



Are the Viral Dental Trends Circulated in Social Media Dangerous? KAP Based Study among Gen Z, Khammam, Telangana

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Abstract

Background: Currently social media has become an integral part in the day to day life and its usage is inevitable among Generation Z. Dental trends especially have become a large part of social media and have plenty of dangerous fads that go viral with very little transparency about the harmful effects. The current study aims to assess the knowledge, attitude, and practices regarding dangerous dental viral trends in social media apps among Gen Z.

Materials and Methods: A 27-item self-structured, closed-ended questionnaire was distributed among the participants to collect information on Knowledge, Attitude, and Practice of dangerous dental viral trends. Chi-square test and t-test were used to test significant differences across gender, and year of study. P value < 0.05 was considered statistically significant.

Results: A total of 300 engineering students participated in the study, among which 160 (53.33%) had the knowledge that dental trends are dangerous and 231 (77%) participants agreed that it is necessary to seek dentist advice before following these trends and 70 (26%) of them practiced the viral trends related to the usage of activated charcoal to clean the teeth.

Conclusion: The current study revealed that most of the participants were aware of the dangers of dental viral trends and have been practicing. Health professionals should play a key role in sensitizing the students, app developers, and content creators about the harmful effects of these viral trends through social media.

Keywords: Dental Trends; Social Media; Dangerous; KAP; Gen Z

Introduction

In recent years, social media platforms have become powerful influencers in shaping social trends, including those which are related to health and personal care. One big area where this effect is particularly evident is dental health. The emergence of dental viral trends on platforms such as Instagram, Facebook and YouTube has garnered significant attention, especially among the Gen Z popula-

tion [1]. Not only do these trends capture the attention of millions, but they can also educate, entertain and inspire people to take better care of their oral health.

However, attention must be paid to the potential dangers associated with these viral dental trends, and those that threaten human oral health must be explained.

Gen Z techies, known for their eagerness to explore and experiment, are particularly sensitive to the dangerous trend which are viral [2]. The desire to be part of the latest trends and peer influence can lead students to participate in activities that may seem harmless at first, but can lead to serious dental complications [3].

Given the unique characteristics and context of this geographic region, the field of research is likely to be driven by local understanding of how Gen Z responds to trends [4,5]. To date, there are no studies showing the harmful effects of viral dental trends. As a dental surgeon, capitalizing on these trends and creating engaging content can go a long way in spreading valuable dental knowledge and making the public aware of these dangerous trends. This can be achieved by effectively intervening and debunking these dangerous viral dental trends, which can help prevent potential damage and encourage informed oral care decisions.

The findings are expected to contribute to a more targeted and contextually relevant understanding of oral health practices among Generation Z in Khammam. Hence, a study was carried out with an aim to assess the knowledge, attitude and practices regarding dangerous dental viral trends in social media apps among Gen Z.

The objectives of study were to assess the knowledge, attitude and practice of Gen Z regarding the dangerous viral dental trends in the social media apps based on the gender and year of the study.

Materials and Methodology

A cross-sectional questionnaire-based study was conducted among engineering students from various academic years at a Technical Education Institute, in Khammam. The study population included first-year, second-year, third year, and fourth-year engineering students. The study took place over five days, from August 8th to August 12th, 2022. A 27 self-administered questionnaire consisting of demographic information, knowledge, attitudes, and practices were distributed. Content validity of the questionnaire was ensured through an expert review, ensuring comprehensive coverage of the relevant topics. The reliability of the questionnaire was confirmed using Cronbach’s alpha, yielding a high score of 0.9, indicating strong internal consistency. Participation was voluntary. Students who were willing and were present on the day of the study were included, while those who were not present were excluded. Convenience sampling was employed as the sampling method. A total of 300 students participated in the study, with representation from all four academic years: 72 first-year, 77 second-year, 76 third-year, and 75 fourth-year students. Permission was obtained from the authorities during working hours, and informed consent was taken priorly. Prior to administering the questionnaire, the

purpose of the study was explained to the participants, and they were instructed to choose one option from the provided answers for each question. The collected data were coded and entered into a Microsoft Excel sheet. Descriptive statistics were then performed using the Statistical Package for the Social Sciences (SPSS) Version 23 to analyze the data. The tests used are t-test, One way ANOVA, Tukey posthoc test, Chi- square test.

Results and Discussion

Demographic data

Figure 1 shows that the distribution of Age group, Gender and Year of the study. Out of the total population of 300 students, the majority are 19 years old (27.33%), whereas the least are 23 years old students (10%). Among the study participants, 163 are females (54.33%) and 137 males (45.67%). The distribution across academic years is relatively equal: 72 students (24%) in 1st year, 77 students (25.67%) in 2nd year, 76 students (25.33%) in 3rd year, and 75 students (25%) in 4th year.

