

LAPORAN PENELITIAN

**DAMPAK STRESS DAN PSIKOSOSIAL TERHADAP KEPARAHA
PENYAKIT PERIODONTAL PADA PENGUNGSI PASCA BANJIR
BANDANG DI DESA KEMIRI, PANTI, JEMBER**

Oleh:

drg. Banun Kusumawardani, M.Kes
drg. Desi Sandra Sari



DEPARTEMEN PENDIDIKAN NASIONAL
UNIVERSITAS JEMBER
LEMBAGA PENELITIAN TAHUN 2005

Dilaksanakan berdasarkan Surat Keputusan Rektor Universitas Jember Nomor: 3277/J 25/PP.9/2006 tanggal 22 Mei 2006 dengan Sumber Dana DIPA (Eks Rutin) Universitas Jember

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**HALAMAN PENGESAHAN
LAPORAN PENELITIAN DIPA / Eks Rutin**

1. Judul Penelitian : Dampak Stress dan Psikososial Terhadap Keparahan Penyakit Periodontal Pada Pengungsi Pasca Banjir Bandang di Desa Kemiri, Panti, Jember
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RINGKASAN

(drg. Banun Kusumawardani,M.Kes, drg.Desi Sandra Sari, Dosen Fakultas Kedokteran Gigi Universitas Jember, Judul Penelitian Dampak Stress Dan Psikososial Terhadap Keparahan Penyakit Periodontal Pada Pengungsi Pasca Banjir Bandang di desa Kemiri, Panti, Jember,35 halaman)

Beberapa kejadian tertentu di dalam kehidupan termasuk bencana banjir bandang yang mengenai penduduk desa kemiri, Panti Jember dapat mengakibatkan sebagai aktivator atau stimulus untuk timbulnya respon stres. Respon stres dapat mengubah status kesehatan seseorang. Keberadaan stressor yang terjadi secara terus menerus tidak hanya akan mengganggu kesehatan tetapi juga dapat melemahkan sistem kekebalan tubuh.

Rendahnya sistem kekebalan tubuh dapat menyebabkan gangguan pada kesehatan rongga mulut, salah satunya kesehatan periodontal. Penyakit periodontal merupakan penyakit yang sangat meluas dalam kehidupan manusia. Penyakit gigi dan mulut menyerang 90% masyarakat Indonesia dan sekitar 86%-nya menderita penyakit periodontal. Meningkatnya penyakit periodontal telah dilaporkan pada kondisi-kondisi yang tidak nyaman termasuk stress, kebisingan dan gangguan psikis. Ditemukan bukti kuat bahwa stress emosi merupakan faktor predisposisi terjadinya penyakit periodontal. Banyak peneliti yang menyatakan bahwa faktor stress dan psikososial pada kehidupan memberikan dampak terhadap kesehatan.

Jenis penelitian observasional klinis dengan rancangan *cross sectional*. Populasi penelitian adalah pengungsi pasca banjir bandang yang menempati tenda-tenda di desa Kemiri, Panti , Jember. Jumlah sampel yang diambil minimal sebanyak 30 orang. Pengambilan sampel secara *accidental sampling* . Tingkat stress diukur dengan skala anxiety dan depresi dari dr. William K. Zung. . Faktor psikososial diketahui dengan teknik wawancara pada para pengungsi. Keparahan penyakit periodontal yang diukur dengan *Periodontal Index* (PI).

Hasil penelitian menggunakan uji statistik *Kruskal-Wallis* antara *Anxiety* dan *depresi* dengan *Periodontal Index* (PI) dan didapat $P = 0,000 (< 0,05)$ artinya ada hubungan yang bermakna antara tingkat anxiety dan depresi dengan keparahan penyakit periodontal. faktor psikososial yang memiliki tingkat signifikansi $P<0,05$ adalah pekerjaan dengan tingkat kebersihan mulut dan frekuensi kunjungan ke dokter gigi dengan PI dan OHI-S. Keadaan ini diperparah dengan tingkat kebersihan mulut yang kurang baik dimana hasil statistik menunjukkan $P= 0,000(<0,05)$ artinya ada hubungan yang bermakna tingkat kebersihan rongga mulut dengan keparahan penyakit periodontal.

Respon fisiologis terhadap stres menunjukkan pengaruh terhadap sistem imun melalui sistem endokrin dan neural dalam tiga jalur yang berbeda. Jalur pertama stres yang mampu menekan sistem saraf pusat (SSP) pada aksis *hipotalamo-pituitary-adrenal* (HPA) untuk mensekresi *corticotropic releasing hormone* (CRH). Kemudian CRH merangsang kelenjar hipofase untuk sekresi *adrenocorticotropic hormone* (ACTH) yang kemudian merangsang kortek

adrenalis memproduksi hormon kortisol. Meningkatnya kadar kortisol dalam darah selanjutnya akan meningkatkan reaksi tekanan dalam tubuh baik secara fisik maupun psikologis. Stres yang timbul menyebabkan berbagai gangguan terutama sistem ketahanan tubuh termasuk ketahanan mukosa rongga mulut sehingga terjadi gangguan respon imun

Katakunci :Kontrasepsi pil kombinasi, Hiperplasi Gingiva, Estrogen dan Progesteron

Many individuals living in urban or the semi-urban cluster live stressed which lead to health illness. These studies also showed an increase in prevalence for the presence of stress response symptoms among oral health status. The additional presence of oral care also decreased the frequency of onset of the early forms of oral health problems.

