

The adoption of social media and social media marketing by dentists in South Africa

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ABSTRACT

Objectives: The purpose of the study was to identify and understand social media usage behaviour of dentists in South Africa, in general and in particular as part of their marketing strategy and to consider the potential determinants associated with these behaviours.

Methods: Dentists who are members of the South African Dental Association were requested to anonymously complete an online questionnaire. Apart from demographic information, respondents were asked to report on their use of social media and their adoption of social media marketing. One-on-one interviews were also conducted with three dentists, to gain a deeper understanding of their adoption of this marketing option.

Results: South African dentists have started to embrace social media and 50.2% interact through these channels at least once a day. The most popular social media platforms are GooglePlus and Facebook. Respondents use social media mainly for personal purposes, including staying connected to family and friends. Only 13.2% of those responding currently use social media as a marketing tool, but the majority (83.5%) predict that such usage will increase in future.

Conclusion: Social media marketing is a growing trend and will become more significant in future. Although respondents used social media regularly for personal purposes, most are only now starting to use it as a marketing tool.

INTRODUCTION

The popularity of social media is rapidly growing worldwide. Kaplan and Haenlein¹ define social media as “a group of internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user generated content”. According to Evans,² social media is about sharing information and arriving at a collective point, often for the purpose of making a better or more informed choice. There are many different types of social media, including Facebook, Twitter, YouTube, LinkedIn, Flickr, Blogs and Wikis.

Due to the remarkable advantages offered in the business area, social media is becoming the most recent marketing phenomena³ and more and more businesses are starting to use the option as part of their marketing and communication mix.^{4,5} The advantages of social media marketing include reach, low cost and speed, whilst interactivity and connection are fostered, enabling businesses to interact and engage with customers instead of having a one-way dialogue.⁶ Online social media break down the barriers of place, time and physical location and allow marketers to instantly reach a vast number of consumers.⁵ Building strong relationships with customers is an important aspect of marketing which can be achieved through using online social communities.^{7,8} Many of the social media platforms are free and according to Borges⁵, the biggest cost in the beginning of a new social media strategy, is the learning curve of staff becoming familiar with using various tools and destination social platforms, building a community and maintaining relationships.

Social media marketing amongst dentists

Although there is limited evidence that dentists are using social media, it is nevertheless clear that they do not fully understand how to maximally exploit the options the systems offer as tools for promotion of their practices.^{9,10,11} Indeed, a US study reveals that dentists are generally at a loss on the effective use of Facebook to market their services and do not yet understand how to leverage such platforms to engage patients, despite the growing engagement of consumers with these media.⁹ The study concluded that there is a clear disconnect between the potential of the medium for

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promotion by dentists, with only a few understanding how to leverage the options on offer.

Rajan, George and Kirsal¹⁰ investigated the use of social networking tools amongst dentists in the United Arab Emirates and found that the majority are using Facebook, LinkedIn and Twitter, but only to keep in touch with friends, colleagues and family. A considerable majority, (87% of the surveyed dentists), did not consider social networking sites to be serious media for the marketing of their practices and the sharing of information, while only 12% had acquired patients via these networking sites. Rajan *et al.* conclude that most of the dentists did not have the requisite knowledge to harness these powerful mediums to enhance their knowledge and to expand their businesses, by effective use as customer relationship management tools.¹⁰

Haas and Park¹¹ conducted a survey amongst members of the American Association of Orthodontists to investigate their use of online social networks. A total of 455 orthodontists responded, with 55% reporting active marketing of their practices through these media. Of this group, 60% had started using social networks within the past year and another 30% had been networking for only two years. About 69% of the involved respondents said they would recommend the option to colleagues and 95% of all respondents thought the use of online social networking among orthodontic practices, would increase in future. A lack of knowledge was the most commonly cited reason (44.2%) for not using social networking. Non-users also had privacy concerns (26.3%), were too busy to investigate the options (24.2%), or felt there was no need (22.1%). The highest rate of use was in the under-30 age group, followed by the 30-39 age group. Almost all respondents who reported using social networking were on Facebook, while some posted educational videos on YouTube and others made daily or weekly updates on Twitter or blogs.¹¹

In the absence of such empirical evidence for South Africa, a study was conducted to investigate the general patterns of usage of social media by dentists in South Africa and in particular, their use of it as part of their marketing strategies.