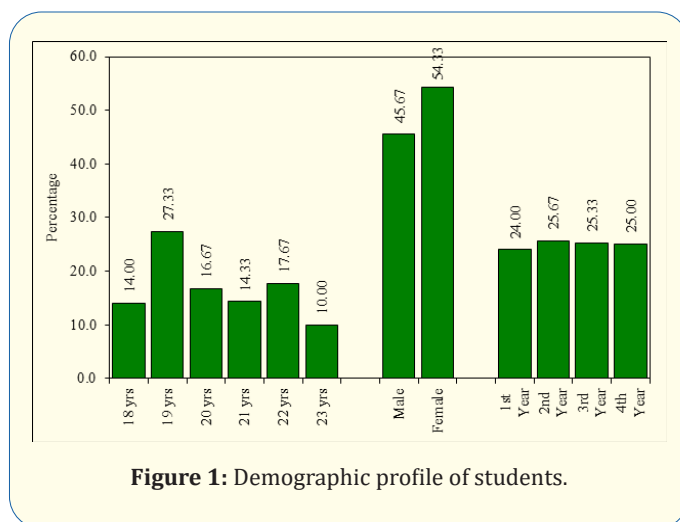


Figure 1: Demographic profile of students.

On examining the Knowledge scores of Male and Female participants (Figure 2), the Mean scores were found to be 6.78 for Males and 7.28 for Females. (Figure 3) shows that the descriptive statistics indicate that 2nd year students had the highest mean knowledge score (8.10), whereas 4th year students had the lowest knowledge score (6.21).

Table 1 depicts that, In the current study, 134 (44.67%) students reported using social media apps for 4-6 hours per day indicates that almost half of students spend a significant amount of time on social media, which may reflect the integration of these platforms into their daily communication, entertainment and information routines whereas 27 (9%) of students used social media

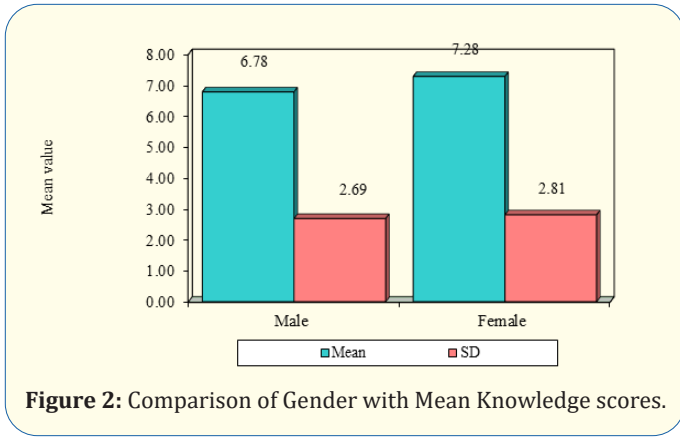


Figure 2: Comparison of Gender with Mean Knowledge scores.

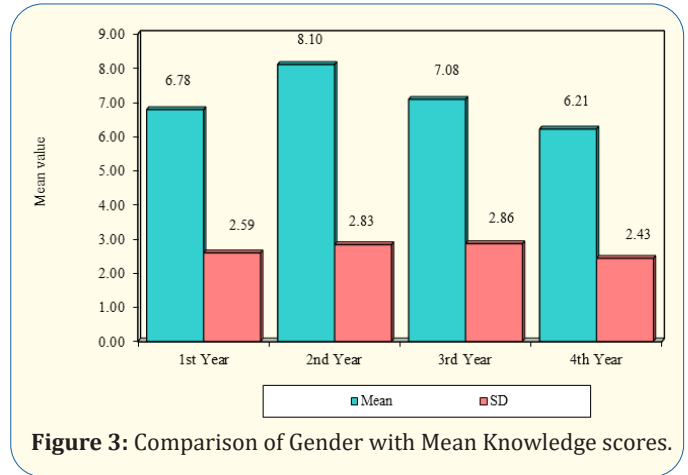


Figure 3: Comparison of Gender with Mean Knowledge scores.

Items	No of students	% of students
How often do you use social media apps a day?		
2 - 4hrs	90	30.00
4 - 6 hrs	134	44.67
6 - 8 hrs	49	16.33
more than 8 hrs	27	9.00
Which content do you usually view/watch?		
Educational content	18	6.00
Entertainment	87	29.00
Health content.	23	7.67
All the above.	172	57.33
What are the various apps in which you usually find dental trends? (select 1 or more options)		
You tube	226	75.33
Instagram	176	58.67
Facebook	49	16.33
Snap chat	85	28.33
Pinterest	35	11.67
Do you follow / practise the health content which you generally view		
Yes	73	24.33
No	54	18.00
Sometimes	173	57.67
How often do you find dental content in health-related sites that you browse		
Rare	92	30.67
Often	129	43.00
Sometimes	79	26.33
Do you feel all the dental contents present in social media are accurate?		
Agree	75	25.00
Disagree	59	19.67
Not sure	166	55.33
Did you come across any of these viral dental trends in social media apps?		
Shark teeth crowns	64	21.33
Using household cleaning products to whiten teeth	103	34.33

