not much literature exists

to assess the relationship between patients' gender and social media usage and their effect on the decision to choose a dentist in Saudi Arabia [7]. Thus, present study was conducted with aim to evaluate the role of social media in the selection of dental clinic in Riyadh city, Saudi Arabia.

MATERIALS AND METHODS

This cross-sectional study was conducted in Riyadh city, Saudi Arabia from September 2019 to October 2019. Ethical clearance was obtained from the Institutional Review Board at Riyadh Elm University. The IRB Approval number is 'FIRP/2019/43/39/411'. The study population consisted of all the patients visiting the Riyadh Elm Dental College in the aforementioned period and agreed to participate. Patient who reported using internet to search dental clinics were included for the study.

The questionnaire was self administered and closed ended. The study proforma consisted of informed consent, demographic information and one question related to use of which social media they used to choose the dental clinic, followed by seven items on factors that are most important to him/her when looking at the account of his/her dentist on social networking sites and one item to assess their interest on type of content published by dentists. The four sources: theory, research, observation and expert opinion were utilised while drafting the items for this questionnaire [15]. Subjects were directed to a separate room where an instructor was present to clarify any doubts and given 10-15 minutes to fill the questionnaire and to return it back.

The questionnaire that was used was validated by two experts in the field. The questionnaire was first prepared in English and validated by the method of translation-retranslation. The final version of the questionnaire was in Arabic. After the content validation the reliability was assessed on 20 study subjects. Cronbach's alpha and split-half

reliability values were 0.796 and 0.81, respectively. Pilot study was conducted only to measure reliability and validity and its results and subjects were not included in the main study.

STATISTICAL ANALYSIS

The data were entered into the MS Excel (MS Office version 2007 developed by Microsoft, Redmond, WA). Chi-square test was used to compare differences in social media effect and use between gender and age with cut-off point set at (0.05). The statistical package used was SPSS version 26.0 (IBM Corp., Armonk, NY).

RESULTS

Out of total 442 respondents, there were more females (n=275) than males (n=167) [Table/Fig-1]. For the use of different social media platforms in looking for dental clinics, by both the genders significant difference was found only to use Instagram where 15.6% of females reported compared to males (1.2%) (p<0.05) [Table/Fig-2].

Variable		Number
Gender	Male	167
	Female	275
Age group	18-20	51
	21-25	70
	26-30	48
	31-35	36
	36-40	55
	>40	182
	Total	
Income/Month (in Saudi Riyal)	<5000	138
	5000-10000	97
	10001-15000	77
	15001-20000	66
	>20000	64
Total		442

[Table/Fig-1]: Demographics of study participants.

Site	Male		Female		p-value
	N (167)	%	N (275)	%	
Facebook	143	59.88	254	41.09	0.068
Twitter	21	12.57	37	13.45	0.538
Google	41	16.77	67	14.91	0.077
YouTube	2	1.2	10	3.64	0.715
LinkedIn	0	0	0	0	1.000
Pinterest	0	0	0	0	1.000
Instagram	2	1.2	43	15.64	0.007*
Snapchat	14	8.38	19	11.27	0.418

[Table/Fig-2]: Comparison of distribution of use social media in searching for clinics by both gender using chi-square test.

*p<0.05; significant; **Count may not match as multiple options were answered by few respondents

Comparison of distribution of searching for clinics by different age groups are shown in [Table/Fig-3], which showed use of social media like Facebook and Google by majority patients of above 40 years (n=164 and 36, respectively). Younger patients of age group 21-25 years preferred other sites like Twitter, Instagram and Snapchat rather than google (n=11, 15 and 11, respectively) for the same purpose, and these differences were statistically significant (p<0.05).

From [Table/Fig-4], it was observed that maximum patients (n=203) did not consider presence of social media as an important factor for choosing a dentist whereas they considered qualification of dentist important. If the dentist has a website then the quality of website and online reviews were considered important by maximum patients (n=279 and 241, respectively). Most of patients considered recommendations from friends/family as a very important factor

(n=236). All these factors were found statistically significant by using chi-square test of proportion.

Site	Age group						p-value
	18-20	21-25	26-30	31-35	36-40	>40	
Facebook	48	62	43	29	51	164	0.074
Twitter	11	23	18	6	0	0	0.034*
Google	7	9	11	18	27	36	0.047*
YouTube	2	4	1	3	2	0	0.682
LinkedIn	0	0	0	0	0	0	NA
Pinterest	0	0	0	0	0	0	NA
Instagram	15	12	11	5	2	0	0.042*
Snapchat	11	10	8	4	0	0	0.03*

[Table/Fig-3]: Comparison of distribution of use social media in searching for clinics by different age groups using chi-square test chi-square test.

