## ORAL HEALTH LITERACY AS A PRIORITY TO REDUCE DISPARITIES IN ORAL HEALTH AMONG ADOLESCENTS

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**Palavras-chave:** Saúde Bucal. Letramento em Saúde. Adolescente. Cárie Dentária. Relações Familiares.

## RESUMO

O alfabetismo em saúde bucal é um determinante social e estrutural de saúde reconhecido por seu papel relevante na saúde bucal e na utilização de serviços odontológicos. Estudos tem abordado esse tema na adolescência porque é uma fase crítica do desenvolvimento humano e requer atenção para mudanças físicas, cognitivas e sociais. Essa abordagem é importante para fortalecer políticas públicas que visem reduzir as disparidades de saúde bucal nessa população por meio de ações promovidas por profissionais da saúde, gestores e pela população em geral. O presente comentário pretende abordar as contribuições do alfabetismo em saúde bucal para a saúde bucal em adolescentes, bem como discutir novas perspectivas de estudos sobre essa temática.

**Keywords**: Oral health. Health Literacy. Adolescent. Dental Caries. Family Relations.

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## ABSTRACT

Oral health literacy is a social and structural determinant of health recognized for its important role in oral health and the use of dental services. Research has focused on adolescence because this life period requires attention to physical, cognitive and social changes. This is an important time to focus on youth and we can do this through actions promoted by health providers, managers and the general public. This commentary aims to address how oral health literacy contributes to oral health in adolescents, as well as to discuss new perspectives for studies on this topic.

Oral health literacy (OHL) is defined as the ability to obtain, process, and understand oral health information to make appropriate health decisions. A set of numerical skills, knowledge, access to dental health services, family functioning, and self-motivation are among the factors that influence the level of oral health literacy among adolescents.<sup>1,2</sup>

General/oral health literacy can be classified into three basic categories: functional, interactional and critical. The functional level of OHL refers to the ability to read and write terms related to oral health while the interactional OHL refers to the ability to interact with health care providers and oral health information, questioning and investigating its applicability. Finally, critical OHL represents the last level of oral health literacy as it adds to identifying, processing, and understanding information, the practical ability to modify oral health practices.<sup>3</sup>

Among the validated tools available to evaluate OHL in Brazilian adults, the Rapid Estimate of Adult Literacy in Dentistry (REALD), and the Test of Functional Health Literacy in Dentistry (HeLD) are the most commonly used in studies. REALD-30 is mainly based on word recognition and reading comprehension (functional oral health literacy) while HeLD adds other conceptual aspects of OHL such as questions about communication with dental providers and access to dental services.<sup>4,5</sup>

Research studies on OHL have focused only on adults or considered the report of parents to obtain the level of (OHL) in children (proxy measure).<sup>6,7</sup> The association between OHL and dental caries in adolescents is a recent topic in the literature and has been primarily discussed in the last five years. Among the tools available in the literature to measure OHL, the Brazilian version of the Rapid Estimate of Adult Literacy in Dentistry (BREALD-30) is the only validated instrument for adolescents aged 12 and 15 to 19 years in Brazil. It is a screening tool used in research that contains thirty words related to oral health organized in increasing order of complexity.8 This tool measures the level of OHL based on the score obtained by adolescents. Instead of working as an instrument with domains, BREALD-30 is a linear measure that considers a final score ranging from 0 to 30. Each word in the tool accounts for one point and higher scores indicate a better level of OHL. There is a gap in the literature about instruments to evaluate interactional and critical oral health literacy in adolescents. However, it is known that measures of functional, interactional and critical health literacy are correlated.9

Previous studies conducted in Brazil have shown that low OHL in adolescents was associated with worse oral health conditions, such as dental caries and fewer visits to dental offices.<sup>10-12</sup> Adolescence is a critical period of human development and encompasses changes in the physical, psychological and social dimensions. These changes may contribute to greater exposure to risk factors for dental problems as well as to a lower prioritization for maintenance of good oral health.<sup>13</sup> These findings place OHL in a prominent position as a mutable social determinant, sensitive to collective actions and public health policies. Thus, an adequate level of OHL requires effective interaction with dental information, resulting in assertive health choices and better oral health outcomes.

Another important aspect is the mediating role of OHL in the relationship between socioeconomic status and dental outcomes. The role of socioeconomic factors in dental caries is recognized and it is understood that those who experience social inequities have a higher prevalence of this disease.<sup>14</sup> It is suggested that this scenario can be modified by OHL that mediates the relations between socioeconomic factors and tooth decay. These relationships are not yet established in the literature, revealing an important gap of investigations in this field.

