

# Evaluation of self-perception of awake bruxism in dentistry students – clinical case series

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mouthwash, absence of mechanical plaque control and absence of physical exercise. On the other hand, the degree of postoperative pain is dependent on factors such as age (with older patients experiencing less pain), smoking habits and smoking cessation (non-smoking patients or those who stopped the habit in the postoperative period showed less postoperative pain). The use of nonsteroidal anti-inflammatory drugs and its duration influence the postoperative pain.

**Discussion and conclusions:** Periodontal treatment often includes several surgical procedures, so a bad postoperative period may prevent the patient from continuing treatment, which may in some cases jeopardise the maintenance of teeth. Smoking habits have been shown to be the most prominent variable in postoperative pain. It is therefore extremely important to encourage patients to stop smoking or when it is not possible to interrupt during the postoperative period.

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## References

- [1] American Academy of Periodontology. Comprehensive periodontal therapy: a statement by the American Academy of Periodontology. *J Periodontol.* 2011;82(7):943–949.
- [2] Mei CC, Lee FY, Yeh HC. Assessment of pain perception following periodontal and implant surgeries. *J Clin Periodontol.* 2016;43(12):1151–1159.
- [3] Beaudette JR, Fritz PC, Sullivan PJ, et al. Investigation of factors that influence pain experienced and the use of pain medication following periodontal surgery. *J Clin Periodontol.* 2018;45(5):578–585.

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## Evaluation of self-perception of awake bruxism in dentistry students – clinical case series

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### ABSTRACT

**Introduction and Objectives:** Bruxism is a repetitive muscular activity of the masticatory muscles where there may, or may not, exist dental contact and, depending on the adaptability of the individuals may cause lesions in the stomatognathic apparatus [1]. It is now possible to use the Ecological Momentary Assessment (EMA), which involves carrying out a self-report questionnaire about Awake Bruxism (AB) at various times of the day, in a random order in the subject's environment through smartphones [2]. The main objective of this study was to analyse auto perception of AB through the use of EMA in dentistry students.

**Materials and Methods:** Ten ( $n = 10$ ) dentistry students of the Instituto Universitário Egas Moniz, in Almada, Portugal, with access to a smartphone, were invited to participate in this study. All the assumptions of the Helsinki Declaration have been fulfilled and an informed consent for clinical case of Clínica Dentária Egas Moniz approved by the ethic commission of Instituto Universitário Egas Moniz. Initially, it was requested the signature of the informed consent. Then, each student answered two questionnaires ( $T_0$ ): The first was a specific bruxism questionnaire and the second was the "General Anxiety Disorder-7" (GAD7) questionnaire [3]. Finally, after a slideshow presentation about the BruxApp®, each student downloaded this app to their smartphone. The students were asked to use the app for 7 days, answering to, at least, 12 random alerts that were sent randomly during the day. At the end of 7 days-period the students were asked to answer again to the same 2 questionnaires ( $T_1$ ).

**Results:** Unfortunately, we were not able to collect results from smartphones with the Android System® resulting in 5 dropouts. The results through the BruxApp® were: Relaxed: 74.1%; Teeth Contact: 15.52%; Teeth Clenching: 2.68%; Teeth grinding: 0%; Mandible Bracing: 7.62%. In what concerns the answers to the questionnaires: There was no major difference in GAD-7 questionnaire in  $T_0$  and  $T_1$  among students. Nevertheless, on the bruxism assessment questionnaires, in  $T_0$ , four ( $n = 4$ ) students did not have AB self-perception. However, in  $T_1$  all the students ( $n = 5$ ) referred an increased self-perception of AB after using BruxApp® for 7 days. In total, the prevalence of AB among students was 24.8%.

**Discussion and conclusions:** The total prevalence of AB (24.8%), was very similar to the study of Bracci [2]. Also, teeth contact was shown to be the most frequent habit in both studies [2]. We can conclude, that in our study, the smartphone application BruxApp® allowed patients to have more information about AB, likewise increasing self-perception and contributing to establish a clearer idea of bruxism as an epidemiology. Moreover, it is important to refer that, besides being a pilot study, the loss of half of the participants due to failures with the Android System®, this is a severe limitation of this study.

