

Digital Dilemma: The Intersection of Social Media Influencers and Pediatric Dental Health

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Abstract: *Social media influencers (SMIs) play a growing role in shaping children's behaviors, including their approach to oral health. With platforms like Instagram, YouTube, and Facebook becoming central to modern digital experiences, children are increasingly exposed to both educational and commercial content related to dental care. On one hand, professional dental influencers provide evidence - based guidance, advocating for proper hygiene habits and preventive care. On the other, non - dental influencers, driven by aesthetics and engagement, often promote unverified remedies and commercial products that may mislead young audiences. This dual influence raises critical concerns about misinformation, commercial bias, and the psychological effects of idealized dental aesthetics. In my view, while influencers can serve as valuable messengers for oral health awareness, their impact is a double - edged sword capable of either reinforcing good habits or perpetuating harmful trends. The aspirational nature of social media can shape children's self - esteem, sometimes fostering unrealistic beauty standards that influence their perception of dental care. This study highlights the need for greater collaboration between healthcare professionals and digital influencers to ensure that oral health messaging remains accurate, engaging, and beneficial. By bridging the gap between entertainment and education, pediatric dentists and credible health advocates can reclaim the narrative, promoting sustainable and science - backed oral care habits for the younger generation.*

Keywords: social media, children, dental education, pediatric dentistry

1. Introduction

Social media can be described as "a group of internet - based applications that are built on Web 2.0. ". One of the pivotal concepts underlying Web 2.0 is "Individual production and user - generated content". According to Farrokhi F et al, social media has gained significant popularity in recent decades, allowing users to create, share, and participate in social networks.¹ The pervasive influence of social media in the digital era has redefined how information is disseminated and consumed, particularly among children and adolescents. As digital natives, children are immersed in social media platforms that shape their behaviours, perceptions, and lifestyle choices. SMIs are individuals who have garnered significant followings on platforms such as Instagram, Facebook, and YouTube and have emerged as pivotal players in shaping consumer habits. Manek et al found that within the realm of oral health, these influencers promote products, their daily routines, and sometimes unverified remedies, leveraging their reach to impact children's decision - making processes.²

The dental health niche is increasingly present on social media, blending entertainment with education. Influencers often demonstrate brushing techniques, endorse specific dental products, and discuss the importance of regular dental checkups. While these efforts can positively impact children's oral hygiene practices, they also present risks, such as the dissemination of misinformation and undue emphasis on aesthetics over health. Moreover, the aspirational nature of influencers can lead to psychological challenges, including self - esteem issues and peer conformity pressures as stated by the American Dental Association.³

This review delves into the dual impact of social media influencers on children's oral health. By analysing their role in shaping perceptions and behaviours, we aim to identify both opportunities and challenges associated with their influence.

Demographics

India's digital ecosystem has expanded significantly, with children becoming active participants in online spaces. According to a Statista 2022 survey, a majority of children aged between 9 and 13 years in urban India spent more than three hours per day on social media, online videos, and games. Specifically, about 49% of parents reported this level of engagement among their children.⁴

According to an article from *The Times of India*, a 2023 survey conducted by Local Circles revealed that in Maharashtra, 17% of respondent parents indicated that their children were online for over six hours every day. The survey also highlighted concerns about the potential mental health implications of prolonged social media use among children.⁵

Within the dental sector, influencers predominantly target young audiences through visually appealing content, often blending entertainment with subtle marketing tactics. Social media usage statistics reveal that nearly 90% of children in developed countries have access to mobile devices, with platforms like Facebook, Instagram, and YouTube ranking as the most popular. These platforms provide an environment where children can interact with content that is both educational and promotional. Dinleyici M et al further highlighted that the combination of vibrant visuals and relatable personalities makes influencers particularly effective at capturing attention and shaping behaviours.⁶

Objective

This review aims to:

- Examine the role of influencers in promoting oral health.
- Evaluate the psychological and behavioural impact of their efforts.
- Identify potential risks associated with their impact.
- Explore opportunities for positive contributions to oral health awareness.
- Design strategies to counteract negative effects and promote collaboration for impactful, effective messaging.
- A detailed exploration of each objective will provide deeper insights into their scope, significance, and potential impact on oral health in children.

