

DAMPAK *UNDULATING PERIODIZATION* DAN VO<sub>2</sub>MAX TERHADAP  
KEMAMPUAN ANAEROBIK PADA PEMAIN FUTSAL WANITA

DISERTASI

diajukan untuk memenuhi sebagian syarat untuk memperoleh gelar Doktor  
Pendidikan Olahraga pada Program Studi Pendidikan Olahraga



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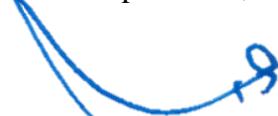
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## ABSTRAK

### DAMPAK UNDULATING PERIODIZATION DAN VO<sub>2</sub>MAX TERHADAP KEMAMPUAN ANAEROBIK PADA PEMAIN FUTSAL WANITA

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Penelitian ini bertujuan mengkaji dampak undulating periodisasi dan VO<sub>2</sub>max terhadap kemampuan anaerobik pemain futsal wanita. Metode penelitian yang digunakan desain faktorial 2x2. Variabel bebas yaitu *undulating* periodisasi dan Variabel moderator yaitu VO<sub>2</sub>max, variabel terikat adalah kemampuan anaerobik. Terdapat empat kelompok eksperimen yang diantaranya kelompok VO<sub>2</sub>max tinggi dengan *daily undulating* Periodisasi (X1Y1), kelompok VO<sub>2</sub>max rendah dengan *daily undulating* periodisasi (X2Y2), kelompok VO<sub>2</sub>max tinggi dengan *weekly undulating* periodisasi (XIY2), kelompok VO<sub>2</sub>max rendah dengan *weekly undulating* periodisasi (X2Y2). Analisis data dalam penelitian ini menggunakan analisis statistik Two-way ANOVA. kesimpulan penelitian ini menunjukkan bahwa tanpa memperhatikan tingkat VO<sub>2</sub>max atlet, terdapat pengaruh yang tidak signifikan antara *undulating* periodisasi baik itu model DUP maupun model WUP terhadap peningkatan kemampuan anaerobik pada pemain futsal wanita, tidak terdapat perbedaan pengaruh yang signifikan antara DUP dan WUP terhadap peningkatan kemampuan anaerobik pada pemain futsal wanita. terdapat interaksi antara *undulating* periodisasi dengan VO<sub>2</sub>max yang memberikan perbedaan pengaruh yang signifikan terhadap peningkatan kemampuan anaerobik pada pemain futsal wanita. Terdapat perbedaan pengaruh yang signifikan antara model DUP dan WUP terhadap peningkatan kemampuan anaerobik pada pemain futsal wanita dalam kondisi VO<sub>2</sub>max tinggi maka model DUP lebih efektif dalam peningkatan kemampuan anaerobik pada pemain futsal wanita dibandingkan dengan model WUP. Tidak terdapat perbedaan pengaruh yang signifikan antara model DUP dan WUP terhadap peningkatan kemampuan anaerobik pada pemain futsal wanita dalam kondisi VO<sub>2</sub>max rendah.

**Kata Kunci:** *Futsal, Periodization, Periodized, Undulating Periodized, Anaerobic, Anaerobic Ability, Human*

## ABSTRACT

### **THE IMPACT OF UNDULATING PERIODIZATION AND VO<sub>2</sub>MAX ON ANAEROBIC ABILITY IN WOMEN FUTSAL PLAYERS**

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This study examines the impact of undulating periodization and VO<sub>2</sub>max on the anaerobic abilities of female futsal players. The research method used is a 2x2 factorial design. The independent variable is undulating periodization and the moderator variable is VO<sub>2</sub>max, the dependent variable is anaerobic ability. There are four experimental groups, including the high VO<sub>2</sub>max group with daily undulating periodization (X1Y1), low VO<sub>2</sub>max group with daily undulating periodization (X2Y2), high VO<sub>2</sub>max group with weekly undulating periodization (XIY2), low VO<sub>2</sub>max group with weekly undulating periodization (X2Y2). Data analysis in this study used two-way ANOVA statistical analysis. The conclusion of this study shows that regardless of the athlete's VO<sub>2</sub>max level, there is no significant effect between the undulating periodization of both the DUP model and the WUP model on increasing anaerobic ability in women futsal players, there is no significant difference in effect between DUP and WUP on increasing anaerobic ability in women futsal player. there is an interaction between undulating periodization and VO<sub>2</sub>max which gives a significant difference in effect on increasing anaerobic abilities in women futsal players. There is a significant difference in the effect of the DUP and WUP models on increasing the anaerobic abilities of women futsal players under high VO<sub>2</sub>max conditions, so the DUP model is more effective in increasing the anaerobic abilities of women futsal players compared to the WUP model. There is no significant difference in the effect of the DUP and WUP models on the increase in anaerobic ability of women futsal players under low VO<sub>2</sub>max conditions.

**Keywords:** *Futsal, Periodization, Periodized, Undulating Periodized, Anaerobic, Anaerobic Ability, Human*

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