*p<0.05; significant; NA: Not applicable

**Count may not match as multiple options were answered by few respondents

Variables	Not important	Important	Very important	p-value
Social media presence	203	123	116	0.029*
Qualification of dentist	105	258	79	0.036*
Quality of website	88	279	75	0.028*
Online reviews	68	241	133	0.031*
Facilities available	56	265	121	0.035*
Recommendations from friends/family	72	134	236	0.022*
Offers/Concession available	94	270	78	0.046*

[Table/Fig-4]: Comparison of distribution of factors for choosing a dentist.

*p<0.05; significant; NA: Not applicable

The [Table/Fig-5] shows the type of content published by dentists on social media that males and females were interested in, that might affect their choice of dental clinic. Among males 54% and 28.9% females look for patient treatment photographs posted by dentist on social media. The next most looked content was advertisement for new products and treatments by both males and females (16% and 14%, respectively). Involvement of dentist in charities was also viewed by female patients (2%).

Type of content	Male	%	Female	%	p-value
Patient treatment photographs	54	20.1	121	28.9	0.024*
Staff photographs	2	0.7	1	0.21	0.945
Dentist's photographs	14	5.2	14	2.89	1.000
Advertisement showing new products/treatments	44	16.4	72	14.8	0.017*
What's new in the clinic	30	11.2	44	9.07	0.053
Involvement of dentist in charities	3	1.1	10	2.06	0.038*
Involvement of dentist in social work	17	6.3	18	3.71	0.738
Other	42	15.6	33	6.8	0.061

[Table/Fig-5]: Comparison of distribution of type of content published by dentists that participants were interested in by both gender using chi-square test chi-square test.

*p<0.05; significant; NA: Not applicable

DISCUSSION

As of late, it has been accounted by many studies that online networking is assuming a key role in healthcare [16,17]. However, scarcely any study explored the relations between modern internet era and dentistry. In this investigation, the present authors were concerned about the variables that may give more enthusiasm to patients when utilising social media for dental practice and whether it would have any kind of effect as they would like to think in picking a dental practice.

Moreover, this study demonstrated that web based life locales have a significant job in improving the dentist patient relationship. It unveils fascinating bits of knowledge identified with frames of mind

toward dental social media. It has been known in the literature that females utilise social media more than males [18]. Present study also shows similar findings that more female used internet to look for dental clinics than males. In an overview, conducted to explore how sexual orientation influences proceeded with goal to utilise long range informal communication locales, it was found that females are utilising online networking stages more than guys, because of their emotional behaviour (they like to keep close ties and add on the social data); while males will in general be propelled by aptitudes to increase general information [19]. This factor may disclose why females would in general be progressively keen on having a social media platform for a choosing dentist, as compared to guys. Social media was in general conceivably powerful to draw in and get new patients [12]. It has been revealed that the position of dentists in social media was constrained in attracting patients to the dental practice [20]. Facilities and innovation of the dental practice was the most significant factor, since this innovation may assist dentist with providing the most recent and the most refreshed treatment, and screen their status or appointments [21]. While the relationship of social media and correspondence among patients and clinicians was the least significant factor in the present study as appeared in the results, the explanation may be that the both the dental specialists and patients remain careful to some degree to become friends with one another via web-based networking media. Findings of this survey were in accord with another study carried on by Australian doctors [20].

The present study showed that patients were more interested in viewing patients' reviews followed by treatment photographs. This finding is consistent with another study that reported that recommendations are more trusted than advertisement and in yet another study it was reported that patients' reviews are most likely to interest patients [22,23]. Although, the study by Nelson KL et al., stated that patients are more interested in information about the practitioner and the business information [24].

It is important for dental clinics to have online presence in order to sustain their business [25]. Others have stressed the importance of using social media in influencing the public. Moreover, consumers can be more loyal if they continuously find offers and content related to the specialty in social media [26]. Nowadays, every industry must use social media to promote itself including dentistry.

Limitation(s)

The limitations of this study include that it was only done in one city (Riyadh), the sample is relatively low compared to the population of Riyadh and that it was not randomly distributed to cover all areas of the city. The present authors recommend conducting more studies to investigate the effect of social media advertisement and participation of dentists on the public.

CONCLUSION(S)

With the increasing trend of revolutionary social media usage it is now essential for dentist to be marketing their practice at

these platforms also to keep up with the futuristic trends. Further studies are needed to know the competence of dentist in handling these sites.

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