

## ABSTRAK

### HUBUNGAN ASUPAN ASAM LEMAK OMEGA-3 DENGAN GEJALA DEPRESI PADA PENDERITA DIABETES MELITUS TIPE 2: STUDI CROSS-SECTIONAL PADA PESERTA PROLANIS PUSKESMAS DEPOK SLEMAN DAERAH ISTIMEWA YOGYAKARTA

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**Latar Belakang:** Depresi merupakan komorbiditas umum pada penderita diabetes melitus tipe 2 (DMT2) yang dapat menurunkan kualitas hidup dan meningkatkan hambatan klinis. Asam lemak omega-3 diketahui mempengaruhi gejala depresi melalui mekanisme anti-inflamasi dan neuroprotektif. Namun, bukti hubungan ini masih rancu pada berbagai metode penelitian dan populasi subjek.

**Tujuan:** Mengetahui hubungan antara asupan omega-3 dengan gejala depresi pada penderita DMT2

**Metode:** Studi *cross-sectional* dilakukan pada 83 peserta Program Pengelolaan Penyakit Kronis (Prolanis) DMT2 di Puskesmas Depok I, II, dan III. Data asupan omega-3 diukur menggunakan *Semi-Quantitative Food Frequency Questionnaire* (SQ-FFQ). Gejala depresi diukur menggunakan *Patient Health Questionnaire-9* (PHQ-9). Analisis hubungan asupan omega-3 dengan gejala depresi dilakukan menggunakan analisis korelasi *rank* Spearman ( $p < 0,05$ ). Hubungan antara variabel perancu usia, jenis kelamin, pendapatan rumah tangga, tingkat pendidikan, status obesitas, status merokok, tingkat aktivitas fisik, dengan variabel dependen gejala depresi, diuji menggunakan analisis korelasi *rank* Spearman atau uji *chi-Square*.

**Hasil:** Signifikansi hubungan antara asupan omega-3 dengan gejala depresi pada penderita DMT2 bernilai  $p = 0,724$ . Rata-rata asupan omega-3 responden sebesar  $398,12 \pm 22,15$  mg/hari. Sebanyak 20,5% responden memiliki tingkat gejala depresi ringan, 1,2% responden memiliki tingkat gejala depresi sedang sampai berat, 78,3% responden berada pada kategori normal. Hasil uji korelasi variabel perancu terhadap variabel gejala depresi bernilai  $p > 0,05$ .

**Kesimpulan:** Penelitian ini menunjukkan bahwa asupan omega-3 tidak berhubungan signifikan dengan gejala depresi pada penderita DMT2 Prolanis Puskesmas Depok, Sleman. Rata-rata omega-3 responden berada di bawah AKG omega-3. Studi lebih lanjut dengan variabilitas subjek yang lebih tinggi dan mempertimbangkan rasio EPA:DHA diperlukan untuk memverifikasi hubungan antara asupan omega-3 dengan gejala depresi pada penderita DMT2.

**Kata kunci:** asupan omega-3; diabetes melitus tipe 2; gejala depresi

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**ASSOCIATION BETWEEN OMEGA-3 FATTY ACIDS INTAKE AND  
DEPRESSIVE SYMPTOMS IN INDIVIDUALS WITH TYPE 2 DIABETES  
MELITUS: A CROSS-SECTIONAL STUDY AMONG PROLANIS  
PARTICIPANTS AT PUSKESMAS DEPOK SLEMAN SPECIAL REGION OF  
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**Background:** Depression is a common comorbidity in individuals with type 2 diabetes mellitus (T2DM) that often lowers quality of life and exacerbates clinical challenges. Omega-3 fatty acids are known for their potential impact on depressive symptoms through anti-inflammatory and neuroprotective mechanisms. However, evidence of this link remains inconsistent across research methods and populations.

**Objective:** To assess the relationship between omega-3 intake and depressive symptoms in individuals with T2DM.

**Methods:** This cross-sectional study involved 83 Prolanis T2DM participants from three Depok Community Health Centers (Puskesmas) in Sleman. Omega-3 intake data were collected using Semi-Quantitative Food Frequency Questionnaire (SQ-FFQ). Depressive symptoms were assessed using the Indonesian version of Patient Health Questionnaire-9 (PHQ-9). The correlation between omega-3 intake and depressive symptoms was analyzed using Spearman's rank correlation ( $p < 0,05$ ). Confounding variables were evaluated for associations with depressive symptoms using Spearman's rank correlation or chi-Square test.

**Result:** Significance level of the association between omega-3 intake and depressive symptoms in T2DM patients was 0,724. The mean omega-3 intake among respondents was  $398,12 \pm 22,15$  mg/day. 20,5% of respondents had mild depressive symptoms, 1,2% had moderate to severe depressive symptoms, and 78,3% of respondents fell within the normal category. Correlation between confounding variables with depressive symptoms were greater than 0,05 ( $p > 0,05$ ).

**Conclusion:** This study shows that omega-3 intake is not significantly correlated with depressive symptoms in individuals with T2DM enrolled in the Prolanis at Puskesmas in Depok, Sleman. The average omega-3 intake was below the Indonesian Recommended Dietary Allowance (RDA). Further research with greater sample variability and careful consideration of the EPA:DHA ratio is necessary to further investigate this association within T2DM populations.

**Keywords:** omega-3 intake; type 2 diabetes mellitus; depressive symptoms

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