2024 ADR/AADOCR/CADR Best Practices for IADR Abstraction and Proposal Preparation and Submission

VER • NETWORK • ADVANCE

September 14, 2023

Behavioral, Epidemiologic, and Health Services Research Group



INTERNATIONAL FOR DENTAL, OR CRANIOFACIAL R BEHAVIORAL EPII AND HEALTH SER RESEARCH IADR INTERNATIONAL ASSOCIATION FOR DENTAL, ORAL, AND CRANIOFACIAL RESEARCH BEHAVIORAL EPIDEMIOLOGIC AND HEALTH SERVICES RESEARCH



Outline

- **Timeline** for 2024 mtg.
- Proposal
- Resources
 - IADR
 - Other
- Key eleme
- How to build yo
- Example
- Discussio

INTERNATIONAL ASSOCIATION FOR DENTAL, ORAL, AND CRANIOFACIAL RESEARCH BEHAVIORAL EPIDEMIOLOGIC AND HEALTH SERVICES RESEARCH



Outline

- **Timeline** for 2024 mtg.
- Proposal
- Resources
 - IADR
 - Other
- Key eleme
- How to build yo
- Example
- Discussio

INTERNATIONAL ASSOCIATION FOR DENTAL, ORAL, AND CRANIOFACIAL RESEARCH BEHAVIORAL EPIDEMIOLOGIC AND HEALTH SERVICES RESEARCH



Outline

- Timeline for 2024 mtg.
- Proposals -- Abstracts
 - Resource
 - IADR
 - Other
- Key eleme
- How to build ye
- Example

Discussic

INTERNATIONAL ASSOCIATION FOR DENTAL, ORAL, AND CRANIOFACIAL RESEARCH BEHAVIORAL EPIDEMIOLOGIC AND HEALTH SERVICES RESEARCH

Outline

- Timeline for 2024 mtg.
 Proposals -- Abstracts
- Resources
 - IADR
 - Other
- Key eleme
- How to build y
- Example

Discussion

IADR INTERNATIONAL ASSOCIATION FOR DENTAL, ORAL, AND CRANIOFACIAL RESEARCH BEHAVIORAL EPIDEMIOLOGIC AND HEALTH SERVICES RESEARCH

Outline

- Timeline for 2024 mtg.
- Proposals -- Abstracts
- Resources
 - IADR
 - Other
- Key elements
- How to build your story
- Examples
- Discussion

IADR INTERNATIONAL ASSOCIATION FOR DENTAL, ORAL, AND CRANIOFACIAL RESEARCH BEHAVIORAL EPIDEMIOLOGIC AND HEALTH SERVICES RESEARCH



Outline

- Timeline for 2024 mtg.
- Proposals -- Abstracts
- Resources
 - IADR
 - Other
- Key elements
- How to build your story
- Examples
- **Discussion** / Q & A

DISCOVER • NETWORK • ADVANCE

2024 IADR/AADOCR/CADR General Session & Exhibition

MARCH 13-16, 2024 NEW ORLEANS, LA, USA

102nd General Session & Exhibition of the IADR
53rd Annual Meeting of the AADOCR
48th Annual Meeting of the CADR



CASCENTR - NETWORK - ADMANCE

2024 IADR/AADOCR General Sessic Exhibition

MARCH 13-16, 2004 NEW ORLEANS, LA, USA

102nd Seneral Session & Exhibition of the IADN 53rd Annual Meeting of the AADOCR 48th Annual Meeting of the CADR



Session proposal



Symposium +satellite symposia



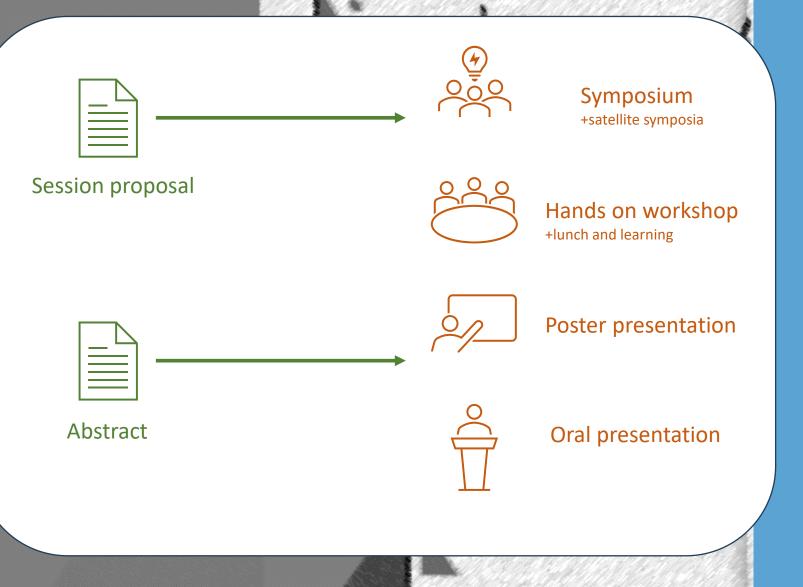
Hands on workshop +lunch and learning

CASCENTER - NETWORK - ADMANCE

2024 IADR/AADOCR General Sessic Exhibition

MARCH 13-16, 2004 NEW ORLEANS, LA, USA

102nd General Session & Exhibition of the IADN 53rd Annual Meeting of the AADOCR 48th Annual Meeting of the CADR



CASCENTER - NETWORK - ADMANCE

2024 IADR/AADOCR General Sessic Exhibition

MARCH 13-16, 2004 NEW ORLEANS, LA, USA

102nd General Session & Exhibition of the IADN 53rd Annual Meeting of the AADOCR 48th Annual Meeting of the CADR



Session proposal

~several dozens

Abstract

~several hundreds to thousands



Symposium +satellite symposia



Hands on workshop +lunch and learning



Poster presentation



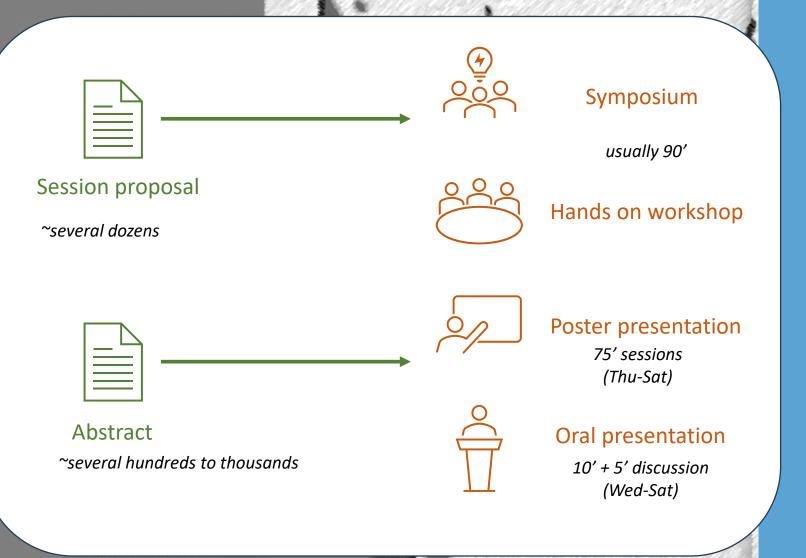
Oral presentation

CASCENTER - NETWORK - ADMANCE

2024 IADR/AADOCR General Sessic Exhibition

MARCH 13-16, 2004 NEW ORLEANS, LA, USA

102nd General Session & Exhibition of the IADN 53rd Annual Meeting of the AADOCR 48th Annual Meeting of the CADR

