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CENTRO DENTAL INTEGRAL

09
Medicina del Trabajo

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Dr. Francisco Torres Lear

La trayectoria del Dr. Torres Lear es la historia de un descubrimiento vocacional inesperado. Aunque se licenció en Medicina con la firme intención de ser cardiólogo, el destino intervino mientras preparaba el MIR: aprobó el acceso a Odontología y lo que comenzó como un paso intermedio se transformó en su verdadera pasión. En la estomatología descubrió un "trabajo artesano de la salud" que le cautivó por completo, haciéndole comprender que había nacido para esta profesión.

Su enfoque va más allá de lo clínico; su mayor satisfacción reside en mejorar la autoestima, el bienestar y la calidad de vida de sus pacientes. Defensor acérrimo de la prevención y la higiene diaria, el Dr. Torres lidera el Centro Dental Torres bajo una premisa clara: para conseguir la felicidad del paciente, primero hay que cuidar a las personas que trabajan en la clínica, dotándolas de los mejores medios en una organización sólida y humana.

Titulación

Licenciao en Medicina y Cirugía. Universidad de Zaragoza
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Publicaciones y actividad investigadora

Publicación de dos libros y colaboración en otros ocho con capítulos de distintos temas de la especialidad
Quince artículos en revistas científicas
Cuatro proyectos de investigación en distintos temas de la especialidad

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Referencias científicas

Referencias científicas

Aldosari M, Mendes SDR, Aldosari A, Aldosari A, de Abreu MHNG. Factors associated with oral pain and oral health-related productivity loss in the USA, National Health and Nutrition Examination Surveys (NHANES), 2015-2018. PLoS One. 2021 Oct 11;16(10):e0258268. doi: 10.1371/journal.pone.0258268. PMID: 34634083; PMCID: PMC8504739.

ABSTRACT

Background: Our aim was to identify clinical and sociodemographic factors associated with oral pain and oral health-related productivity loss among US adults.

Methods: We included adults aged ≥30 years who completed the dental examination, had at least one natural tooth, and provided an answer about their oral pain experience or oral health-related productivity loss in the 2015-2018 National Health and Nutrition and Examination Survey (NHANES). We performed descriptive analyses and multivariable binary logistic regression analyses on weighted data.

Results: One out of four adults had oral pain and 4% reported oral health-related productivity loss occasionally or often within the last year of the survey. The odds of oral pain were higher among non-Hispanic black (OR = 1.35; 95%CI = 1.08-1.62) and non-Hispanic Asian individuals (OR = 1.38; 95%CI = 1.07-1.78) compared to non-Hispanic white individuals, and individuals with untreated dental caries (OR = 2.06; 95%CI = 1.72-2.47). The odds for oral health-related productivity loss were 13.85 times higher among individuals who reported oral pain (95%CI = 8.07-23.77), and 2.18 times higher among individuals with untreated dental caries (95%CI = 1.65-2.89). The odds of oral pain and reported oral health-related productivity loss decreased as family income increased.

Conclusions: Factors including non-Hispanic black race/ethnicity, lower socio-economic status, and untreated dental caries are associated with oral pain experience, which increases the odds of oral health-related productivity losses. Identifying factors associated with oral pain and productivity loss will enable clinicians, policymakers, and employers to proactively target and prioritize the higher-risk groups in early interventions and policies.

Arévalo-Caro C, López D, Sánchez Milán JA, Lorca C, Mulet M, Arboleda H, Losada Amaya S, Serra A, Gallart-Palau X. Periodontal Indices as Predictors of Cognitive Decline: Insights from the PerioMind Colombia Cohort. Biomedicines. 2025 Jan 15;13(1):205. doi: 10.3390/biomedicines13010205. PMID: 39857789; PMCID: PMC11760870.

ABSTRACT

Background: Poor oral health and periodontitis have been epidemiologically linked to cognitive decline and mild cognitive impairment (MCI) in older adults. However, specific metrics directly linking these clinical signs are exceedingly limited.

Methods: To address this gap and develop novel tools to help clinicians identify individuals at risk of cognitive decline, we established the PerioMind Colombia Cohort, comprising elderly Colombian subjects who underwent comprehensive neurocognitive and periodontal evaluations.

Results: The results revealed that subjects diagnosed with MCI exhibited significantly higher scores in specific periodontal indices, including gingival erythema and pocket depth parameters. The predictive model identified positive associations with MCI, with gingival erythema showing the strongest correlation, followed by the presence of periodontitis and variations in pocket depth measurements. Additionally, lower educational attainment was associated with a higher likelihood of being classified in the periodontitis-MCI group.

Conclusions: Here, we show that specific altered periodontal metrics are associated with MCI diagnosis, and the generated results provide defined metric ranges for identifying individuals at risk. Upon validation in larger cohorts, the findings reported here could offer dental practitioners and clinicians innovative tools to identify individuals at risk of MCI and age-related dementias through routine oral health assessments, thereby enabling more accessible and highly sought-after early intervention strategies in both developing and developed countries.

Baek SU, Yoon JH, Lee YM, Won JU. Long working hours and preventive oral health behaviors: a nationwide study in Korea (2007-2021). Environ Health Prev Med. 2024;29:48. doi: 10.1265/ehpm.24-00102. PMID: 39261084; PMCID: PMC11413638.

ABSTRACT

Background: This study explored the association between working hours and preventive oral health behaviors.

Methods: In total, 48,599 workers (22,992 females) were included from the Korea National Health and Nutrition Examination Survey (2007-2021). Weekly working hours were self-reported. The following three preventive oral health behaviors were set as outcomes: participation in annual dental check-ups; adherence to the recommended toothbrushing frequency (≥twice a day); and use of interdental cleaning devices. We estimated odds ratios (ORs) and 95% confidence intervals (CIs) using logistic regression.

Results: In male workers, the adjusted OR (95% CI) of the association between working ≥55 h/week and each outcome was 0.84 (0.77-0.92) for dental check-ups, 0.82 (0.72-0.94) for toothbrushing ≥twice a day, and 0.83 (0.76-0.92) for utilization of interdental cleaning device when compared to 35-40 h/week. In female workers, the adjusted OR (95% CI) of the association between working ≥55 h/week and each outcome was 0.79 (0.70-0.89) for dental check-ups, 0.88 (0.70-1.11) for toothbrushing ≥twice a day, and 0.80 (0.71-0.90) for utilization of interdental cleaning device when compared to 35-40 h/week. Additionally, low socio-economic status, such as low educational attainment, low income level, and blue-collar occupations, were major risk factors associated with non-adherence to preventive oral health behaviors in both male and female workers.

Conclusions: Our study suggests that individuals who work long hours are more likely to exhibit undesirable oral health behaviors.

Bakri NN, Ferguson CA, Majeed S, Thomson WM, Oda K, Bartlett S, Broadbent JM, Smith MB. Workplace oral health promotion activities among community-aged care workers: A qualitative exploration. Community Dent Oral Epidemiol. 2024 Aug;52(4):389-397. doi: 10.1111/cdoe.12924. Epub 2023 Nov 10. PMID: 37950336.

ABSTRACT

Background: The workplace is an ideal-and priority-setting for health promotion activities. Developing and implementing workplace health promotion interventions, including oral health promotion activities, can help create health-supporting workplace environments.

Objective: To pilot workplace oral health promotion activities among staff working in the aged care sector, report their impact and explore participants' views on the factors that contribute to participation and effectiveness.

Methods: This study comprised three phases: (i) the development and face validation of the resources, (ii) a 3-h educational session and (iii) five interview sessions with participants 4-6 weeks following the education session. The recorded interviews were transcribed verbatim and analysed thematically.

Results: Eleven community-aged care workforce were invited to five feedback sessions. Ten participants were female and ranged in age from 18 to 64. All participants gave favourable comments about the content and delivery of the training session and accompanying resources. The participants felt that the benefits of WOHP include improved staff knowledge, awareness and oral care routine, the ability to share (and put into practice) the gained knowledge and information with their dependants, a lower risk of having poor oral health that adversely affects their well-being and work tasks, and potentially beneficial impacts on the organization's staff roster. Their attendance in the WOHP was facilitated by being paid to attend and scheduling the sessions during work time. Future WOHP suggestions include the possibility of a one-stop dental check-up at the workplace or staff dental care discounts from local dental practitioners and combining oral health with other health promotion activities.

Conclusions: Planning and implementing WOHP was deemed acceptable and feasible in this study context and successfully achieved short-term impacts among community-aged care workers. Appropriate times and locations, organizational arrangements and a variety of delivery options contributed to successful programme planning and implementation.

Bakri NN, Thomson WM, Broadbent JM, Smith MB. Key informants' views on the benefits, planning and implementation of workplace oral health promotion programme. Health Promot Int. 2025 Jan 17;40(1):daae198. doi: 10.1093/heapro/daae198. PMID: 39883052; PMCID: PMC11781207.

ABSTRACT

This study aimed to explore key informants' views on the potential benefits of workplace oral health promotion (WOHP) among the aged care workforce and identified factors associated with the planning and implementation of such activities. The study interviewed members of key organizations associated with the aged care workforce, including oral health and health professionals, government and non-governmental organizations, aged care providers, unions and other worker support organizations in semi-structured interviews. Interviews were audio-recorded, transcribed verbatim and analysed thematically. Fourteen (of 17 invited) key informants participated. Promoting oral health among those working in the aged care sector is perceived to have advantages for staff oral health and psychological and mental well-being, and potentially has a 'flow-on effect' on the organization's productivity, operation and human and financial resources. Six factors that can act as facilitators or barriers to WOHP planning and implementation were identified: (i) organization structure, needs, priorities, and higher management contribution; (ii) resources (funding, facilities, human and time capacity); (iii) collaborators; (iv) individual or target audience; (v) communication; and (vi) sustainability of the programme. The study concluded that WOHP in the aged care sector is possible and likely has benefits for staff and the organizations involved. Consideration should be given to identifying and addressing the factors that influence the development and implementation of WOHP programmes. Good organization, support of management, availability of funding, support from collaborators and consideration of individual needs are needed to have a successful, sustainable WOHP programme that meets the needs of the aged care workforce.

Bakri NN, Smith MB, Broadbent JM, Thomson WM. Oral health promotion activities in the workplace: a scoping review. Health Promot Int. 2023 Jun 1;38(3):daac039. doi: 10.1093/heapro/daac039. PMID: 35425975.

ABSTRACT

There is limited literature and no reviews on oral health promotion activities in the workplace to guide planning and practice. This review summarizes evidence about oral health promotion activities in the workplace (nature and extent), its impact and the factors that facilitate or act as barriers to implementation. Using the PRISMA-ScR guidelines, scientific articles written in English and published in peer-reviewed journals up to April 2021, from six databases (Medline, PubMed, CINAHL, Scopus, EMBASE and Emcare) were screened and selected. The full texts of 95 articles were then considered; 21 articles met the inclusion criteria of using oral health status or oral health predisposing factors as primary outcome after an intervention in the workplace. Almost all included articles took a quantitative approach (n = 18), two used a qualitative design and another used a mixed-method approach. The most common activities were personalized or group oral health education interventions and oral health screenings conducted by a dental professional. Two studies reported the cost-benefit of workplace oral health promotion (WOHP). The literature indicated that WOHP interventions can be successful in achieving improvements in oral health, measured using a range of clinical (plaque accumulation, gingival inflammation, periodontal inflammation) and self-rated oral health indicators. Based on the limited literature available, WOHP may have benefits for employee oral health and employers, and the support of managers and organizations potentially improves the success of programmes. The workplace would appear to be an ideal setting to promote oral health. However, there is limited information to guide oral health promotion planning and implementation, and policy.

