

A Survey of AAPD Pediatric Dentistry Residents on Training and Attitude Towards Counseling about Electronic Nicotine Delivery Systems (ENDS)



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Background

- E-cigarette use among children and adolescents in the U.S. is a major public health concern. According to the Surgeon General's Report, e-cigarettes have been the most commonly used tobacco product among U.S. youth since 2014. And in 2018, more than 3.6 million U.S. youth, including 1 in 5 high school students and 1 in 20 middle school students, currently use e-cigarettes. Approximately 11% of children begin smoking by the time they are 10 years old.
- Nicotine is a highly addictive drug found in most e-cigarettes. Nicotine exposure during adolescence can be harmful to the developing brain by increasing the risk of developing psychiatric disorders and cognitive problems that can impact learning, memory and attention.
- Pediatric dentists play an important role in counseling patients on ENDS prevention and cessation by educating patients and identifying oral signs of e-cigarette use. Currently, the training of pediatric dentists does not include mandatory education on nicotine intervention. Exposure to formal training in nicotine counseling is critical and can provide pediatric dentists with a high degree of confidence when addressing nicotine prevention and cessation. However, not all training experiences on nicotine intervention during residency are the same.

Objectives

To survey current American Academy of Pediatric Dentistry (AAPD) residents' exposure to formal training in nicotine prevention and cessation, and assess their attitudes regarding their role in counseling about ENDS.

Methods

- The survey was approved by the Wayne State University Institutional Review Board.
- Current AAPD pediatric dentistry residents received an email advertising the study. The advertisement included details concerning the study (e.g., the name of the PI, title, and purpose of the study), a description of consent, and a link to the online survey form.
- Participating residents were asked questions regarding their exposure to formal training in Nicotine prevention and cessation, assess their attitude regarding their role in counseling about ENDS.
- Responses were anonymous.