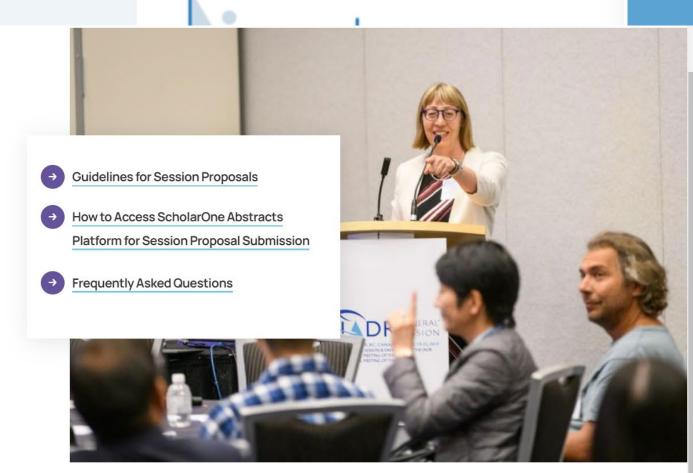


Submit your Session Proposal!

The International Association for Dental, Oral, and Craniofacial Research (IADR) is excited to announce the opening of the ScholarOne Abstracts submission site for session proposal submission for the 2024 IADR/AADOCR/CADR General Session.

To ensure delivery of messages sent to you from the ScholarOne Abstracts platform with regards to 2024 IADR/AADOCR/CADR General Session please safelist the following domains: amazonses.com and abstractcentral.com

Review the 2024 IADR/AADOCR/CADR General Session Guidelines for Session Proposals in full prior to beginning your abstract submission.



https://www.iadr.org/2024iags/presentations



NEW ORLEANS, LA, USA · MARCH 13-16, 2024 102ND GENERAL SESSION & EXHIBITION OF THE IADR 53RD ANNUAL MEETING OF THE AADOCR 48TH ANNUAL MEETING OF THE CADR

GUIDELINES FOR SESSION PROPOSALS

Important Dates and Deadlines:

- July 11, 2023–Session Proposal Submission Site Opens
- September 12, 2023–Group/Network Sponsorship Approval Deadline
- September 19, 2023–Group/Networks to notify Organizers of sponsorship status
- September 27, 2023, 11:59 p.m. PT–Deadline to Submit a Session Proposal to ScholarOne Abstracts site

Symposium

A cohesive session organized around a cutting-edge topic with about three to four speakers; typically, 90 minutes in length unless approved otherwise. <u>Approval of Group/Network sponsorship is required from at least one IADR Scientific Group/Network</u>. Symposium submissions exhibiting a cross-collaboration between more than one Scientific Group/Network will be prioritized higher if accepted into the scientific program. IADR encourages not only collaboration within Groups/Networks, but with the greater scientific community. Organizers are encouraged to include noteworthy speakers from outside a traditional IADR background.



https://www.iadr.org/2024iags/presentations

④

Symposium

A cohesive session organized around a cutting-edge topic with about three to four speakers; typically, 90 minutes in length unless approved otherwise. <u>Approval of</u> <u>Group/Network sponsorship is required from at least one IADR Scientific Group/Network</u>. Symposium submissions exhibiting a cross-collaboration between more than one Scientific Group/Network will be prioritized higher if accepted into the scientific program. IADR encourages not only collaboration within Groups/Networks, but with the greater scientific community. Organizers are encouraged to include noteworthy speakers from outside a traditional IADR background.

Hands-on Workshop

A session organized with a "hands-on" application; typically, 90 minutes in length unless approved otherwise. <u>Approval of Group/Network sponsorship is required</u> <u>from at least one IADR Scientific Group/Network</u>. Hands-on Workshop submissions exhibiting a **cross-collaboration** between more than one Scientific Group/Network will be prioritized higher if accepted into the scientific program. IADR encourages not only collaboration within Groups/Networks, but with the greater scientific community and this should be reflected in the participants; organizers are encouraged to include noteworthy experts from outside a traditional IADR background.



Symposium

A cohesive session organized around a cutting-edge topic with about three to four speakers; typically, 90 minutes in length unless approved otherwise. <u>Approval of</u> <u>Group/Network sponsorship is required from at least one IADR Scientific Group/Network</u>. Symposium submissions exhibiting a cross-collaboration between more than one Scientific Group/Network will be prioritized higher if accepted into the scientific program. IADR encourages not only collaboration within Groups/Networks, but with the greater scientific community. Organizers are encouraged to include noteworthy speakers from outside a traditional IADR background.

Hands-on Workshop

A session organized with a "hands-on" application; typically, 90 minutes in length unless approved otherwise. <u>Approval of Group/Network sponsorship is required</u> <u>from at least one IADR Scientific Group/Network</u>. Hands-on Workshop submissions exhibiting a **cross-collaboration** between more than one Scientific Group/Network will be prioritized higher if accepted into the scientific program. IADR encourages not only collaboration within Groups/Networks, but with the greater scientific community and this should be reflected in the participants; organizers are encouraged to include noteworthy experts from outside a traditional IADR background.

Lunch & Learning Sessions

A 60-minute informal discussion led by an expert on a topic of high interest over the designated time. These sessions are directed at students, but all are welcome to sign up. <u>Approval of Group/Network sponsorship is required from at least one IADR Scientific Group/Network</u>. Focused Learning Session submissions exhibiting a cross-collaboration between more than one Scientific Group/Network will be prioritized higher if accepted into the scientific program. IADR encourages not only collaboration within Groups/Networks, but with the greater scientific community.



Symposium

A cohesive session organized around a cutting-edge topic with about three to four speakers; typically, 90 minutes in length unless approved otherwise. <u>Approval of</u> <u>Group/Network sponsorship is required from at least one IADR Scientific Group/Network</u>. Symposium submissions exhibiting a cross-collaboration between more than one Scientific Group/Network will be prioritized higher if accepted into the scientific program. IADR encourages not only collaboration within Groups/Networks, but with the greater scientific community. Organizers are encouraged to include noteworthy speakers from outside a traditional IADR background.

Hands-on Workshop

A session organized with a "hands-on" application; typically, 90 minutes in length unless approved otherwise. <u>Approval of Group/Network sponsorship is required</u> <u>from at least one IADR Scientific Group/Network</u>. Hands-on Workshop submissions exhibiting a **cross-collaboration** between more than one Scientific Group/Network will be prioritized higher if accepted into the scientific program. IADR encourages not only collaboration within Groups/Networks, but with the greater scientific community and this should be reflected in the participants; organizers are encouraged to include noteworthy experts from outside a traditional IADR background.