Bakri NN, Smith MB, Broadbent JM, Thomson WM. Conceptualising a theoretical framework for planning and evaluating workplace oral health promotion programs. Health Promot J Austr. 2024 Oct;35(4):1053-1059. doi: 10.1002/hpja.834. Epub 2023 Dec 12. PMID: 38086532.

ABSTRACT

Issued addressed: Workplaces have considerable potential for enhancing personal resources and providing a supportive working environment for staff health, including oral health and well-being. To date, assessments of workplace oral health promotion (WOHP) activities have observed benefits ranging from self-reported oral health to clinical parameters. However, previous WOHP actions were not based on a theoretical framework and did not consider the working environment as part of the planning and evaluation process.

Methods: This article used evidence-based health promotion theoretical frameworks, and associated facilitators and barriers, in constructing an integrated and theoretically robust approach to planning and evaluating oral health promotion activities in the workplace.

Results: The PRECEDE-PROCEED Model for planning and evaluation, the reach effectiveness adoption implementation maintenance, and the Salutogenic Model of Health were chosen to complement each other in the planning and evaluation process, based on their different features and the applicability of those features to the workplace setting. Because of the limited literature in this area, the current article also used evidence from oral health promotion in other settings (including schools and the community) and general health promotion in the workplace to construct a theoretical framework for planning and evaluating WOHP activities.

Conclusions: The theoretical framework developed could assist in planning or improving existing workplace health promotion programs that focus on or incorporate oral health elements. SO WHAT?: Future research on applying and adapting the proposed framework is required.

Balice G, Paolantonio M, Murmura G, Serroni M, Di Gregorio S, Femminella B. The Influence of Diet and Physical Activity on Periodontal Health: A Narrative Review. Dent J (Basel). 2025 Apr 30;13(5):200. doi: 10.3390/dj13050200. PMID: 40422620; PMCID: PMC12110135.

ABSTRACT

Periodontal diseases, including gingivitis and periodontitis, are chronic inflammatory conditions that compromise the supporting structures of the teeth, often leading to tooth loss and contributing to systemic comorbidities. Increasing evidence underscores the critical role of modifiable lifestyle factors, particularly diet and physical activity, in influencing periodontal health. This narrative review critically evaluates the current body of literature regarding the impact of dietary constituents and physical activity on the periodontium, with a focus on the molecular mechanisms, key biomarkers, and clinical implications. It aims to provide a deeper understanding of the complex interactions between nutrition, exercise, and periodontal health with potential implications for clinical management and preventive strategies.

Bhattacharjee T, Mukherjee K, Dash KC, Gangopadhyay S. Habit-induced oral lesions in different occupations: A comparative study among people between geographical different places of West Bengal. J Family Med Prim Care. 2025 Jan;14(1):218-225. doi: 10.4103/jfmpc.jfmpc_1051_24. Epub 2025 Jan 13. PMID: 39989574; PMCID: PMC11845002.

ABSTRACT

Introduction: Like general health, oral health also depends upon their occupational environment and occupational health policies. Workplace exposure to environmental tobacco smoke and its harmful effect is well known. The consumption of tobacco, arecanut, and alcohol is the leading preventable cause for development of oral potentially malignant disorders.

Aim: To determine prevalence of habit-induced oral lesions in different occupations in different geographical places of West Bengal and compare among them.

Method: A total of 841 people aged 15 years and above were selected from different parts of West Bengal. Face-to-face interview was conducted using a structured questionnaire, and oral cavity examination was done in daylight. Data were summarized, and statistical analysis was done.

Statistical analysis used: Chi-square test and univariate logistic regression done.

Results: The people in armed forces had cancer-causing habits most, and managers had cancer-causing habits least. People in armed forces had cancer-causing habits most, and people with Group-1 occupation/managers had cancer-causing habits least.

Brahmbhatt Y, Alqaderi H, Chinipardaz Z. Association Between Severe Periodontitis and Cognitive Decline in Older Adults. Life (Basel). 2024 Dec 3;14(12):1589. doi: 10.3390/life14121589. PMID: 39768299; PMCID: PMC11678878.

ABSTRACT

(1) **Background:** Periodontal disease, a progressive inflammatory condition, disrupts the oral microbiome and releases inflammatory cytokines, leading to systemic issues, including cognitive decline. This study investigates the association between severe periodontitis and cognitive decline, exploring the role of alkaline phosphatase (ALP), an enzyme linked to systemic inflammation, as an effect modifier.

(2) **Methods:** We analyzed cross-sectional data from the 2013-2014 National Health and Nutrition Examination Survey (NHANES). Severe periodontitis was defined using the Centers for Disease Control and Prevention (CDC) and the American Academy of Pediatrics (AAP) case definition. A weighted multivariable logistic regression model assessed the association between severe periodontitis and cognitive decline. An interaction term examined ALP's role as an effect modifier.

(3) **Results:** This study included 1265 participants aged 65 and older. After adjusting for confounders, each one-point increase in cognitive function score was associated with a 2% decrease in the odds of severe periodontitis (OR = 0.98; 95% CI = 0.97-0.99; p = 0.008). ALP was a significant effect modifier in the relationship between severe periodontitis and cognitive decline.

(4) **Conclusions:** This study, using a representative U.S. adult population aged 65 and over, suggests that lower cognitive performance correlates with higher likelihood of severe periodontitis. ALP enhances the association between severe periodontitis and cognitive decline.

Cao H, Wang M, Duan M, Wang S, Zhang H. Association of serum calcium level with periodontitis: a cross-sectional study from NHANES 2009-2014. Front Nutr. 2025 Jan 7;11:1520639. doi: 10.3389/fnut.2024.1520639. PMID: 39839273; PMCID: PMC11747520.

ABSTRACT

Purpose: This study aimed to investigate the association between serum calcium levels and periodontitis in a U.S. adult population, using data from the National Health and Nutrition Examination Survey (NHANES) 2009-2014.

Method: Data were analyzed from 8,601 participants aged over 30 years, who were categorized based on the presence or absence of periodontitis. Serum calcium levels were measured using standardized NHANES protocols, and periodontitis status was determined through clinical oral examinations. To assess the relationship between calcium levels and periodontitis, multivariate logistic regression models were applied across three levels of adjustment. Additionally, trend tests and subgroup analyses were conducted to explore associations across different demographic and clinical subgroups. A smoothing curve fitting and threshold effect analysis were also performed to examine potential nonlinear relationships.

Results: After adjusting multiple covariates, participants in the highest quartile of serum calcium showed an 18% reduced risk of periodontitis compared to those in the lowest quartile (OR = 0.82, 95% CI: 0.71-0.95, p = 0.0083; p for trend = 0.0057). The association remained stable across various subgroups. Smoothing curve fitting indicated a nonlinear negative correlation between calcium levels and periodontitis, though without a significant inflection point at 2.48 mmol/L (p = 0.094).

Conclusion: Elevated serum calcium levels appear to be associated with a lower risk of periodontitis in adults. These findings suggest that adequate calcium intake may play a role in periodontitis prevention, providing valuable insight for clinical guidance on nutritional and preventive strategies in periodontal health.

Chan CCK, Chan AKY, Chu CH, Tsang YC. Physical activity as a modifiable risk factor for periodontal disease. Front Oral Health. 2023 Nov 13;4:1266462. doi: 10.3389/froh.2023.1266462. PMID: 38024148; PMCID: PMC10679732.

ABSTRACT

Non-communicable diseases (NCDs), which contribute significantly to global morbidity, are largely preventable through behavioral changes. As with other NCDs, periodontitis is associated with modifiable risk factors such as smoking and stress and is linked to multiple adverse health outcomes through a shared pathway of chronic systemic inflammation. While the health benefits of physical activity have been widely promoted in public health and extensively studied for other systemic conditions, its impact on periodontal health has only recently started to gain attention. This article critically evaluates the current literature on the relationship between physical activity and periodontitis. While cross-sectional studies have shown an inverse association between physical activity levels and periodontitis risk in the general population, clinical oral health surveys of elite athletes with high levels of physical activity have nonetheless revealed poor periodontal conditions. Although causality has not been determined, physical activity could positively impact periodontitis directly, by reducing inflammatory biomarkers, and indirectly, through its modulatory effects on insulin sensitivity, obesity, bone density, stress, and other health promoting behaviors. Given the importance of risk factor control during initial periodontal therapy, understanding the role of physical activity as a potential behavioral risk modifier is paramount. The findings of this review provide an evidence-based overview of how physical activity could influence periodontitis. There is a need for longitudinal cohort studies to verify the temporality of the reported associations and exclude confounders, while interventions are needed to assess the efficacy of physical activity on periodontal treatment outcomes.

Chen J. Development of a machine learning model related to explore the association between heavy metal exposure and alveolar bone loss among US adults utilizing SHAP: a study based on NHANES 2015-2018. BMC Public Health. 2025 Feb 4;25(1):455. doi: 10.1186/s12889-025-21658-y. PMID: 39905341; PMCID: PMC11796195.

ABSTRACT

Background: Alveolar bone loss (ABL) is common in modern society. Heavy metal exposure is usually considered to be a risk factor for ABL. Some studies revealed a positive trend found between urinary heavy metals and periodontitis using multiple logistic regression and Bayesian kernel machine regression. Overfitting using kernel function, long calculation period, the definition of prior distribution and lack of rank of heavy metal will affect the performance of the statistical model. Optimal model on this topic still remains controversy. This study aimed: (1) to develop an algorithm for exploring the association between heavy metal exposure and ABL; (2) filter the actual causal variables and investigate how heavy metals were associated with ABL; and (3) identify the potential risk factors for ABL.

Methods: Data were collected from National Health and Nutrition Examination Survey (NHANES) between 2015 and 2018 to develop a machine learning (ML) model. Feature selection was performed using the Least Absolute Shrinkage and Selection Operator (LASSO) regression with 10-fold cross-validation. The selected data were balanced using the Synthetic Minority Oversampling Technique (SMOTE) and divided into a training set and testing set at a 3:1 ratio. Logistic Regression (LR), Support Vector Machines (SVM), Random Forest (RF), K-Nearest Neighbor (KNN), Decision Tree (DT), and XGboost were used to construct the ML model. Accuracy, Area Under the Receiver Operating Characteristic Curve (AUC), Precision, Recall, and F1 score were used to select the optimal model for further analysis. The contribution of the variables to the ML model was explained using the Shapley Additive Explanations (SHAP) method.

