

Keterkaitan Antara Tingkat Stres dengan Karakteristik Saliva Pada Mahasiswa Semester Awal dan Semester Akhir Jenjang Sarjana Fakultas Kedokteran Gigi Universitas Indonesia = Relationship between Stress Levels and Salivary Characteristics in Early-Semester and Late-Semester Undergraduate Students of the Faculty of Dentistry, University of Indonesia

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Abstrak

Latar Belakang: Pada tahun 2022, studi menemukan 87% mahasiswa mengalami stres. Peningkatan stres ini sering kali dipengaruhi oleh beban akademik yang semakin berat seiring dengan kenaikan tahun akademik. Hal yang serupa dialami oleh mahasiswa semester awal dan semester akhir jenjang sarjana FKG UI. Mahasiswa semester awal kedokteran gigi mengalami stres karena adanya tekanan yang besar untuk menguasai pengetahuan dan keterampilan dasar kedokteran gigi. Sementara, mahasiswa semester akhir cenderung mengalami stres karena adanya kekhawatiran terkait kelulusan dan transisi menuju jenjang profesi. Stres negatif (distres) yang dialami mahasiswa dapat mengganggu keseimbangan homeostasis. Keadaan stres memicu respons fisiologis di dalam tubuh melalui mekanisme GAS (General Adaptation Syndrome). Aktivasi aksis HPA dan SAM membuat perubahan pada sekresi saliva dan mempengaruhi karakteristik saliva. Tujuan: Penelitian ini dilakukan untuk menganalisis keterkaitan antara karakteristik saliva dengan tingkat stres pada mahasiswa semester awal dan semester akhir jenjang sarjana FKG UI. Metode: Desain penelitian ini merupakan penelitian observasional, yaitu potong lintang. Sampel yang diteliti merupakan saliva tanpa terstimulasi dan terstimulasi pada 11 mahasiswa semester awal (angkatan 2023) dan 11 mahasiswa semester akhir (angkatan 2021). Pengambilan sampel dilakukan pukul 08.00-11.00 WIB di Rumpun Ilmu Kesehatan, Universitas Indonesia, Depok. Pengujian sampel dilakukan di Laboratorium Biologi Oral Fakultas Kedokteran Gigi Universitas Indonesia, Salemba, Jakarta Pusat. Karakteristik saliva yang diteliti adalah volume, laju alir, pH, dan viskositas. Uji karakteristik saliva dilakukan di laboratorium. Tingkat stres diukur melalui skor stres pada kuesioner DASS-21. Analisis penelitian dilakukan dengan uji statistik beda mean, yaitu: Independent T-test, Mann-whitney U dan uji statistik korelasi yaitu: Pearson dan Spearman. Hasil: Uji beda mean menunjukkan tidak ada perbedaan tingkat stres signifikan antara mahasiswa semester awal dan semester akhir jenjang sarjana FKG UI. Tidak ditemukan perbedaan karakteristik saliva (volume, laju alir, pH, dan viskositas) signifikan antara mahasiswa semester awal dan semester akhir jenjang sarjana FKG UI. Akan tetapi, ditemukan perbedaan signifikan pada volume dan laju alir terstimulasi antara mahasiswa semester awal dan semester akhir jenjang sarjana FKG UI. Uji korelasi menunjukkan tidak terdapat keterkaitan yang signifikan antara karakteristik saliva (volume, laju alir, pH, dan viskositas) dengan tingkat stres pada mahasiswa semester awal dan semester akhir jenjang sarjana FKG UI. Kesimpulan: Karakteristik saliva tidak memiliki keterkaitan dengan tingkat stres pada mahasiswa semester awal dan semester akhir jenjang sarjana FKG UI.

.....Background: In 2022, a study found that 87% of students experienced stress. As the academic year progresses, the increasingly heavy academic workload often influences the increase in stress. Early-semester and late-semester undergraduate students at the Faculty of Dentistry UI share a similar experience. Early-

semester dental students experience stress due to the significant pressure to excel in the basic knowledge and skills of dentistry. Meanwhile, late-semester students tend to experience stress due to concerns related to completing undergraduate studies and transitioning to the professional phase in dentistry. Students' experiences of negative stress can disrupt the balance of homeostasis. The state of stress triggers a physiological response in the body through the GAS mechanism. (General Adaptation Syndrome). Activation of the HPA and SAM axis pathways causes changes in saliva secretion and affects saliva's characteristics. Objective: The study was conducted to determine the relationship between salivary characteristics and stress levels in early and late semester undergraduate students of the Faculty of Dentistry UI. Method: The design of this study is an observational study, specifically a cross-sectional study. The samples studied were unstimulated and stimulated saliva from 11 early-semester students (class of 2023) and 11 late-semester students (class of 2021). Samples were collected from 08:00 to 11:00 WIB at the Health Sciences Cluster, University of Indonesia, Depok. Saliva sample testing was executed at the Oral Biology Laboratory, Faculty of Dentistry, University of Indonesia, Salemba, Central Jakarta. The characteristics of saliva being studied are volume, flow rate, pH, and viscosity. Salivary characteristic tests were conducted in the laboratory. Stress levels were measured through the stress score on the DASS-21 questionnaire. Analysis was carried out using statistical tests for mean difference, specifically the Independent T-test and Mann-Whitney U test, as well as correlation tests, notably Pearson and Spearman. Results: The mean difference test showed no significant difference in stress levels between early-semester and late- semester undergraduate students of the Faculty of Dentistry UI. There were no significant differences in salivary characteristics (volume, flow rate, pH, and viscosity) between early semester and late semester undergraduate students of the Faculty of Dentistry UI. However, significant differences were found in stimulated volume and flow rate between early-semester and late-semester undergraduate students of the Faculty of Dentistry UI. Correlation tests showed no significant relationship between salivary characteristics (volume, flow rate, pH, and viscosity) and stress levels in early-semester and late- semester undergraduate students of the Faculty of Dentistry UI. Conclusion: Salivary characteristics (volume, flow rate, pH, and viscosity) are not related to stress levels in early-semester and late-semester undergraduate students of the Faculty of Dentistry UI.