Lunch & Learning Sessions

A 60-minute informal discussion led by an expert on a topic of high interest over the designated time. These sessions are directed at students, but all are welcome to sign up. <u>Approval of Group/Network sponsorship is required from at least one IADR Scientific Group/Network</u>. Focused Learning Session submissions exhibiting a cross-collaboration between more than one Scientific Group/Network will be prioritized higher if accepted into the scientific program. IADR encourages not only collaboration within Groups/Networks, but with the greater scientific community.

Satellite Symposium

A cohesive session organized around a cutting-edge topic that will be scheduled before or after the 2024 IADR/AADOCR/CADR General Session official dates, March 13-16, 2024.



Submission components

Title (up to 10 words) Description (250 words or less for Symposia; 50 words or less for Focused Learning) Sponsoring SG/Ns (must select at least one) Education or Clinician Track

Learning objectives (1-3)

Participants

- Corresponding organizer (point of contact); organizer (participated in the creation of the session)
- Chairperson (session moderator)
- Organizer and chair can be the same person
- Speakers (each speaker is allowed to present at only one symposium and give only one presentation based on an abstract submitted for oral or poster presentation) **Keywords** (3-5)
- Recorded Components (confirmation of agreement to be recorded)
- Miscellanea (any special requests, i.e., scheduling)
- Comments (outline individual speaker timings within the symposium; for 3 speakers, it is assumed that each speaker will be provided 25' with 10' for discussion)





Submission components

Title (up to 10 words) Description (250 words or less for Symposia; 50 words or less for Focused Learning) Sponsoring SG/Ns (must select at least one) Education or Clinician Track Learning objectives (1 - 2) Participants Correspondin Chairperson (Organizer and Speakers (eac Keywords (3-5) Recorded Componer Miscellanea (any spe Comments (outline ii

For detailed information please visit: <u>https://www.iadr.org/2024iags/presentations</u>

esentation)



Submission components

Title (up to 10 words)
Description (250 words or less for Symposia; 50 words or less for Focused Learning)
Sponsoring SG/Ns (must select at least one)
Education or Clinician Track
Learning objectives (1-3)
Participants
Corresponding organizer (point of contact); organizer (participated in the creation of the session)
Chairperson (session moderator)
Organizer and chair can be the same person
Speakers (each speaker is allowed to present at only one symposium and give only one presentation based on an abstract submitted for oral or poster presentation)
Keywords (3-5)
Recorded Components (confirmation of agreement to be recorded)
Miscellanea (any special requests, i.e., scheduling)
Comments (outline individual speaker timings within the symposium; for 3 speakers, it is assumed that each speaker will be provided 25' with 10' for discussion)

Selection criteria

Scientific merit (i.e., proposal organization, topic significance, clarity of objectives, multidisciplinary topic) Impact of Presenters (i.e., best possible participants for their event, based on scientific relevance and track record) Diversity and geographic distribution of speakers is expected in every proposal (speakers should reflect the diversity of IADR membership and be inclusive of gender, sexual orientation, ability, race, ethnicity, socioeconomic status or religion) Demonstrate cross-collaboration with required sponsorship of two or more Scientific Group/Network (SGN)



Submission components

tion)

Title (up to 10 words) **Description** (250 words or less for Symposia; 50 words or less for Focused Learning) **Sponsoring** SG/Ns (must select at least one) Education or Clinician Track Learning objectives (1-3) **Participants** Correspo Chairpers Organizer Speakers Recommend connecting with sponsoring groups' Keywords (3-5) Recorded Compo proposal coordinator and/or group program chair well Miscellanea (any **Comments** (outli in advance of posted deadlines to obtain guidance

Scientific merit (

Impact of Presenters (i.e., pest possible participants for their event, pased on scientific relevance and track record)

Diversity and geographic distribution of speakers is expected in every proposal (speakers should reflect the diversity of IADR membership and be inclusive of gender, sexual orientation, ability, race, ethnicity, socioeconomic status or religion)

Demonstrate cross-collaboration with required sponsorship of two or more Scientific Group/Network (SGN)



DISCOVER • NETWORK • ADVANCE

2024 IADR/AADOCR/CADR General Session & Exhibition

MARCH 13-16, 2024 NEW ORLEANS, LA, USA

102nd General Session & Exhibition of the IADR
53rd Annual Meeting of the AADOCR
48th Annual Meeting of the CADR



DISCOVER • NETWORK • ADVANCE

2024 IADR/AADOCR General Sessic Exhibition

MARCH 13-16, 2024 NEW ORLEANS, LA, USA

102nd General Session & Exhibition of the IADR 53rd Annual Meeting of the AADOCR 48th Annual Meeting of the CADR

ABSTRACTS



Formatting and adherence to conference guidelines (e.g., ≤300-word abstract, ≤10-word title, required sections: objectives, methods, results, conclusion)



DISCOVER • NETWORK • ADVANCE

2024 IADR/AADOCR General Sessic Exhibition

MARCH 13-16, 2024 NEW ORLEANS, LA, USA

102nd General Session & Exhibition of the IADR 53rd Annual Meeting of the AADOCR 48th Annual Meeting of the CADR

ABSTRACTS



Formatting and adherence to conference guidelines (e.g., ≤300-word abstract, ≤10-word title, required sections: objectives, methods, results, conclusion)



Scientific rigor and adherence to **reporting** guidelines (e.g., report key elements that allow readers to evaluate what was done and what it means, including the *why*, *when*, *where*, *how*, and *so what*)

DISCOVER • NETWORK • ADVANCE

2024 IADR/AADOCR General Sessic Exhibition

MARCH 13-16, 2024 NEW ORLEANS, LA, USA

102nd General Session & Exhibition of the IADR 53rd Annual Meeting of the AADOCR 48th Annual Meeting of the CADR

ABSTRACTS





Formatting and adherence to conference guidelines (e.g., ≤300-word abstract, ≤10-word title, required sections: objectives, methods, results, conclusion)

Scientific rigor and adherence to **reporting** guidelines (e.g., report key elements that allow readers to evaluate what was done and what it means, including the why, when, where, how, and so what)

Impactful writing and effective communication (e.g., spelling and grammar error checked, short sentences, direct, clear and balanced messaging conveying an interesting story that attracts the interest of potential attendants)

DISCOVER • NETWORK • ADVANCE

2024 IADR/AADOCR General Sessic Exhibition

MARCH 13-16, 2024 NEW ORLEANS, LA, USA

102nd General Session & Exhibition of the IADR 53rd Annual Meeting of the AADOCR 48th Annual Meeting of the CADR

ABSTRACTS





Formatting and adherence to conference guidelines





ABSTRACTS



CALL FOR ABSTRACTS

Important Dates and Deadlines:

- July 11, 2023–Abstract Submission Site Opens
- October 17, 2023, 11:59 p.m. PT-Abstract Submission Site Closes
- Mid-December 2023–Abstract Notifications Emailed to Presenters
- January 11, 2024–Presenter Pre-registration Deadline
- Late-January 2024– Final Presentation Numbers Emailed to Registered Presenters

To Submit your Abstract:

Click the <u>SUBMIT YOUR ABSTRACT</u> button wherever it appears online on the official 2024 IADR/AADOCR/CADR General Session web site, <u>https://www.iadr.org/2024/ags</u> or within this Please follow the abstract submission instructions. Any questions may be directed to the IADR Department at <u>meetings@iadr.org</u>

