

## HUBUNGAN ANTARA DETERMINAN SOSIAL DENGAN STATUS KESEHATAN GIGI DAN MULUT PEKERJA *SHIFT* DAN *NON-SHIFT* INDUSTRI SEMEN DI KOTA PADANG

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### INTISARI

**Latar Belakang:** Pekerja *shift* di industri semen berada di lingkungan kerja yang beresiko mempengaruhi kesehatan gigi dan mulut. Penelitian ini bertujuan untuk mengetahui hubungan determinan sosial dengan status kesehatan gigi dan mulut pada pekerja *shift* dan *non-shift* di industri semen.

**Metode Penelitian:** Jenis penelitian ini merupakan analitik dengan rancangan potong lintang dilakukan di PT. Semen Padang, Kota Padang, Sumatera Barat, dengan 83 responden yang diambil dengan teknik pengambilan sampel acak berstrata secara proposional. Determinan sosial dinilai menggunakan kuesioner WHO 2013 dan PSS-10. Pemeriksaan gigi dinilai menggunakan indeks DMF-T, CPI, abrasi dan atrisi. Analisis data menggunakan uji regresi linear berganda.

**Hasil penelitian:** Determinan sosial berhubungan dengan DMF-T pada pekerja *shift* ( $R^2=0,573$ ) sedangkan pada pekerja *non-shift* hanya faktor konsumsi gula yang berhubungan dengan DMF-T ( $R^2=0,290$ ). Penyakit periodontal pada pekerja *shift* dipengaruhi oleh psikososial ( $R^2=0,558$ ), sedangkan pada pekerja *non-shift*, dipengaruhi oleh konsumsi gula, frekuensi menyikat gigi, pemeriksaan gigi ( $R^2=0,870$ ). Abrasi gigi pada pekerja *shift* dipengaruhi usia dan pendidikan ( $R^2=0,278$ ), sedangkan pada pekerja *non-shift* dipengaruhi oleh usia ( $R^2=0,429$ ). Atrisi gigi pada pekerja *shift* dipengaruhi usia dan merokok ( $R^2=0,564$ ), sementara pada pekerja *non-shift* hanya dipengaruhi usia ( $R^2=0,433$ ).

**Kesimpulan:** Pekerja *shift* dan *non-shift* memodifikasi hubungan antara determinan sosial dengan penyakit periodontal, abrasi dan atrisi gigi, sedangkan pada karies, pekerja *shift* dan *non-shift* bukan merupakan *modifier*.

**Kata kunci:** *shift* kerja, determinan sosial, kesehatan gigi, industri semen

## ASSOCIATION BETWEEN SOCIAL DETERMINANTS AND ORAL HEALTH STATUS AMONG *SHIFT* AND *NON-SHIFT* WORKERS IN PADANG CEMENT INDUSTRY

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### ABSTRACT

**Background:** Shift workers in the cement industry are in a work environment that risks their oral health. This study aims to determine the relationship between social determinants and the oral health conditions of shift and non-shift workers in the cement industry.

**Method:** This is an analytical study with a cross-sectional design. The study was conducted at PT. Semen Padang, Padang City, West Sumatra, using a proportionate stratified random sampling technique with 83 respondents. Social determinants were assessed using the WHO 2013 questionnaire and PSS-10. Dental examinations were evaluated using the DMF-T index, CPI, abrasion index, and attrition index. Data analysis was performed using multiple linear regression tests.

**Result:** Association between social determinants and DMF-T among shift workers influenced by age, sugar consumption, tooth-brushing frequency, and dental check-ups ( $R^2=0.573$ ), while in non-shift workers, only sugar consumption ( $R^2=0.290$ ). Periodontal pocket depth in shift workers was associated with psychosocial factors ( $R^2=0.558$ ), whereas in non-shift workers, it was influenced by sugar consumption, tooth-brushing frequency, and dental check-ups ( $R^2=0.870$ ). Tooth abrasion in shift workers was associated with age and education ( $R^2=0.278$ ), while in non-shift workers, it was associated with age ( $R^2=0.429$ ). Tooth attrition in shift workers was associated with age and smoking ( $R^2=0.564$ ), whereas in non-shift workers, it was associated with age only ( $R^2=0.433$ ).

**Conclusion:** Shift and non-shift workers influences the association between social determinants and periodontal disease, abrasion and attrition, while caries is not moderated by shift and non-shift workers.

**Keywords:** shift work, social determinants, dental health, cement industry