MATERIALS AND METHODS

A mixed research methodology was followed. Mixed-method design provides more comprehensive data and as a result, greater confidence in the results of the study.¹²

Data collection

The population for this study was dentists who were on the membership email database of the South African Dental Association and who had internet access. Due to the wide geographical dispersion of dentists in South Africa, the quantitative survey instrument was in the form of a self-developed online questionnaire, well in accord with the online nature of social media. A cover letter was e-mailed by SADA to all members on their database, detailing the hyperlink that redirected respondents who agreed to partake in the study to the SurveyMonkey website (www.surveymonkey.com), that hosted the questionnaire. Only the author, the research supervisor and the statistician had access to the linked account and the responses to the questionnaire. The questions in the questionnaire included biographical details and

ranged from typical behaviours, to options related to the use of social media for marketing purposes. The questionnaire comprised 23 multiple choice questions spread unevenly across four sections, the first being related to demographics and information on general internet use. Section Two posed questions on social media usage while Section Three was a single question, related to marketing in the dental practice. In the last section four questions were focused on the use of social media for marketing. The responses to several questions were assessed by means of Likert scales.

Qualitative data was collected through one-on-one interviews, conducted with three dentists who were identified as already using social media as part of their marketing strategies. The interviews were semi-structured and self-developed, open-ended and specific questions were prepared in advance. In the first place, the purpose of the interview was explained and with the agreement of the practitioner, a formal meeting was then scheduled at the respective practice. The interviews were recorded and then transcribed.

Data analysis

Statistical analysis included descriptive statistics and determination of frequencies. The one-way analysis of variance (ANOVA) is appropriate to investigate differences in mean scores between more than two independent groups and was used in this study to investigate the significance of differences in mean scores between reliable constructs and demographic variables. The Kruskal-Wallis test was used to confirm significance where data was not normally dis-

Table 1: Demographic distribution of respondents

	n	%
Sex		
Male	217	65
Female	117	35
Age		
<30	54	16.2
30-39	69	20.7
40-49	80	24
50-59	81	24.3
60+	50	15
Years in Practice		
0-5	60	18
6-10	37	11.1
11-20	77	23.1
> 20	160	47.9
Qualification		
General dental practitioner	298	89.2
Dental specialist	36	10.8
Location		
Rural	7	2.1
Town (up to 50 000 inhabitants)	77	23.1
Small city (between 50 000 – 250 000 inhabitants)	50	15
Large city (between 250 000 – 500 000 inhabitants)	59	17.7
Metropolitan (more than 500 000 inhabitants)	141	42.2

tributed. A probability value of $p < 0.05$ was considered statistically significant. Chi-square analysis was used for cross tabulation of selected nominal variables and demographic data. The software package SAS JMP version 10.0 was used for all analyses.

Duration of use of social media for communication



Figure 1: Duration of use of social media.

Frequency of interaction through social media

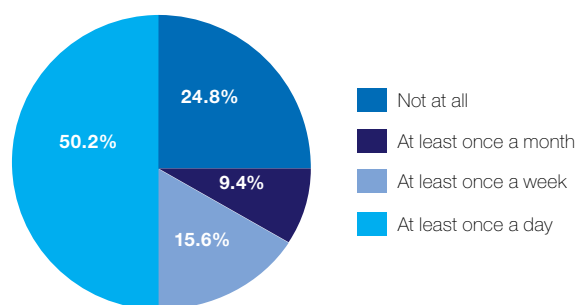


Figure 2: Frequency of social media interaction

RESULTS

The survey was successfully sent to 3359 SADA members via e-mail. A total of 340 responses were received by cut-off date, constituting a 10.12% response rate. The responses from six Oral Hygienists were not included, as they did not match the criteria for this study. Analysis was therefore conducted on 334 (9.94%) valid responses.

Demographics (Table 1)

Of the 334 respondents, 65% (n=217) were male and 35% (n=117) were female. There was a broad distribution in terms of age and years in practice. The majority (89.2%) of respondents were general dental practitioners and 42.2% of respondents listed "Metropolitan" as their demographic location.

Social media usage behaviour

Dentists in South African have been active on social media platforms for some time (Figure 1), with 51.4% (n=162) of

respondents indicating that they had been using social media for communication for over three years, followed by 10.8% (n=34) who have been active users for between one and two years. A total of 4.1% (n=13) of respondents indicated that they plan to invoke social media as a communication platform within the next 12 months, but 17.1% (n=54) of respondents had no plans to start using social media.

