

American Academy Pediatric Dentistry Research Agenda

Adopted

2005

Reaffirmed

2007

The American Academy of Pediatric Dentistry (AAPD) recognizes that the clinical practice of pediatric dentistry has to be driven by science and evidence-based dentistry (EBD). Where possible, our clinical guidelines in pediatric dentistry should be supported by the best available evidence. No longer is it acceptable for our clinical guidelines to be based on expert opinions solely. Where the evidence or science is lacking, research needs to be conducted to answer the relevant questions that arise in our clinical practice.

The AAPD Research Agenda is a strategic list of scientific and clinical questions and topics that are specific to the clinical practice of pediatric dentistry. These questions will benefit from scientific review and set the agenda for the AAPD, as well as the AAPD Foundation research grants. The AAPD Council on Scientific Affairs (CSA) is charged with proposing a mechanism by which the AAPD Research Agenda is to be developed and maintained.

Other dental organizations have embraced evidence-based research. The National Institute of Dental and Craniofacial Research (NIDCR) has a Strategic Plan that outlines research opportunities to support its mission to improve oral, dental, and craniofacial health through research, research training, and the dissemination of health information by performing and supporting basic and clinical research. While interested in supporting clinical research, the NIDCR supports research that offers the most significant scientific promise. The American Dental Association (ADA) is committed to bringing EBD concepts and practices to the dental profession. The ADA Research Agenda was developed to promote research in areas of dental practice and to designate priorities for conducting and funding evidence-based studies. The ADA Research Agenda reflects important clinical questions that are relevant to the entire profession of dentistry.

Methodology, Results, and Recommendations

The 14 members of the 2004-05 AAPD CSA submitted 41 research topics/questions/issues that were thought to be the most pertinent to pediatric dentistry. These topics were evaluated for duplication, consolidated, and returned to the CSA members for ranking in terms of importance. After 2 rounds of elimination, the CSA members identified the 5 research topics that were deemed to be the most important for pediatric dentistry and would benefit the most from scientific review. These topics are listed below in descending order of priority:

1. Transmission, etiology, risk assessment, early detection, prevention, and management of caries.

2. Caries management using antimicrobials, fluorides, and remineralizing agents.
3. Disparities and barriers to accessing dental care.
4. Development of a national databank on pediatric dental issues.
5. Efficacy of infant oral health (ie, first dental visit by age 12 months).

Additional topics of relevance are as follows:

1. Pulp biology and efficacious and biocompatible pulp treatment.
2. Safe and effective sedative agents for pain and anxiety control.
3. Specific (immunity) and non-specific host factors in the etiology and prevention of dental caries.
4. Interface between medicine and dentistry in addressing access to care.
5. Biologic and behavioral factors in the natural history of caries.
6. Parenting styles.
7. Non-pharmacologic behavior guidance approaches.
8. Efficacy and biocompatibility of restorative materials.
9. Pediatric dentist's role in monitoring, preventing, and managing obesity.
10. Etiology, detection, prevention, and management of pre-pubertal and juvenile periodontal disease.

As to be expected from a group of individuals who practice in different regions of the United States and who possess a wide array of scientific expertise and interests, CSA members did not share a consensus in terms of how the research topics ought to be ranked. Some CSA members found it difficult to rank the research topics. Some members felt that the AAPD Research Agenda should reflect the unique aspects of pediatric dentistry practice that have limited appeal to other dental disciplines. Others felt that while some topics have been left off the "top 10," they are important to include in the overall Research Agenda. Nevertheless, the "top 5" topics received composite ranking scores that were significantly higher than the rest and they were ranked more frequently.

The Council on Clinical Affairs was consulted. The Caries-risk Assessment Tool (CAT) was specifically recommended to be included in the list of research topics of relevance. Although CAT could be included under the broad topic of "Transmission, etiology, risk assessment, early detection, prevention, and management of caries," it was singled out as needing research.

CSA recommends that council reevaluate and update the AAPD Research Agenda on an annual basis.