Results

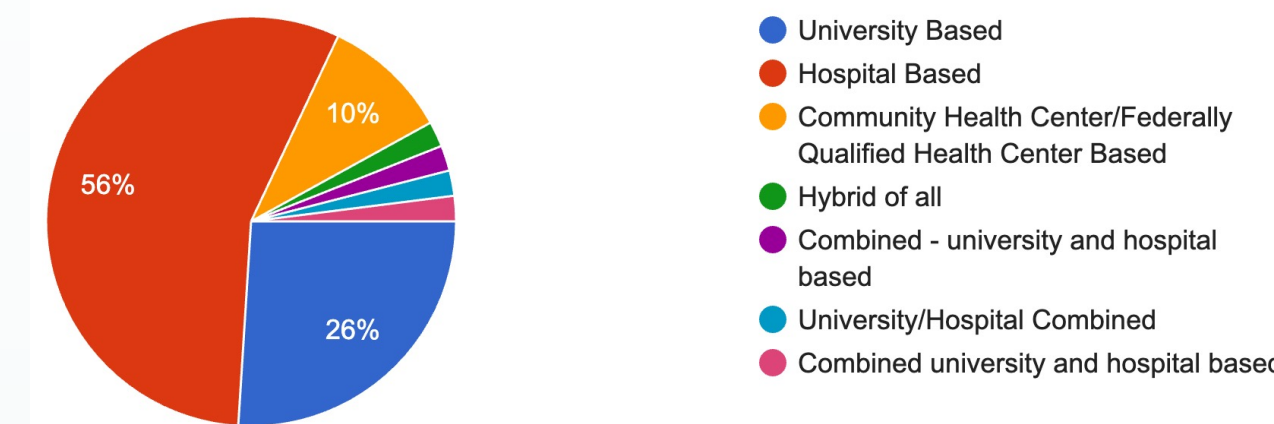


Figure 1: Type of Certificate Program

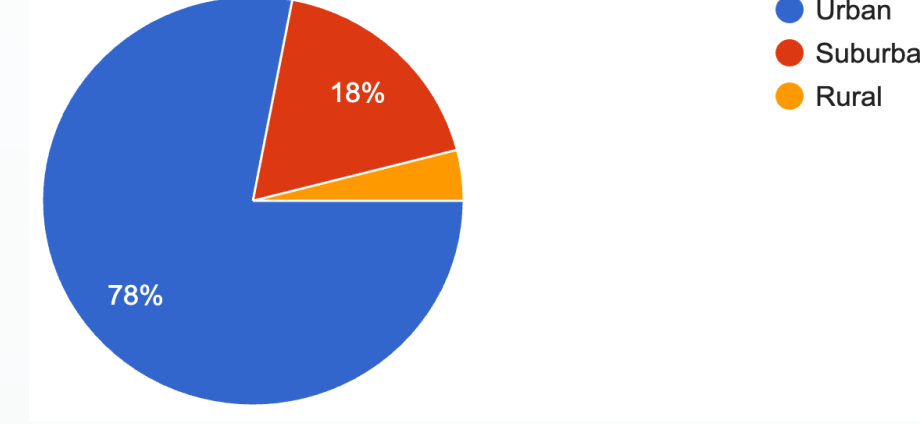