Sticking jewels to the tooth	97	32.33
Usage of charcoal for cleaning the tooth	155	51.67
Frozen honey challenge	49	16.33
Vinegar shots in the early morning	57	19.00
To which of the following category these viral dental trends belong?		
Educational	89	29.67
Entertainment	48	16.00
Dangerous	31	10.33
Promoting dental products	191	63.67
What might be the probable reasons for these viral dental trends		
To Increase the number of followers or number of viewers	43	14.33
For Useful purpose	79	26.33
To Become popular/famous	59	19.67
Both a and c	119	39.67
According to you, who is more influenced by these viral dental trends in social media?		
Children	37	12.33
Teenagers	74	24.67
Adults	67	22.33
All the above.	122	40.67
According to you, Who should be responsible to monitor the content before being viewed by public?		
Technical team concerned with the social media app	141	47.00
Content creator.	113	37.67
Viewer.	46	15.33
Is there any requirement for the approval of any trends in social media apps from the technical team before posting?		
Yes	191	63.67
No.	109	36.33
From the below who are benefitted through these viral dental trends		
Influencers	97	32.33
Dentists	90	30.00
Viewers	75	25.00
None.	38	12.67
How do you think these viral dental hacks are being trending / circulated?		
Because of more views and shares	60	20.00
Supporting this dental content.	40	13.33
Lack of knowledge regarding trends.	46	15.33
Not following rules and regulation	26	8.67
Cost effective. (easy accessibility)	23	7.67
All the above	105	35.00
Do you think these dental trends are dangerous?		
Yes	160	53.33
No	140	46.67
The effects / risks of these dangerous dental trends on overall health?		
Poisoning and toxicity due to intake of bleaching agent.	75	25.00

Allergic reactions.	42	14.00
Breathing problems.	33	11.00
All the above.	150	50.00
The possible effects/risks of following these dangerous dental trends on oral health?		
Gum irritation/swelling due to the usage of various chemical products (immediate effect)	38	12.67
Tooth Sensitivity due to tooth erosion (delayed effect)	53	17.67
Nerve damage due to grinding or filing of teeth. (immediate effect)	43	14.33
Loss of tooth.	37	12.33
All the above.	129	43.00
Which of the following dental trends have you tried? (select 1 or more)		
Sticking of jewels to the teeth.	54	18.00
Using activated charcoal to clean the teeth.	78	26.00
Using household cleaning products for bleaching or whitening of teeth.	70	23.33
None.	98	32.67
Is it necessary to seek dentist advice before following these trends?		
Yes	231	77.00
No	69	23.00
Would you encourage in practicing these dangerous dental trends?		
Yes	91	30.33
No	209	69.67
What is your opinion after viewing these trends?		
Follow/ promote the trends.	59	19.67
Avoid usage of these trends.	149	49.67
Report the content for the necessary action.	92	30.67
What are the possible ways in avoiding these dangerous dental trends?		
Taking advice from the dentist (Educating the people regarding the negative impacts of these trends)	88	29.33
Debunking the sites which are promoting these trends.	64	21.33
Reducing the internet usage.	56	18.67
All the above.	92	30.67
Do you think these dental trends should be considered as explicit content and given a statutory warning?		
Yes	218	72.67
No.	82	27.33
Total	300	100.00

Table 1: Item-wise responses of students.

for more than 8 hours per day. The reasons for such high levels of engagement might include addictive behavior, the influence of social media influencers, the use of these platforms for professional purposes such as managing personal blogs. Among the social media platforms, YouTube emerged as the most used, with 226 (75.33%) of participants using it, likely due to its extensive content and educational resources followed by Instagram 176 (58%), Snapchat 85 (28%), Facebook 49 (16.33%) and Pinterest 35 (11.67%). This

highlights how important video-based platforms are for the spread of dental-related content. In the current study 173 (57.67%) of participants indicated practicing health content sometimes which may be due to varying levels of interest and motivation, time availability. 129 (43%) of the participants find the dental content more often this could be for a number of reasons, such as an active interest in oral health, curiosity about new trends, professional interest in dental students. Nearly half 166 (55.33%) of study participants were

