

The Impact of Social Media on Laypersons' Perception's and Use of Teeth Whitening Home Remedies

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Abstract

Aim: To utilize the sequel of social media on the comprehension and utilization of teeth whitening home remedies.

Materials and Methods: In the 21st century, social media has become an innovative way of seeking information. Due to the increase in accessibility and the fact that anyone can post anything on the Internet, there are hundreds of natural oral health care remedies.

A cross sectional study was done using survey based implanting self-administered questionnaire in Saudi Arabia. 536 participants were from the general population, excluding specialists and employees in the dental field.

Results: The demographic characteristics of the participants show the following: most of the participants were females (59.2%) and the most encountered teeth whitening home remedies in social media were charcoal (21.5%), followed by baking soda (19.6%) and salt (15.9%). Females were more likely to agree that bleaching may be contraindicated in children especially with newly erupted permanent teeth, were more likely to have tried a beauty related home remedy, and were more likely to agree that Instagram was their main social media source of teeth whitening home remedies. Males were more likely not to be satisfied with their teeth color and were more likely smokers. These associations were found to be statistically significant ($p < 0.05$).

Conclusion: Females were more inclined to try natural beauty related remedies found on social media. Males were less satisfied with their teeth color. Instagram was found to be the most used social media application for pursuing natural teeth whitening home remedies.

Keywords: *Teeth Whitening; Home Remedies; Social Media; Teeth Bleaching; Perception*

Introduction

Dentistry has evolved over the past 50 years from being primarily a health service to a hybrid profession [1], whereby not only pain and oral disease are treated, but elective aesthetic services are increasingly being provided [2]. Investigations into the impact of the mass media on society have shown that it affects a wide variety of areas, specifically in dentistry, indeed, in a recent US survey, dentists cited media coverage as the main reason for the increase in demand (by an average of 12.5 percent over the previous five years, with some dentists reporting an increase of almost 40 percent for aesthetic dental procedures) [3]. Another study was done in Riyadh, Saudi Arabia which targeted 1046 participants to assess the knowledge and beliefs of young females in secondary schools about teeth bleaching, and to investigate the source of their knowledge together with any natural or home remedies that they might be using, 2.4% of the surveyed students stated that they have used some home remedies, about 26.2% of the participants have described some remedies they knew for bleaching

[1]. The popular media's influence on social norms with respect to people's appearance is likely to have played a part in the recent growth of cosmetic dentistry [3], due to the increase in access to information through the Internet and social media [4] and the fact that anyone can put anything on the Internet, there are hundreds of all natural remedies suggested for oral health care [5]. However, a few trends tend to have repeated exposure on social media, which claim to improve oral health and whiten teeth. With the great exposure to social media, the perusing of perfect smile has significantly increased. In fact, people use home remedies without caution because they believe such alternative treatments have no risks or no possibility of allergic reactions or other adverse effects as they come from natural sources [3].

Materials and Methods

This was a Cross sectional study implementing self-administered questionnaire. IRB and ethical approval was obtained from the Research and Ethical Committee at Riyadh Elm University, Riyadh, Saudi Arabia (FUGRP/2018/198). The questionnaire had 21 questions, 7 were about the demographics data of the consented participant and 12 about the knowledge and usage of home remedies. It was distributed through shopping malls and social media; randomly selecting one shopping mall each from the northern, eastern, western, southern, and central regions of the capital city, Riyadh. The questionnaire was designed to ask specific questions and are related to knowledge and usage of teeth whitening home remedies. The questionnaire was validated by a focus group where it was first written in English and then translated to Arabic, then translated back to English to further validation and then distributed to the focus group, the focus group consisted of 20 people that are fluent in Arabic which none of them were in the medical field, the questionnaire was then finalized with considerations to the focus group's notes.

Two-way cross-tabulations for association, Fisher's exact and Chi square statistical significance.