Results: RF showed the best performance in exploring the association between heavy metal exposure and ABL, with an AUC (0.88), accuracy (0.78), precision (0.76), recall (0.83), and F1 score (0.79). Age was the most important factor in the ML model (mean| SHAP value| = 0.09), and Cd was the primary contributor. Sex had little effect on the ML model contribution.

Conclusion: In this study, RF showed superior performance compared with the other five algorithms. Among the 12 heavy metals, Cd was the most important factor in the ML model. The relationship of Co & Pb and ABL are weaker than that of Cd. Among all the independent variables, age was considered the most important factor for this model. As for PIR, low-income participants present association with ABL.

Mexican American and Non-Hispanic White show low association with ABL compared to Non-Hispanic Black and other races. Gender feature demonstrates a weak association with ABL. In the future, more advanced algorithms should be developed to validate these results and related parameters can be tuned to improve the accuracy of the model.

Han DH, Kim MS. Are occupational and environmental noises associated with periodontitis? Evidence from a Korean representative cross-sectional study. BMC Public Health. 2021 Mar 29;21(1):616. doi: 10.1186/s12889-021-10672-5. PMID: 33781265; PMCID: PMC8008658.

ABSTRACT

Background: Evidences have shown that noise could be a risk factor for cardiovascular and metabolic diseases. Since periodontitis and CVD are characterized by inflammation, it is reasonable to doubt that occupational/environmental noise is a risk factor for periodontitis. The aim of this study was to examine the relationship between occupational/environmental noise and periodontitis in a nationally representative sample of Korean adults.

Methods: This cross-sectional study used data from the 7th Korean National Health and Nutrition Examination Survey. The study sample included 8327 adults aged 40 to 80 years old. Noise exposure and the duration of the exposure were assessed with self-report questionnaires. The dependent variable was periodontitis. Age, gender, place of residence, income, marital status, smoking, frequency of daily tooth brushing, recent dental checkup, and diabetes were included as covariates. Logistic regression analyses estimated the association between noise exposure and periodontitis.

Results: Those who were exposed to environmental noise during their lifetime had an increased prevalence of severe periodontitis (odds ratio [OR] 1.88; 95% confidence interval [CI] 1.05 to 3.40), and this association was strengthened as the duration of the environmental noise exposure was longer (OR of > 120 months 2.35 and OR of ≤120 months 1.49). There was a combined relationship for severe periodontitis between occupational and environmental noise exposure (OR of both exposures 2.62, OR of occupational exposure only 1.12, and OR of environmental exposure only 1.57).

Conclusion: Our study shows that noise exposure is associated with periodontitis, and the association was higher in the synergism between occupational and environmental interaction.

Harada Y, Takeuchi K, Furuta M, Tanaka A, Tanaka S, Wada N, Yamashita Y. Gender-dependent associations between occupational status and untreated caries in Japanese adults. Ind Health. 2018 Nov 21;56(6):539-544. doi: 10.2486/indhealth.2018-0062. Epub 2018 Jun 21. PMID: 29925703; PMCID: PMC6258743.

ABSTRACT

The aim of this study was to examine whether the presence of untreated caries is different across occupational status among Japanese adults. This was a cross-sectional survey of 1,342 individuals (990 males and 352 females) aged 40-64 yr who underwent medical and dental checkups at a healthcare center in 2011. Oral examination was performed by a dentist and the presence of untreated caries was defined as having at least one untreated decayed tooth. Data regarding current occupational status were obtained using a self-administered questionnaire; the participants were classified into five groups: professionals and managers, clerical and related workers, service and salespersons, agricultural, forestry, and fishery workers, and homemakers and unemployed. Gender-specific odds ratios (ORs) and 95% confidence intervals (CIs) of occupational status for the presence of untreated caries were estimated using logistic regression. After adjusting for potential confounders, female professionals and managers (OR=3.51, 95% CI=1.04-11.87) and service and salespersons (OR=5.29, 95% CI=1.39-20.11) had greater risks of the presence of untreated caries than female homemakers and unemployed. However, this tendency was not observed among males. In conclusion, there was a significant difference in risk of the presence of untreated caries by occupational status among females.

Irie K, Tsuneishi M, Saijo M, Suzuki C, Yamamoto T. Occupational Difference in Oral Health Status and Behaviors in Japanese Workers: A Literature Review. Int J Environ Res Public Health. 2022 Jul 1;19(13):8081. doi: 10.3390/ijerph19138081. PMID: 35805739; PMCID: PMC9265852.

ABSTRACT

The occupational environment is an important factor for oral health because people spend a long time in the workplace throughout their lives and are affected by work-related stress and occupational health policies. This study aimed to review evidence for the association between occupation and oral health status and behaviors. A literature search of PubMed was conducted from February to May 2022, as well as a manual search analyzing the article origins. Articles were screened and considered eligible if they met the following criteria: (1) published in English; (2) epidemiological studies on humans; and (3) examined the association between occupation and oral health status and behaviors. All 23 articles identified met the eligibility criteria. After full-text assessments, ten articles from Japan were included in this review: four on the association between occupation and dental caries, three on occupation and periodontal disease, two on occupation and tooth loss, and one on occupation and oral health behaviors. An association was apparent between occupation, oral health status and behaviors among Japanese workers. In particular, skilled workers, salespersons, and drivers who work longer hours and often on nightshifts, tended to have poor oral health.

Ju X, Harford J, Luzzi L, Jamieson LM. Prevalence, extent, and severity of periodontitis among Australian older adults: Comparison of two generations. J Periodontol. 2022 Sep;93(9):1387-1400. doi: 10.1002/JPER.21-0458. Epub 2022 Jan 31. PMID: 34957563; PMCID: PMC9786236.

ABSTRACT

Background: Chronic periodontitis is highly prevalent among older adults. The study aimed to compare periodontal disease among Australian older adults in two generations. We hypothesized that the prevalence and severity of periodontitis would decrease from the previous generation to the recent generation.

Methods: Data were obtained from the South Australian Dental Longitudinal Study (SADLS) in 1991 to 1992 (SADLS I) and 2013 to 2014 (SADLS II); population-based longitudinal surveys of Australian older adults aged ≥60 years. American Academy of Periodontology, the US Centers for Disease Control and Prevention

(AAP/CDC), and the 2018 European Federation of Periodontology (EFP/AAP) classification case definitions were used to define and calculate prevalence of chronic periodontitis. Multivariable log-Poisson regression models were used to identify risk indicators for severe periodontitis after adjusting for other covariates.

Results: There were a total of 801 and 355 participants that underwent a periodontal exam in SADLS I and II, respectively. The prevalence of severe periodontitis was higher in the recent generation (88% and 56%) than the previous generation (75% and 46.7%) under the CDC/AAP and EFP/AAP case definitions, respectively. The mean number of missing teeth was lower in the recent generation (6) than the previous generation (13). The prevalence ratio of severe periodontitis was around two times higher in the younger age group, men, those not born in Australia, and current smokers across both generations.

Conclusions: Our findings indicated that the recent generation of older adults has higher prevalence and severity of chronic periodontitis than the previous generation. Our findings indicated that aging, being male, born overseas, low household income, no dental insurance, and being a current smoker are significant risk factors associated with severe periodontitis among older Australians.

Jung SK, Lim HK, Jeong Y, Lee SJ, Park JS, Song IS. Influence of shift work on periodontitis according to the occupation group. Sci Rep. 2023 Oct 20;13(1):17921. doi: 10.1038/s41598-023-45222-z. PMID: 37863993; PMCID: PMC10589210.

ABSTRACT

This study aimed to investigate the effects of shift work on periodontal disease in blue-and white-collar workers and to examine the interaction effects between occupation and work patterns. Data were collected from the Korea National Health and Nutrition Examination Survey conducted by the Korean Ministry of Health and Welfare for a total of nine years from 2007 to 2015. Participants with missing outcome variables were excluded from the analysis and a total of 32,336 participants were included in the final analysis. Univariable odds ratios (OR) were calculated using a logistic regression model with 95% confidence interval (CI). A multivariable logistic regression analysis was performed using the backward elimination method. The CONTRAST statement was used to analyze the interaction effect between occupation and work patterns. Multivariable logistic regression analysis revealed that interaction effects are present between the terms, occupational type and work pattern. Crude OR of shift work for periodontitis was 1.269 [CI 1.213-1.327, P < 0.05]. However, following adjustment for multiple confounding factors and the interaction effect term considered, this OR (1.269) increased to 1.381 [CI 1.253-1.523] in white-collar group while it decreased to 1.198 [1.119-1.283] in blue-collar. Crude OR of blue-collar (OR = 3.123, CI 2.972-3.281, P < 0.05) decreased to 1.151 [CI 1.049-1.262] when interaction effect to the shift work was considered. Shift work pattern increases the risk for periodontitis and this adverse effect is greater when white-collar workers are engaged comparing to blue-collar. The result of this study suggests that 24/7 lifestyle of the modern society poses health risks to the relevant people and the potential harm can be greater to white-collar workers.

Lima RB, Buarque A. Oral health in the context of prevention of absenteeism and presenteeism in the workplace. Rev Bras Med Trab. 2019 Dec 1;17(4):594-604. doi: 10.5327/Z1679443520190397. PMID: 32685760; PMCID: PMC7363255.

ABSTRACT IN ENGLISH, PORTUGUESE

Background: Oral health is an important factor of human morbidity worldwide. Yet is often neglected in occupational health despite its direct impact on the quality of life and health of workers.

Objective: To discuss the role of oral health in sickness absence and presenteeism, as well as in development and work efficiency improvement processes involving governments, companies and the workers themselves.

Methods: Review of full-text articles on oral health, occupational health, sickness absence and presenteeism published in English or Portuguese in the last 10 years and included in scientific databases.

Results: Oral problems accounted for 9 to 27% cases of sickness absence and 28 to 50% of presenteeism, with toothache and temporomandibular joint pain as the most frequent reasons. About 50% of workers prefer company-provided dental care, while 40% visit public and 10% other types of facilities. Despite high, the prevalence of oral diseases and orofacial pain was not associated with high rates of absenteeism, but mainly with presenteeism, this is to say, workers do not tend to miss work days, but their performance is reduced and become susceptible to more serious health problems in the future.

Conclusion: Oral health is not dissociated from general and occupational health, and as such it must be enhanced and duly promoted in an integrated manner. Effective and comprehensive oral health promotion and prevention public policies and private sector actions in the workplace can enhance the quality of life of workers.

Mahmood AA, Al-Obadi HOM, Hussein HM. Effect of Occupational Stress on Periodontitis According to the Salivary RANKL Level Among Iraqi Employees. Clin Cosmet Investig Dent. 2024 Mar 12;16:53-60. doi: 10.2147/CCIDE.S455831. PMID: 38500517; PMCID: PMC10944974.

ABSTRACT

Background: Findings show that periodontitis does not affect all populations; similarly, some individuals present risk conditions such as occupational stress, making them more susceptible to developing periodontitis through unhealthy habits like poor oral hygiene and immune suppression. Periodontitis triggers an inflammatory host immune response; "Receptor Activator Nuclear Factor KB ligand (RANKL)" is the primary regulator of osteoclast differentiation and activity. It was found that osteoclastic bone damage caused by periodontitis depends on the RANKL produced by osteoblastic and periodontal ligament cells.