not sure about the dental content on social media is accurate likely due to mixed-quality information and difficulty in verifying reliable sources. On analysing the reasons behind viral dental trends on social media, 119 (39.67%) participants largely attributed them to a dual motive of increasing followers or viewers, and aspiring for popularity or fame with social recognition and possible financial gain behind them. 122 (40.67%) of the study participants believe that all including children, teenagers, and adults are influenced by viral dental trends on social media indicating a broad impact across populations and age groups. Participants encountered viral dental trends on social media apps, such as charcoal tooth cleaning (51.67%), household cleaning products for teeth whitening 103 (34.33%), sticking the jewels using super glue 97 (32.33%), shark teeth crowns 64 (21.33%), vinegar shots in the early morning 57 (19%) and frozen honey challenge 49 (16.33%) as these trends probably gained popularity due to their visibility, simplicity and promise of quick results. The majority of participants 191 (63.67%) found that viral dental trends on social media are related to the promotion of dental products indicating a strong business side where companies use trends to effectively market their products. Meanwhile 141 (47%) of the participants identified that technical team is responsible for monitoring content before been viewed by the public indicating growing concerns about security of dental information shared on social platforms. Similarly 191 (63.67%) of the study participants expressed that there should be a requirement of approval for trends on social media apps from the technical team before posting. 105 (35%) of the participants indicated that viral dental hacks are trending due to a combination of factors, such as more views and shares, support for the dental content, lack of knowledge regarding trends, and non-compliance with rules and regulations while 160 (53.33%) participants believed that these trends are dangerous. Almost half of the respondents 150 (50%) identified all the mentioned risks associated with dental trends like poisoning and toxicity due to the ingestion of bleaching agents, allergic reactions, and breathing problems. Additionally, 129 participants (43%) identified multiple risks associated with following dangerous dental trends, expressing concerns about oral health issues such as gum irritation or swelling due to the usage of chemical products, tooth sensitivity from tooth erosion, nerve damage due to grinding or filing teeth, and the risk of tooth loss indicating awareness of potential risks associated with these trends. 98 (32.67%) of the participants have not tried any of these dental trends indicating a lack of interest in potentially risky practices advertised on social media. 231 (77%) participants agreed that it is necessary to consult a dentist before following these trends, Similarly, majority of the participants 209 (69.67%) denied encouraging the practice of dangerous dental trends. Most of the participants 149 (49.67%) preferred to avoid the use of

these trends. However, 59 (19.67%) respondents expressed a desire to follow or promote these trends. which may have been influenced by the appeal of quick results.

Participants believe that following the dentist’s advice 88 (29.33%) to avoid dangerous dental trends, followed by exposure to websites promoting these trends 64 (21.33%) and 56 (18.67%) of respondents suggested reducing internet use to avoid dangerous dental trends, while 30 (67%) supported all of the above strategies.

The majority of participants 218 (72.67%) believe that these dental trends should be considered as explicit content and given a statutory warning which emphasize the need for regulatory action to protect public health and ensure an informed decision for dentists advertising on social media.

Figure 4 shows that both males 57 (41.6%) and females 44 (44.17%) often encounter dental content on health-related websites and found to be statistically significant.

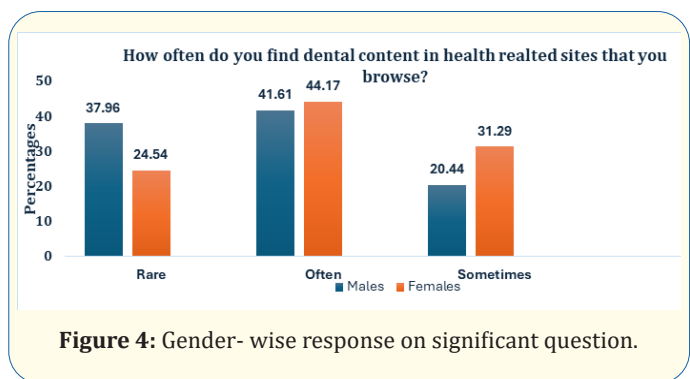


Figure 5: indicates that 85 (62.04%) of males and 81 (49.69%) of females were not sure about the accuracy of dental content in social media reflecting widespread uncertainty and skepticism about the reliability of information shared on these platforms.

Figure 6 represents that majority of both genders 50 (36.50%) of males and 67 (41.10%) of females believe all age groups are equally influenced probably due to the broad nature of social media, which reaches a large audience regardless of age, and the general appeal of popular content that can easily influence children, teenagers and adults.