Results

In our study, most of the participants were females (59.2%) with higher level of education (78.0%). Just under one third (30.8%) of the participants were smokers and over one quarter (27.9%) of the participants were satisfied with their teeth color (Table 1). The most encountered teeth whitening home remedy in social media reported by the participants were charcoal (21.5%), followed by baking soda (19.6%) and salt (15.9%) (Table 2). Social media reported by the participants where they get more information of teeth whitening home remedies are Instagram (34.0%), followed by WhatsApp (19.3%) and Snapchat (10.0%). The majority reported that they do not forward or share any of the home remedy (78.7%). Most of the participants reported that they are not comfortable with home remedies to whiten their teeth (61.5%) and do not favor the home remedies because of the cost (61.6%). Females were more likely to agree that bleaching may be contraindicated in children especially with newly erupted permanent teeth, more likely to have tried a beauty related home remedy and more likely to agree that the social media where they get more information of teeth whitening home remedies is Instagram. These associations were found to be statistically significant (p < 0.05). Males were more likely to be not satisfied with their teeth color and also more likely to be smokers. This association was also found to be statistically significant (p < 0.05). There was no statistically significant association with age, marital status and level of education (Table 3).

		Frequency (n)	Percent (%)
Gender	Male	216	40.8
	Female	313	59.2
Age	16 - 18 years	47	8.8
	19 - 24 years	138	25.8
	25 - 34 years	166	31.1
	35 - 44 years	79	14.8
	45 - 54 years	64	12.0
	55 - 64 years	33	6.2
	≥ 65 years	7	1.3
Marital status	Single	254	47.8
	Married	263	49.5
	Divorced	13	2.4
	Widowed	1	.2
Level of education	No education	2	.4
	Primary school	7	1.3
	Secondary school	10	1.9
	High school	98	18.4
	College/University	416	78.0

Table 1: Demographic characteristics.

		Frequency (n)	Percent (%)
What forms of bleaching are you aware of?	Dentist-in-office procedure	376	70.4
	Dentist supervised (out-of-office procedure)	42	7.9
	Night guard bleaching off-the-counter products	56	10.5
	Natural (home remedies)	40	7.5
	None	20	3.7
Bleaching may be contraindicated (prohibited) in some cases. Please identify which ones	Children, especially with newly erupted permanent teeth	264	49.9
	Females over the age of 35	8	1.5
	Pregnant and nursing mothers	162	30.6
	Teeth with fluorosis	59	11.2
	Others	36	6.8
Information on tooth whitening that you have was provided from which one of the following sources?	Books/Magazines	20	3.8
	Family/Friends	120	22.6
	Social media	191	35.9
	TV/Radio	33	6.2
	Health professional	168	31.6
Have you ever tried a beauty related home remedy?	Yes	240	45.4
	No	289	54.6
Which of the following teeth whitening home remedy you most encountered in social media?	Charcoal	104	21.5
	Coconut oil	19	3.9
	Salt	77	15.9
	Baking soda	95	19.6
	Others	189	39.0
Which one of the following social media you get more information of teeth whitening home remedies?	WhatsApp	95	19.3
	Facebook	46	9.4
	Instagram	167	34.0
	Snapchat	49	10.0
	Others	134	27.3
Do you forward or share any of the home remedy?	Yes, before trying	45	8.4
	Yes, after trying	69	12.9
	No	420	78.7
Are you comfortable with home remedies to whiten your teeth?	Yes, they're natural and less invasive	196	38.5
	No	313	61.5
Do you favor the home remedies because of the cost?	Yes	198	38.4
	No	318	61.6
Are you a regular tea or coffee drinker?	Yes	410	77.8
	No	117	22.2

Table 2: Effect of social media on the knowledge and use of teeth whitening home remedies.