Objective: This study aimed to assess the effect of occupational stress on employees with periodontitis using salivary RANKL marker.

Material and Methods: A case-control analysis was done at my clinic with 90 male employees aged 30-50. The participants completed self-administered questionnaires and had periodontal exams. Employee occupational stress was estimated using a life events scale questionnaire. Calibrated dentists performed the parameters used in the periodontal assessment after collecting whole unstimulated salivary samples from each employee to measure salivary RANKL using ELISA technique.

Results: The present finding revealed a statistically significant difference among groups in "probing pocket depth, plaque index, bleeding on probing, clinical attachment level, and salivary RANKL level". They were higher in the stressed employees' group, which is not statistically significant.

Conclusion: The findings of this investigation observed that occupational stress increased clinical periodontal parameters and salivary RANKL of periodontitis in employees.

Marruganti C, Baima G, Grandini S, Graziani F, Aimetti M, Sanz M, Romandini M. Leisure-time and occupational physical activity demonstrate divergent associations with periodontitis: A population-based study. J Clin Periodontol. 2023 May;50(5):559-570. doi: 10.1111/jcpe.13766. Epub 2023 Jan 22. PMID: 36592958.

ABSTRACT

Aim: To evaluate the association between leisure-time/occupational physical activity (LTPA/OPA) and periodontitis in a nationally representative sample of the U.S.

Materials and Methods: Data from 10,679 adults were retrieved from NHANES 2009-2014 database. Physical activity was assessed through the Global Physical Activity Questionnaire, and accordingly, subjects were classified as performing either high or low LTPA/OPA. Periodontal status was assessed through a full-mouth periodontal examination, and subjects were classified according to the AAP/CDC criteria (no, mild, moderate, or severe periodontitis). Simple and multiple regression analyses were applied to study the association between LTPA/OPA and periodontitis/severe periodontitis.

Results: Multiple regression analyses identified high LTPA as a protective indicator for periodontitis (odds ratio [OR] = 0.81; 95% confidence interval [CI]: 0.72-0.92), while high OPA was found to be a significant risk indicator (OR = 1.16; 95% CI: 1.04-1.30). The combination low LTPA/high OPA showed a cumulative independent association with periodontitis (OR = 1.47; 95% CI: 1.26-1.72). Moreover, both high LTPA (OR = 0.72; 95% CI: 0.58-0.90) and high OPA (OR = 1.29; 95% CI: 1.09-1.53) were significantly associated with stronger estimates of severe periodontitis; the same was observed for the combination of low LTPA/high OPA (OR = 1.66; 95% CI: 1.29-2.15).

Conclusions: LTPA and OPA showed divergent associations with periodontitis.

Moodley R, Naidoo S, Wyk JV. The prevalence of occupational health-related problems in dentistry: A review of the literature. J Occup Health. 2018 Mar 27;60(2):111-125. doi: 10.1539/joh.17-0188-RA. Epub 2017 Dec 6. PMID: 29213011; PMCID: PMC5886878.

ABSTRACT

The study was conducted to report on the scope and prevalence of occupational health related-problems experienced by dentists, dental therapists, and oral hygienists in their practice of dentistry.

Background: Professional practice and dental training have many risk factors, and the dental team should be able to recognize these factors to protect themselves. The prevalence of conditions related to the musculoskeletal system, stress, percutaneous injuries, ears, and eyes are of concern. The dental team should also not forget hepatitis B, hepatitis C, and HIV as risks in practice. Dental practitioners should protect themselves by self-recognizing risk factors and by maintaining proper working conditions.

Methods: The study targeted all empirical research, case studies, and systematic literature reviews written in English. All articles selected were subjected to a data analysis process. Data were captured on an Excel spreadsheet and reported in a comprehensive table.

Results: The literature addressing occupational health among dental practitioners included mainly cross-sectional studies and review papers (2001-2016). Forty-nine studies were included in the review. Musculoskeletal disorders remain the most researched occupational health-related problems in dentistry. Eye protection compliance was low among practitioners. Percutaneous injuries especially among young dentists and students were still a concern.

Conclusion: Occupational health-related problems are still prevalent in current dentistry practice, despite changes in equipment and surgery design. The reported prevalence of occupational related-health problems and other findings of investigative studies highlight the need for continuous professional education and a need to improve clinical practice aspects of dentistry curricula.

Pillai DDM, Palaneeswaran K, Sivalingam B, Annamalai I, Shobana G, Aziz MBA, Nagappan N. Prevalence of Periodontitis among Thermal Power Station Workers in South India. J Pharm Bioallied Sci. 2024 Apr;16(Suppl 2):S1393-S1395. doi: 10.4103/jpbs.jpbs_716_23. Epub 2024 Apr 16. PMID: 38882721; PMCID: PMC11174283.

ABSTRACT

The occupational stressors has an effect on overall health and dental health. Oral health is a vital aspect of general health. The current study was performed to assess the periodontitis among thermal power station workers in South India. Pilot study was done for 52 mine workers and based on the periodontal disease prevalence among them, the sample size was calculated as 603 subjects. The data collection was done using WHO 1997 proforma. Among the total study population, about 92 (30%) thermal power station 1 workers and 83 (28.1%) thermal power station 2 workers had pocket 4-5 mm, one (0.2%) thermal power station, 2 worker had pocket 6 mm or more thermal power station I workers, and 23 (7.8%) thermal power station 2 workers had 6 - 8 mm attachment loss. Only 1 (0.3%) thermal power station I worker had 9 - 11 mm

attachment loss. In the current study, nearly 70% mine workers had calculus, nearly 30% had pocket 4-5 mm, and only 0.2% Mine II workers had pocket measuring 6 mm or more.

Prabakar J, Doraikannan S, Jayakumar N, Pandiyan I, Chellappa LR, Kumar JK. Oral Health Related Quality of Life, Cognitive Ability, Nutritional Status Among Construction Workers- A Cross Sectional Study. Journal of Pioneering Medical Sciences. 2023 Oct;12(4):12-16.

ABSTRACT

Introduction: Oral health defects significantly affect the individual's general health and ability to carry out everyday activities. People like farm workers, construction workers, and migratory workers do not have access to dental care, significantly influencing their overall quality of life. People with ongoing dental pain have nutritional deficiency consequences. Materials and

Method: A questionnaire-based study was conducted among 420 construction workers in Chennai. Individuals who expressed a willingness to participate were enrolled in the study. The oral health-related quality of life was evaluated using the Oral Health Impact Profile -14 scale. The cognitive ability of the individuals was assessed using the Symptoms of Early Dementia 11 questionnaire, and the nutritional status was assessed using the Mini Nutritional Assessment. The results were tabulated and statistically analyzed using SPSS software.

Results: A statistically significant association was found between Oral health-related quality of life , cognitive ability , and nutritional status of construction workers . A strong positive correlation was found between the variables such as oral health-related quality of life and nutritional status.

Conclusion: From this study, we can conclude that the oral health-related quality of life, cognitive ability, and nutritional status of the construction workers in Chennai is overall low, and importance to be given on their oral health and also general health since low nutritional status can affect their general health too.

Sato Y, Yoshioka E, Saijo Y. Association of rotating night shift work with tooth loss and severe periodontitis among permanent employees in Japan: a cross-sectional study. PeerJ. 2024 Apr 16;12:e17253. doi: 10.7717/peerj.17253. PMID: 38646481; PMCID: PMC11027908.

ABSTRACT

Background: The modern 24/7 society demands night shift work, which is a possible risk factor for chronic diseases. This study aimed to examine the associations of rotating night shift work duration with tooth loss and severe periodontitis.

Methods: This cross-sectional study used data from a self-administered questionnaire survey conducted among 3,044 permanent employees aged 20-64 years through a Japanese web research company in 2023. The duration of rotating night shift work was assessed using a question from the Nurses' Health Study. Tooth loss was assessed based on self-reported remaining natural teeth count. Severe periodontitis was assessed using a validated screening questionnaire comprising four questions related to gum disease, loose tooth, bone loss, and bleeding gums. We employed linear regression models for tooth loss and Poisson regression models for severe periodontitis, adjusting for demographic, health and work-related variables and socioeconomic status.

Results: Among participants included, 10.9% worked in rotating night shifts for 1-5 years, while 11.0% worked in such shifts for ≥6 years. In fully adjusted models, rotating night shift work duration of 1-5 years was associated with tooth loss (beta -0.74, 95% confidence interval (CI) [-1.55 to 0.08]) and severe periodontitis (prevalence ratio 1.80, 95% CI [1.33-2.43]); however, the association with tooth loss was not statistically significant.

Conclusions: This study supports that employees who work short-term rotating night shifts may experience poor oral conditions. Further research is needed to determine whether long-term rotating night shift work is associated with deteriorated oral health.

Shim SH, Han DH. Exposure to occupational noise and periodontitis in Korean workers. J Periodontol. 2018 Apr;89(4):431-439. doi: 10.1002/JPER.17-0484. PMID: 29683500.

ABSTRACT

Background: Chronic exposure to occupational noise is reported to cause a wide range of health problems. But, there are no reports on studies investigating the association between noise exposure and periodontitis. The purpose of this study was to examine the relationship between occupational noise exposure and periodontitis in a nationally representative sample of Korean workers.

Methods: This cross-sectional study used data from the 4th Korean National Health and Nutrition Examination Survey. The study sample included 8,927 workers aged 19 to 54 years. Noise exposure assessment was performed by using self-report questionnaires. The dependent variable was periodontitis. Age, sex, perceived stress level, place of residence, income, education, health behaviors (frequency of daily toothbrushing, binge drinking, smoking status, regular dental checkup), diabetes, obesity, and white blood cell count were included as covariates. Logistic regression analyses estimated the association between noise exposure and periodontitis after sequential adjustment.

Results: Compared with never-exposed individuals, participants exposed to occupational noise had an increased prevalence of periodontitis. The association remained significant after full adjustment of covariates (odds ratio [OR] 1.34; 95% confidence interval [CI] 1.06 to 1.70). Association of noise exposure with periodontitis was particularly strong for individuals aged < 45 years (OR 1.65; 95% CI 1.22 to 2.23).

Conclusions: Our study shows that there is an association between occupational noise exposure and periodontitis in a representative sample of Korean workers. Policy efforts to improve workplace noise environments might have an effect on improving periodontal health status among Korean workers.

Wu Q, Zhang S, Cao R. Association between magnesium depletion score and periodontitis in US adults: results from NHANES 2009-2014. BMC Oral Health. 2024 Oct 24;24(1):1274. doi: 10.1186/s12903-024-05048-1. PMID: 39448970; PMCID: PMC11520107.

ABSTRACT

Background: This study aims to explore the relationship between magnesium depletion score (MDS) and periodontitis in US adults using data from the National Health and Nutritional Examination Survey (NHANES) 2009-2014.