The changes in the endocrine system may cause disturbances in the oral cavity including periodontal health. Periodontal disease is a very disease common found in the world and disease spread up to 40% of population and 50% among it has preexisting diseases. Incidence of periodontal disease has been noted for premenstrual conditions including stress, eating, environment and psychological responses. Periodontal and bone tissue reported to be a significant evidence of the presence of premenstrual disease. Many studies reported stress and progesterone could be one of the preexisting factors.

It is believed that the oral health condition of the population in the study area should be good. This is because the study area is a village, Pekat, Jember. The school has a dental clinic and there is no dental hospital surrounding the community. The government has given a financial assistance to build out the dental clinic. This has increased the priority of prevention of oral health.

Results from the study showed that the prevalence of periodontal disease was associated with social economic status. It seems that the higher the income there is a significant correlation between social economic status and the severity of periodontal disease. Therefore, social economic status is an important factor in determining the prevalence of periodontal disease. There is a significant correlation between oral hygiene and the severity of periodontal disease.

Frequencies of stress towards stress show close influence to human response through the sympathetic nervous system. A different pattern of stress and stressors would move effects on Hypothalamic-Pituitary-Adrenal (HPA) axis to produce Catecholamine Releasing Hormone (CRH). CRH can stimulate hypothalamic gland to produce Adrenocorticotropic Hormone (ACTH), afterwards ACTH stimulating adrenal cortex to produce corticosteroid hormone. The increasing blood corticosteroid level that caused reaction within the body, includes physical and psychological system, including immune immunity.

Periodontal disease were stated as the ability to be cause of premenstrual disease through atherosclerosis process. Atherosclerosis behaviour is used for the presence of health disturbances, such as smoking, poor oral hygiene, and less attention to dental treatment. Atherosclerosis behavior in preserving the health of oral

SUMMARY

(drg. Banun Kusumawardani, M.Kes, drg.Desi Sandra Sari Lecturer Faculty of Dentistry, Jember of University, *Impact stress and psychosocial factor periodontal diseases in evacuees after the massive flood in kemiri village, Panti, Jember, 35 pages*)

Many particular things happened in life including disaster like flood which occur at Kemiri village, Panti, Jember may become an activator or stimulant for the presence of stress response. Stress response may affect health status. The continual presence of stressor can also decrease the immunity system of the body instead of causing health problems.

The weakness of the immunity system may cause disturbances in the oral cavity including periodontal health. Periodontal disease is a vast disease among human lives. Dental and disease spread up to 90% of indonesianese and 86% among it are periodontal diseases. Increased of periodontal diseases has been noted for uncomfortable conditions including stress, noisy environment and psychologic disturbance. Emotional stress has been reported to be a significant evidence of the presence of periodontal diseases. Many studies reported stress and psychosocial factor in life are affecting health.

It is a clinical observational study with cross sectional design. The population of the study are flood evacuees located on emergency tent at Kemiri village, Panti, Jember. The minimal amount of the samples are 30 people with accidental sampling technique. Stress level were measured were used to the evacuees to find out the psychosocial factors. Periodontal Index (PI) were used to measured the severity of periodontal diseases.

Result between anxiety, depression and Periodontal Index(PI) were tested with Kruskal-Wallis. It shows $P=0.000(<0.05)$ which means there is significant correlation between anxiety, depression and the severity of periodontal diseases. Occupation which has oral hygiene that statistically shown by $P=0.000(<0.05)$ which means there is significant correlation between oral hygiene and the severity of periodontal diseases.

Physiological response towards stress show influence to immune system through endocrine and neural system within 3 different patterns. First, stress can suppress central nerve system on Hypothalamo-Pituitary Adrenal (HPA) axis to produce Corticotropin Releasing Hormone (CRH). CRH then stimulates hypophysis gland to produce Adrenocorticotropic Hormone (ACTH). Afterwards, ACTH stimulates adrenal cortex to produce cortisol hormone. The increasing of blood cortisol level may increase reaction within the body, includes physical and psychological system, include oral mucosa immunity.

Psychosocial factors were found in this study to be cause of periodontal diseases through alteration behavior. Alteration behaviour as a risk for the presence of health disturbances, such as smoking, poor oral hygiene, and less attention on dental treatment. Alteration behaviour in preserving the health of oral

cavity may cause periodontal diseases, it is shown on unemployment people and low life-education, such as evacuees of Kemiri village, Panti, Jember

Keyword : Stress, Psychosocial factor, Periodontal diseases

penulis dan konsultasi ilmiah dalam tulisan ini adalah "Dampak Stres Dan Psikososial Terhadap Kesehatan Gigi Pada Pengungsi Para Dampak Banjir Di Desa Kemiri, Panti, Jember," dapat diambil dari :

Pembelahan masyarakat berdampak pada kesehatan Karya Tulus selanjutnya terdapat unsur yang selalu menglinger dengan penulis berikut dalam kelimatan penulisan sebelumnya. Namun demikian penulis berharap Karya Tulus ini dapat memberikan bukti penilaian.

Bahan bacaan jurnal ini pada penulis menyampaikan sebagai berikut hasil riset yang dihasilkan :

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6. dr. Muliawati
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Jember, 16 November 2006