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## References

- [1] Serra-Negra JM, Dias RB, Rodrigues MJ, et al. Self-reported awake bruxism and chronotype profile: a multicenter study on Brazilian, Portuguese and Italian dental students. *Cranio®*. 2021;39(2):113–116.
- [2] Bracci A, Djukic G, Favero L, et al. Frequency of awake bruxism behaviours in the natural environment. A 7-day, multiple-point observation of real-time report in healthy young adults. *J Oral Rehabil*. 2018;45(6):423–429.
- [3] Schiffman E, Ohrbach R, Truelove E, et al. Diagnostic criteria for temporomandibular disorders (DC/TMD) for clinical and research applications: recommendations of the international RDC/TMD consortium network and orofacial pain special interest group. *J Oral Facial Pain Headache*. 2014;28(1):6–27.

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## Evaluation of the quality of life before and after rehabilitation with dental implants: a pilot study

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### ABSTRACT

**Introduction:** The World Health Organisation (WHO) defines quality of life as “an individual’s perception of their position (...) and in relation to their goals, expectations, standards and concerns” [1]. It is also known that dental implants restore function, aesthetics and phonetics, factors that, in turn, influence quality of life [2]. The Oral Health Impact Profile (OHIP) is used to assess oral health self-perception [3]. This pilot study was aimed to evaluate and compare the patient’s quality of life, before and after oral rehabilitation with dental implants.

**Materials and methods:** After study approval by the Ethics Committee of Egas Moniz, CRL, and following the informed consent, a validated Portuguese version of the OHIP, in its short-form (OHIP-14), was applied in order to allow the profiling of socio-demographic and oral health characteristics of the patients, as well as to measure their self-perception. Data analysis was performed by using descriptive and inferential statistics methodologies. In the later, a significance level of 5% was established.

**Results:** A total of 23 patients, from the Egas Moniz Dental Clinic (EMDC), designated for rehabilitation with dental implants, with a mean age of 51.9 ( $\pm 15.5$ ) years, were included in the study. The sample was characterised, predominantly, by females, married, with an active status and a higher level of education. From those, 14 patients were evaluated before and after rehabilitation with dental implants. The overall OHIP-14 mean score changed from 18.8 ( $\pm 11.0$ ) to 2.5 ( $\pm 2.1$ ). Before rehabilitation the highest OHIP-14 subscale score was the one related to the “psychological discomfort” domain. An improvement of the quality of life was observed not only for the overall OHIP-14 index score (median decreased from 16.5 to 2.0) but also for each of the OHIP domains: “functional limitation” (2.5–1.0,  $p = .012$ ), “physical pain” (3.5–0.0,  $p = .001$ ), “psychological discomfort” (5.0–0.5,  $p = .002$ ), “physical disability” (3.0–0.0,  $p = .003$ ), “psychological disability” (2.5–0.0,  $p = .002$ ), “social disability” (1.0–0.0,  $p = .006$ ) and “handicap” (1.0–0.0,  $p = .007$ ).

**Discussion and conclusions:** There were significant improvements on the patient’s quality of life through rehabilitation with dental implants, as noted by the decrease in measured self-perception scores before and after rehabilitation. The changes were identified for all of the seven OHIP-14 domain scores indicating an overall improvement in the patient’s quality of life.

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## References

- [1] Hubanks L, Kuyken W. Quality of life assessment: an annotated bibliography. Washington, D.C.: World Health Organization – Division of Mental Health; 1994.
- [2] Misch C. Contemporary implant dentistry. 3rd ed. Saint Louis (MO): Mosby Inc; 2007.
- [3] Gabardo MCL, Moysés ST, Moysés SJ. Autopercepção de saúde bucal conforme o Perfil de Impacto da Saúde Bucal (OHIP) e fatores associados: revisão sistemática. *Revista Panamericana de Salud Publica*. 2013;33(6):439–445.

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