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Bridging the Gap: How Gen Z Dentists Can Engage Smart Kids and Traditional Parents

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ABSTRACT

The new generation of dental patients is growing up in a digitally connected world. Their behavior and expectation are profoundly influenced by technology, social media, and artificial intelligence. At the same time, parents from older generation continue to value traditional health care centered on trust, empathy, and direct communication. Generation Z (Gen Z) dentists now face a dual challenge: effectively communicating and treating digitally fluent children, while also addressing the expectations held by the older generation parents. This narrative review explores how Gen Z dentists can effectively mediate the generational gap by combining digital literacy, empathetic engagement, and evidence-based communication to cultivate trust and enhance dental experiences for both the groups.

Keywords : Anxiety; communication; empathy; intergenerational relations; pediatric dentistry; user-computer interface.

INTRODUCTION

The modern digital era is engulfed by the rise of smartphones, artificial intelligence (AI), and virtual learning platforms, all of which have encapsulated the mindset of today's young patients.[1] Meanwhile their parents, who are early Generation Z, Millennials, and previous generations, value traditional healthcare models that emphasize personal trust, human touch, and direct communication. For the Generation Z (Gen Z) dentists in the early stages of dental practice, this generational divergence presents a unique professional stance. Their status as digital natives enable them to connect with young patients, at the same time, their clinical training ensures they maintain the traditional ethical and emotional aspects of dental care.[2,3]

METHODOLOGY

A structured search of the PubMed database was performed to find relevant literature published between 2010 and 2025. Keywords such as Generation Z, alpha generation, generational differences, pediatric dentistry, digital technology, augmented reality, virtual reality, gamification and patient engagement were used in various combinations. Database searches initially identified

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71 potentially relevant articles. Following the screening of titles and abstracts for relevance, 24 articles were shortlisted for full text review. Eligible studies included original research articles, randomized controlled trials, systematic reviews, and narrative reviews addressing generational characteristics, intergenerational relations, communication strategies, dental anxiety, and digital or technology assisted approaches in pediatric dentistry. Studies focusing on behavioral management and patient engagement within the dental setting were also considered. Articles unrelated to dentistry or lacking relevance to communication and generational engagement were excluded. Finally, 15 articles were excluded, and the selected 9 articles were reviewed in full text and synthesized narratively.

Generation Z Dentists and the Smart Child Patient

Modern children are immersed in technology from birth. Tablets, smart phones, and AI-powered educational tools are part of their daily routine. Consequently, they expect the same level of interactivity and engagement during their dental visits.[1] Gen Z dentists can take maximum advantage of emerging digital technologies such as virtual reality (VR), augmented reality (AR), and gamification platforms to meet these expectations.

Augmented Reality (AR)1

Preoperative use of AR introduces a child to the dental setting, instruments, and procedures in a playful, interactive way. This approach makes the dental experience feel less threatening to pediatric patients. Through AR applications, dentists can project 3D models of patient's teeth onto a screen or tablet. This visual aid allows dentists to explain cavity formation clearly while making treatment options easier to visualize. Furthermore, AR games featuring interactive characters demonstrate proper brushing and flossing techniques. These methods are often more engaging than simple verbal instruction.[4,5]

Virtual Reality (VR)

Virtual reality uses a head mounted display (HMD) and headphones to completely shield patients from anxiety provoking stimuli like the sound of whirring drills, the sight of needles, and the sophisticated clinical environment. Virtual environments such as a calm beach, an underwater world or interactive games can be displayed in the HMD. These immersive experiences distract and calm the apprehensive patient, helping to foster a more positive dental attitude.[6]

Gamification platforms

The aim of pediatric dentistry is not only to treat dental issues but also to develop consistent, high quality oral hygiene habits at home. The use of gamified mobile applications such as Disney Magic Timer by Oral-B, Chomper Chums, Phillips Sonicare for Kids, and Toothsavers helps track brushing habits and offers rewards for consistent care. These apps provide reminders in playful ways to make oral hygiene management more self-directed. Instead of relying solely on parental supervision, these applications encourage children to take responsibility for their own dental health in a fun and interactive way.[7,8]

Engaging Parents of Older Generation

Even as dentistry becomes more technologically advanced, the emotional aspect of care remains essential in pediatric dentistry. Children in today's tech-savvy generation are naturally drawn to digital tools and technology driven dental experiences.[1] However, parents from the older generation often value reassurance, professionalism, and genuine human connection. Engaging these parents requires Gen Z dentists to combine three crucial elements: transparency, reassurance and empathy.[9] This involves actively listening to parents concern without interruption, acknowledging their feelings, and reassuring them that their child's comfort and safety are top priorities. By involving them in decision-making rather than making decisions for them, dentists help parents feel emotionally supported and more receptive to technological advancements.[3,5]

For parents of the older generation, trust is built when technology is presented as supportive tool rather than a replacement for human touch. Dentists can foster this trust by showing digital

X-rays or intraoral photographs and explaining the findings step by step. Demonstrating AI-supported diagnosis results while clarifying how the final judgment still depends on professional expertise further strengthens this bond. By using visual tools to provide a transparent explanation of treatment options and expected outcomes, dentists ensure that technology is viewed as functional tool for accuracy and safety rather than flashy addition. Ultimately, when parents see the results and feel included in the journey, they become more confident in the clinical process and the care their child receives.[3,5]

Limitations and Challenges of Digital Dentistry

Despite the fact that digital technologies offer significant benefits, several important challenges and limitations emerge by integrating technology into pediatric dentistry. A primary concern is accessibility and cost. Resource limited practices cannot implement advanced VR/AR equipment that requires substantial financial investment.[4] Additionally, overreliance on digital tools may hinder clinician-patient rapport, which is essential for clinical success. The use of mobile applications for monitoring patient behavior demands strict compliance with data protection regulations to safeguard the privacy of minor patients.[7,8] Furthermore, Dental practitioners unfamiliar with rapidly evolving digital systems have to face barrier as it demands need for technical expertise. Clinical workflow may be disrupted by technical issues such as software malfunctions, system errors, and maintenance requirements.[1] Finally, ethical considerations, regulatory uncertainties, and unequal access to digital infrastructure may further widen disparities in pediatric oral health care delivery.[3]

SUMMARY

The responsibility of a Gen Z dentist is far beyond just excelling in clinical skills. It consists of balancing the expectations of two very different generations: children who thrive in a digital environment and their parents who prefer direct human contact, transparency, and emotional safety. In a world where dental technology never stops evolving the Gen Z dentist will maintain a necessary connection between human sensitivity and digital precision. A new standard of pediatrics dental care can be created by combine collaboration among children, parents and dentist who creatively blend modern technology with warm and considerate care.

Conflicts of Interest: None.

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