Figure 7 depicts that a higher percentage of males 39 (28.47%) have tried using activated charcoal to clean the teeth and interestingly 63 (38.65%) of females not trying any of these dental trends. This may be due to males experimental approach to new dental

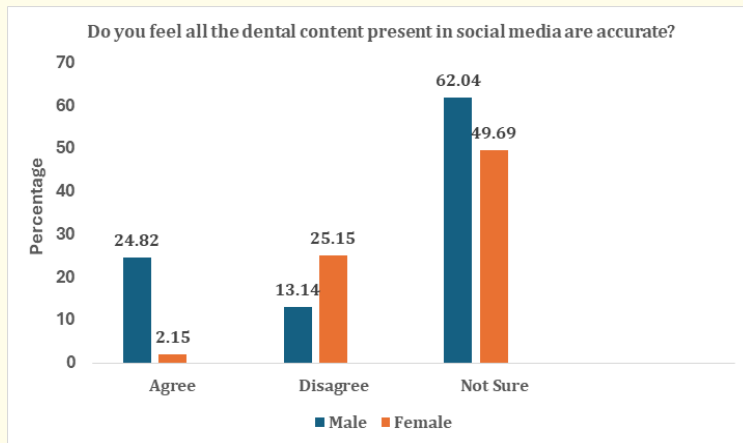


Figure 5: Gender- wise response on significant question.

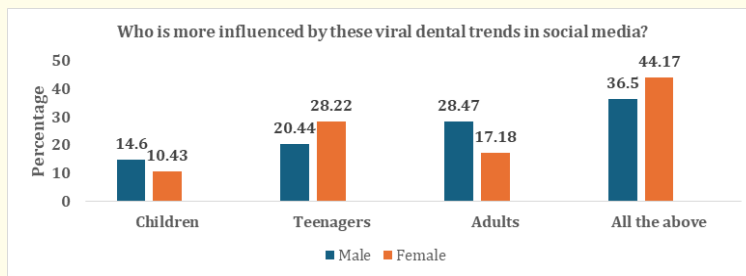


Figure 6: Gender- wise response on significant question.

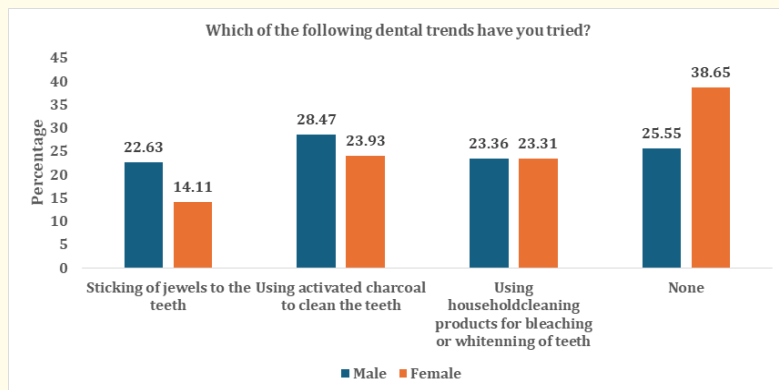


Figure 7: Gender- wise response on significant question.

practices, while females may be more cautious or skeptical of potentially risky trends advertised on social media.

Figure 8 shows that, In the present study the majority of students across all the years spend a moderate amount of time (4 - 6 hours) on social media daily, while very few 1 (1.30%) exceed 8 hours.

Figure 9 depicts that across all academic years, majority of students tend to watch all types of content, including educational, entertainment, and health-related content.

Figure 10 represents that the highest percentage 61 (79%) of 2nd year students watched YouTube while the lowest percentage 1 (1%) of 4th year students watched Pinterest. This may be because YouTube offers a wide variety of content that appeals to younger students, while Pinterest is less popular among older students. YouTube was the most commonly used apps across all years.

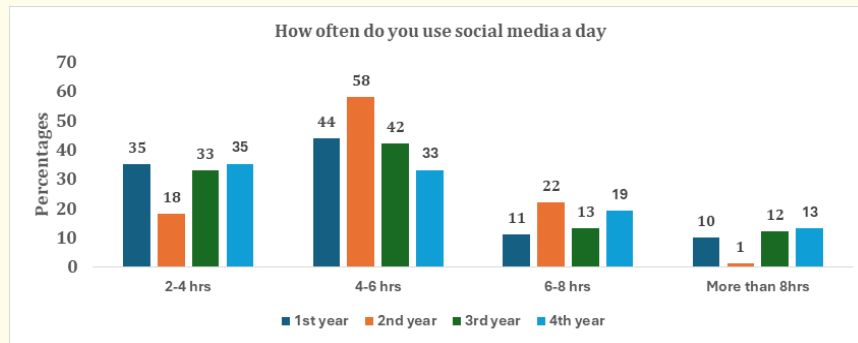


Figure 8: Comparison of years of study with responses on significant questions.

