ABSTRAK

Nama	:	Sasmi Naria Fahmi
Program Studi	:	Kedokteran Umum
Judul Skripsi	:	Pengaruh Suplementasi Vitamin C Terhadap Kadar *Malondialdehyde* dan Tingkat Stres Psikologis Mahasiswa Kedokteran Universitas Yarsi Angkatan 2022 dan Tinjauannya Menurut Pandangan Islam

Latar Belakang: Stres psikologis mahasiswa kedokteran akibat tuntutan akademik dapat memicu peningkatan stres oksidatif, yang diukur melalui kadar *Malondialdehyde* (MDA). Penelitian ini mengevaluasi efek suplementasi vitamin C terhadap kadar MDA dan tingkat stres psikologis pada mahasiswa Kedokteran Universitas YARSI angkatan 2022.

Metodologi: Penelitian menggunakan rancangan eksperimental prospektif berupa *randomized controlled trial*. Sebanyak 28 peserta yang memenuhi kriteria inklusi dipilih dari populasi 296 mahasiswa dan dibagi secara acak ke dalam empat kelompok perlakuan. Pengukuran dilakukan sebelum dan setelah intervensi, kemudian kadar vitamin C dan MDA dianalisis dengan metode ELISA dari sampel serum darah, sedangkan tingkat stres psikologis dinilai menggunakan kuesioner DASS-42. Analisis data meliputi perbandingan antar kelompok dan perubahan intra kelompok untuk menilai pengaruh dosis vitamin C terhadap biomarker stres oksidatif MDA dan stres psikologis.

Hasil: Pemberian vitamin C pada mahasiswa kedokteran Universitas YARSI meningkatkan konsentrasi vitamin C dalam darah secara signifikan ($p = 0{,}010$; $p < 0{,}05$), menurunkan tingkat stres psikologis pada dosis 1000 mg ($p = 0{,}006$; $p < 0{,}05$) dan 1500 mg ($p = 0{,}020$; $p < 0{,}05$), tetapi tidak menimbulkan perubahan signifikan pada kadar MDA ($p=0.763$; $>0{,}05$). Variasi respons individu terlihat terutama pada biomarker stres oksidatif MDA.

Kesimpulan: Dari penelitian ini dapat disimpulkan bahwa suplementasi vitamin C memiliki pengaruh signifikan dalam meningkatkan konsentrasi vitamin C dan menurunkan tingkat stres psikologis, sementara perubahan kadar *Malondialdehyde* (MDA) antar kelompok tidak signifikan. Hal ini sejalan dengan prinsip *halalan thayyiban* dalam perspektif Islam, yang menekankan pentingnya konsumsi nutrisi yang bermanfaat bagi tubuh dan jiwa.

Kata kunci: Suplementasi Vitamin C, *Malondialdehyde*, Stres Psikologis, *Randomized Controlled Trial*

ABSTRACT

Name : *Sasmi Naria Fahmi*
Study Program : *Medicine*
Thesis Title : *The Effect of Vitamin C Supplementation on Malondialdehyde Levels and Psychological Stress Levels of Medical Students of Yarsi University Class of 2022: An Islamic Perspective*

Background: *Psychological stress of medical students due to academic demands can trigger increased oxidative stress, which is measured through malondialdehyde (MDA) levels. This study evaluated the effect of vitamin C supplementation on MDA concentration and psychological stress levels in YARSI University Medical students class of 2022.*

Methodology: *The study employed a prospective experimental design in the form of a randomized controlled trial. A total of 28 participants who met the inclusion criteria were selected from a population of 296 students and randomly allocated into four treatment groups. Measurements were conducted before and after the intervention. Serum vitamin C and malondialdehyde (MDA) levels were analyzed using the ELISA method, while psychological stress levels were assessed using the DASS-42 questionnaire. Data analysis included between-group comparisons and within-group changes to evaluate the effect of vitamin C dosage on the oxidative stress biomarker MDA and psychological stress.*

Results: *Vitamin C supplementation in medical students at Universitas YARSI significantly increased blood vitamin C concentrations ($p = 0.010$; $p < 0.05$) and reduced psychological stress at doses of 1000 mg ($p = 0.006$; $p < 0.05$) and 1500 mg ($p = 0.020$; $p < 0.05$), but did not produce a significant change in MDA levels ($p = 0.763$; $p > 0.05$). Individual response variability was observed, particularly in the oxidative stress biomarker MDA.*

Conclusions: *This study concludes that vitamin C supplementation has a significant effect on increasing vitamin C concentration and reducing psychological stress levels, while changes in malondialdehyde (MDA) levels were not significant between groups. These findings are consistent with the principle of halalan thayyiban in the Islamic perspective, which emphasizes the importance of consuming nutrients that are beneficial for both the body and the soul.*

Keywords: *Vitamin C Supplementation, Malondialdehyde, Psychological Stress, Randomized Controlled Trial*