

Investigation on How Exposure of Social Media has Effect on the Perception of Teeth Whitening on Pediatric Patients and their Parents.

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Introduction

Social media is a highly used tool amongst the younger population. As more mobile devices are giving teenagers access to social media, a survey showed the most popular applications amongst teenagers were Snapchat, Instagram, and Twitter [5]. Even organizations like the AAPD and ADA have used Facebook, YouTube, and Twitter as a means of communication to members within their groups and to the general public [1]. As more information is being easily spread among the many platforms, the perception of “legitimacy” has changed as well. There is a lack of validation through traditional means to ensure the information is indeed correct. Instead of using peer-reviewed content, users will seek validation through the support of trusted peers within their network [2]. A study was done to evaluate the quality of information on teeth whitening videos on YouTube. It found that patients preferred to watch the most viewed videos in order to obtain their information on whitening because they correlated the value of views with more accurate content. Unfortunately, said videos were of “poor-information content” and 60% of them were uploaded by those with no dental or medical background. These non-professionals had made the video content easier to understand and their materials were also more easily accessible, hence the higher view count and trust. Even if the information was correct, the videos were vague enough that patients may interpret the information incorrectly [4]. Despite the lack of censorship on inaccurate information, social media still has its usefulness in content sharing. Thus, the focus should be more on how we use it to our advantage and spread more peer-reviewed information [3]. In order to do so, we must investigate on the shift in trend of popularity towards other social media platforms that also provides video content like YouTube, especially amongst the younger generation. There is also lack of information on whether such information is perceived as trustworthy.

Objective

The aim of the study is to assess how exposure to different social media platforms effects pediatric patients and their respective parent or guardian on their perception of teeth whitening.

Methods

- Ninety pairs of parent and child
- This survey includes:
 - Eighteen questions given to the children pertaining to where they saw the teeth whitening content, what information was shown to them about teeth whitening, and if they believed the information was accurate.
 - The same set of questions were given to the parents with 1 additional question that asked what was the main source they used to determine their child’s treatment plan.

Study Population

TUSDM patients (12-18 years old) and their respective parents/guardians.

Inclusion/Exclusion Criteria

Inclusion: Children (12-18 years old) with their parent/guardian, who were both interested in teeth whitening and had seen a tooth whitening video on any social media sites/applications. Both speak English.

Exclusion: Child or parent not interested in teeth whitening and/or had never seen a tooth whitening video on any social media sites/applications. Children who weren’t 12-18 years old. Children and/or parents who didn’t speak English.

Statistical Analysis

Wilcoxon signed-rank test, McNemar-Bowker test, and McNemar’s test were used to establish relationships between categorical variables. Data analyzed using Stata 13.1.

