

GAMBARAN RISIKO TERJADINYA FEMALE ATHLETE TRIAD PADA ATLET REMAJA PUTRI

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INTISARI

Latar Belakang: Atlet remaja sering menghadapi tekanan dalam menjaga keseimbangan antara latihan, kompetisi, kehidupan pribadi, dan akademis, sehingga dapat meningkatkan risiko *Female Athlete Triad* (FAT). FAT merupakan keterkaitan antara asupan energi rendah, gangguan menstruasi, dan densitas tulang rendah. Sindrom ini diperkirakan mencapai 40-50% atlet remaja putri di dunia, tetapi penelitian mengenai FAT di Indonesia masih terbatas, sehingga diperlukan studi lebih lanjut untuk memahami risikonya untuk meningkatkan kesejahteraan atlet remaja putri.

Tujuan Penelitian: Penelitian ini bertujuan untuk mengetahui gambaran risiko terjadinya FAT pada atlet remaja putri.

Metode: Penelitian ini menggunakan desain penelitian *cross-sectional* pada 54 atlet remaja putri dari berbagai cabang olahraga. Data asupan energi diperoleh menggunakan *Semi Quantitative Food Frequency Questionnaire* (SQ-FFQ), pengukuran status gizi menggunakan IMT/U, dan menilai risiko terjadinya FAT menggunakan *The Low Energy Availability in Females Questionnaire* (LEAF-Q). Uji statistik yang digunakan untuk melihat hubungan antar variabel adalah uji korelasi non-parametrik *Spearman's rho* dan *Chi-Square*.

Hasil: Sebanyak 17 atlet (31,5%) berisiko mengalami FAT, dengan sebagian besar memiliki asupan energi yang kurang. Mayoritas atlet (79,6%) memiliki status gizi baik, namun beberapa di antaranya mengalami gizi lebih. Hasil uji statistik menunjukkan tidak terdapat hubungan signifikan antara risiko FAT dengan asupan energi ($p=0,481$; $r=-0,0278$). Sebaliknya, terdapat hubungan signifikan antara risiko FAT dengan status gizi ($p=0,042$; $r=-0,278$).

Kesimpulan: Risiko FAT berhubungan dengan status gizi, cedera tulang, dan fungsi menstruasi, tetapi tidak berhubungan dengan asupan energi.

Kata Kunci: asupan energi, status gizi, *Female Athlete Triad* (FAT), atlet remaja putri

OVERVIEW OF THE RISK OF *FEMALE ATHLETE TRIAD* IN ADOLESCENT FEMALE ATHLETES

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ABSTRACT

Background: Adolescent athletes often get pressure in balancing training, competition, personal life, and academics, thus increasing the risk of *Female Athlete Triad* (FAT). FAT involves low energy intake, menstrual disorders, and low bone density. This syndrome is estimated to affect 40-50% of adolescent female athletes worldwide, but research on FAT in Indonesia is still limited, necessitating further studies to understand its risks and improve the well-being of adolescent female athletes.

Objective: This study aims to determine the overview of the risk of FAT in adolescent female athletes.

Methods: This research used a cross-sectional design with 54 adolescent female athletes from various sports branches. Energy intake data were obtained using the Semi Quantitative Food Frequency Questionnaire (SQ-FFQ), nutritional status measurements using BMI/Z-score, and assessing the risk of FAT using The Low Energy Availability in Females Questionnaire (LEAF-Q). Statistical tests used to see the relationship between variables were non-parametric Spearman's rho and Chi-Square.

Results: A total of 17 athletes (31.48%) were at risk of experiencing FAT, with most of them having inadequate energy intake. The majority of athletes (79.6%) had good nutritional status, but some were *overweight*. Statistical tests showed no significant relationship between FAT risk and energy intake ($p=0.481$; $r=-0.0278$). Conversely, there was a significant relationship between FAT risk and nutritional status ($p=0.042$; $r=-0.278$).

Conclusion: The risk of *Female Athlete Triad* (FAT) is related to nutritional status, bone injury, and menstrual function, but it is not related to energy intake.

Keywords: energy intake, nutritional status, *Female Athlete Triad* (FAT), adolescent female athletes