Table of Contents:

- Abstract Rules and Guidelines
 - Presenter Agreements, IADR Abstract Licensing Policy, IADR Full Disclosure Policy, Presenter Change, Withdrawal of Abstracts
- Preparing to Submit an Abstract & Instructions
 - Submission Elements, English Language Assistance Program, Systematic Review Abstracts, Common Mistakes, Group-Author Abstracts, Word Limit Help, Special Requests, Awards and Submission Instructions
- Criteria for Abstract Acceptance
- Submission Categories by Scientific Group/Network
- Notification of Acceptance/Non-acceptance
- Presenter Pre-registration & Rates
- Modes of Presentation
- ADA Continuing Education Recognition Program (CERP)
- Frequently Asked Questions

ABSTRACTS



Resources

India

Abstract

- Excellent guidance in the IADR Call for Abstracts (https://www.iadr.org/24IAGSCallforAbstracts)
- Peer reviewed-literature (link) and community guidelines (STROBE, CONSORT, STARD



Abstracts of scientific papers are sometimes poorly written, often lack important information, and occasionally convey a biased picture. This paper provides detailed suggestions, with examples, for writing the background, methods, results, and conclusions sections of a good abstract. The primary target of this paper is the young researcher; however, authors with all levels of experience may find useful ideas in the paper.



Search

Use your bro

~

Reporting

provided for

(i.e. exactly

authors sta

Enhancing the QUAlity and **Transparency Of health** Research

Website translation help

eporting

ain study

Extensions

Extensions

Extensions

PRISMA-P

<u>prognosti</u>

TRIPOD

reviews

cols

oes

d trials

idelines for

Library Toolkits Courses & events News Blog Librarian Network Contact

Home > Library > Reporting guideline > Draft STROBE checklist for conference abstracts

for reporting	Re	
for reporting	guidennes	gu gu
owser's Back button	ma typ	
Draft STROE	Randomised CONSORT	
guideline or? y what the ate in the paper)	Reporting observational studies in	Observation studies STROBE
	conference abstracts	<u>Systematic</u> PRISMA
	STROBE conference abstracts	Study proto
	<u>checklist (PDF)</u>	Diagnostic/p c studies STARD
		Case report

STARD for Abstracts: Essential items for reporting diagnostic accuracy studies in journal or conference abstracts

Jérémie F Cohen.^{12*} Daniël A Korevaar.¹ Constantine A Gatsonis.³ Paul P Glasziou.⁴ Lotty Hooft.⁵ David Moher.⁶ Johannes B Reitsma,7 Henrica CW de Vet,8 Patrick M Bossuyt,1 for the STARD Group

This is the online version of an article published in August 2017 in The BMJ.

Many abstracts of diagnostic accuracy studies are currently insufficiently informative. We extended the STARD (Standards for Reporting Diagnostic Accuracy) statement by developing a list of essential items that author should consider when reporting diagnostic accuracy studies in journal or conference abstracts. After a literature review of published guidance for reporting biomedical studies, we identified 39 items potentially relevant to report in an abstract. We then selected essential items through a two round web

conference.56 In line with previous authors,37 we found that many of these abstracts were insufficiently informative. Key items, such as eligibility criteria, study setting, patient sampling procedures, and confidence intervals around accuracy estimates were reported in less than half of the abstracts.56 This makes it difficult for readers to assess the validity and applicability of the study findings.

Ideally, studies should be free from deficiencies, and the results of the study should reflect the "true" accuracy of the test under evaluation. Major sources of bias in diagnostic accuracy studies include methodological flaws in participant nt data collociton, tost execution



STROBE CHECKLIST

STROBE Statement—Items to be included when reporting observational studies in a conference abstract

Item	Recommendation		
Title	Indicate the study's design with a commonly used term in the title (e.g cohort, case-		
	control, cross sectional)		
Authors	Contact details for the corresponding author		
Study design	Description of the study design (e.g cohort, case-control, cross sectional)		
Objective	Specific objectives or hypothesis		
Methods			
Setting	Description of setting, follow-up dates or dates at which the outcome events occurred or at		
C	which the outcomes were present, as well as any points or ranges on other time scales for		
	the outcomes (e.g., prevalence at age 18, 1998-2007).		
Participants	<i>Cohort study</i> —Give the most important eligibility criteria, and the most important sources		
-	and methods of selection of participants. Describe briefly the methods of follow-up		
	Case-control study—Give the major eligibility criteria, and the major sources and		
	methods of case ascertainment and control selection		
	Cross-sectional study-Give the eligibility criteria, and the major sources and methods of		
	selection of participants		
	Cohort study-For matched studies, give matching and number of exposed and		
	unexposed		
	Case-control study-For matched studies, give matching criteria and the number of		
	controls per case		
Variables	Clearly define primary outcome for this report.		
Statistical	Describe statistical methods, including those used to control for confounding		
methods			
Results			
Participants	Report Number of participants at the beginning and end of the study		
Main results	Report estimates of associations. If relevant, consider translating estimates of relative risk		
	into absolute risk for a meaningful time period		
	Report appropriate measures of variability and uncertainty (e.g., odds ratios with		
	confidence intervals		
Conclusions	General interpretation of study results		

Item	Description	CONSORT CHECKLIST	
Title	Identification of the study as randomised		
Authors [*]	Contact details for the corresponding author		
Trial design	Description of the trial design (eg, parallel, cluster, non-inferiority)		
Methods			
Participants	Eligibility criteria for participants and the settings where the data were collected		
Interventions	Interventions intended for each group		
Objective	Specific objective or hypothesis		
Outcome	Clearly defined primary outcome for this report		
Randomisation	How participants were allocated to interventions		
Blinding (masking)	Whether or not participants, care givers, and those assessing the outcomes were blinded to group assignment		
Results			
Numbers randomised	Number of participants randomised to each group		
Recruitment	Trial status		
Numbers analysed	Number of participants analysed in each group		
Outcome	For the primary outcome, a result for each group and the estimated effect size and its precision		
Harms	Important adverse events or side-effects		
Conclusions	General interpretation of the results		
Trial registration	Registration number and name of trial register		
Funding	Source of funding		

ABSTRACTS



CALL FOR ABSTRACTS

Important Dates and Deadlines:

- July 11, 2023–Abstract Submission Site Opens
- October 17, 2023, 11:59 p.m. PT-Abstract Submission Site Closes
- Mid-December 2023–Abstract Notifications Emailed to Presenters
- January 11, 2024–Presenter Pre-registration Deadline
- Late-January 2024– Final Presentation Numbers Emailed to Registered Presenters

To Submit your Abstract:

Click the SUBMIT YOUR ABSTRACT button wherever it appears online on the official 2024 IADR/AADOCR/CADR General Session web site, <u>https://www.iadr.org/2024iags</u> or within this document. Please follow the abstract submission instructions. Any questions may be directed to the IADR Meetings Department at <u>meetings@iadr.org</u>

English Language Assistance Program (ELAP)

IADR is pleased to offer an English Language Assistance Program (ELAP) to assist our abstracts submitters with English Language, through the generous support of our IADR colleagues who have agreed to volunteer. This program is designed to assist non-native English-speaking abstract submitters during the abstract submission process.