	p value			
	Gender	Age	Marital status	Level of education
What forms of bleaching are you aware of?	.740	na	na	na
Bleaching may be contraindicated (prohibited) in some cases. Please identify which ones	.000*	na	na	na
Information on tooth whitening that you have was provided from which one of the following sources?	.167	na	na	na
Have you ever tried a beauty related home remedy?	.000*	.248	na	na
Which of the following teeth whitening home remedy you most encountered in social media?	.278	na	na	na
Which one of the following social media you get more information of teeth whitening home remedies?	.000*	na	na	na
Do you forward or share any of the home remedy?	.120	na	na	na
Are you more comfortable with home remedies to whiten your teeth?	.852	.263	na	na
Do you favor the home remedies because of the cost?	.308	.155	na	na
Are you a regular tea or coffee drinker?	.915	.221	na	na
Are you satisfied with your teeth color?	.003*	.262	na	na
Are you a smoker?	.000*	.239	na	na

Table 3: Association between the effect of social media on the knowledge and use of teeth whitening home remedies and demographics.

*: Indicates statistical significance.

na: Not Applicable (Condition for Chi square test was not met).

Discussion

In an effort of eliminating teeth stains, people nowadays use a variety of methods to whiten their teeth and the media is a crucial factor in increasing the demands of teeth whitening. It has been assumed that the shade of one's teeth might be an important factor in dental attractiveness. In a study it was confirmed, for the general population, tooth shade is indeed the most important variable of the attractiveness of a smile [6]. A study was done in New Zealand showing that 77.8% of their participants perceived an increased urge of teeth whitening subsequent to the airing of television programs [3]. Furthermore, a growing majority of modern patients are seeking out social media and other online sources to acquire health information, connect with others affected by similar conditions, and play a more active role in their health care decisions [7]. Holistic/all natural approach to dentistry is not a new concept in fact it has been utilized for many thousands of years. The mindset and views of holistic dentistry are changing possibly due to the increase in access to information through the internet and social media [8]. Based on our questionnaire, 35.9% of the participants obtained the knowledge of bleaching through social media, 31.6 from health professionals, and 22.6% from family/friends. On the contrary 36.8% stated that they obtained their information from families and friends and only 15.5% from dentists by a study done in riyadh by salwa alsadhan [1]. In fact, our participants were mostly aware of dentist in-office form of bleaching procedure. Regarding the inquiry of information about home remedies, Instagram was found the most frequently used social media platform. The most prevalent home remedy encountered was charcoal. In a study done in London that the use of charcoal toothpaste may result in negative aesthetic possibly necessitating the replacement of restorations less than ideal adaptation, which acquire grey or black marginal charcoal staining [9]. Discussing the satisfaction of teeth color 72.9% of the participants

were satisfied with their teeth color. In comparison with a study done by salwa alsadhan 28.1% only were satisfied with their teeth color [1]. In our research, 38% were smokers. The association was also found to be significant between males who are not satisfied with their teeth color and are more likely to be smokers. There was no statistically significant association with age, marital status, and the level of education with the knowledge or use of teeth whitening home remedies. Conversely, there was a weak significant relationship between age, education, and marital status with bleaching knowledge, according to a study conducted in Riyadh by Abdulwahid in 2018 [10]. In our study, females were more likely to agree that bleaching maybe contraindicated in children specially newly erupted permanent teeth, more likely to have tried a beauty related home remedies, and more likely to agree that Instagram is where they get most of their information about tooth whitening home remedies. These associations were found to be statistically significant.

Conclusion

Within the limitations of our study and based on our findings, females were more knowledgeable about teeth whitening and more likely to use social media for obtaining information. Instagram was the most used social media platform. We have found that males were more likely to be smokers with less satisfaction of their teeth color. In conclusion, people were aware of all the teeth whitening remedies (at home and professional) but less likely to do at home remedies, there were not any age or any educational level significance. Lastly, based on the previously mentioned points we recommend: A digital educational campaign to be done by dental students and shared on social media to educate the Saudi community about to improving their smile esthetics safely and effectively.

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