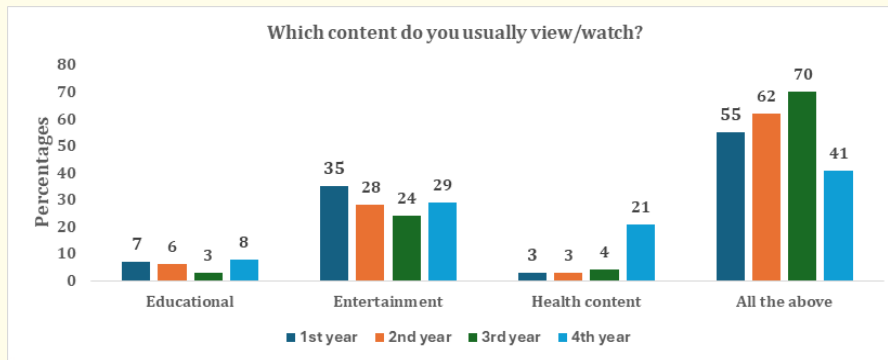


Figure 9: Comparison of years of study with responses on significant questions.

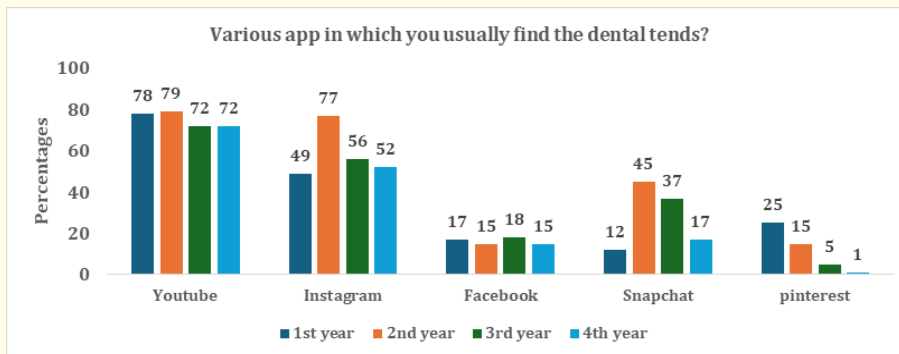


Figure 10: Comparison of years of study with responses on significant questions.

Figure 11 shows that 30 (40%) of 4th year students believed that dental content on social media was accurate due to their advanced knowledge and ability to perceive credible information. In contrast, 12 (15%) of 2nd year students responded that dental content was not accurate as they lack experience and familiarity with reliable sources.

Figure 12 represents that Majority of students across different academic years generally believe that all demographic groups (children, teenagers, and adults) are influenced by viral dental

trends on social media with the highest percentage in the second year 38 (49.35%), followed by the third year 33 (43.42%), first year 28 (38.89%), and fourth year 23 (30.67%).

Figure 13 shows that 41 (56.94%) of the first-year students responded that the responsibility for monitoring content should lie with the technical team of the social media platform, followed closely by content creators whereas viewers were least responsible according to the second-year students 6 (7.79%). This perspective may reflect the perception of first-year students that social media

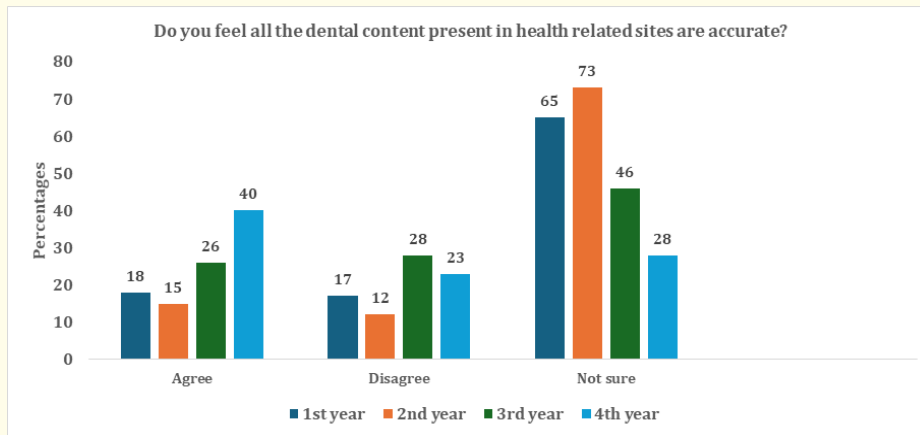


Figure 11: Comparison of years of study with responses on significant questions.

