

**HUBUNGAN INTENSITAS LATIHAN, *ENERGY AVAILABILITY*, DAN
KUALITAS TIDUR DENGAN SIKLUS MENSTRUASI
(Studi Kasus pada Atlet Wanita Muda Cabang Olahraga Taekwondo di
PELATCAB TI Kabupaten Bandung Barat)**



SKRIPSI

diajukan untuk memenuhi sebagian dari syarat memperoleh gelar Sarjana Gizi

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**PROGRAM STUDI GIZI
FAKULTAS PENDIDIKAN OLAHRAGA DAN KESEHATAN
UNIVERSITAS PENDIDIKAN INDONESIA
2025**

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(Studi Kasus pada Atlet Wanita Muda Cabang
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Kabupaten Bandung Barat)**

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Sebuah skripsi yang diajukan untuk memenuhi salah satu syarat memperoleh gelar
Sarjana Gizi pada Fakultas Pendidikan Olahraga dan Kesehatan

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Bandung, Juli 2025

Penulis

ABSTRAK

**HUBUNGAN INTENSITAS LATIHAN, *ENERGY AVAILABILITY*, DAN
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**(Studi Kasus pada Atlet Wanita Muda Cabang Olahraga Taekwondo di
PELATCAB TI Kabupaten Bandung Barat)**

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Latar belakang: Gangguan keteraturan siklus menstruasi kerap dialami oleh atlet wanita yang aktif dalam olahraga fisik. Ketidakteraturan menstruasi tidak hanya berdampak pada performa atletik, tetapi juga berpotensi menimbulkan berbagai masalah di masa mendatang, seperti osteoporosis, infertilitas, risiko diabetes melitus, dan penyakit kardiovaskular. Beberapa faktor yang dapat memengaruhi siklus menstruasi pada atlet antara lain intensitas latihan, *energy availability* dan kualitas tidur. **Tujuan:** Tujuan dari penelitian ini adalah untuk mengetahui hubungan intensitas latihan, *energy availability*, dan kualitas tidur dengan siklus menstruasi pada atlet wanita muda yang tergabung dalam Pelatihan Cabang Taekwondo Indonesia Kabupaten Bandung Barat. **Metode:** Penelitian ini menggunakan desain kuantitatif dengan pendekatan *cross sectional*. Sampel penelitian berjumlah 33 orang yang diperoleh dengan teknik *total sampling*. Data dikumpulkan melalui kuesioner skala RPE, kuesioner PSQI, *food recall* 2×24 jam, dan pengukuran antropometri menggunakan *Bioelectric Impedance Analysis*. Data yang diperoleh dianalisis menggunakan uji *Chi-Square*. **Hasil:** Hasil penelitian menunjukkan terdapat hubungan yang signifikan antara intensitas latihan ($p\text{-value} = 0.014$) dan *energy availability* ($p\text{-value} = 0.000$) dengan siklus menstruasi. Selain itu, tidak ditemukan hubungan signifikan antara kualitas tidur ($p\text{-value} = 0.222$) dengan siklus menstruasi atlet taekwondo wanita. **Kesimpulan:** Kesimpulan dari penelitian ini adalah intensitas latihan dan *energy availability* memiliki hubungan yang signifikan dengan siklus menstruasi, sedangkan kualitas tidur tidak menunjukkan hubungan yang signifikan dengan siklus menstruasi.

Kata kunci: atlet wanita, *energy availability*, intensitas latihan, kualitas tidur, siklus menstruasi

ABSTRACT

THE RELATIONSHIP BETWEEN TRAINING INTENSITY, ENERGY AVAILABILITY, AND SLEEP QUALITY WITH THE MENSTRUAL CYCLE OF FEMALE TAEKWONDO ATHLETES

(A Case Study of Young Female Taekwondo Athletes at PELATCAB TI in West Bandung Regency)

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Background: Menstrual cycle irregularities are commonly reported by female athletes engaged in physically demanding sports. Menstrual irregularities not only impact athletic performance but also pose potential risks for future health issues such as osteoporosis, infertility, diabetes mellitus, and cardiovascular disease. Factors influencing menstrual cycles include exercise intensity, energy availability, and sleep quality. **Objectives:** This study aims to investigate the relationship between training intensity, energy availability, and sleep quality with the menstrual cycle in young female athletes participating in the Pelatihan Cabang Taekwondo Indonesia Kabupaten Bandung Barat (PELATCAB TI KBB). **Methods:** This research uses a quantitative approach with a cross-sectional design. The sample consisted of 33 participants selected using total sampling technique. Data were collected through the RPE scale questionnaire, PSQI questionnaire, 2×24 hour food recall, and anthropometric measurements using Bioelectric Impedance Analysis. The data obtained were analyzed using the Chi-Square test. **Results:** The results of the study showed a significant relationship between exercise intensity (p -value = 0.014) and energy availability (p -value = 0.000) with the menstrual cycle. In addition, the study found no significant relationship between sleep quality (p -value = 0.222) and the menstrual cycle of female taekwondo athletes. **Conclusions:** The conclusion of this study is that training intensity and energy availability have a significant relationship with the menstrual cycle, while sleep quality does not show a significant relationship with the menstrual cycle.

Keywords: female athlete, energy availability, training intensity, sleep quality, menstrual cycle

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DAFTAR SINGKATAN

ACSM	: <i>American College of Sports Medicine</i>
BB	: Berat Badan
BIA	: <i>Bioelectric Impedance Analysis</i>
EA	: <i>Energy Availability</i>
EEE	: <i>Exercise Energy Expenditure</i>
FAT	: <i>Female Athlete Triad</i>
FFM	: <i>Fat Free Mass</i>
FSH	: <i>Follicle Stimulating Hormone</i>
HPG	: <i>Hypothalamic-Pituitary-Gonadal</i>
IMT	: Indeks Massa Tubuh
LEA	: <i>Low Energy Availability</i>
LH	: <i>Luteinizing Hormone</i>
METs	: <i>Metabolic Equivalent of Task</i>
PELATCAB	: Pelatiahahan Cabang
PSQI	: <i>Pittsburgh Sleep Quality Index</i>
Riskesdas	: Riset Kesehatan Dasar
TI	: Taekwondo Indonesia
WHO	: <i>World Health Organization</i>

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