Individuals who are interested in applying for the IADR ELAP and intend to submit an abstract for the 2024 IADR/AADOCR/CADR General Session, needs to complete the <u>online form</u> by **September 19, 2023**. Individuals will be matched with our volunteers based on their expertise, geographic location, and availability.

ABSTRACTS



Important Dates and Deadlines:

- July 11, 2023–Abstract Submission Site Opens
- October 17, 2023, 11:59 p.m. PT–Abstract Submission Site Closes
- Mid-December 2023–Abstract Notifications Emailed to Presenters
- January 11, 2024–Presenter Pre-registration Deadline
- Late-January 2024– Final Presentation Numbers Emailed to Registered Presenters

To Submit your Abstract:

Click the <u>SUBMIT YOUR ABSTRACT</u> button wherever it appears online on the official 2024 IADR/AADOCR/CADR General Session web site, <u>https://www.iadr.org/2024iags</u> or within this document. Please follow the abstract submission instructions. Any questions may be directed to the IADR Meetings Department at <u>meetings@iadr.org</u>

English Language Assistance Program (ELAP)

IADR is pleased to offer an English Language Assistance Program (ELAP) to assist our abstracts submitters with English Language, through the generous support of our IADR colleagues who have agreed to volunteer. This program is designed to assist non-native English-speaking abstract submitters during the abstract submission process.

Individuals who are interested in applying for the IADR ELAP and intend to submit an abstract for the 2024 IADR/AADOCR/CADR General Session, needs to complete the <u>online form</u> by **September 19, 2023**. Individuals will be matched with our volunteers based on their expertise, geographic location, and availability.

Please note that individuals in the IADR ELAP are required to submit their abstracts twice — once to the program for editing and matching with a volunteer, and again to the IADR/AADOCR/CADR General Session abstract submission site after English language editing has been completed.

To ensure that the submitter and volunteer communicate in a timely manner, IADR will follow up with both individuals. Any problems with a volunteer match can be communicated to IADR at <u>ELAP@iadr.org</u>.

We hope that this program will encourage individuals to submit abstracts for IADR meetings by facilitating the improvement of English language skills within the research community.

Please contact IADR at ELAP@iadr.org if you have any further questions about this program.

https://www.iadr.org/elap





- Well-written (i.e., no typos, grammar/syntax errors, understandable) [have others proof-read it]
 - *Direct* language is preferred: short sentences

ally progressing story [intro, methods, results, conclusions] h information [methods] so that others understand what you dic much information

> ey findings in the results [results] on p-values and strive for quantitative measures (e.g

> > It the same time objective and balanced

more research is needed to validate or I





- Well-written (i.e., no typos, grammar/syntax errors, understandable) [have others proof-read it]
 - Direct language is preferred: short sentences
- Present a logically progressing story [intro, methods, results, conclusions]

information [methods] so that others understand what you dic *much* information

ey findings in the results [results] on p-values and strive for quantitative measures (e.g

It the same time objective and balanced

more research is needed to validate or I





- Well-written (i.e., no typos, grammar/syntax errors, understandable) [have others proof-read it]
 - Direct language is preferred: short sentences
- Present a logically progressing story [intro, methods, results, conclusions]
- Present enough information [methods] so that others understand what you did
 - but not too much information

y findings in the results [results] a on p-values and strive for quantitative measures (e.

t the same time objective and balanced

more research is needed to validate or I

Key elements



- Well-written (i.e., no typos, grammar/syntax errors, understandable) [have others proof-read it]
 - Direct language is preferred: short sentences
- Present a logically progressing story [intro, methods, results, conclusions]
- Present enough information [methods] so that others understand what you did
 - but not too much information
- Present the main or key findings in the results [results]
 - Avoid over-reliance on p-values and strive for quantitative measures (e.g., 40% increase; 'most' participants, etc.)

t the same time objective and balanced

nore research is needed to validate or



- Well-written (i.e., no typos, grammar/syntax errors, understandable) [have others proof-read it]
 - *Direct* language is preferred: short sentences
- Present a logically progressing story [intro, methods, results, conclusions]
- Present enough information [methods] so that others understand what you did
 - but not too much information
- Present the main or key findings in the results [results]
 - Avoid over-reliance on p-values and strive for quantitative measures (e.g., 40% increase; 'most' participants, etc.)
- Be interesting and exciting but at the same time objective and balanced

more research is needed to validate or



- Well-written (i.e., no typos, grammar/syntax errors, understandable) [have others proof-read it]
 - *Direct* language is preferred: short sentences
- Present a logically progressing story [intro, methods, results, conclusions]
- Present enough information [methods] so that others understand what you did
 - but not too much information
- Present the main or key findings in the results [results]
 - Avoid over-reliance on p-values and strive for quantitative measures (e.g., 40% increase; 'most' participants, etc.)
- Be interesting and exciting but at the same time objective and balanced
 - Emphasize *novel* findings or what is the *incremental addition* to the knowledge base

nore research is needed to validate or



- Well-written (i.e., no typos, grammar/syntax errors, understandable) [have others proof-read it]
 - Direct language is preferred: short sentences
- Present a logically progressing story [intro, methods, results, conclusions]
- Present enough information [methods] so that others understand what you did
 - but not too much information
- Present the main or key findings in the results [results]
 - Avoid over-reliance on p-values and strive for quantitative measures (e.g., 40% increase; 'most' participants, etc.)
- Be interesting and exciting but at the same time objective and balanced
 - Emphasize *novel* findings or what is the *incremental addition* to the knowledge base
 - Don't over-reach (i.e., typically more research is needed to validate or replicate results, etc.)



- Well-written (i.e., no typos, grammar/syntax errors, understandable) [have others proof-read it]
 - Direct language is preferred: short sentences
- Present a logically progressing story [intro, methods, results, conclusions]
- Present enough information [methods] so that others understand what you did
 - but not too much information
- Present the main or key findings in the results [results]
 - Avoid over-reliance on p-values and strive for quantitative measures (e.g., 40% increase; 'most' participants, etc.)
- Be interesting and exciting but at the same time objective and balanced
 - Emphasize *novel* findings or what is the *incremental addition* to the knowledge base
 - Don't over-reach (i.e., typically more research is needed to validate or replicate results, etc.)

Questions?



Questions that you (typically) want to answer

1. What is the problem

[1] This is where you establish the significance of the topic

Frequently mentions of the prevalence of a condition, the societal (or individual) impacts, biology, human health or quality of life, etc.

In some ways, the 'problem' (e.g., dental caries, periodontal disease, craniofacial conditions, oral cancer) could be an opportunity – thus approach it positively



Questions that you (typically) want to answer

- 1. What is the problem
- 2. What do we know about it

[2] A **balanced overview** of the evidence, literature. Succinct.

This should **provide the basis** of what you want to build upon

Not exhaustive, but as well-informed and up-to-date as possible



Questions that you (typically) want to answer

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about

[3]

Strategically identify the knowledge gaps that you specifically set out to address.

These could be multiple, but you may ultimately want and can address one or two of these gaps in a presentation and corresponding abstract.