Many respondents had embraced social media, with 50.2% (n=158) indicating that they interact through these channels at least once a day and 15.6% (n=49) at least once a week. On the other hand, a total of 24.8% (n=78) of respondents indicated that they do not interact through social media at all (Figure 2).

Table 3: Purposes for using social media

	Disagree		Agree	
	n	%	n	%
I use social media to build patient community	195	63.7	111	36.3
I use social media to participate in discussions related to dentistry	124	39.9	187	60.1
I use social media to stay connected to family and friends	62	20.1	247	79.9
I use social media to share photos, videos or to chat online	95	30.6	215	69.3
I use social media to tweet	243	81	57	19
I use social media to blog	245	81.4	56	18.6

Table 4: Kruskal-Wallis test statistics for social media purpose

Use of social media for business purposes			
Variable	DF	Chi-square Value	P-value
Age	4	4.4991	0.3427
Gender	1	0.0899	0.7643
Years in practice	3	3.4953	0.3214
Qualification	1	0.0598	0.8068
Location	4	0.4860	0.9749
Use of social media for personal purposes			
Variable	DF	Chi-square Value	P-value
Age	4	22.5434	0.0002*
Gender	1	4.0387	0.0445*
Years in practice	3	20.6367	0.0001*
Qualification	1	0.0297	0.8632
Location	4	0.4779	0.9756

*Statistically significant $p < 0.05$

Table 2: Frequency of social media interaction by age category

	< 30 years		30-39 years		40-49 years		50-59 years		60+ years	
	n	%	n	%	n	%	n	%	n	%
Not at all	2	2.6	11	14.1	24	30.8	28	35.9	13	16.7
At least once a month	1	3.3	5	16.7	10	33.3	8	26.7	6	20.0
At least once a week	4	8.2	10	20.4	12	24.5	13	26.5	10	20.4
At least once a day	45	28.5	39	24.7	1	19.6	26	16.5	17	10.8

Table 5: Social media and marketing

	n	%
Current use of social media as a marketing tool		
I am using social media as a marketing tool for my practice	41	13.2
I do not use social media as a marketing tool yet but plan to implement it	102	32.9
I do not use social media as a marketing tool and have no plans to implement it	107	34.5
I need more information and I am not sure right now	60	19.4
I predict that social media marketing amongst dental practitioners will increase in future:		
Yes	259	83.5
No	12	3.9
Not sure	39	12.6

The results indicated that GooglePlus and Facebook were the most popular social media platforms for personal use, followed by YouTube. Other platforms were used frequently by less than 4.4% of respondents. For business purposes, GooglePlus, Facebook, LinkedIn and YouTube were the most frequently chosen, other options being hardly ever used. Only 2.3% of respondents used blogs frequently, and 1.0%, very frequently.

A statistically significant association was demonstrated between the age of respondents and the frequency of interaction through social media (chi-square = 47.163, $p = <0.0001$), the younger, the more frequent the use. Results (Table 2), indicated that 28.5% of respondents who interacted at least once a day through social media are younger than 30 years, 24.7% are in the 30-39 year category, 19.6% in the 40-49 year category, 16.5% in the 50-59 year category and 10.8% are older than 60 years.

The majority of respondents (Table 3) agreed that they use social media to stay connected with family or friends (79.9%) or to share photos, videos or to chat online (69.3%). Participating in online discussions related to dentistry is a popular activity, with 60.1% of respondents using social media for this purpose. A total of 36.3% of respondents recorded that, to some extent, they used social media to build a patient community. It is clear that the prime use is for personal reasons (stay connected, chat online, tweet, blog), rather than

Table 6: Reasons for opting not to use social media marketing

	Disagree		Agree	
	n	%	n	%
I do not use social media marketing due to time constraints	90	34.6	170	65.4
I do not use social media marketing due to security concerns	135	52.1	124	47.9
I do not use social media marketing because I do not see the potential	187	72.2	72	27.8
I do not use social media marketing due to a lack of knowledge on social media marketing	121	46.4	140	53.6
I do not use social media marketing because I do not believe in marketing and promotion of a dental practice	193	73.7	69	26.3
I do not use social media marketing due to other reasons	126	73.7	45	26.3

for business purposes (to build patient community, to participate in discussions related to dentistry).

