

Regular dental attendance and periodontal health knowledge: A cross-sectional survey

Pablo Varela-Centelles^{1,2}  | Pedro Diz-Iglesias² | Ana Estany-Gestal³ |
 Andrés Blanco-Hortas³ | Rosendo Bugarín-González¹ | Juan M. Seoane-Romero⁴

¹Galician Health Service, EOXI Lugo, Cervo e Monforte de Lemos, Lugo, Spain

²Department of Surgery and Medical-Surgical Specialties, School of Medicine and Dentistry, University of Santiago de Compostela, Santiago de Compostela, Spain

³Epidemiology, Statistics, and Research Methodology Unit, IDIS Foundation, Santiago de Compostela and Lugo, Spain

⁴Department of Surgery and Medical-Surgical Specialties, School of Medicine and Health Sciences, University of Oviedo, Oviedo, Spain

Correspondence

Pablo Varela-Centelles, Galician Health Service, EOXI Lugo, Cervo e Monforte de Lemos, Lugo, Spain.
 Email: pabloignacio.varela@usc.es

Funding information

Health Research Institution; Foundation of Santiago de Compostela; Foundation of the Institute of Santiago de Compostela for Health Research

Abstract

Objectives: To explore dental clinics' performance on periodontal education by comparing knowledge about periodontal health of regular and inconsistent dental attenders.

Subjects and Methods: A population-based study with a cross-sectional design was performed in Galicia (Northwestern Spain). Participants were randomly selected from 16 different areas and a questionnaire applied face-to-face. The survey included items on socio-demographic features, habits and routines, periodontal status and periodontal health knowledge. Participants were grouped according to the median of overall knowledge, and a logistic regression analysis was performed to explore the relationship between good periodontal knowledge and frequency of dental visits.

Results: A total of 8,206 individuals were invited to enter the study, and 3,553 of them accepted the invitation (43.3%). Most participants (59.3%; $n = 1,945$) fit within the regular dental attenders' group. Younger women holding a university degree and visiting their dentist regularly elicited higher knowledge about periodontal health. Regular use of dental services increased the chances of being in the higher knowledge group (OR: 1.67; 95% CI: 1.40–2.00).

Conclusions: Reported regular dental attendance is related to periodontal health knowledge. Specific interventions for promoting tailored patient education on periodontal topics during routine dental visits may have a positive effect on laypersons' knowledge about periodontal health.

KEYWORDS

dental clinics, dental health education, dentists, patient education, periodontitis

1 | INTRODUCTION

Periodontal diseases (PDs) are defined as the pathologic processes affecting the periodontium, most often gingivitis and periodontitis (American Academy of Periodontology, 2018), which affect about 90% of the world adult population (Albandar & Rams, 2002).

While gingivitis is a reversible inflammation of the gingivae, the inflammatory process in periodontitis results in periodontal pocketing, clinical attachment loss and alveolar bone damage (American Academy of Periodontology, 2018) which may end in tooth loss. These inflammatory reactions are a response to the biofilm accumulated on tooth surfaces in the absence of adequate oral



