

## INTRODUCTION

Social media has emerged as a transformative force in healthcare communication, particularly within pediatric dentistry where early parental guidance is essential for shaping children's lifelong oral health behaviors. Research demonstrates that engaging parents with evidence-based digital content can foster positive behavioral changes, with audiovisual platforms like YouTube and Instagram proving significantly more effective for knowledge transfer than traditional text-based methods [4]. Beyond educational value, social media now plays a pivotal role in practice selection; an impressive **86%** of users report that digital engagement directly influenced their decision to switch dental providers, fundamentally altering perceived trust and quality of care [3]. However, this digital evolution introduces complex ethical challenges and professional boundary concerns [5][6]. While many dentists maintain a digital presence, **74%** view "friending" patients as inappropriate, and global studies highlight serious breaches regarding the unauthorized use of patient photographs without consent [2]. As communication shifts toward informal, peer-generated formats such as blogs and podcasts, and as AI tools emerge- a critical gap exists in understanding how pediatric specialists navigate these specific dilemmas. [7]

This study addresses these gaps by evaluating patterns of social media use among pediatric dentists and their perceptions of its effectiveness in clinical outreach. Our primary objectives include identifying preferred platforms and content strategies while addressing ethical hurdles like HIPAA compliance, patient privacy, and misinformation. Additionally, we examine the relationship between digital engagement and practice outcomes, professional networking, and the growing influence of AI integration

## METHODS

This cross-sectional study utilized a 17-item questionnaire distributed via email to AAPD members, including practicing pediatric dentists, program directors, and residents. The survey was hosted on SurveyMonkey to meet security standards for online data transmission, utilizing Transport Layer Security (TLS) protocols to encrypt data during storage. To maximize participation, three reminder emails were sent over the span of one month. A total of 7,286 invitations were successfully delivered, yielding 360 initial responses. Incomplete surveys were excluded prior to data analysis, resulting in a final sample size of 262 (N = 262)

**Demographics:** (n=262) :A total of 262 pediatric dentists participated. The cohort is highly experienced (50% in practice 16+ years), heavily suburban (56%), and primarily situated in private group or solo practices (62% combined).

## RESULTS

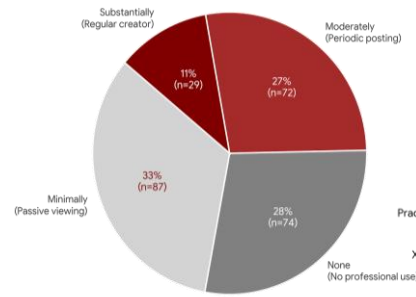


Fig 1. Extent of Professional Social Media use (n=262)

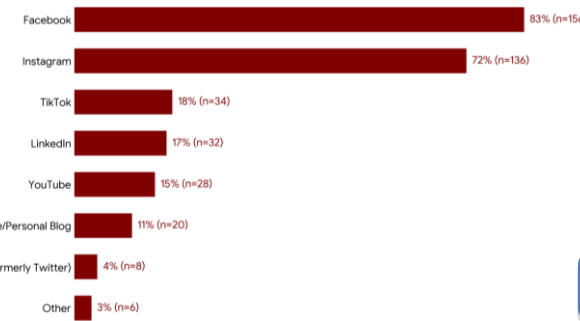


Fig 2. Which Platforms are Pediatric Dentists Using? Percentage of active users on each platform (n=188)

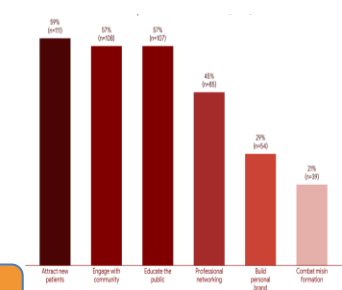


Fig 3. Primary Goal of Social Media Use (n=188)

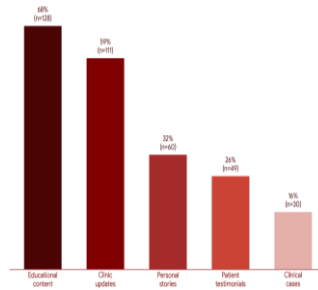


Fig 4. What content strategies are most common (n=188)