A Kruskal-Wallis test was conducted to evaluate how differences among demographic variables influenced the use of social media in the business and personal environments (Table 4). The variables showed no statistical significance affecting usage for business purposes, but age, gender and years in practice, did demonstrate a significant relationship to personal activities involving social media. Both the 50-59 year category and 60+ year category and respondents who had been in practice for longer than 20 years, used social media less for personal purposes than any of the other groups. Female respondents used social media more for personal purposes compared with male respondents.

Social media marketing

The majority of respondents in this study did not use social media as a marketing tool and had no plans to implement the option (Table 5). Only 13.2% of respondents were currently using social media as a marketing tool for their practices, but 32.9% indicated that although they are not using social media yet, they are planning to do so. A further 19.4% feel that they need more information on social media marketing, and were not sure at that time whether they would implement it in future. Even though the majority of respondents were not in fact using social media marketing, an overwhelming majority of 83.5% indicated that they think that employment of this option as a marketing tool for Dentistry will increase in future.

Table 7: Reasons for not using social media marketing, arranged by age

Variable	Age										P-value
	< 30 years		30-39 years		40-49 years		50-59 years		60+ years		
	n	%	n	%	n	%	n	%	n	%	
Time constraints	19	11.17	43	25.29	40	25.53	51	30.00	16	10.00	0.0036*
Security concerns	26	20.97	27	21.77	30	24.19	28	22.58	13	10.49	0.3228
No potential for social media	6	8.33	14	19.44	15	20.83	20	27.78	27	23.61	<0.0001*
Lack of knowledge	18	12.86	21	15.00	35	25.00	42	30.00	24	17.14	0.0232*
No belief in advertising and promotion	10	14.00	12	17.00	10	14.00	18	26.08	19	28.98	0.0004*

*Statistically significant $p < 0.05$

The main reason for opting not to use social media marketing was time constraints, followed by a lack of knowledge on social media marketing and concerns about security (Table 6). 27.8% of respondents did not see a potential for social media marketing and 26.3% simply did not believe in marketing and promotion of the dental practice. There were respondents who had other reasons for not using social media marketing and these included most pertinently, a concern that social media marketing is unethical. Other reasons given were that the respondent was already busy enough and did not need more patients, three respondents were government employees or worked at training institutions and hence marketing was not applicable while some respondents stated that their patient profile did not match social media marketing.

An association was demonstrated between the age of respondents and reasons for opting not to use social media marketing (Table 7).

It was mainly the respondents between 30 and 59 years who voiced time constraints as the biggest reason for not using social media marketing, and those respondents older than 40 years also stated a lack of knowledge of social media marketing was a reason for not using it (Table 7). Security concerns were not associated with age, while it was mainly respondents older than 50 years who frankly did not see the potential for social media marketing and/or did not believe in advertising and promotion of a dental practice.

The majority of respondents using social media marketing had been using it for less than a year and were themselves mainly responsible for running the programme in their practices (Table 8). From the interviews it became evident that respondents believe social media can assist in bringing some public visibility to their practices, encouraging patients to take note of what they offer. These practitioners believe social media is a powerful tool for communication in real time and that team building is an additional benefit, as staff became involved in the social media programme. The main concern however is that running a proper social media marketing programme is extremely time-consuming. According to respondents, clear directions for developing a successful social media marketing programme are also lacking, leaving respondents to learn by trial and error as they try to figure out how to make it work.

Although the majority of respondents in the survey who are using social media marketing indicated that they have gained patients through that medium (Table 8), this may perhaps be a subjective perception. Interviews revealed that dentists do not really measure social media return on investment (ROI) and do not really ask patients why they choose the particular practice. Concerns raised during the interviews were that the South African consumer might not yet be receptive to social media marketing and might even resist the marketing of dental services. Despite this, the majority of users still indicated that they will recommend social media marketing to colleagues (Table 8).