Figure 2: Residency location

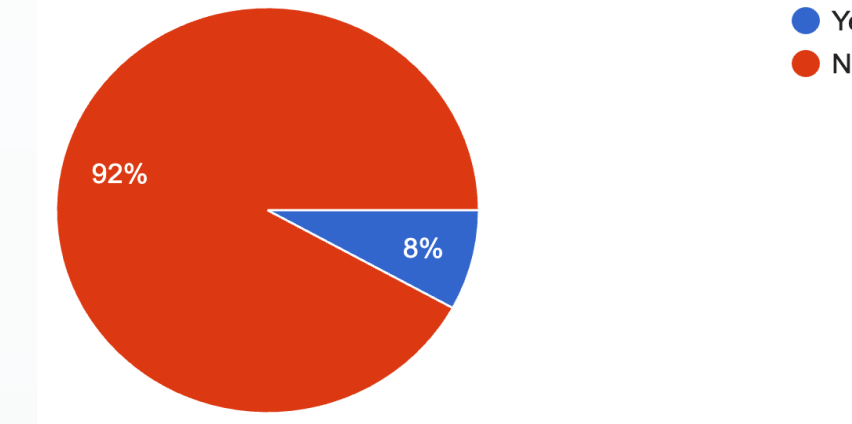
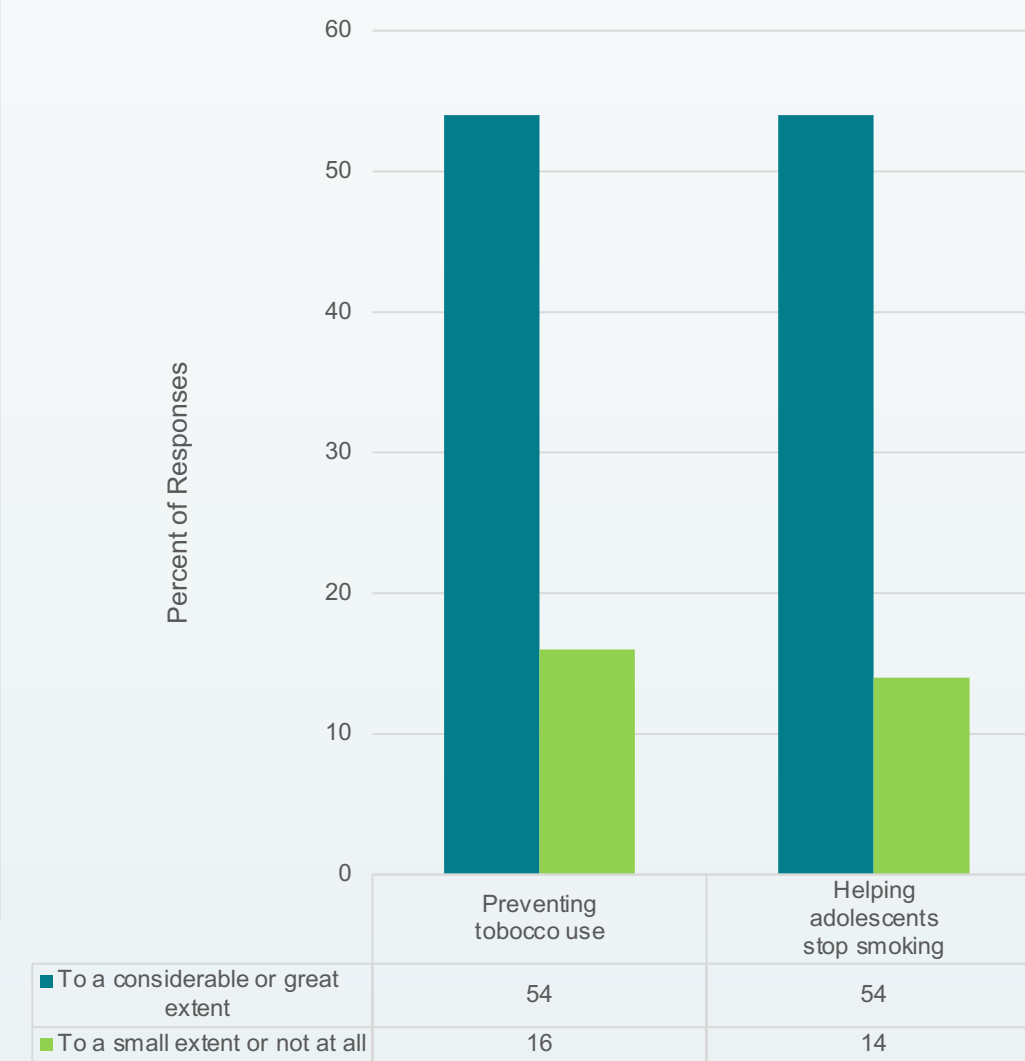
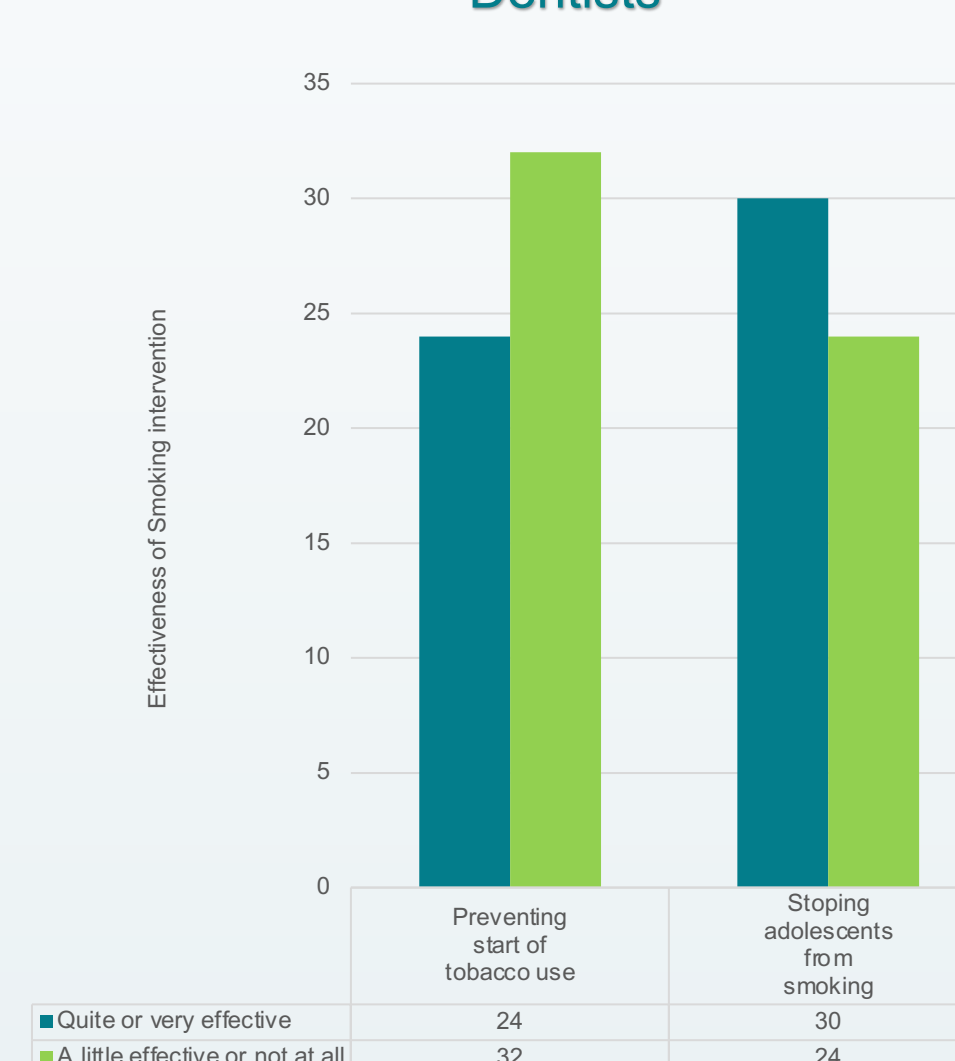