- Thevissen, E., De Bruyn, H., & Koole, S. (2017). The provision of oral hygiene instructions and patient motivation in a dental care system without dental hygienists. *International Journal of Dental Hygiene*, 15, 261–268. <https://doi.org/10.1111/idh.12211>
- Utembroek, D. G., Schaub, R. M., Tromp, J. A., & Kant, J. H. (1989). Dental hygienists' influence on the patients' knowledge, motivation, self-care, and perception of change. *Community Dentistry and Oral Epidemiology*, 17, 87–90.
- US National Library of Medicine. National Institutes of Health. Medical subject headings, 2019. Retrieved from: <https://ncbi.nlm.nih.gov/mesh/?term=patient+education>. Accessed February 9, 2019.
- Vandenbroucke, J. P., Von Elm, E., Altman, D. G., Gotsche, P. C., Mulrow, C. D., Pocock, S. J., ... Egger, M. (2009). Strengthening the reporting of observational studies in epidemiology (STROBE): Explanation and elaboration [Spanish]. *Gaceta Sanitaria*, 23, 158–186. <https://doi.org/10.1016/j.gaceta.2008.12.001>
- Varela-Centelles, P., Diz-Iglesias, P., Estany-Gestal, A., Blanco-Hortas, A., Bugarín-González, R., Seoane-Romero, J., & Blanco, J. (2019). Periodontal awareness and what it actually means. *Oral Diseases*, 25, 831–838. <https://doi.org/10.1111/odi.13026>
- Varela-Centelles, P., Diz-Iglesias, P., Estany-Gestal, A., Seoane-Romero, J. M., Bugarín-González, R., & Seoane, J. (2016). Periodontitis awareness amongst the general public: A critical systematic review to identify gaps of knowledge. *Journal of Periodontology*, 87, 403–415. <https://doi.org/10.1902/jop.2015.150458>
- Varela-Centelles, P., Diz-Iglesias, P., Estany-Gestal, A., Ulloa-Morales, Y., Bugarín-González, R., & Seoane-Romero, J. M. (2018). Primary care physicians and nurses: Targets for basic periodontal education. *Journal of Periodontology*, 89, 915–923. <https://doi.org/10.1002/JPER.17-0382>
- Varela-López, A., Giampieri, F., Bullón, P., Battino, M., & Quiles, J. L. (2016). A systematic review on the implication of minerals in the onset, severity and treatment of periodontal disease. *Molecules*, 21, 1183–1204. <https://doi.org/10.3390/molecules21091183>
- Venables, W. N., & Ripley, B. D. (2002). *Modern applied statistics with S*, 4th ed. New York: Springer.
- Volandes, A., & Paasche-Orlow, M. (2007). Health literacy, health inequality and a just healthcare system. *American Journal of Bioethics*, 7, 5–10. <https://doi.org/10.1080/15265160701638520>
- Watt, R. G. (2005). Strategies and approaches in oral disease prevention and health promotion. *Bulletin of the World Health Organization*, 83, 711–718. S0042-96862005000900018
- Watt, R. G., Fuller, S. S., Harnett, R., Treasure, E. T., & Stillman-Lowe, C. (2001). Oral health promotion evaluation – time for development. *Community Dentistry and Oral Epidemiology*, 29, 161–166. <https://doi.org/10.1034/j.1600-0528.2001.290301.x>
- Watt, R. G., Harnett, R., Daly, B., Fuller, S. S., Kay, E., Morgan, A., ... Treasure, E. T. (2006). Evaluating oral health promotion: Need for quality outcome measures. *Community Dentistry and Oral Epidemiology*, 34, 11–17. <https://doi.org/10.1111/j.1600-0528.2006.00257.x>
- Wehmeyer, M. M., Corwin, C. L., Guthmiller, J. M., & Lee, J. Y. (2014). The impact of oral health literacy on periodontal health status. *Journal of Public Health Dentistry*, 74, 80–87. <https://doi.org/10.1111/j.1752-7325.2012.00375.x>
- Werner, H., Hakeberg, M., Dahlström, L., Eriksson, M., Sjögren, P., Strandell, A., ... Wide Boman, U. (2016). Psychological interventions for poor oral health: A systematic review. *Journal of Dental Research*, 95, 506–514. <https://doi.org/10.1177/0022034516628506>
- Wilson, T. G. Jr, Hele, S., & Temple, R. (1993). The results of efforts to improve compliance with supportive periodontal treatment in a private practice. *Journal of Periodontology*, 64, 311–314. <https://doi.org/10.1902/jop.1993.64.4.311>
- World Health Organization (2013). *Oral health surveys. Basic methods*, 5th ed. Geneva, Switzerland: WHO Press.

How to cite this article: Varela-Centelles P, Diz-Iglesias P, Estany-Gestal A, Blanco-Hortas A, Bugarín-González R, Seoane-Romero JM. Regular dental attendance and periodontal health knowledge: A cross-sectional survey. *Oral Dis*. 2020;26:419–428. <https://doi.org/10.1111/odi.13243>