

Barriers for Dental Sealant Use in Adults: Preliminary Qualitative Findings

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Introduction

The use of dental sealants has been shown to be low, despite evidence that dental sealant use is safe, effective and inexpensive¹. Only 42% of children aged 6-11, and 48% of children ages 12-19 have sealants on permanent teeth². We conducted a 4-question Quick Poll through the National Dental Practice-Based Research Network to understand dental provider behavior and attitudes toward dental sealant use in their practice. We sought to understand the main reasons for sealant under-utilization and the differences in sealant use and provider recommendation based on patient age.

Results

	N	%	
n=349			
With which statements below do you agree (select all that apply)?			
Sealant use is effective in preventing pit and fissure caries in children and adolescents.	334	96%	
Sealant use is effective in preventing pit and fissure caries in adults.	226	65%	
Sealant use is effective in arresting non-cavitated occlusal carious lesions in children and adolescents.	192	55%	
Sealant use is effective in arresting non-cavitated occlusal carious lesions in adults.	149	43%	
Sealants seldom cause adverse events in patients.	217	62%	
In your practice, who typically places sealants (select all that apply):			
Sealants are not provided in my practice.	16	5%	
Dentist	228	65%	
Hygienist	218	62%	
Assistant	89	26%	
For adult (18+) patients in your practice, on what percentage do you place sealants at least once during their course of adult treatment?			
Never	82	24%	
Some, but less than 25%	197	56%	
Less than 50%, but at least 25%	36	10%	
Less than 75%, but at least 50%	15	18%	
Less than all of these patients, but at least 75%	7	2%	
All of these patients	9	3%	
Which of the following describes reasons that you do not routinely recommend sealants (select all that apply):			
None of the reasons below, I routinely recommend sealants in my practice.	158	45%	
I am worried about sealing in caries.	26	8%	
Sealants can leak and decay may develop under the sealant.	54	15%	
Sealants are not cost effective.	7	2%	
I am not sure about the current recommendations/guidelines for sealants in children.	10	3%	
I am not sure about the current recommendations/guidelines for sealants in adults.	68	19%	
Patient acceptance of sealants is low.	64	18%	
The office workflow does not allow for routine sealant placement.	18	5%	
Other	51	15%	