DISCUSSION

The purpose of this study was to investigate the behaviour

Table 8: Social media marketing among dental practitioners

	n	%
Duration of use of social media as a marketing tool		
Less than a year	17	41.5
1-2 years	10	24.4
More than 2 years	14	34.1
Person responsible for social media marketing in the practice		
Office manager	4	9.8
Dentist/Dental specialist/self	27	65.9
Receptionist	1	2.4
Marketing person	5	12.2
Spouse / family member	2	4.9
Other	2	4.9
Discontinuing other forms of marketing		
Yes	9	22
No	32	78
Patients gained through social media marketing		
Yes	25	61
No	1	2.4
Not sure	15	36.6
I would recommend social media marketing to colleagues		
Strongly disagree	1	2.4
Disagree	3	7.3
Agree	25	61
Strongly agree	12	29.3

of dentists in South Africa in their adoption of social media marketing. Certainly, the findings of this study could by no means be generalised to the whole dentist population, due to the limitations imposed by the sampling method. By restricting the study to dentists with internet access, bias could have been introduced as it may be expected that experienced internet users generally would have a greater tendency towards utilising computer options such as social media. Despite these limitations, the study gives a clear indication that dentists are engaging with social media, mainly for personal purposes, including keeping in touch with family and friends, sharing videos and chatting online. There is an association between the frequency of social media interaction and age, as well as for personal purposes with age and gender, consistent with social media behaviour of the South African population in general. Social media statistics for South Africa indicate that the majority of current users are females under the age of 35.¹³

Despite claims that social media is becoming the most recent marketing phenomenon because of its remarkable advantages in the business area,³ this seems to be a far cry from 'the perception dentists hold of social media marketing and from their acceptance of the opportunity. Although the majority of dentists using social media marketing indicated that they would recommend the method to colleagues, it became evident that practitioners find the system somewhat difficult, lacking clear directions on how to make this

form of marketing work. Clearly this is a gap that could be addressed and it is recommended that dental training institutions should develop training courses for dental practitioners on social media marketing, in liaison with other stakeholders like marketing specialists. It is also recommended that the HPCSA should set clear guidelines for the conduct of practitioners regarding social media marketing, in order to eliminate the uncertainty amongst practitioners on what is allowed and what is not.

The literature provides ample evidence that social media can offer a wealth of opportunities for dental practitioners. It can assist dental practitioners to promote valuable professional relationships, improve the creation and synthesis of knowledge, permit better filtering of information and allow practitioners to reach a vast number of patients instantly in real-time.¹⁴ The nature of social media provides a unique opportunity to complement the traditional marketing activities of an organisation. Social media marketing provides new ways for organisations to interact with their target audience and to encourage customers to spread the message for the brand.¹⁵ Dental practitioners are advised to see social media marketing, not as a direct selling mechanism, but rather as providing relationship-building opportunities.¹⁶ Hughes recommends that dentists should integrate their social media marketing effort with their overall marketing strategy and states that dentists need to provide a path for users, leading to their practice site and incorporating that option with traditional marketing tactics.¹⁷ Practice websites and marketing materials such as pamphlets, advertisements, mailers, etc., should tie in with it and direct patients to the social media site of the dentist. Offline interactions should be strengthened online and online interactions should be nurtured offline as well.¹⁷

It is obvious that there are benefits, drawbacks and challenges associated with any social media strategy and these must be addressed before a policy is implemented. Dental practitioners should have a clear understanding of different social media platforms and their advantages and should be able to clearly define what they want to achieve via social media presence, before embarking on a social media strategy. Not everyone will want the same thing from social media and not everyone is comfortable with the same level of interaction with patients. Maintaining a social media presence takes time and practitioners should consistently update Facebook, Twitter and blogs with current information that would be interesting and valuable to their patients, as well as interact with people who reach out to them. If the practitioner lacks time, responsibility can be distributed throughout the practice. Dental professionals who use social media should not limit themselves to interacting only with their patients. Sites such as LinkedIn have the capability to connect discipline professionals from all over the globe in one place so that they can share ideas, swap case reports, ask for advice, discuss recent innovations and take in industry news.¹⁷

CONCLUSION

Social media marketing is a growing trend and will become

even more significant in future. Although respondents use social media regularly for personal purposes, they are only starting to use it as a marketing tool. Dentists can no longer be oblivious to the fact that the Internet and social media outlets have become integral parts of the everyday lives of most people. Consideration by practitioners to include social media marketing as part of the integrated marketing strategy of the practice, can therefore make sense.

Final words of advice ... the etiquette of social media usage must be in terms of the ethical rules of conduct and standards governing the profession. Recognise that the Statutory Council has not yet issued specific rules governing the use of social media by practitioners.

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