Questions that you (typically) want to answer

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap

[4]

There is lack of or insufficient data or low-quality evidence; or the data are conflicting; it is unclear whether some sub-groups are or 'behave' differently than others.

In some cases, you may just want to "add to the knowledge or evidence base"



Questions that you (typically) want to answer

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap
- 5. Consequently, what did you set out to study?

[5]

Your main research question or study objective; or, your specific aims or hypotheses



Questions that you (typically) want to answer

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap
- 5. Consequently, what did you set out to study?
- 6. How did you seek to research this question?

[6]

Descriptions of population, sample (including size), experimental model, secondary data, timeframe, any specialized methods.

Research strategy including data analysis including descriptive, bivariate and multivariable methods/modeling.

Inference based on statistical testing or effect estimation, etc.



Questions that you (typically) want to answer

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap
- 5. Consequently, what did you set out to study?
- 6. How did you seek to research this question?
- 7. What did you find?

[7]

Key features of the results; frequently (but not necessarily) beginning with a main, descriptive statement.

Then the main outcome.

Then any additional, secondary, supplemental, stratified, or confirmatory analyses.

Typically, all information in this section is backed up (your) data



Questions that you (typically) want to answer

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap
- 5. Consequently, what did you set out to study?
- 6. How did you seek to research this question?
- 7. What did you find?
- 8. What does this mean?

[8]

High level interpretation of the results, the "so what". Notrestating of numbers or metrics, typically a qualitative appreciation of the entire study findings. Offer some ideas about why the results are what they are Comment on **novelty** and significance



Questions that you (typically) want to answer

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap
- 5. Consequently, what did you set out to study?
- 6. How did you seek to research this question?
- 7. What did you find?
- 8. What does this mean?
- 9. What are the potential implications?

[9]

Comment on the **importance** (in the field or in the real-world) of the findings. Are they surprising, changing

paradigm, highlighting a new mechanism, illustrate a problem.



Questions that you (typically) want to answer

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap
- 5. Consequently, what did you set out to study?
- 6. How did you seek to research this question?
- 7. What did you find?
- 8. What does this mean?
- 9. What are the potential implications?
- 10. What is next?

[10]

Is there further research, to validate or replicate these results, or examine something further, needed? If so, what that may be? Perhaps the next step is policy action/change, public awareness,

change in practice, etc.?



Questions that you (typically) want to answer

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap
- 5. Consequently, what did you set out to study?
- 6. How did you seek to research this question?
- 7. What did you find?
- 8. What does this mean?
- 9. What are the potential implications?
- 10. What is next?

Corresponding abstract sections

Objectives

Methods Results

Conclusion

Questions?

Objectives: Early childhood caries (ECC) is known to be influenced by numerous multi-level factors including social determinants, oral health-related behaviors and practices, and individual susceptibility. Disentangling these frequently intersecting influences and identifying key drivers of health remains challenging in dental public health and clinical practice. To add to the knowledge base of ECC determinants, we sought to identify and describe characteristics of positive ECC spatial outliers among a large, community-based sample of preschool-age children in North Carolina (NC).

Methods: We used tooth surface-level clinical data of caries experience (i.e., dmfs index, defined at the ICDAS≥1 threshold) from 6,310 preschool-age children (mean age=52 months; range=36-71 months) who were participants of the ZOE 2.0 study in NC, United States and were successfully geocoded via a geographic information systems (GIS) application (ArcGIS Pro). We identified positive outliers (participants with low ECC experience in a high ECC experience area, LH) and their corresponding clusters of neighboring participants with high ECC experience (i.e., a "hotspot" or high ECC experience area, HH) using a Local Moran's I p<10⁻³ criterion. We used bivariate methods to compare demographic characteristics, oral health behaviors, and practices between LH and HH participants using a p<0.05 statistical significance criterion.

Results: There were 153 LH participants (dmfs median=7; range=0-14) and 161 HH (dmfs median=34; range=15-84) participants. More parent/guardian respondents were Spanish speakers among the HH versus the LH group (27% versus 18%, p=0.04) and had less than high school education (36% versus 20%, p=0.01). We found no important differences in common oral health behaviors (e.g., tooth brushing frequency) or report of a dental home. **Conclusions**: Family demographics differed between ECC positive outliers and their high-ECC experience neighbors, within a community-based sample of children in high disease prevalence areas of NC. Future studies can further elucidate underlying mechanisms at-play using qualitative methods and biological data.

Division:

Meeting: 2022 AADOCR/CADR Annual Meeting Location: Hybrid, Atlanta, Georgia Year: 2022 Final Presentation ID: 0931

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap
- 5. What did we set out to study?
- 6. How did we seek to study it?
- 7. What did we find?
- 8. What does this mean?
- 9. What are potential implications?
- 10. What is next?

Objectives: Early childhood caries (ECC) is known to be influenced by numerous multi-level factors including social determinants, oral health-related behaviors and practices, and individual susceptibility. Disentangling these frequently intersecting influences and identifying key drivers of health remains challenging in dental public health and clinical practice. To add to the knowledge base of ECC determinants, we sought to identify and describe characteristics of positive ECC spatial outliers among a large, community-based sample of preschool-age children in North Carolina (NC).

Methods: We used tooth surface-level clinical data of caries experience (i.e., dmfs index, defined at the ICDAS≥1 threshold) from 6,310 preschool-age children (mean age=52 months; range=36-71 months) who were participants of the ZOE 2.0 study in NC, United States and were successfully geocoded via a geographic information systems (GIS) application (ArcGIS Pro). We identified positive outliers (participants with low ECC experience in a high ECC experience area, LH) and their corresponding clusters of neighboring participants with high ECC experience (i.e., a "hotspot" or high ECC experience area, HH) using a Local Moran's I p<10⁻³ criterion. We used bivariate methods to compare demographic characteristics, oral health behaviors, and practices between LH and HH participants using a p<0.05 statistical significance criterion.

Results: There were 153 LH participants (dmfs median=7; range=0-14) and 161 HH (dmfs median=34; range=15-84) participants. More parent/guardian respondents were Spanish speakers among the HH versus the LH group (27% versus 18%, p=0.04) and had less than high school education (36% versus 20%, p=0.01). We found no important differences in common oral health behaviors (e.g., tooth brushing frequency) or report of a dental home. **Conclusions**: Family demographics differed between ECC positive outliers and their high-ECC experience neighbors, within a community-based sample of children in high disease prevalence areas of NC. Future studies can further elucidate underlying mechanisms at-play using qualitative methods and biological data.

Division:

Meeting: 2022 AADOCR/CADR Annual Meeting Location: Hybrid, Atlanta, Georgia Year: 2022 Final Presentation ID: 0931

EXAMPLES

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap
- 5. What did we set out to study?
- 6. *How did we seek to study it?
- 7. What did we find?
- 8. What does this mean?
- 9. What are potential implications?
- 10. What is next?

*the how includes:

population or sample characteristics, context/location, outcome measures and covariates, analytical approach and criteria, etc.