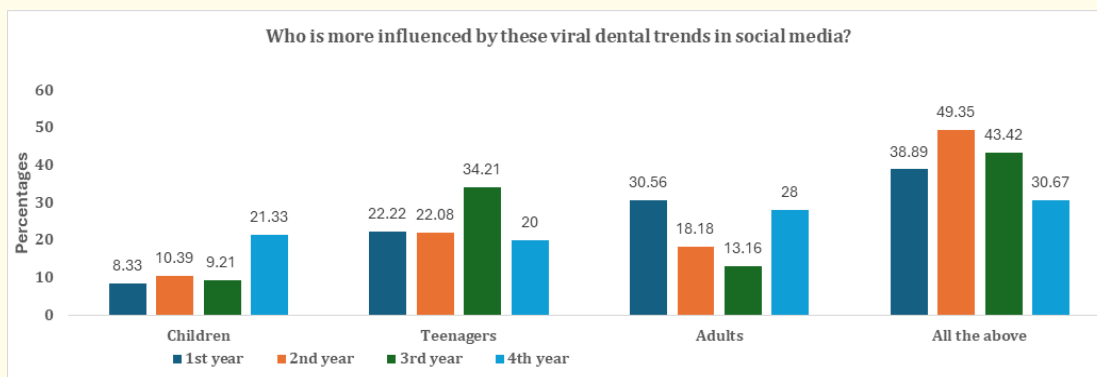


Figure 12: Comparison of years of study with responses on significant questions.

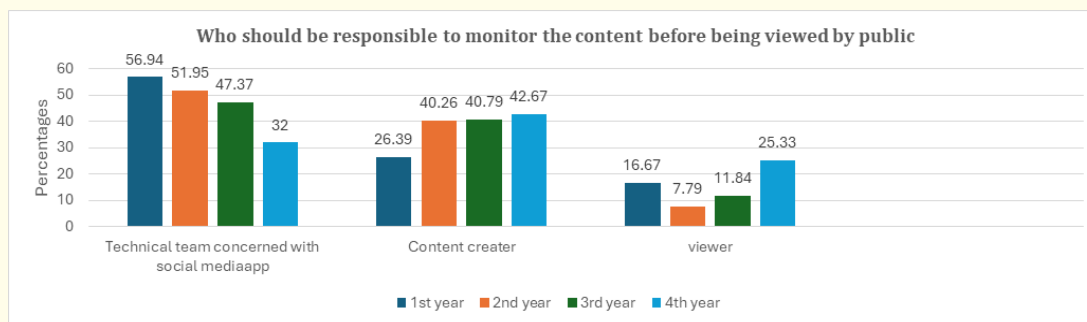


Figure 13: Comparison of years of study with responses on significant questions.

platforms and content producers are primarily responsible for the accuracy and security of information shared online, while second-year students may underestimate the role of viewers in critically evaluating content.

Figure 14 shows that nearly half of the 1st year students 36 (50%) have not tried any of these dental trends on the other hand 26 (34.67%) of fourth-year students have tried using charcoal for

whitening, as students progress through the academic years, they may become more willing to try new trends and have increased exposure to such practices through social media and peer influence.

Figure 15 suggests that 33 (42.86%) of second-year students responded that all the above mentioned strategies are necessary to prevent the spread of these dangerous dental trends. In

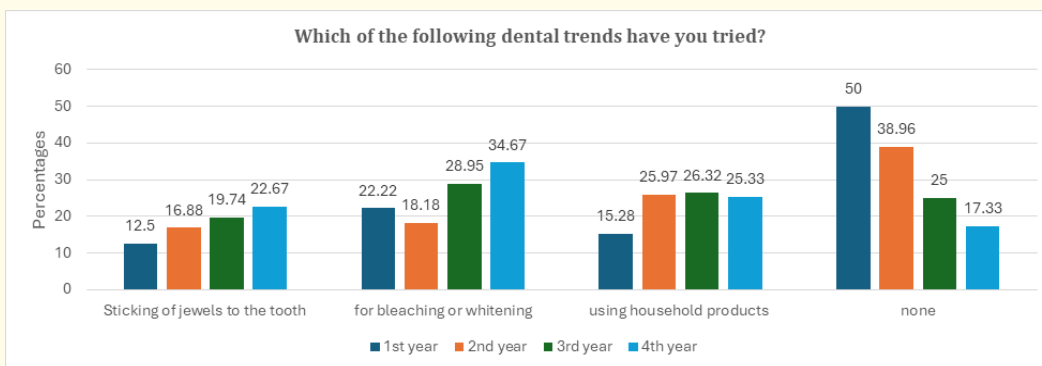


Figure 14: Comparison of years of study with responses on significant questions.