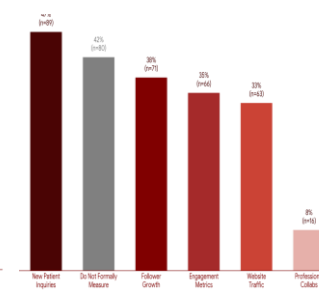


Fig 5. How are practices measuring Social Media ROI? (n=188)

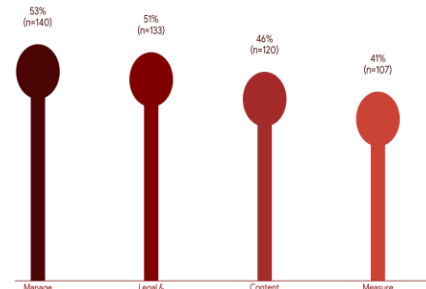


Fig 6. Perspectives of Non-Users: Barriers to Adoption Percentage of non-users citing each bar (n=74)

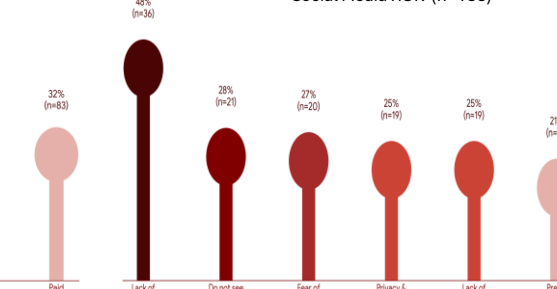


Fig 7. Future Priorities: What training do providers need? Percentage respondents request each CE topic (n=262)

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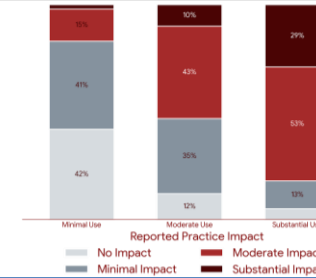


Fig 8. Tangible Practice Outcomes (p<0.0001)

**Direct Correlation:** Professional impact scales linearly with effort; while 42% of minimal users report no impact, 82% of substantial users report moderate-to-substantial practice growth. **The High-Effort Advantage:** "Substantial" users are 14.5x more likely to experience significant practice outcomes compared to minimal users, highlighting a clear ROI for consistent content creation.

## DISCUSSION & CONCLUSION

(Fig. 1) While 72% of pediatric dentists use social media professionally, engagement is largely passive, with 33% using it for networking compared to only 11% engaging in content creation. Notably, 28% of the profession remains entirely offline. (Fig. 2) The Meta ecosystem dominates the specialty, with Facebook (83%) and Instagram (72%) serving as the primary tools for professional outreach. Adoption drops significantly for video-centric (TikTok 18%) and text-based (X 4%) platforms (Fig. 3) Primary motivations for digital engagement are practice growth (59%) and community education (57%). (Fig. 4) To achieve this, practitioners prioritize educational content (68%) and "behind-the-scenes" clinic updates (59%). (Fig. 5) Clinicians prioritize tangible ROI, using new patient inquiries (47%) as the leading success metric over digital engagement (35%). A significant "analytical blind spot" exists, as 42% of users do not track any metrics. (Fig. 6) The primary obstacles to social media adoption are resource constraints (48% citing lack of time) and reputational fears. Additionally, 25% of non-users abstain due to privacy/HIPAA concerns or a lack of technical knowledge. (Fig. 7) Future interest has shifted toward risk management, with over half of respondents seeking training in reputation management (53%) and HIPAA compliance (51%). There is also a growing demand for education on ROI tracking and AI-integrated marketing (41%)

**Conclusion:** While 72% of pediatric dentists maintain a professional social media presence, a statistically significant dose-response relationship ( $p < 0.0001$ ) reveals that tangible practice growth is disproportionately captured only by the 11% of practitioners who engage as "substantial" content creators. To bridge this engagement gap, the specialty must prioritize structured continuing education in risk management and operational ROI to mitigate liability fears and transition the passive majority into effective digital advocates