Objectives: Early childhood caries (ECC) is known to be influenced by numerous multi-level factors including social determinants, oral health-related behaviors and practices, and individual susceptibility. Disentangling these frequently intersecting influences and identifying key drivers of health remains challenging in dental public health and clinical practice. To add to the knowledge base of ECC determinants, we sought to identify and describe characteristics of positive ECC spatial outliers among a large, community-based sample of preschool-age children in North Carolina (NC).

Methods: We used tooth surface-level clinical data of caries experience (i.e., dmfs index, defined at the ICDAS≥1 threshold) from 6,310 preschool-age children (mean age=52 months; range=36-71 months) who were participants of the ZOE 2.0 study in NC, United States and were successfully geocoded via a geographic information systems (GIS) application (ArcGIS Pro). We identified positive outliers (participants with low ECC experience in a high ECC experience area, LH) and their corresponding clusters of neighboring participants with high ECC experience (i.e., a "hotspot" or high ECC experience area, HH) using a Local Moran's I p<10⁻³ criterion. We used bivariate methods to compare demographic characteristics, oral health behaviors, and practices between LH and HH participants using a p<0.05 statistical significance criterion.

Results: There were 153 LH participants (dmfs median=7; range=0-14) and 161 HH (dmfs median=34; range=15-84) participants. More parent/guardian respondents were Spanish speakers among the HH versus the LH group (27% versus 18%, p=0.04) and had less than high school education (36% versus 20%, p=0.01). We found no important differences in common oral health behaviors (e.g., tooth brushing frequency) or report of a dental home. **Conclusions**: Family demographics differed between ECC positive outliers and their high-ECC experience neighbors, within a community-based sample of children in high disease prevalence areas of NC. Future studies can further elucidate underlying mechanisms at-play using qualitative methods and biological data.

Division:

Meeting: 2022 AADOCR/CADR Annual Meeting Location: Hybrid, Atlanta, Georgia Year: 2022 Final Presentation ID: 0931

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap
- 5. What did we set out to study?
- 6. How did we seek to study it?
- 7. What did we find?
- 8. What does this mean?
- 9. What are potential implications?
- 10. What is next?

Objectives: Early childhood caries (ECC) is known to be influenced by numerous multi-level factors including social determinants, oral health-related behaviors and practices, and individual susceptibility. Disentangling these frequently intersecting influences and identifying key drivers of health remains challenging in dental public health and clinical practice. To add to the knowledge base of ECC determinants, we sought to identify and describe characteristics of positive ECC spatial outliers among a large, community-based sample of preschool-age children in North Carolina (NC).

Methods: We used tooth surface-level clinical data of caries experience (i.e., dmfs index, defined at the ICDAS≥1 threshold) from 6,310 preschool-age children (mean age=52 months; range=36-71 months) who were participants of the ZOE 2.0 study in NC, United States and were successfully geocoded via a geographic information systems (GIS) application (ArcGIS Pro). We identified positive outliers (participants with low ECC experience in a high ECC experience area, LH) and their corresponding clusters of neighboring participants with high ECC experience (i.e., a "hotspot" or high ECC experience area, HH) using a Local Moran's I p<10⁻³ criterion. We used bivariate methods to compare demographic characteristics, oral health behaviors, and practices between LH and HH participants using a p<0.05 statistical significance criterion.

Results: There were 153 LH participants (dmfs median=7; range=0-14) and 161 HH (dmfs median=34; range=15-84) participants. More parent/guardian respondents were Spanish speakers among the HH versus the LH group (27% versus 18%, p=0.04) and had less than high school education (36% versus 20%, p=0.01). We found no important differences in common oral health behaviors (e.g., tooth brushing frequency) or report of a dental home. **Conclusions**: Family demographics differed between ECC positive outliers and their high-ECC experience neighbors, within a community-based sample of children in high disease prevalence areas of NC. Future studies can further elucidate underlying mechanisms at-play using qualitative methods and biological data.

Division:

Meeting: 2022 AADOCR/CADR Annual Meeting Location: Hybrid, Atlanta, Georgia Year: 2022 Final Presentation ID: 0931

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap
- 5. What did we set out to study?
- 6. How did we seek to study it?
- 7. What did we find?
- 8. What does this mean?
- 9. What are potential implications?
- 10. What is next?

Objectives: Developmental defects of the enamel (DDE) are a heterogeneous group of clinically manifest disturbances of amelogenesis that remain understudied, especially in the primary dentition. In this study, we sought to identify genetic loci associated with diffuse opacities, a relatively common DDE type, in a community-based study of preschoolage children.

Methods: We used tooth-level DDE data for diffuse opacities, collected in a genetic epidemiologic study of early childhood oral health in North Carolina. Genotyping was done using the Infinium Global Diversity Array and subsequent imputation to ~340 million markers was based on the TOPMed panel. We used Genome-wide Complex Trait Analysis package to calculate heritability estimates. A genome-wide association study of diffuse opacities was then carried out among 6,057 children ages 3-5 years. Normalized residuals from zero-inflated negative binomial regression of diffuse opacities on age, sex, and selfreported race/ethnicity were carried forward to genetic linear regression models accounting for genetic ancestry (8 principal components). Single markers (SNPs) with $p < 5x10^{-8}$ were considered genome-wide significant and all loci with $p < 10^{-6}$ were prioritized for annotation using Functional Mapping and Annotation of genetic associations (FUMA). Results: The heritability of diffuse opacities was estimated to be 16% (p=7.4x10⁻³). Two loci demonstrated genome-wide significant evidence of association on chromosomes 7 and 1. Variation in rs77669438 [p=9.1x10⁻¹¹; minor allele (A) frequency=1.2%] located nearby the non-DNA coding gene Y RNA showed the strongest evidence of association. Another intergenic region on chromosome 1 (rs11440629, p=2.0x10⁻⁹) showed genome-wide significant evidence of association and is in linkage disequilibrium with two functional variants: rs566606 (CADD score=21.4) and rs608266 (Regulome DB score=2b). Conclusions: The study's findings highlight two novel loci with potential role in enamel formation in the primary dentition. These genes and variants need to be mechanistically investigated and validated to advance our understanding of susceptibility and mechanisms underlying dental developmental defects.

Division:

Meeting: 2023 AADOCR/CADR Annual Meeting (Portland, Oregon) Location: Portland, Oregon Year: 2023 Final Presentation ID: 0955

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap
- 5. What did we set out to study?
- 6. How did we seek to study it?
- 7. What did we find?
- 8. What does this mean?
- 9. What are potential implications?
- 10. What is next?

Objectives: Developmental defects of the enamel (DDE) are a heterogeneous group of clinically manifest disturbances of amelogenesis that remain understudied, especially in the primary dentition. In this study, we sought to identify genetic loci associated with diffuse opacities, a relatively common DDE type, in a community-based study of preschoolage children.