Results

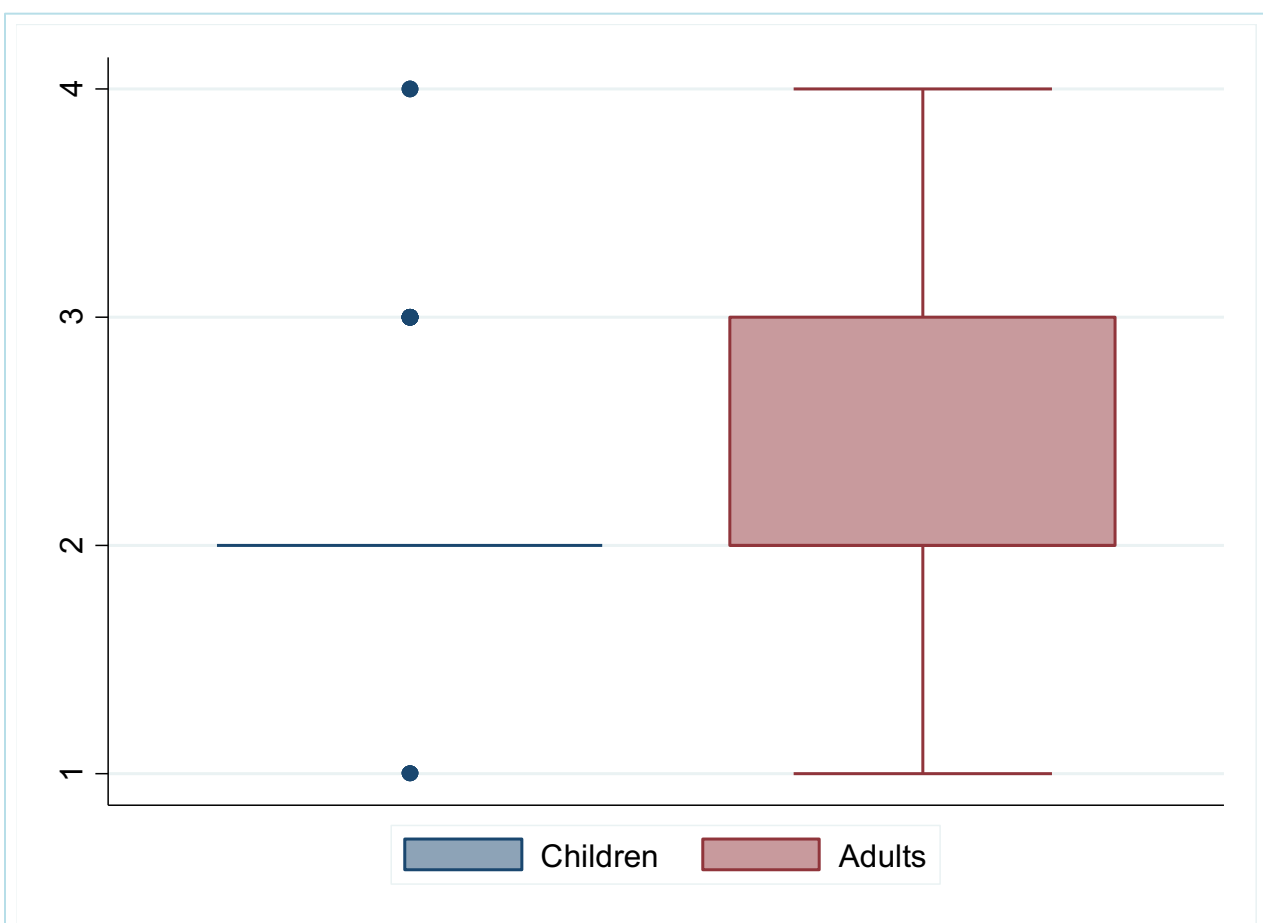


Figure 1: Number of Steps of Teeth Whitening Shown in Social Media

- There is a statistically significant difference in median hours spent on social media between adults and children. P value < 0.001 (Figure 2)
- There was a statistically significant difference in the number of adults who used Facebook, Instagram, TikTok, Snapchat, and WhatsApp compared to children who do, but not for YouTube, Twitter, or “Other” apps (WeChat, Discord, Dental Website).
- 72% of parents/adults and 80% of children thought “sometimes” social media could be trusted to give correct teeth whitening information.
- Majority of parents and children said they “sometimes” or “rarely” would use social media/applications to find answers on teeth whitening
- There was a significant difference between children and adults, knowing who uploaded the teeth whitening content among the 3 categories: Another User/”Influencer”, a Celebrity, and Dentist or Health Professional.
- 85% of parents stated the main source they use for their child’s dental treatment is the dentist.