Methods: This cross-sectional study's outcome was periodontitis, defined by the CDC/AAP using clinical periodontal parameters. The exposure of this study was MDS, which was calculated according to four parameters (diuretic use, proton pump inhibitor use, renal function and alcohol consumption). Weighted univariable and multivariable logistic regression analyses were performed to explore the association between MDS intake and periodontitis. Confounding factors included in the adjusted model were age, sex, race, income, smoking status, dietary magnesium, obesity, diabetes, hypertension, education level, recreational activity, and work activity.

Results: A total of 8,628 participants over the age 30 were included in our study. Individuals with high level of magnesium deficiency were more likely referred to poorer periodontal health in both crude model (OR = 2.01, 95% CI: 1.54-2.61, p < 0.0001) and fully adjusted model (OR = 1.35, 95% CI: 1.03-1.77, p = 0.03).

Conclusions: MDS is positively associated with moderate/severe periodontitis. Further longitudinal studies are needed to understand the impact of MDS on periodontitis.

Zaitsu T, Kanazawa T, Shizuma Y, Oshiro A, Takehara S, Ueno M, Kawaguchi Y. Relationships between occupational and behavioral parameters and oral health status. Ind Health. 2017 Aug 8;55(4):381-390. doi: 10.2486/indhealth.2017-0011. Epub 2017 May 2. PMID: 28484131; PMCID: PMC5546847.

ABSTRACT

The aim of the present study was to assess the influence of various workplace parameters and oral health behaviors on tooth decay, periodontal disease, and the number of teeth present in industrial workers. The study participants were 1,078 workers (808 males, 270 females, mean age 42.8 ± 11.4 yr) employed at 11 different workplaces. Oral examinations and a self-administered questionnaire were conducted for participants. A logistic regression analysis was conducted to identify factors related to their oral health status. Factors significantly associated with decayed teeth were smoking (OR=2.02), not having received tooth brushing instruction (OR=1.73), not having annual dental examinations (OR=1.64) and not brushing before sleeping (OR=0.55). The factors significantly associated with severe periodontal disease were employment with a company with fewer than 50 employees (OR=15.56) and not brushing teeth before bedtime (OR=2.41). The factors significantly associated with having 23 teeth or fewer were subjects in the education and learning support industry compared with manufacturing industry (OR=5.83) and transport industry (OR=12.01). The results of the present study showed that various occupational parameters and health behaviors are associated with oral health status including tooth decay, periodontal disease, and tooth loss.

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CENTRO DENTAL INTEGRAL

02

Conclusiones destacadas

Conclusiones destacadas

1. Determinantes laborales y riesgo periodontal
2. Estrés, inflamación sistémica y mediadores biológicos
3. Factores nutricionales y metabólicos
4. Productividad, cognición y rendimiento laboral
5. Promoción y prevención en el lugar de trabajo
6. Diferencias ocupacionales y género
7. Conclusiones integradas

1. DETERMINANTES LABORALES Y RIESGO PERIODONTAL

La literatura reciente (NHANES, estudios coreanos y japoneses) confirma que el **entorno de trabajo y las condiciones laborales** influyen significativamente en la prevalencia y severidad de la periodontitis.

- **Trabajo por turnos y nocturno** (Jung 2023; Sato 2024) → se asocia a mayor riesgo de periodontitis y pérdida dental. La alteración circadiana y el estrés fisiológico reducen inmunocompetencia y modifican hábitos de higiene. El efecto es más marcado en empleados de oficina que en obreros.
- **Horas laborales prolongadas** (Baek 2024) → correlacionan con menor frecuencia de cepillado, menos revisiones odontológicas y uso deficiente de dispositivos interdentales.
- **Tipo de trabajo** (Irie 2022; Zaitsu 2017) → trabajadores manuales, conductores y personal de ventas presentan peor salud oral que profesionales o administrativos. Las empresas pequeñas (< 50 empleados) tienen mayor prevalencia de enfermedad periodontal.
- **Ambientes industriales hostiles** (Shim 2018; Han 2021; Pillai 2024) → el ruido crónico, el polvo y la exposición térmica o química aumentan la inflamación gingival y la pérdida de inserción.
- **Riesgos en personal sanitario** (Moodley 2018) → persisten lesiones músculo-esqueléticas, estrés y exposición biológica en odontología, justificando vigilancia integral de la salud laboral dental.

Conclusión parcial:
Las condiciones laborales adversas (turnos, ruido, polvo, largas jornadas o estrés) actúan como **cofactores inflamatorios** que potencian la periodontitis, situándola dentro del espectro de enfermedades ocupacionales emergentes.

2. ESTRÉS, INFLAMACIÓN SISTÉMICA Y MEDIADORES BIOLÓGICOS

Los estudios experimentales y clínicos apoyan una conexión fisiopatológica entre **estrés laboral** y **respuesta inflamatoria periodontal**.

- **Mahmood 2024** demostró que los empleados con mayor estrés presentan niveles más altos de RANKL salival y parámetros clínicos de periodontitis, reflejando un incremento de la resorción ósea.
- **Kimura 2024** (Occup Environ Med) mostró que el tratamiento periodontal reduce IL-6, PCR y mejora el sueño en trabajadores con síndrome metabólico, confirmando que la periodontitis genera una carga inflamatoria reversible.
- Los trabajos de **Marruganti 2023** y **Chan 2023** revelan que la **actividad física laboral intensa** eleva marcadores inflamatorios, mientras que la actividad recreativa los reduce, subrayando la dualidad del esfuerzo físico sobre la inflamación sistémica.

Conclusión parcial:
El estrés y la inflamación generados en el ámbito laboral amplifican la respuesta periodontal. La periodontitis puede considerarse **marcador biológico de sobrecarga inflamatoria ocupacional**.

3. FACTORES NUTRICIONALES Y METABÓLICOS

El estado nutricional y mineral influye en la integridad periodontal y se asocia con factores socioeconómicos del trabajo.

- **Cao 2025 (Ca sérico)** → niveles altos de calcio se vinculan a menor riesgo de periodontitis (OR 0,82).
- **Wu 2024 (Mg sérico)** → la depleción magnésica duplica el riesgo de periodontitis (OR 2,0).
- **Balice 2025** destaca el papel de dieta antiinflamatoria y ejercicio moderado en la salud periodontal.
- **Chen 2025** identifica exposición a metales pesados (Cd > Co > Pb) como causa principal de pérdida ósea alveolar mediante modelos de machine learning.

Conclusión parcial:
El equilibrio mineral y la nutrición adecuada actúan como **moduladores del riesgo periodontal**, especialmente relevantes en trabajadores con dietas deficitarias o exposición industrial a metales.

4. PRODUCTIVIDAD, COGNICIÓN Y RENDIMIENTO LABORAL

El deterioro periodontal tiene consecuencias directas sobre la **capacidad funcional y cognitiva** del trabajador.

- **Aldosari 2021** (NHANES) mostró que el 4 % de adultos reporta pérdida de productividad por problemas orales, con un riesgo 14 veces mayor cuando existe dolor dental.
- **Prabakar 2023** evidenció que los obreros con mala salud oral tienen menor rendimiento cognitivo y peor estado nutricional.
- **Arévalo-Caro 2025** y **Brahmbhatt 2024** confirmaron la relación entre periodontitis y deterioro cognitivo leve (MCI) o declive cognitivo en mayores, mediado por inflamación sistémica.
- **Lima 2019** sintetiza que los problemas orales causan más **presenteísmo** que ausentismo (hasta 50 % de reducción de rendimiento).

Conclusión parcial:
La periodontitis afecta concentración, nutrición, energía y desempeño. Es un **determinante silencioso de productividad**, y su control repercute positivamente en la eficiencia y en la seguridad laboral.

5. PROMOCIÓN Y PREVENCIÓN EN EL LUGAR DE TRABAJO

Los trabajos de **Bakri 2023-2025** constituyen el marco más consistente sobre **Workplace Oral Health Promotion (WOHP)**.

- **Bakri 2023 (Revisión escópica)** → las intervenciones en el lugar de trabajo (educación grupal, cribado, higiene supervisada) reducen placa, gingivitis e inflamación.
- **Bakri 2024 (CDOE)** → el programa piloto en trabajadoras geriátricas mostró aumento del conocimiento, mejores hábitos y bienestar personal; el horario laboral remunerado fue un facilitador clave.
- **Bakri 2025 (Health Promot Int)** → entrevistas a directivos revelaron beneficios organizacionales (productividad, bienestar, menor rotación) y seis factores críticos para sostenibilidad (estructura, recursos, comunicación, apoyo directivo, colaboración, continuidad).
- **Bakri 2024 (HPJ Austr)** → aporta un marco teórico integrador (PRECEDE-PROCEED + RE-AIM + Salutogénico) adaptable a clínicas y empresas.

Conclusión parcial:
Los programas de salud oral laboral son **viables, coste-efectivos y replicables**. Combinan educación, ergonomía y seguimiento clínico, y constituyen una herramienta potente para mejorar salud periodontal y clima organizacional.

6. DIFERENCIAS OCUPACIONALES Y GÉNERO

Estudios japoneses y australianos muestran disparidades de género y posición laboral:

- **Harada 2018** → las mujeres en empleos de alta demanda (gestión, ventas) presentan más caries no tratadas que las amas de casa.
- **Ju 2022** → los hombres mayores, fumadores y con bajo ingreso presentan más periodontitis severa, pese a menos dientes perdidos.
- **Irie 2022** y **Zaitsu 2017** → los trabajos con horarios irregulares y bajo control laboral concentran mayor morbilidad periodontal.

Conclusión parcial:
El riesgo periodontal está mediado por **estrés laboral, desigualdad de género y estatus socioeconómico**, por lo que los programas preventivos deben personalizarse.

CONCLUSIONES INTEGRADAS

1. **El trabajo condiciona la boca tanto como el tabaco o la dieta.**

La exposición a ruido, turnos, polvo, estrés o sobrecarga física incrementa la inflamación periodontal y reduce el autocuidado.

2. **La periodontitis es un marcador biológico de salud laboral.**

Refleja carga inflamatoria, estrés crónico y déficit de autocuidado, y puede alertar sobre riesgo sistémico o deterioro cognitivo.

3. **Los factores nutricionales y ambientales del entorno laboral** (deficiencia mineral, exposición a metales) modulan el riesgo periodontal y deben incluirse en la prevención.