Figure 3: Formal Training in Tobacco Counseling

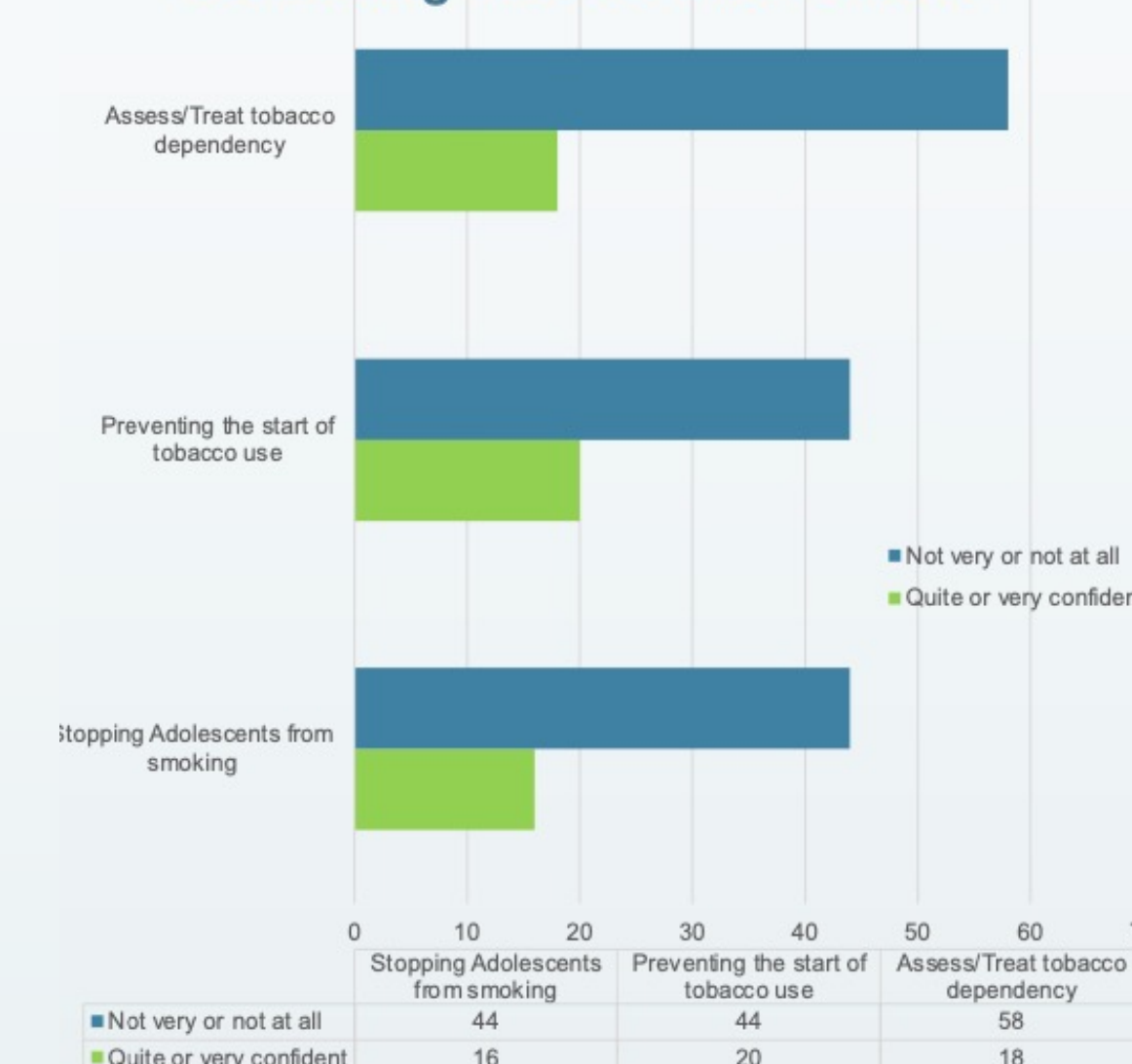
Attitudes Toward the Role of Pediatric Dentist in Tobacco Intervention