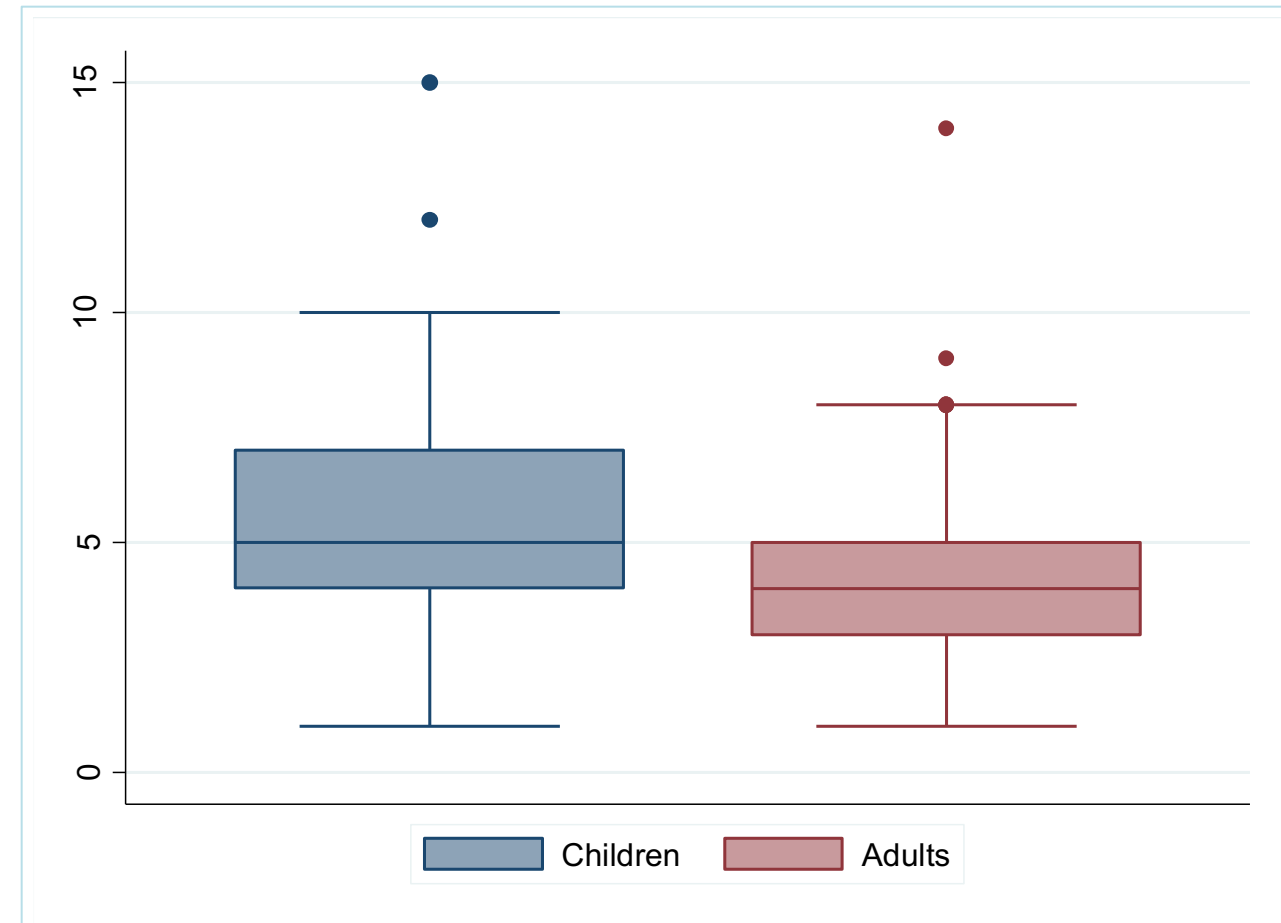


Figure 2: Difference in Hours Spent on Social Media/Applications per Week

Table 2. Descriptive Statistics

Social Media/Applications, N (%)	Children	Parents/Guardians	P Value
Facebook	6 (9.1)	60 (90.9)	< 0.001
Instagram	57 (67.8)	27 (32.1)	< 0.001
Tik Tok	64 (80.0)	16 (20.0)	< 0.001
WhatsApp	37 (63.7)	21 (36.2)	0.01
Snapchat	51 (70.8)	21 (29.1)	<0.001
Twitter	11 (42.3)	15 (57.6)	0.54
YouTube	71 (54.6)	59 (45.3)	0.05
Other	3 (25.0)	9 (75.0)	0.11
Survey Question, N (%)	Children	Parents/Guardians	P Value
Most Used Social Media	Tik-Tok, Snapchat: 24 (27.9)	Facebook: 27 (31)	0.001
Paid Advertisement	Sometimes: 12 (33.3)	I Don’t Know: 30 (34.4)	0.01*
Can Social Media be Trusted	Sometimes: 70 (80.4)	Sometimes: 63 (72.4)	0.02*
Most Teeth Whitening Info	YouTube: 34 (40.4)	YouTube: 43 (50)	0.001
Steps of Teeth Whitening Shown	Sometimes: 63 (72.4)	Sometimes: 57 (65.5)	0.36*
Risks of Teeth Whitening Shown	Rarely: 39 (44.8)	Rarely: 38 (43)	0.75*
Teeth Whitening Interest Level	Still the Same: 57 (65.5)	Still the Same: 48 (55.1)	0.16*
Who Uploaded the Teeth Whitening Content, N (%)	Children	Parents/Guardians	P Value
Another User/ “Influencer”	48 (77.4)	14 (22.5)	< 0.001
A Celebrity	30 (78.9)	8 (21.0)	0.0005
Dentist or Health Professional	19 (36.5)	33 (63.4)	0.0001

*P values that are based on median frequency of the data in that category

Table 1: Demographics of Patients and Parents/Guardians Surveyed

Gender, N (%)	Children	Parents/Guardians
Male	36 (41.3)	30 (34.4)
Female	51 (58.6)	57 (65.5)
Ethnicity and Race, N (%)	Children	Parents/Guardians
White	15 (17.2)	15 (17.2)
Hispanic	10 (11.4)	9 (10.3)
African American	15 (17.2)	15 (17.2)
Asian	45 (51.7)	44 (50.7)
Other	12 (13.7)	13 (14.9)
Age, Mean (SD)	Children	Parents/Guardians
	14 (4.5)	41 (8.4)

Discussion

A current majority of children surveyed preferred Tik-Tok and Snapchat, whereas the adults used Facebook mostly. Both saw the most teeth whitening information on YouTube. They also stated that the information they had seen sometimes showed the steps of teeth whitening, but rarely showed the risks. Despite the lack of validation, the interest level of both groups remained the same. This emphasizes the importance of ensuring that the dental patient population are getting peer-reviewed information that explains the benefits and risks of teeth whitening on social media platforms that are popular amongst both groups. Limitations of the studies include a lack of patient diversity due to the location of TUDSM. Further studies should explore other ethnicities and races to determine if similar results can be replicated as well as to see if interest levels would remain the same once either group is shown peer-reviewed content on teeth whitening.

Conclusion

- There was a significant difference in which social media/applications were used among the two groups.
- Majority of surveyors of TUSDM saw teeth whitening content on YouTube.
- Even if the content was uploaded by someone who was a non-health professional, majority of the patients and parents would remain interested in teeth whitening.

Acknowledgement

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Reference

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