Methods: We used tooth-level DDE data for diffuse opacities, collected in a genetic epidemiologic study of early childhood oral health in North Carolina. Genotyping was done using the Infinium Global Diversity Array and subsequent imputation to ~340 million markers was based on the TOPMed panel. We used Genome-wide Complex Trait Analysis package to calculate heritability estimates. A genome-wide association study of diffuse opacities was then carried out among 6,057 children ages 3-5 years. Normalized residuals from zero-inflated negative binomial regression of diffuse opacities on age, sex, and selfreported race/ethnicity were carried forward to genetic linear regression models accounting for genetic ancestry (8 principal components). Single markers (SNPs) with $p < 5x10^{-8}$ were considered genome-wide significant and all loci with $p < 10^{-6}$ were prioritized for annotation using Functional Mapping and Annotation of genetic associations (FUMA). **Results**: The heritability of diffuse opacities was estimated to be 16% (p=7.4x10⁻²). Two loci demonstrated genome-wide significant evidence of association on chromosomes 7 and 1. Variation in rs77669438 [p=9.1x10⁻¹¹; minor allele (A) frequency=1.2%] located nearby the non-DNA coding gene Y RNA showed the strongest evidence of association. Another intergenic region on chromosome 1 (rs11440629, p=2.0x10⁻⁹) showed genome-wide significant evidence of association and is in linkage disequilibrium with two functional variants: rs566606 (CADD score=21.4) and rs608266 (Regulome DB score=2b). Conclusions: The study's findings highlight two novel loci with potential role in enamel formation in the primary dentition. These genes and variants need to be mechanistically investigated and validated to advance our understanding of susceptibility and mechanisms underlying dental developmental defects.

Division:

Meeting: 2023 AADOCR/CADR Annual Meeting (Portland, Oregon) Location: Portland, Oregon Year: 2023 Final Presentation ID: 0955

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap
- 5. What did we set out to study?
- 6. How did we seek to study it?
- 7. What did we find?
- 8. What does this mean?
- 9. What are potential implications?
- 10. What is next?

Objectives: Developmental defects of the enamel (DDE) are a heterogeneous group of clinically manifest disturbances of amelogenesis that remain understudied, especially in the primary dentition. In this study, we sought to identify genetic loci associated with diffuse opacities, a relatively common DDE type, in a community-based study of preschoolage children.

Methods: We used tooth-level DDE data for diffuse opacities, collected in a genetic epidemiologic study of early childhood oral health in North Carolina. Genotyping was done using the Infinium Global Diversity Array and subsequent imputation to ~340 million markers was based on the TOPMed panel. We used Genome-wide Complex Trait Analysis package to calculate heritability estimates. A genome-wide association study of diffuse opacities was then carried out among 6,057 children ages 3-5 years. Normalized residuals from zero-inflated negative binomial regression of diffuse opacities on age, sex, and selfreported race/ethnicity were carried forward to genetic linear regression models accounting for genetic ancestry (8 principal components). Single markers (SNPs) with $p < 5x10^{-8}$ were considered genome-wide significant and all loci with $p < 10^{-6}$ were prioritized 🗽 r annotation using Functional Mapping and Annotation of genetic associations (FUMA). **Results**: The heritability of diffuse opacities was estimated to be 16% (p=7.4x10⁻³). Two loci demonstrated genome-wide significant evidence of association on chromosomes 7 and 1. Variation in rs77669438 [p=9.1x10⁻¹¹; minor allele (A) frequency=1.2%] located nearby the non-DNA coding gene Y RNA showed the strongest evidence of association. Another intergenic region on chromosome 1 (rs11440629, p=2.0x10⁻⁹) showed genome-wide significant evidence of association and is in linkage disequilibrium with two functional variants: rs566606 (CADD score=21.4) and rs608266 (Regulome DB score=2b).

Conclusions: The study's findings highlight two novel loci with potential role in enamel formation in the primary dentition. These genes and variants need to be mechanistically investigated and validated to advance our understanding of susceptibility and mechanisms underlying dental developmental defects.

Division:

Meeting: 2023 AADOCR/CADR Annual Meeting (Portland, Oregon) Location: Portland, Oregon Year: 2023 Final Presentation ID: 0955

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap
- 5. What did we set out to study?
- 6. How did we seek to study it?
- 7. What did we find?
- 8. What does this mean?
- 9. What are potential implications?
- 10. What is next?

Objectives: Developmental defects of the enamel (DDE) are a heterogeneous group of clinically manifest disturbances of amelogenesis that remain understudied, especially in the primary dentition. In this study, we sought to identify genetic loci associated with diffuse opacities, a relatively common DDE type, in a community-based study of preschoolage children.

Methods: We used tooth-level DDE data for diffuse opacities, collected in a genetic epidemiologic study of early childhood oral health in North Carolina. Genotyping was done using the Infinium Global Diversity Array and subsequent imputation to ~340 million markers was based on the TOPMed panel. We used Genome-wide Complex Trait Analysis package to calculate heritability estimates. A genome-wide association study of diffuse opacities was then carried out among 6,057 children ages 3-5 years. Normalized residuals from zero-inflated negative binomial regression of diffuse opacities on age, sex, and selfreported race/ethnicity were carried forward to genetic linear regression models accounting for genetic ancestry (8 principal components). Single markers (SNPs) with $p < 5x10^{-8}$ were considered genome-wide significant and all loci with $p < 10^{-6}$ were prioritized 🗽 r annotation using Functional Mapping and Annotation of genetic associations (FUMA). **Results**: The heritability of diffuse opacities was estimated to be 16% (p=7.4x10⁻²). Two loci demonstrated genome-wide significant evidence of association on chromosomes 7 and 1. Variation in rs77669438 [p=9.1x10⁻¹¹; minor allele (A) frequency=1.2%] located nearby the non-DNA coding gene Y RNA showed the strongest evidence of association. Another intergenic region on chromosome 1 (rs11440629, p=2.0x10⁻⁹) showed genome-wide significant evidence of association and is in linkage disequilibrium with two functional variants: rs566606 (CADD score=21.4) and rs608266 (Regulome DB score=2b).

Conclusions: The study's findings highlight two novel loci with potential role in enamel formation in the primary dentition. These genes and variants need to be mechanistically investigated and validated to advance our understanding of susceptibility and mechanisms underlying dental developmental defects.

Division: Meeting: 2023 AADOCR/CADR Annual Meeting (Portland, Oregon) Location: Portland, Oregon Year: 2023 Final Presentation ID: 0955

- 1. What is the problem
- 2. What do we know about it
- 3. What do we not know about
- 4. Thus, what is the knowledge gap
- 5. What did we set out to study?
- 6. How did we seek to study it?
- 7. What did we find?
- 8. What does this mean?
- 9. What are potential implications?
- 10. What is next?

Questions?



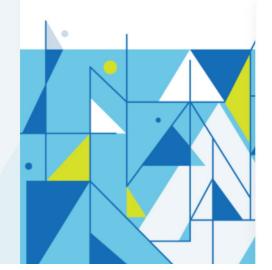
BEHAVIORAL EPIDEMIOLOGIC AND HEALTH SERVICES RESEARCH

DISCOVER • NETWORK • ADVANCE

2024 IADR/AADOCR/CADR General Session & Exhibition

MARCH 13-16, 2024 NEW ORLEANS, LA, USA

102nd General Session & Exhibition of the IADR 53rd Annual Meeting of the AADOCR 48th Annual Meeting of the CADR



Contacts:

Kimon Divaris@unc.edu noha.gomaa@schulich.uwo.ca simancasp@icloud.com roger.keller@ufrgs.br