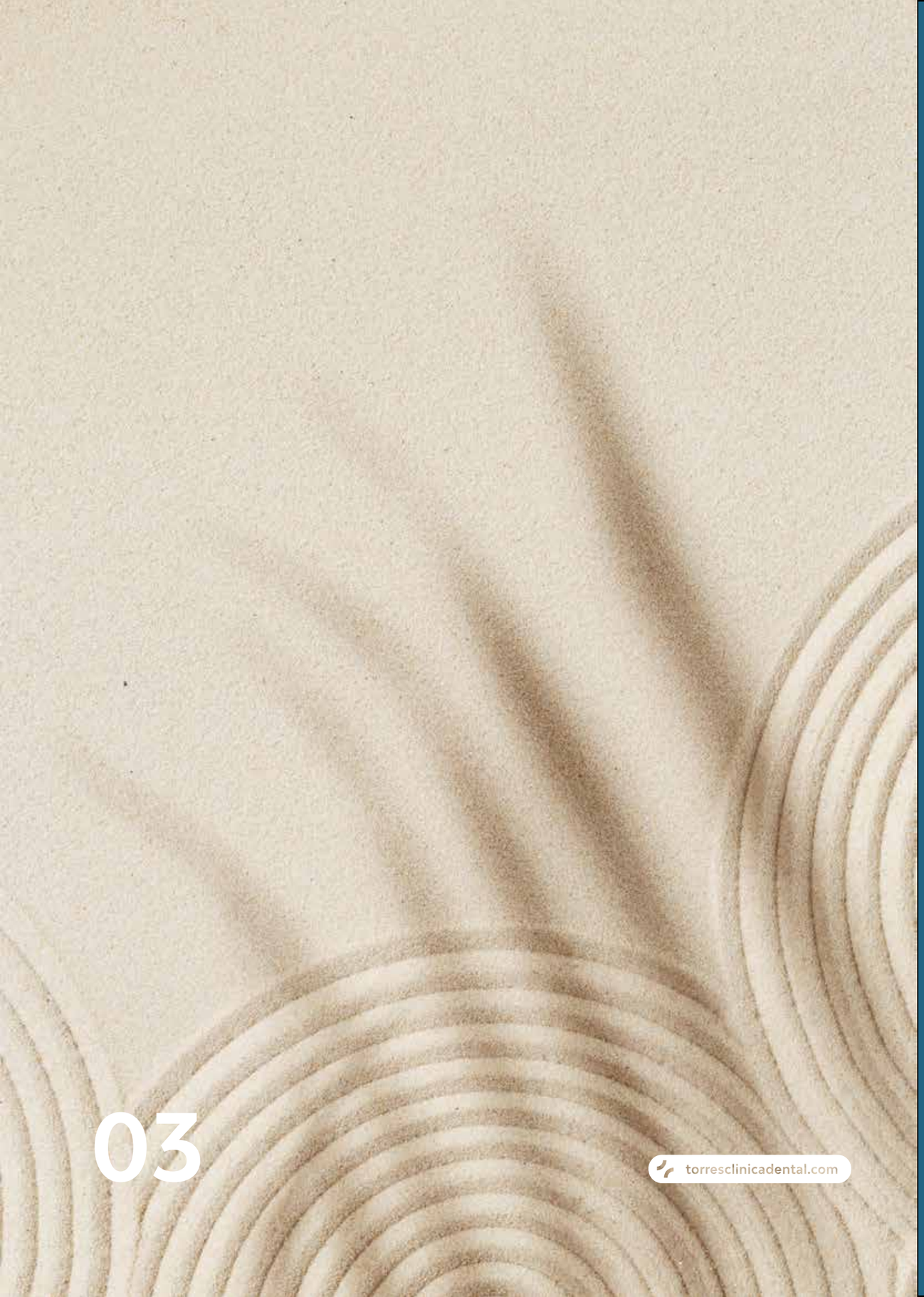
4. **El impacto económico y funcional es medible.**

El dolor y la disfunción oral disminuyen la productividad, aumentan el presenteísmo y reducen la concentración y el bienestar del trabajador.

5. **La promoción de salud oral en el trabajo funciona.**

Los programas WOHP con apoyo institucional y tiempo laboral asignado logran mejoras reales en salud periodontal, autoestima y eficiencia.

6. **Integrar la salud periodontal en la medicina del trabajo** no es accesorio: es una medida de prevención cardiovascular, metabólica y psicológica, de bajo coste y alta repercusión.



torres
CENTRO DENTAL INTEGRAL

03

Conclusiones destacadas individuales

Conclusiones destacadas individuales

1. 1. Determinantes laborales y riesgo periodontal
2. 2. Estrés, inflamación sistémica y mediadores biológicos
3. 3. Factores nutricionales y metabólicos
4. 4. Productividad, cognición y rendimiento laboral
5. 5. Promoción y prevención en el lugar de trabajo
6. 6. Diferencias ocupacionales y género

7. Aldosari M et al., 2021
8. Arévalo-Caro C et al., 2025
9. Baek S-U et al., 2024
10. Bakri N N et al., 2024
11. Bakri N N et al., 2025
12. Bakri N N et al., 2023
13. Bakri N N et al., 2024
14. Balice G et al., 2025
15. Bhattacharjee T et al., 2025
16. Brahmbhatt Y et al., 2024
17. Cao H et al., 2025
18. Chan C C K et al., 2023
19. Chen J, 2025
20. Han D-H & Kim M-S, 2021
21. Harada Y et al., 2018
22. Irie K et al., 2022
23. Ju X et al., 2022
24. Jung S-K et al., 2023

ALDOSARI M ET AL., 2021

Tema: Dolor oral y pérdida de productividad laboral

Contenido: Análisis transversal de 2015-2018 NHANES en ≥ 30 años con examen dental. El 25 % reportó dolor oral y el 4 % pérdida de productividad por causa oral. El dolor fue más frecuente en personas con caries no tratadas (OR 2,06) y bajo nivel socioeconómico. La pérdida de productividad fue 13,8 veces mayor en quienes padecían dolor oral y 2,2 veces mayor en casos con caries no tratadas.

Resumen: El dolor y las enfermedades orales reducen rendimiento y productividad. Los grupos con bajo ingreso o sin tratamiento odontológico presentan mayor riesgo, justificando la integración de la salud oral en las estrategias de salud laboral para prevenir ausentismo y presenteísmo.

ARÉVALO-CARO C ET AL., 2025

Tema: Índices periodontales como predictores de deterioro cognitivo

Contenido: Cohorte PerioMind Colombia con evaluación neurocognitiva y periodontal en adultos mayores. Los pacientes con deterioro cognitivo leve (MCI) presentaron mayores valores de eritema gingival y profundidad de bolsa. El modelo predictivo asoció fuertemente estos índices con MCI, especialmente el eritema. La baja educación aumentó la probabilidad de estar en el grupo periodontitis-MCI.

Resumen: Determinados parámetros periodontales podrían servir como indicadores tempranos de deterioro cognitivo. La relación entre periodontitis e inflamación sistémica explica parte del impacto de la salud oral sobre el rendimiento mental y la productividad laboral en edad avanzada.

BAEK S-U ET AL., 2024

Tema: Horas de trabajo y conductas preventivas de salud oral

Contenido: Análisis de 48 599 trabajadores (coreanos 2007-2021). Los que trabajaban ≥ 55 h/semana mostraron menor probabilidad de realizar revisiones dentales (OR 0,84 hombres; 0,79 mujeres), cepillarse ≥ 2 veces al día (OR 0,82-0,88) y usar hilo/cepillos interdentales (OR ≈ 0,8). Los niveles socioeconómicos bajos acentuaron el riesgo.

Resumen: Las jornadas largas y las condiciones laborales precarias dificultan el autocuidado oral. El tiempo laboral excesivo debe considerarse un determinante negativo de salud periodontal y un objetivo para la educación preventiva en programas de salud ocupacional.

BAKRI N N ET AL., 2024

Tema: Promoción de salud oral en personal de cuidados geriátricos

Contenido: Estudio cualitativo en 11 trabajadoras de asistencia a mayores. Tras sesiones educativas de 3 h y entrevistas a 4-6 semanas, las participantes reportaron mayor conocimiento, rutina de higiene y bienestar, así como efectos positivos en su trabajo. La formación en horario laboral y el pago de asistencia favorecieron la participación.

Resumen: Los programas de promoción oral en el lugar de trabajo son viables y mejoran hábitos y bienestar del personal. Su éxito depende de organización, incentivos y apoyo institucional.

BAKRI N N ET AL., 2025

Tema: Factores para planificar programas de promoción oral laboral

Contenido: Entrevistas a 14 responsables institucionales y sanitarios en el sector geriátrico. Los informantes coincidieron en que la promoción oral beneficia la salud y bienestar psicológico del personal, y mejora la productividad organizacional. Se identificaron seis factores críticos: estructura organizativa, recursos, colaboradores, público objetivo, comunicación y sostenibilidad.

Resumen: La implementación eficaz de programas de salud oral laboral requiere apoyo de la dirección y financiación estable. Los beneficios alcanzan tanto al trabajador como a la empresa.

BAKRI N N ET AL., 2023

Tema: Revisión de actividades de promoción de salud oral en el trabajo

Contenido: Revisión de 95 publicaciones (21 cumplieron criterios). Las intervenciones más frecuentes fueron educación grupal/personalizada y cribados odontológicos. Los programas mostraron mejoras en placa, inflamación gingival y salud autopercibida. El éxito aumenta con apoyo gerencial y organización.

Resumen: La evidencia indica que las acciones educativas en el entorno laboral son efectivas para mejorar salud periodontal y reducir costes empresariales, aunque faltan protocolos estandarizados.

BAKRI N N ET AL., 2024

Tema: Marco teórico para evaluar programas de salud oral laboral

Contenido: Desarrollo de un modelo integrado de planificación y evaluación basado en PRECEDE-PROCEED, RE-AIM y Modelo Salutogénico. Permite analizar facilitadores y barreras en la aplicación de intervenciones de salud oral en el trabajo.

Resumen: Propone una estructura teórica para crear programas laborales sostenibles de salud oral. Favorece su integración en políticas de salud laboral y empresarial.

BALICE G ET AL., 2025

Tema: Dieta, actividad física y salud periodontal

Contenido: Revisión narrativa sobre la influencia de nutrición y actividad física en la periodontitis. Analiza mecanismos moleculares y biomarcadores como IL-6, PCR y adipocinas. El ejercicio moderado y la dieta antiinflamatoria reducen riesgo y mejoran respuesta al tratamiento.

Resumen: Los factores de estilo de vida son claves en la prevención periodontal. Promover alimentación saludable y actividad física adecuada en el entorno laboral contribuye a salud bucal y bienestar general.

BHATTACHARJEE T ET AL., 2025

Tema: Lesiones orales por hábitos según ocupación

Contenido: Estudio comparativo en 841 adultos de distintas ocupaciones de Bengala Occidental. Las fuerzas armadas mostraron mayor prevalencia de consumo de tabaco, areca y alcohol y de lesiones potencialmente malignas, mientras que los gestores tuvieron la menor.

Resumen: El perfil ocupacional modula los hábitos nocivos y su impacto oral. Las profesiones de alto estrés presentan más conductas de riesgo, por lo que la salud laboral debe incluir intervenciones antitabaco y de prevención de lesiones orales.

BRAHMBHATT Y ET AL., 2024

Tema: Periodontitis severa y deterioro cognitivo

Contenido: Estudio NHANES 2013-2014 en 1265 adultos ≥ 65 años. Cada punto de mejor rendimiento cognitivo redujo 2 % el riesgo de periodontitis severa (OR 0,98). La fosfatasa alcalina (ALP) modificó la asociación, indicando vínculo por inflamación sistémica.