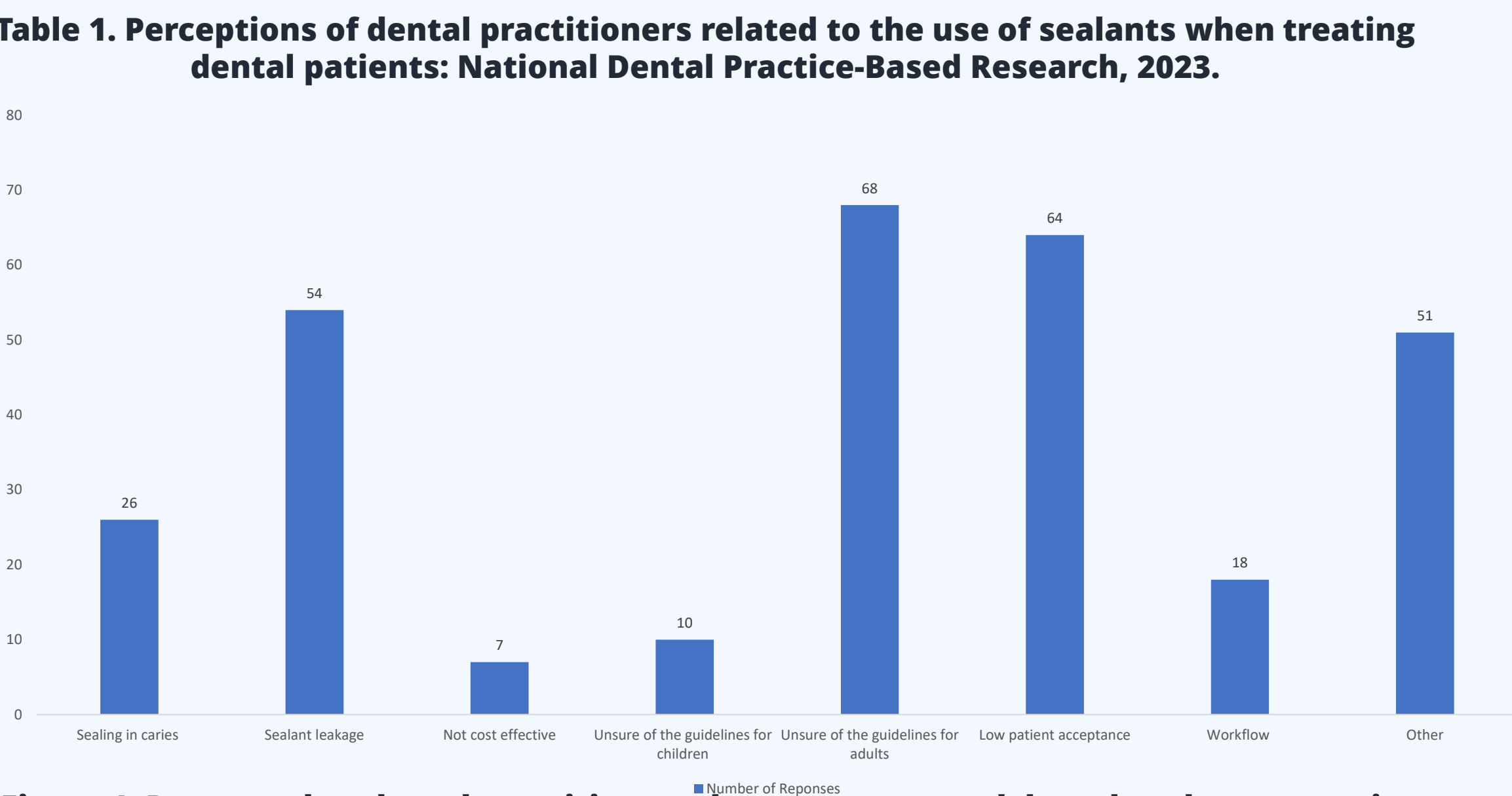


Figure 1. Reasons that dental practitioners do not recommend dental sealants to patients (of the practitioners who reported that they do not routinely recommend sealants).

References

- Polk DE, Weyant RJ, Shah NH, Fellows JL, Pihlstrom DJ, Frantsve-Hawley J. Barriers to sealant guideline implementation within a multi-site managed care dental practice. BMC Oral Health. 2018 Feb 2;18(1):17. doi: 10.1186/s12903-018-0480-z. PMID: 29394921; PMCID: PMC5797385
- Centers for Disease Control and Prevention. Oral Health Surveillance Report: Trends in Dental Caries and Sealants, Tooth Retention, and Edentulism, United States, 1999–2004 to 2011–2016. Atlanta, GA: Centers for Disease Control and Prevention, US Dept of Health and Human Services; 2019. <https://www.cdc.gov/oralhealth/publications/OHSR-2019-index.html>

Methods

Study Design and Participants

This is a cross-sectional survey with dental practitioners, members of the National Dental Practice-Based Research Network in the United States.

Data Collection

Members of the network were invited to participate in an online Quick Poll through email and social media channels. Two email invitations were sent to all members: one in the network’s monthly newsletter sent on April 5, 2023, and one as a follow-up email sent on April 14, 2023. The Quick Poll was announced on the network’s social media accounts (Facebook, and Instagram). The Quick Poll was open from April 5 until May 5, 2023.

Measures and Data Analysis

The survey content included four questions [Table 1]. The data were collected through a web survey in Constant Contact, a digital and email marketing platform. Data were analyzed using descriptive statistics.

Conclusions

Most practitioners agree that dental sealants are effective in preventing occlusal caries in children and adolescents. However, only about one-half of respondents agreed that sealants could be used to arrest non-cavitated caries occlusal lesions in both adults and children. Moreover, over half of practitioners surveyed did not routinely recommend sealants. The primary reasons for lack of sealant use are:

- (1) lack of training regarding guidelines for adult sealant
- (2) low patient acceptance, and
- (3) concern about sealant leakage.

The results of our study underscore the importance of dental school curricula and CE courses addressing sealant guidelines, particularly in adults. Expanding dental insurance reimbursement to support appropriate sealant use in adults could increase their use

Highlights

1. Respondents’ agreement regarding the sealants’ effectiveness in preventing pit fissure caries varied by patient age, with 96% of respondents agreeing sealants are effective in children, compared to 65% agreeing sealants are effective in adults.
2. Over half of respondents (55%) do not routinely recommend sealants to their patients.
3. The primary reasons for not using dental sealants are a lack of training for adult sealant guidelines, low patient acceptance and concerns with sealant leakage.