INC Behavioral and Socio-economic Factors Influence Early Childhood Caries: A Targeted Literature Review

ADAMS SCHOOL OF DENTISTRY

ABSTRACT

Background: Early Childhood Caries (ECC) is defined as the presence of one decayed, missing (due to caries), or filled tooth surface in a child less than 6. ECC can have negative impacts on the daily lives of affected children and their families, including social, psychological, and economic well-being. Identifying and studying behavioral and socio-economic risk factors contributing to ECC can improve its understanding and prevention strategies.

Aim: In this study, we conducted a targeted literature review of 30 studies on the topic of behavioral and socio-economic risk factors and ECC.

Methods: Behavioral and socioeconomic risk factors were identified within the context of an ongoing qualitative study part of the ZOE 2.0 project. With this information, we defined keywords that were then carried forward to a literature review using PubMed. Qualitative analysis of these studies was then analyzed and presented in a diagram.

Results and Conclusions: The research revealed a significant overlap of topics within each risk factor category, with parental influence being the most prominent. By identifying these risk factors, public health solutions that lead to effective prevention and management strategies can reduce ECC prevalence on an individual and community level, improving the oral health and quality of life of affected children and their families.

- ECC can have significant and longlasting health impacts, including pain, and difficulty eating and speaking, which can result in poor nutrition, developmental delays, and social withdrawal.
- Treatment of ECC can be **expensive** and time-consuming for families.
- It can lead to even more severe outcomes such as tooth loss, malocclusion, and speech problems.

OBJECTIVE

In conducted a this study, we targeted literature review of 30 studies Medline on the topic of from behavioral and socio-economic risk factors and ECC.

BACKGROUND

Tala Jazairi,¹ Kimon Divaris,^{1,2} Miguel Simancas-Pallares¹

¹Division of Pediatric and Public Health, Adams School of Dentistry ²Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina at Chapel Hill – Contact: talaj@email.unc.edu

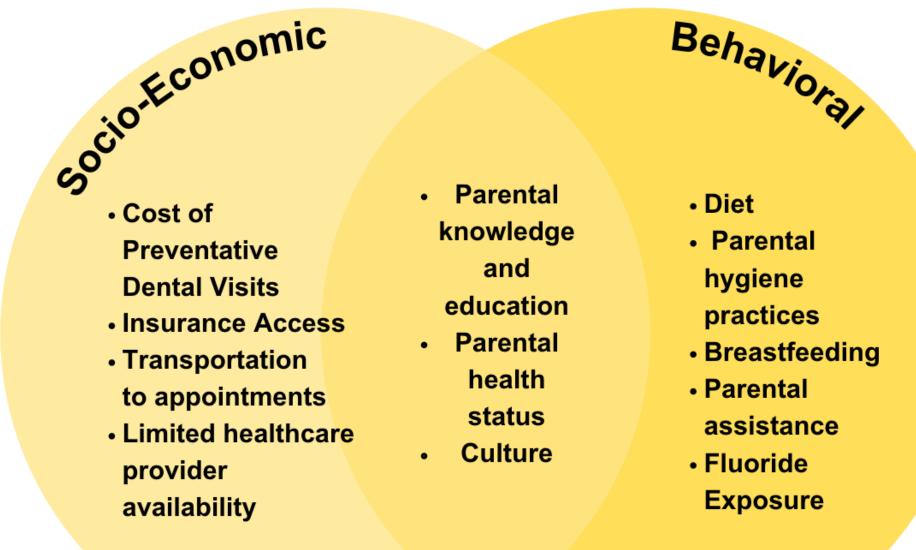
1. Thematic analysis of ongoing interviews on a qualitative s revealed the influence of socio-economic and behavioral factors and thus were included in this literature review.

METHODS

- 2. A search strategy was conducted using Medline with no publication date, language or design restriction.
- Analysis of each study was conducted to determine the 3. influence of socio-economic and/or behavioral factors on
- 4. Results were compiled and presented via a schematic dia and percentage of studies that identified influences of th factors with ECC.

RESULTS

Figure: socio-economic and behavioral factors influencing ECC.





study n ECC	 Of the 30 articles analyzed and published between 2004 and 2023, 23% revealed SES and 77% oral health behaviors as a factors associated with the disease. The topic of parental influence on their children's oral health was the most frequently mentioned within both risk factor categories, appearing in 57% of the articles as associated with ECC.
ese	CONCLUSIONS
	Due to the high prevalence of ECC, there is an urgent need to conduct further research. The identification and management of ECC risk factors far-reaching implications for the oral and systemic health of young children.
	for the oral and systemic health of young children.
	Through targeted research and public health interventions, effective prevention and management strategies can be developed to improve the oral health and quality of life of affected children and families.
	Analysis of ECC risk factors (including biological basis of the disease) are imperative for a more comprehensive understanding of the disease process.
	REFERENCES
	 Zou, J., Du, Q., Ge, L. et al. Expert consensus on early childhood caries management. Int J Oral Sci 14, 35 (2022). <u>https://doi.org/10.1038/s41368-022-00186-0</u> Divaris, K., Slade, G. D., Ferreira Zandona, A. G., Preisser, J. S., Ginnis, J., Simancas-Pallares, M. A., Agler, C. S., Shrestha, P., Karhade, D. S., Ribeiro, A. A., Cho, H., Gu, Y., Meyer, B. D., Joshi, A. R., Azcarate-Peril, M. A., Basta, P. V., Wu, D., & North, K. E. (2020). Cohort Profile: ZOE 2.0-A Community-Based Genetic Epidemiologic Study of Early Childhood Oral Health. International journal of environmental research and public health, 17(21), 8056. <u>https://doi.org/10.3390/ijerph17218056</u>
	ACKNOWLEDGEMENTS
	Research supported by NIH/NIDCR U01-DE025046