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Jocellyn

Program Studi S-1 Fisioterapi

Fakultas Fisioterapi

Universitas Esa Unggul

HUBUNGAN DAYA LEDAK OTOT TUNGKAI TERHADAP KECEPATAN RENANG ATLET SPRINT GAYA DADA 50M

Terdiri dari VI Bab, 75 Halaman, 1 Gambar, 5 Tabel, 3 Skema, 6 Grafik, 7 Lampiran

Tujuan: Penelitian ini bertujuan Untuk mengetahui hubungan antara daya ledak otot tungkai terhadap kecepatan renang atlet *sprint* gaya dada 50m yang berusia 12 – 17 tahun. **Metode:** Penelitian ini merupakan penelitian non-eksperimental berupa studi korelasi untuk menganalisis hubungan daya ledak otot tungkai terhadap kecepatan renang atlet *sprint* gaya dada 50m. Total sampel berjumlah 23 orang atlet renang Perkumpulan Renang Tumit Mitra Bangsa dengan rentang usia 12 – 17 tahun yang diperoleh dengan *purposive sampling*. Pengukuran yang dilakukan adalah pengukuran daya ledak otot tungkai dengan *vertical jump* dan pengukuran kecepatan renang dengan perhitungan matematis pembagian jarak kolam (50m) dengan catatan waktu perenang yang diukur dengan menggunakan *stopwatch*. **Hasil:** Uji korelasi dengan *Spearman rank correlation coefficient* menunjukkan adanya hubungan yang bermakna dengan nilai $p = 0,001$ ($p < 0,05$) dengan kekuatan hubungan yang sangat kuat ($r = 0,997$) yang artinya semakin besar daya ledak otot tungkai, maka semakin besar pula nilai kecepatan renang atlet *sprint* gaya dada 50m. Rata-rata dengan standar deviasi daya ledak otot tungkai sebesar $45,85 \pm 5,99$ dan pada kecepatan renang sebesar $1,07 \pm 0,15$. **Kesimpulan:** Terdapat hubungan yang bermakna antara daya ledak otot tungkai terhadap kecepatan renang gaya dada 50m.

Kata Kunci: daya ledak otot tungkai, kecepatan renang, renang gaya dada



ABSTRACT

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Jocellyn

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Faculty of Physiotherapy

Esa Unggul University

THE RELATIONSHIP BETWEEN LEG MUSCLE EXPLOSIVE POWER AND SWIMMING SPEED OF 50M BREASTSTROKE SPRINT ATHLETE

Consist of VI chapter, 75 pages, 1 figure, 5 tables, 3 schemes, 6 graphics, 7 attachments

Objective: *This study aim is to determine the relationship between the explosive power of the leg muscles and the swimming speed of the 50m breaststroke sprint athlete aged 12-17 years.*

Methods: *This research is a non-experimental research in the form of a correlation study to analyze the relationship between leg muscle explosive power and swimming speed of 50m breaststroke sprint athletes. There are 23 swimmers as the samples from Tumit Mitra Bangsa Swimming Association with an age range of 12-17 years taken with purposive sampling technique. The measurements taken were the measurement of leg muscle explosive power with vertical jumps and the measurement of swimming speed by mathematical calculation of the division of the pool distance (50m) with a record of the swimmer's time measured using a stopwatch.*

Results: *The correlation test with the Spearman rank correlation coefficient showed a significant relationship with a value of $p = 0.001$ ($p < 0.05$) with a very strong relationship ($r = 0.997$), which means greater explosive power of the leg muscles increases the swimming speed of the 50m breaststroke sprint athlete. The average with a standard deviation of leg muscle explosive power is 45.85 ± 5.99 and at swimming speed is 1.07 ± 0.15 .*

Conclusion: *There is a significant relationship between leg muscle explosive power and 50m breaststroke swimming speed.*

Keywords: *leg muscle explosive power, swimming speed, breaststroke swimming*