Resumen: La periodontitis severa se asocia a peor función cognitiva y aumenta el riesgo de declive mental por mecanismos inflamatorios. Confirma la interrelación boca-cerebro de relevancia para la salud ocupacional y envejecimiento activo.

CAO H ET AL., 2025

Tema: Niveles séricos de calcio y riesgo de periodontitis

Contenido: Estudio transversal NHANES 2009–2014 con 8 601 adultos ≥ 30 años. Los participantes en el cuartil más alto de calcio sérico tuvieron un 18 % menos riesgo de periodontitis que los del cuartil más bajo (OR 0,82; p = 0,008). La asociación se mantuvo estable tras ajustar múltiples covariables y en subgrupos demográficos. Se observó una correlación negativa no lineal entre calcio y enfermedad periodontal.

Resumen: Una concentración adecuada de calcio en suero protege frente a la periodontitis, probablemente por su papel en metabolismo óseo e inmunidad. Refuerza el valor de la nutrición equilibrada como estrategia preventiva dentro de los programas de salud laboral y nutricional.

CHAN C C K ET AL., 2023

Tema: Actividad física como factor modificable de riesgo periodontal

Contenido: Revisión crítica de la literatura sobre ejercicio y periodontitis. Los estudios transversales muestran relación inversa entre actividad física moderada y riesgo de enfermedad periodontal, aunque los atletas de alta intensidad presentan condiciones periodontales peores. Se discuten mecanismos antiinflamatorios directos (reducción de IL-6, PCR) e indirectos (mejor sensibilidad a insulina, control del estrés).

Resumen: La actividad física controlada es protectora, mientras que la sobrecarga física o el sedentarismo laboral son perjudiciales. Se propone incluir pautas de ejercicio adecuado en los programas de salud ocupacional orientados a prevenir periodontitis.

CHEN J, 2025

Tema: Exposición a metales pesados y pérdida ósea alveolar (modelo ML)

Contenido: Estudio NHANES 2015–2018 con modelos de aprendizaje automático (RF, SVM, XGBoost) para identificar la relación entre metales y pérdida ósea alveolar. El algoritmo Random Forest obtuvo mejor rendimiento (AUC 0,88). El cadmio (Cd) fue el principal factor causal, seguido de menor grado por cobalto y plomo. La edad y el bajo nivel socioeconómico amplificaron el riesgo.

Resumen: La exposición laboral a metales pesados, especialmente cadmio, se asocia a destrucción ósea periodontal. La minería, fundición o manufactura metálica requieren control ambiental y revisiones periodontales dentro de la medicina del trabajo.

HAN D-H & KIM M-S, 2021

Tema: Ruido ocupacional y periodontitis

Contenido: Análisis de 8 327 adultos coreanos (KNHANES). La exposición ambiental o laboral a ruido se relacionó con mayor prevalencia de periodontitis severa: OR 1,88 para ruido ambiental y 2,62 cuando coexistían exposición ambiental + ocupacional. La duración > 10 años aumentó el riesgo (OR 2,35).

Resumen: El ruido crónico actúa como estresor inflamatorio y agrava la periodontitis, probablemente a través de mediadores sistémicos de estrés y disfunción endotelial. Debe considerarse riesgo emergente en entornos industriales y de transporte.

HARADA Y ET AL., 2018

Tema: Caries no tratadas y estatus ocupacional según género

Contenido: Encuesta a 1 342 japoneses (40–64 años) con examen dental. Las mujeres profesionales/gestoras (OR 3,51) y de ventas/servicios (OR 5,29) presentaron más caries no tratadas que amas de casa o desempleadas; en hombres no hubo diferencia.

Resumen: Las mujeres en empleos exigentes o de atención al público descuidan más la atención dental, posiblemente por carga laboral o falta de tiempo. Sugiere incorporar control preventivo específico para trabajadoras en puestos de alta demanda.

IRIE K ET AL., 2022

Tema: Diferencias ocupacionales en salud y conducta oral

Contenido: Revisión de 23 estudios japoneses; 10 cumplieron criterios finales (caries, periodontitis, pérdida dental, hábitos). Los oficios con largas jornadas y turnos nocturnos (conductores, vendedores, obreros cualificados) mostraron peor salud oral y menor frecuencia de cepillado.

Resumen: El tipo de trabajo condiciona significativamente la salud oral. Los empleos con horarios irregulares y estrés presentan mayor prevalencia de enfermedad periodontal, evidenciando la necesidad de estrategias de promoción adaptadas al entorno laboral.

JU X ET AL., 2022

Tema: Evolución generacional de la periodontitis en adultos mayores australianos

Contenido: Comparación longitudinal SADLS I (1991–92) vs SADLS II (2013–14). La generación reciente mostró mayor prevalencia y severidad de periodontitis (≈ 88 % vs 75 %) pese a menor número de dientes perdidos. Factores de riesgo: sexo masculino, bajo ingreso, no nativos y fumadores.

Resumen: El envejecimiento poblacional mantiene alta la carga periodontal, con influencia de determinantes socioeconómicos y laborales. Resalta la importancia de mantener programas preventivos activos en trabajadores mayores.

JUNG S-K ET AL., 2023

Tema: Trabajo por turnos y tipo ocupacional en periodontitis

Contenido: Análisis de 32 336 trabajadores coreanos. El trabajo nocturno aumentó el riesgo de periodontitis (OR 1,38 en cuello blanco; 1,20 en obreros). La interacción ocupación × turnicidad fue significativa: mayor efecto en empleados administrativos.

Resumen: El desequilibrio circadiano y el estrés de la turnicidad afectan más a trabajadores de oficina que a manuales. Relevancia directa para programas de vigilancia médica en trabajadores por turnos.

LIMA R-B & BUARQUE A, 2019

Tema: Salud oral, absentismo y presenteísmo laboral

Contenido: Revisión de la literatura (últimos 10 años). Los problemas bucales representan 9–27 % del ausentismo y 28–50 % del presenteísmo. El dolor dental y los trastornos temporomandibulares fueron las causas más comunes. La mayoría de trabajadores prefiere atención dental en la empresa.

Resumen: Las enfermedades orales reducen el rendimiento sin necesariamente aumentar el ausentismo. La integración de servicios odontológicos en salud laboral mejora la productividad y previene complicaciones futuras.

MAHMOOD A-A ET AL., 2024

Tema: Estrés ocupacional y niveles salivales de RANKL

Contenido: Estudio caso-control con 90 empleados varones (30–50 años). Los trabajadores con alto estrés presentaron mayores valores de profundidad de sondaje, sangrado y RANKL salival, indicativo de mayor resorción ósea.

Resumen: El estrés laboral incrementa marcadores inflamatorios y empeora la salud periodontal. La medición de RANKL salival puede utilizarse como biomarcador precoz en medicina del trabajo para identificar riesgo periodontal asociado a estrés.

MARRUGANTI C ET AL., 2023

Tema: Actividad física laboral y de ocio como factores opuestos en periodontitis

Contenido: Análisis NHANES 2009-2014 con 10 679 adultos. La actividad física de ocio (LTPA) fue protectora frente a periodontitis (OR 0,81), mientras que la actividad física laboral (OPA) se asoció a mayor riesgo (OR 1,16). La combinación baja LTPA + alta OPA elevó aún más la probabilidad de periodontitis (OR 1,47) y de enfermedad severa (OR 1,66).

Resumen: El ejercicio voluntario protege, pero el esfuerzo físico prolongado en el trabajo actúa como factor inflamatorio. Los programas de salud laboral deben promover ejercicio moderado extra-laboral y ergonomía para reducir el impacto de la sobrecarga física en la salud periodontal.

MOODLEY R ET AL., 2018

Tema: Problemas de salud ocupacional en odontología

Contenido: Revisión de 49 estudios (2001-2016) sobre riesgos laborales en odontología. Persisten prevalencias altas de trastornos musculoesqueléticos, estrés, lesiones percutáneas y exposición biológica (hepatitis B/C, VIH). La protección ocular sigue siendo deficiente y las lesiones por pinchazos más comunes en dentistas jóvenes.

Resumen: La práctica odontológica continúa siendo de alto riesgo laboral. Subraya la necesidad de protocolos ergonómicos, bioseguridad y apoyo psicológico para preservar la salud física y mental del personal dental.

PILLAI D D M ET AL., 2024

Tema: Periodontitis en trabajadores de centrales térmicas

Contenido: Estudio en 603 empleados de dos plantas térmicas del sur de India. Aproximadamente 30 % presentó bolsas de 4-5 mm y 70 % cálculo supragingival; 0,2 % tuvo bolsas > 6 mm. Se asoció peor estado periodontal con exposición a polvo y calor.

Resumen: Las condiciones ambientales industriales favorecen el acúmulo de placa y la inflamación gingival. La vigilancia periodontal y la mejora de higiene laboral son esenciales para prevenir periodontitis en entornos de alta carga térmica y polvo.

PRABAKAR J ET AL., 2023

Tema: Calidad de vida oral, cognición y nutrición en trabajadores de la construcción

Contenido: Encuesta en 420 obreros de Chennai mediante OHIP-14, test de demencia (SYM-EDEM-11) y Mini Nutritional Assessment. Se halló correlación positiva significativa entre salud oral, función cognitiva y estado nutricional.

Resumen: La mala salud oral repercute en el rendimiento cognitivo y la nutrición, afectando la productividad y bienestar laboral. Destaca la necesidad de integrar control periodontal y educación alimentaria en los programas de salud ocupacional de trabajadores manuales.

SATO Y ET AL., 2024

Tema: Turnos rotatorios y riesgo de periodontitis severa

Contenido: Estudio transversal en 3 044 empleados japoneses (20-64 años). El trabajo nocturno 1-5 años se asoció con periodontitis severa (PR 1,80) y pérdida dental no significativa. Ajustado por factores demográficos, laborales y socioeconómicos.

Resumen: La rotación nocturna altera hábitos de higiene y procesos inmuno-metabólicos, aumentando el riesgo periodontal incluso en periodos cortos. El control odontológico debe incluirse en la vigilancia de trabajadores con turnos nocturnos.

SHIM S-H & HAN D-H, 2018

Tema: Exposición a ruido laboral y periodontitis

Contenido: Estudio transversal con 8 927 trabajadores (19-54 años). El ruido ocupacional aumentó la prevalencia de periodontitis (OR 1,34) y fue mayor en < 45 años (OR 1,65). El riesgo persistió tras ajustar por edad, tabaco, diabetes y estrés.

Resumen: El ruido crónico laboral es un estresor fisiológico que agrava la inflamación periodontal. La reducción de contaminación acústica y los controles odontológicos periódicos pueden mejorar la salud periodontal de los trabajadores expuestos.

WU Q ET AL., 2024

Tema: Déficit de magnesio y periodontitis

Contenido: Análisis NHANES 2009-2014 (8 628 adultos). La deficiencia de magnesio (MDS alto) duplicó el riesgo de periodontitis (OR 2,01 crudo; 1,35 ajustado). La relación se mantuvo tras ajustar por dieta, actividad, nivel educativo y diabetes.