We have identified some of the issues and challenges to decreasing oral health disparities by increasing OHL in

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adolescents. What is not clear is the best approaches to address this issue. Key considerations are: would a national health literacy policy be a feasible strategy in Brazil? What are the challenges in training new dentists to raise awareness about the need for patients to retain health information? What are the strategies to make oral health services easy to use and accessible? These are research-based questions to be answered in the field. Certainly, all answers go through the collaborative work of health managers, dental practitioners, and patients.

## REFERENCES

1. Office of Disease Prevention and Health Promotion. Health Literacy. Healthy People 2030. U.S. Department of Health and Human Services. https://health.gov/our-work/national-healthinitiatives/healthy-people/healthy-people-2030/healthliteracy-healthy-people-2030. Access in: 2022 Jan 9.

2. Lopes RT, Neves ETB, Dutra LC, Gomes MC, Paiva SM, Abreu MHNG, *et al.* Socioeconomic status and family functioning influence oral health literacy among adolescents. *Rev Saúde Pública.* 2020; 54:30. doi:10.11606/s1518-8787.2020054001842. 3. Nutbeam D. Health Literacy as a Public Health Goal: A challenge for contemporary health education and communication

strategies into the 21st Century. Health Promotion International. 2001; 15:259-67. doi: https://doi.org/10.1093/heapro/15.3.259.

4. Mialhe FL, Bado FMR, Ju X, Brennan DS, Jamieson L. Validation of the Health Literacy in Dentistry scale in Brazilian adults. Int Dent J. 2020 Apr;70(2):116-126. doi: 10.1111/idj.12531.

5. Junkes MC, Fraiz FC, Sardenberg F, Lee JY, Paiva SM, Ferreira FM. Validity and Reliability of the Brazilian Version of the Rapid Estimate of Adult Literacy in Dentistry—BREALD-30. PLoS One. 2015; (7):e0131600. doi: 10.1371/journal.pone.0131600.

6. Batista MJ, Lawrence HP, Sousa MDLR. Oral health literacy and oral health outcomes in an adult population in Brazil. BMC Public Health. 2017; 18:60. doi: 10.1186/s12889-017-4443-0.

7. Firmino RT, Ferreira FM, Martins CC, Granville-Garcia AF, Fraiz FC, Paiva SM. Is parental oral health literacy a predictor of children's oral health outcomes? Systematic review of the literature. Int J Paediatr Dent. 2018; 28:459-471. doi: 10.1111/ ipd.12378.

8. Lima LCM, Neves ETB, Dutra LC, Firmino RT, Araújo LJS, Paiva SM, et al. Psychometric properties of BREALD-30 for assessing adolescents' oral health literacy. *Rev saúde pública*. 2019; 53:53. doi: 10.11606/S1518-8787.2019053000999.

9. Nutbeam D. Defining, measuring and improving health literacy. HEP. 2015;42:450–456. doi: https://doi.org/10.7143/ jhep.42.450.

10. Neves ÉTB, Dutra LDC, Gomes MC, Paiva SM, Abreu MHNG, Ferreira FM, et al. The impact of oral health literacy and family cohesion on dental caries in early adolescence. Community Dent Oral Epidemiol. 2020; 48:232-239. doi: 10.1111/cdoe.12520.

11. Dutra LDC, Neves ÉTB, Lima LCM, Gomes MC, Forte FDS, Paiva SM, et al. Degree of family cohesion and social class are associated with the number of cavitated dental caries in adolescents. Braz Oral Res. 2020; 34:e037. doi: 10.1590/1807-3107bor-2020.vol34.0037.

12. Neves ÉTB, Lima LCM, Dutra LDC, Gomes MC, Siqueira MBLD, Paiva SM, et al. Oral health literacy, sociodemographic, family, and clinical predictors of dental visits among Brazilian early adolescents. Int J Paediatr Dent. 2021;31:204-211. doi: 10.1111/ipd.12660.

13. Leary SD, Do LG. Changes in oral health behaviours between childhood and adolescence: Findings from a UK cohort study.

Oral health literacy as a health determinant in adolescents. Neves et al.

Community Dent Oral Epidemiol. 2019 Oct;47(5):367-373. doi: 10.1111/cdoe.12475.

14. Engelmann JL, Tomazoni F, Oliveira MD, Ardenghi TM. Association between Dental Caries and Socioeconomic Factors in Schoolchildren—A Multilevel Analysis. Braz Dent J. 2016; 27:72-8. doi: 10.1590/0103-6440201600435.