The Role of Social Media Influencers

SIMs bridge the gap between brands and consumers, using their credibility and reach to shape perceptions and behaviours. For children, these influencers act as aspirational figures, promoting oral health through Product Endorsements, Health Education and Awareness Campaigns.⁷

Dental vs. Non - Dental Influencers

For our convenience, we have categorized SIMs into dental and non - dental groups. Dental influencers typically include qualified professionals whereas non - dental influencers may not have any formal expertise in oral health. Dental influencers provide evidence - based advice, often grounded in scientific principles, making them more credible sources of information. In contrast, non - dental influencers may prioritize entertainment and engagement, sometimes at the cost of accuracy. (Gravholt Det al)⁸

Dental Influencers: The Trusted Advisors

Dental influencers, such as dentists and hygienists operate with a foundation of evidence - based knowledge. They provide:

Reliable Education: Hennessy S noted that dental influencers demystify oral health by providing accurate guidance on topics like brushing techniques, flossing, and the role of fluoride in preventing cavities.⁹

Advocacy for Preventive Care: Campaigns led by dental professionals, such as those promoting regular dental checkups, foster preventive habits.

Example: Collaborations with schools for "Tooth Talk Tuesdays" sessions educate children about oral health in engaging ways.

Role Models: By sharing their personal experiences and expertise, dental influencers inspire trust and encourage positive habits. (Khalil Met al)¹⁰

Non - Dental Influencers: The Relatable Entertainers

Non - dental influencers may lack professional training, but their relatable personas and wide reach make them highly engaging to young audiences. However, their focus on aesthetics and entertainment can pose risks:

Aesthetic Emphasis: Many non - dental influencers prioritize appearance over health, often promoting products for whiter

teeth or straight smiles without addressing underlying oral health needs.

Example: Endorsing "instant whitening pens" without explaining potential enamel damage.¹¹

Misinformation Spread: Unverified DIY hacks, such as using lemon juice for whitening, can have detrimental effects on oral health.

Example: Viral videos showing teeth - cleaning "shortcuts" often lack scientific backing and can harm children's dental development.¹²

Commercial Bias: Partnerships with brands may lead to promoting ineffective or harmful products, driven by profit rather than genuine health benefits.¹³

Psychological Influence of SIMs on children

The following are the key psychological implications of social media's influence on dentistry, categorized into beneficial and detrimental effects:

Modelling: Social learning theory suggests that children mimic behaviours they observe, particularly from figures they admire. Dentists can leverage this by collaborating with credible influencers to model proper oral hygiene practices.¹⁴

Impact of Reinforcement: Positive reinforcement from influencers (e. g., praise for completing challenges) can motivate children.

Cognitive Development

Younger children may struggle to differentiate between authentic advice and sponsored content, making them more susceptible to commercial influences. The blurred lines between genuine recommendations and paid promotions can lead to misguided oral health practices.¹⁵

Trust and Credibility

Children often perceive influencers as relatable and trustworthy, leading to strong emotional connections. This can enhance the uptake of oral health messages but also raises concerns about the credibility of the information shared. For example, a study by Marshman et al. (2020) highlighted that trust in influencers often supersedes trust in traditional health education sources.¹⁶

Sleep Disruption: Poor sleep patterns induced by late - night social media use can impair healing, immune function, and overall oral health.¹⁷

Sugar - Related Dietary Influences: Influencers promoting sugar - heavy challenges or snacks increase the risk of cavities.

Bruxism from Stress: Stress or anxiety fuelled by social media pressures can lead to teeth grinding (bruxism).