Resumen: La carencia de magnesio es un nuevo factor metabólico asociado a la enfermedad periodontal. El control nutricional y la suplementación adecuada pueden integrarse en la prevención periodontal dentro de la salud laboral.

ZAITSU T ET AL., 2017

Tema: Parámetros laborales y conductas orales en trabajadores industriales

Contenido: Estudio en 1 078 operarios (808 hombres, 270 mujeres). Factores de riesgo de enfermedad periodontal: trabajar en empresas < 50 empleados (OR 15,56) y no cepillarse antes de dormir (OR 2,41). La falta de revisiones anuales y el tabaco incrementaron caries y pérdida dental.

Resumen: Las condiciones laborales (tamaño de empresa, políticas preventivas, educación sanitaria) influyen directamente en la salud oral. La promoción de higiene y revisiones regulares en empresas pequeñas podría reducir la carga de periodontitis y caries.

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04

Preguntas y Respuestas

04

Preguntas y respuestas

1. ¿POR QUÉ ES RELEVANTE LA SALUD PERIODONTAL EN EL ÁMBITO LABORAL?

Porque la periodontitis no solo produce molestias locales: está asociada a mayor inflamación sistémica, fatiga, dolor crónico, disminución del rendimiento y riesgo cardiovascular elevado. Además, influye en el ausentismo laboral por infecciones, dolor o intervenciones. Ignorar estos signos en revisiones médicas laborales puede hacer que se pase por alto una fuente de carga inflamatoria crónica que compromete el bienestar del trabajador.

2. ¿QUÉ IMPACTO PUEDE TENER SOBRE ENFERMEDADES PROFESIONALES?

En trabajadores con riesgo cardiovascular, diabetes, apnea del sueño, estrés crónico o enfermedades respiratorias, la inflamación gingival actúa como un amplificador. También puede empeorar cuadros músculo-esqueléticos por alteraciones posturales relacionadas con dolor dental o masticación deficiente. Estas condiciones pueden afectar la adaptación al puesto, aumentar la fatiga y complicar el control de enfermedades ya reconocidas como profesionales.

3. ¿LA PERIODONTITIS INFLUYE EN LA PRODUCTIVIDAD LABORAL?

Sí. A través del dolor crónico, el mal aliento, la inseguridad estética y la fatiga asociada a procesos inflamatorios sistémicos. Además, los tratamientos repetidos pueden requerir ausencias, y la salud oral deficiente se asocia con menor rendimiento y más errores en tareas cognitivas. El trabajador rinde menos, se concentra peor y puede tener un mayor riesgo de accidentes laborales, especialmente si su trabajo requiere atención constante o interacción con público.

4. ¿PUEDE AUMENTAR EL RIESGO CARDIOVASCULAR EN TRABAJADORES SANOS?

La periodontitis incrementa la rigidez arterial, favorece la disfunción endotelial y eleva marcadores como PCR e IL-6. En trabajadores expuestos a turnos, estrés crónico o factores de riesgo, la boca inflamada suma carga inflamatoria y puede desencadenar eventos. No sustituye al tabaco o a la hipertensión, pero sí se suma silenciosamente como un factor modificable desde la salud pública y laboral.

5. ¿QUÉ RELACIÓN HAY CON EL ESTRÉS LABORAL?

El estrés disminuye la inmunidad local, favorece la disbiosis y puede desencadenar o empeorar enfermedades periodontales. Además, los pacientes estresados tienden a descuidar el cepillado, comer mal y bruxar, lo cual agrava el cuadro bucal y repercute en su salud general. La boca se convierte así en una vía de expresión del estrés crónico, y cuidar su higiene puede ser también una medida de autorregulación emocional.

6. ¿QUÉ IMPORTANCIA TIENE EN TRABAJOS CON MASCARILLA O ATENCIÓN AL PÚBLICO?

El mal aliento (halitosis) generado por bolsas periodontales es más perceptible con mascarilla. Afecta la autoestima, la comunicación y puede producir retraimiento social. Un consejo simple sobre higiene puede mejorar la relación del trabajador con su entorno. En sectores como sanidad, educación o atención al cliente, cuidar la salud oral mejora la percepción profesional y disminuye el malestar interpersonal.

7. ¿SE PUEDE INTEGRAR EL CONSEJO SOBRE SALUD ORAL EN EL RECONOCIMIENTO MÉDICO LABORAL?

Sí. Basta incluir preguntas sobre sangrado de encías, halitosis o dolor dental en el cuestionario, y una breve observación si hay tiempo. Reforzar el cepillado como parte del autocuidado mejora la percepción de salud y puede prevenir complicaciones sistémicas. Además, ayuda a que el trabajador se sienta escuchado más allá de sus factores biométricos, mejorando la relación médico-trabajador.

8. ¿QUÉ BENEFICIOS TIENE EL TRATAMIENTO PERIODONTAL PARA LA SALUD GLOBAL DEL TRABAJADOR?

Reduce la inflamación sistémica, mejora el control glucémico, disminuye la presión arterial y mejora el sueño y la autoestima. En personas con comorbilidades reduce hospitalizaciones y, en población general, mejora la percepción de bienestar y energía. Todo ello se traduce en menos bajas, mejor disposición al trabajo y menos necesidad de intervenciones médicas preventivas o correctivas.

9. ¿LA HIGIENE ORAL PUEDE CONSIDERARSE UNA MEDIDA PREVENTIVA LABORAL?

Sí. Igual que promovemos el ejercicio, la nutrición o el uso de EPIs, podemos recomendar el cepillado dos veces al día y el uso de higiene interdental. Esto reduce la carga inflamatoria y mejora el estado general del trabajador, con impacto clínico real. Además, es una medida de bajo coste y alta adherencia, fácil de incluir en campañas de salud laboral o jornadas temáticas.

10. ¿QUÉ MENSAJE CLAVE PODEMOS DAR DESDE LA MEDICINA DEL TRABAJO?

"El cepillado no es solo higiene, es parte de tu salud laboral." Este mensaje conecta con la prevención, la autonomía y el rendimiento. No requiere derivar ni tratamientos costosos, solo un recordatorio que el paciente puede implementar desde hoy. Es una herramienta de empoderamiento en salud y puede incorporarse fácilmente en los hábitos diarios del trabajador.

11. ¿QUÉ RELACIÓN EXISTE ENTRE PERIODONTITIS Y TRASTORNOS DEL SUEÑO EN TRABAJADORES A TURNOS?

La periodontitis, al incrementar los niveles de IL-6 y TNF-α, puede empeorar la calidad del sueño. En trabajadores nocturnos o con sueño fragmentado, esta inflamación puede acentuar la fatiga diurna, afectar la recuperación y aumentar la sensación de agotamiento. Estudios recientes asocian la inflamación bucal con apnea del sueño y microdespertares, alterando aún más el descanso de quienes ya tienen un ritmo alterado.

12. ¿PUEDE LA SALUD PERIODONTAL INFLUIR EN LA CAPACIDAD DE CONCENTRACIÓN LABORAL?

Sí. La inflamación crónica, aunque leve, afecta al rendimiento cognitivo, a la memoria de trabajo y a la toma de decisiones. El dolor o el malestar bucal constante también distraen y reducen la capacidad de atención sostenida. Por eso, mantener las encías sanas contribuye no solo a la salud física, sino también al rendimiento mental del trabajador.

13. ¿QUÉ IMPACTO TIENE LA PERIODONTITIS EN TRABAJADORES CON DIABETES TIPO 2?

En estos casos, el control glucémico se ve afectado por la inflamación bucal, y viceversa. La periodontitis actúa como un círculo vicioso que aumenta la resistencia a la insulina y complica la gestión médica. Para medicina del trabajo, esto implica más controles, más complicaciones a largo plazo y un mayor riesgo de bajas, con impacto en la productividad y los costes empresariales.

14. ¿LA BOCA PUEDE SER UNA FUENTE DE INFECCIONES QUE AFECTE AL ÁMBITO LABORAL?

Sin duda. Las bacterias orales pueden diseminarse y provocar infecciones sistémicas, especialmente en trabajadores inmunodeprimidos o en sectores como alimentación, salud o geriatría. Una periodontitis no tratada puede traducirse en bacteriemias transitorias y afectar incluso a dispositivos médicos o cirugías posteriores.

15. ¿QUÉ RELEVANCIA TIENE LA SALUD ORAL EN PERSONAS CON ALTA EXPOSICIÓN A POLVO O QUÍMICOS?

El polvo, los vapores y los químicos industriales pueden alterar la mucosa bucal, secar la saliva y favorecer la acumulación de placa. Si a esto se suma una higiene deficiente, el riesgo de periodontitis aumenta. Es importante educar a estos trabajadores sobre higiene oral como parte de la protección frente a sus riesgos ambientales.

16. ¿LA REVISIÓN DENTAL DEBERÍA INTEGRARSE EN PROGRAMAS DE SALUD OCUPACIONAL?

No es necesario sustituir al dentista, pero sí podemos hacer un cribado básico en revisiones médicas periódicas, preguntando por síntomas orales clave. Esto ayudaría a identificar problemas a tiempo, reforzar el autocuidado y derivar solo cuando sea necesario. Incluirlo como parte de la evaluación de salud integral mejora el abordaje preventivo.

17. ¿LA PERIODONTITIS PUEDE INFLUIR EN EL RIESGO DE ACCIDENTES LABORALES?

Sí. Dolor dental crónico, distracción por malestar, somnolencia secundaria a inflamación o infecciones no tratadas pueden alterar la atención y la capacidad de respuesta. En trabajos de riesgo (maquinaria, altura, conducción), cualquier factor que reste claridad o agilidad mental debe tomarse en serio.

18. ¿PUEDE ASOCIARSE LA HALITOSIS CON ESTRÉS O PROBLEMAS RELACIONALES EN EL TRABAJO?

Sí. La halitosis por periodontitis es un motivo frecuente de inseguridad, retraimiento o incomodidad en reuniones, entrevistas o atención al público. Puede erosionar la confianza personal y las relaciones interpersonales en el entorno laboral. Una buena higiene oral devuelve seguridad y mejora la interacción.

19. ¿QUÉ RECOMENDACIONES BÁSICAS PUEDE DAR UN MÉDICO LABORAL SOBRE HIGIENE ORAL?

Cepillar al menos dos veces al día durante dos minutos, limpiar entre dientes con hilo o cepillos interproximales, y acudir al dentista si hay sangrado, movilidad o mal aliento persistente. Incluso si el trabajador no puede acceder fácilmente a una consulta, estas recomendaciones pueden mejorar mucho su salud oral.

20. ¿POR QUÉ TIENE SENTIDO HABLAR DE BOCA EN UNA CONSULTA DE MEDICINA DEL TRABAJO?

Porque la salud oral influye en todo el cuerpo, en la energía, el descanso, el ánimo y el rendimiento. Además, es una medida preventiva accesible, ética y de bajo coste. Si una simple recomendación de cepillado puede mejorar el bienestar general del trabajador, vale la pena incluirla como parte del enfoque integral en salud laboral.

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