Attitudes Toward Effectiveness of Tobacco Intervention by Pediatric Dentists



Attitudes About Personal Abilities in Conducting Tobacco Interventions



50 responses were collected, accounting for approximately 6.2% of AAPD pediatric dentistry residents in the United States.

- 56 percent of respondents are from hospital-based certificate programs.
- 78 percent of respondents are practicing in an urban residency location.
- Of the 50 of respondents, only 8% had ever received formal training in tobacco cessation counseling.

Only four out of five responses to the questions regarding resident attitudes were included in the bar graphs. "Moderate" responses were left out of the graphs.

- Attitudes toward the role of pediatric dentist in tobacco intervention:
 - 54% thought to a "considerable extent" or "great extent" that part of their job as a pediatric dentist was to prevent patients from starting tobacco use as well as assist patients stop smoking.
- Attitudes toward effectiveness of tobacco intervention by a pediatric dentist:
 - 30% thought that smoking cessation counseling by a pediatric dentist was "quite effective" or "very effective" in helping young patients to stop smoking.
 - 24% thought that such counseling by a pediatric dentist was "quite effective" or "very effective" in preventing young patients from starting to use tobacco products.
- Confidence in ability to address and treat tobacco use issues:
 - 16% were "quite confident" or "very confident" in their ability to help patients to stop smoking.
 - 20% - A slightly greater number of residents expressed that same level of confidence in preventing patients from starting the use of tobacco products.
 - 18% of respondents were "quite confident" or "very confident" in their ability to assess and treat nicotine dependence.

Conclusion

- Most pediatric dentistry residents were not trained in tobacco cessation techniques. Many pediatric dentistry residents considered it their role to help their young patients stop tobacco use or prevent it's initiation. Most pediatric dentistry residents were not comfortable in addressing tobacco cessation with their young patients.
- A limitation to this study is the low response rate, increasing the sample size may help reveal statistically significant factors associated with resident's attitude and practice in tobacco counseling that was not apparent in this study.
- This information may be utilized to give AAPD Pediatric Dentistry Residency Programs an idea of their strengths and weaknesses regarding resident training in Tobacco Counseling when compared to other programs. Programs may also use this information to determine potential barriers to diversifying resident experiences as well as potential solutions.
- Pediatric dentistry residency programs are not mandated now to train residents in smoking cessation or intervention for any specific amount of time or in any specific manner.
- Improving residency training programs such as mandating education in tobacco cessation specifically geared to the pediatric dentist, could help residents feel more confident to provide guidance to their young patients.

References

- American Academy of Pediatric Dentistry. "Adolescent Oral Health Care." The Reference manual of Pediatric Dentistry. Chicago, Ill.: American Academy of Pediatric Dentistry; 2022:282-91.
- American Academy of Pediatric Dentistry. "Policy on Electronic Nicotine Delivery Systems (ENDS)". The Reference manual of Pediatric Dentistry. Chicago, Ill.: American Academy of Pediatric Dentistry; 2022:108-11.
- Cordero-Ricardo, Maria, et al. "Chapter 24: New Morbidities." The Handbook of Pediatric Dentistry, 5th ed., American Academy of Pediatric Dentistry, 2018, pp 500-507.
- Office of the Surgeon General. "E-cigarette Use among Youth and Young Adults: A Report of the Surgeon General." Washington, DC:US.
- Department of Health and Human Services, Centers for Disease Control and Prevention; 2016.

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