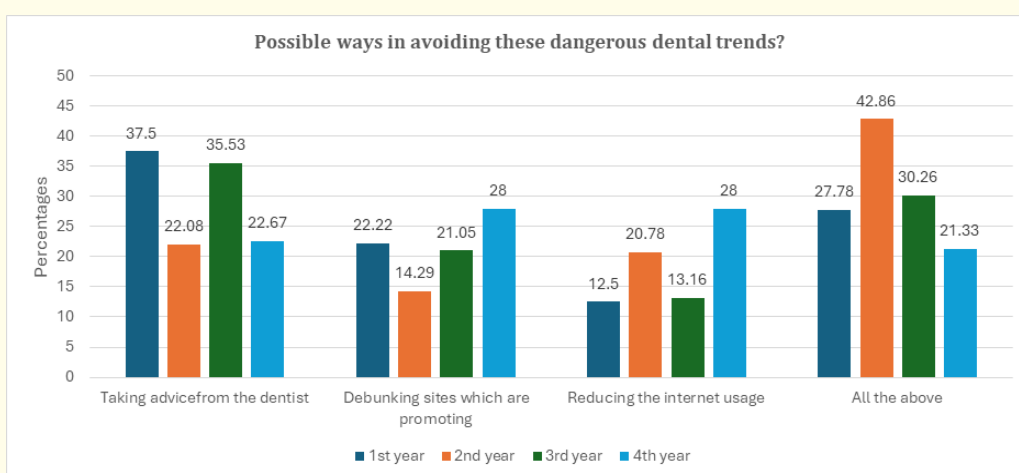


Figure 15: Comparison of years of study with responses on significant questions.

contrast 9 (12.50%) of first year students advised to reduce the internet usage believing that limiting exposure to online platforms can reduce the impact of viral trends.

and given a statutory warning. This strong response likely reflects a growing awareness among students of the potential risks associated with viral dental trends on social media. They may see these trends as potentially harmful and believe that clear warnings are necessary to inform and protect the public.

Figure 16 depicts that 63 (82.89%) of third year students responded that dental trends should be considered as explicit content

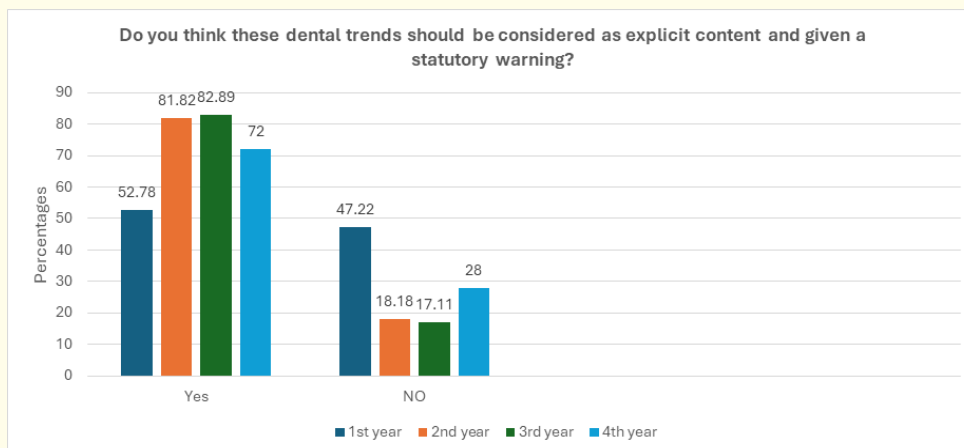


Figure 16: Comparison of years of study with responses on significant questions.

Conclusion

This study provides a comprehensive overview of the knowledge, attitudes, and practices of Gen Z students in Khammam, Telangana, regarding viral dental trends on social media. Gen Z, the most active demographic on social media, shows high engagement with their entertainment, information and trends, including dental health platforms. This widespread use of social media among Gen Z highlights the significant impact these platforms have on their health behaviors and practices. The technical expertise often influences their critical evaluation of health-related information online, including dental practices.

Despite the high level of engagement, there is considerable uncertainty about the accuracy of dental information available on the Internet, and many students are skeptical of its reliability. The study reveals alarming trends where students were exposed to, and in some cases considered following, potentially dangerous dental practices, such as using household cleaners to whiten teeth and using charcoal to clean teeth. This underscores the critical need to improve education about the risks associated with these unproven trends.

Gender and year of study analyses reveal nuanced differences in the perception and frequency of encountering dental content, highlighting the varying levels of awareness and attitudes among different student groups.

But all groups agree that it's important to seek professional dental advice before embracing online dental trends. This increases the need for health professionals and social media platforms to work together to regulate and authenticate health-related content to prevent the spread of harmful practices. The role of dentists and professional leadership is critical in this effort, ensuring that young people make informed and safe dental health decisions.

This study is the first of its kind in the field and provides a foundation for understanding the impact of social media on the dental health practices of young adults. However, it also underlines the need for larger studies to further investigate these findings and develop effective strategies to reduce the risks associated with viral dental trends. Enhanced regulation of health content distributed online is critical to protecting the health and well-being of social media users, especially vulnerable young adults.

Limitations of the study

- The reliance on self-reported data can introduce biases such as social desirability bias, recall bias, and response bias. Participants may overestimate or underestimate their knowledge, attitudes, and practices related to dental trends.
- Longitudinal studies are needed to better understand the knowledge, attitudes, and practices regarding dangerous viral trends among the Gen Z population, providing insights into the impact of social media usage and related factors on students' health over time.

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