Addiction and Overuse: Excessive use of social media can create dependency, reducing time for physical activities, proper meals, and adequate hydration. These factors may lead

to systemic health issues such as obesity and its associated oral health risks, including caries and periodontal disease.¹⁸

Behavioural Influence of SMIs on Children

Product Choices

Influencers often recommend specific dental products, directly impacting children's and parents' purchasing decisions. While some recommendations, such as fluoride toothpaste, align with dental guidelines, others may promote unnecessary or ineffective items. A content analysis by Chu et al. (2018) showed that nearly 40% of influencer - endorsed products lacked scientific backing.

Risk Behaviours

Exposure to unverified or potentially harmful advice, such as DIY teeth whitening, poses risks to oral health. Research by Hennessy et al. (2015) noted an alarming trend of influencers advocating for practices that lack dental endorsement, putting children at risk.

Self - Image and Confidence

Social media's visual culture often ties dental health to physical appearance. Influencers showcasing bright, straight teeth can motivate children to prioritize oral hygiene. However, the idealized images presented may also foster insecurities, particularly for children with visible dental imperfections. This can lead to heightened self - awareness and, in some cases, anxiety or decreased self - esteem.

Peer Influence and Conformity

Children naturally seek acceptance among their peers, and social media amplifies this tendency. When influencers position specific products or practices as trendy, children may feel pressured to conform. This conformity can drive positive habits, such as better brushing routines, but it can also encourage unnecessary or ineffective purchases.¹⁹

Adapting to New Behaviours

Children particularly adapt at mimicking behaviours modelled by influencers, especially when presented in engaging formats.

Examples include:

Positive Examples:

Peer - led brushing challenges: Influencers demonstrating the "two - minute brushing challenge" on Youtube have inspired children to improve the duration and consistency of their brushing habits. This gamified approach makes oral hygiene more appealing and accessible.

Real stories from kids overcoming dental anxiety: Influencers sharing how they overcame fear of dental visits through comforting routines, like bringing a favourite toy or listening to music, encourage children to feel braver during their own appointments.

Celebrating dental milestones: Videos showcasing kids proudly earning a "no cavities" certificate or showing off a lost tooth to their followers motivate others to value regular dental care.

Mini science experiments: Influencers demonstrating the effects of sugary drinks on eggshells (as a substitute for enamel) teach kids about the importance of reducing sugar intake in a visual and engaging way.

Negative Examples: (especially from non - dental influencing)

DIY tooth gems gone wrong: Kids inspired by influencers applying decorative gems with nail glue or adhesives may damage their enamel or cause infections.

Unboxing candy challenges: Videos featuring influencers unboxing and consuming massive amounts of candy can normalize excessive sugar intake, leading children to crave unhealthy snacks.

Overuse of fluoride toothpaste: Misinformation about using excessive amounts of toothpaste for whiter teeth can lead to fluorosis in children, especially if they still swallow toothpaste. Also DIY remedies that may harm dental health, such as using activated charcoal or lemon juice, which can erode enamel over time.

Fear - based content on tooth extractions: Videos showing dramatized or exaggerated pain during procedures, often with exaggerated captions like "Worst Pain EVER!" can scare children and discourage them from necessary treatments.

The aligner obsession: Influencers showcasing their clear aligners as a "cool" accessory or a shortcut to a perfect smile have led children to unnecessarily demand orthodontic treatments they may not need just to mimic their favourite influencers. This may create a stigma around conventional braces and discourages children who need braces from accepting them, even when they are the more appropriate option for complex dental corrections.²⁰

Risks and Recommendations: The Double - Edged Sword of Social Media

While social media holds tremendous potential for education, it also conceals significant risks that can severely impact oral health, particularly among impressionable children and adolescents.²¹

Over - Commercialization:

Sponsored content often prioritizes commercial interests over scientific credibility, creating misinformation. Products like DIY whitening kits and unregulated dental remedies are marketed as "miracle solutions, " often without safety endorsements from credible dental organizations. These products may cause irreversible damage, such as enamel erosion and long - term harm to oral structures.²²

Screen Time Spiral:

Prolonged screen exposure fosters sedentary lifestyles and unhealthy habits, such as frequent snacking on sugary or acidic foods. These behaviours increase the risk of cavities and gum disease, compounded by reduced hydration and saliva flow essential for maintaining oral pH balance. This cycle not only jeopardizes dental health but also contributes to systemic issues such as obesity.²³

Smile Anxiety:

The relentless pursuit of perfection cultivates a damaging culture of aesthetic comparison. Adolescents are particularly vulnerable, with many developing insecurities about their natural dental appearance. This pressure has driven a rise in demand for unnecessary cosmetic procedures, such as teeth whitening or aligners.²⁴

2. Discussion

While dental influencers bring authority and reliability, non-dental influencers excel in engaging content. Collaborations between these two categories can amplify the reach and impact of evidence-based oral health messages. For instance, pairing a Pediatric dentist with a popular non-dental influencer for an educational challenge can effectively bridge entertainment with education.²⁵

The American Academy of Pediatric Dentistry (AAPD) provides resources to assist dental professionals in effectively utilizing social media to educate and engage with families about children's oral health. Their Social Media Library offers graphics and sample captions for topics like dental tips and holiday-themed messages. Additionally, the Social Media 101 Toolkit serves as a guide for managing social media for both personal and business purposes.²⁶

Furthermore, the American Academy of Pediatrics (AAP) has established the Center of Excellence on Social Media and Youth Mental Health to explore the impact of social media on young people's mental health and provide resources for families and professionals.²⁷

How Pediatric Dentists Can Embrace Social Media: Becoming Influencers Themselves

Pediatric dentists have a unique opportunity to leverage social media as a platform for advocacy, education, and engagement. By strategically crafting content, they can counter misinformation, promote oral health awareness, and connect with both parents and children.²⁸

Actionable Steps for Pediatric Dentists:**Create Fun and Educational Content:**

Develop visually appealing, bite-sized content tailored to platforms like Instagram and Youtube.

Examples:

Short videos demonstrating correct brushing and flossing techniques.

Gamified challenges like "Floss Like a Boss" to engage kids.²⁹

Leverage Humour and Relatability:

Use light hearted humour to make dental care less intimidating.

Example: A reel titled "What Your Dentist *Really* Thinks When You Say You Floss Daily" adds personality while driving home the importance of flossing.

Address Popular Trends:

Monitor social media trends and provide professional commentary.

Example: A myth-busting series addressing viral DIY dental hacks, such as charcoal toothpaste or baking soda scrubs.³⁰

Collaborate with Influencers:

Partner with non-dental influencers to co-create content that reaches wider audiences while ensuring accuracy.

Example: Teaming up with a parenting influencer for "Top 5 Tips to Make Brushing Fun for Your Kids."

Engage Through Stories and Live Sessions:

Host Q&A sessions addressing common concerns like teething, cavities, or dental fears.

Share behind-the-scenes glimpses of a dental clinic to normalize the environment for children.³¹

3. Conclusion

By embracing social media with authenticity and creativity, Pediatric dentists can emerge as trusted influencers who champion oral health. Their content has the potential to shift perceptions, instill healthy habits, and counteract the psychological and behavioural risks posed by unregulated influencers. With strategic efforts, they can redefine the digital narrative surrounding children's dental care, ensuring a brighter, healthier future for their young patients.

After all we are: "Pediatric dentists: The true influencers behind every healthy smile!"

Contribution Details (to be ticked marked as applicable):

	Contributor 1	Contributor 2	Contributor 3	Contributor 4
Concepts	✓			
Design	✓	✓		
Definition of intellectual content	✓			
Literature search	✓	✓	✓	
Clinical studies				
Experimental studies				
Data acquisition	✓	✓	✓	
Data analysis		✓	✓	
Statistical analysis		✓	✓	
Manuscript preparation	✓	✓	✓	
Manuscript editing			✓	
Manuscript review	✓	✓		
Guarantor	✓		✓	

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