

**PENGARUH *CORE STRENGTH TRAINING (CST)*
TERHADAP *RUNNING- ECONOMIC (RE)* DAN
PENINGKATAN *QUALITY OF LIFE (QOL)*
PELARI JARAK JAUH**

TESIS

Diajukan Untuk Memperoleh Gelar Magister Program Studi Pendidikan Olahraga



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**Pengaruh *Core Strength Training (CST)* Terhadap *Running Economic (RE)*
dan Peningkatan *Quality of Life (QOL)* Pelari Jarak Jauh**

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**Sebuah tesis yang diajukan untuk memenuhi salah satu syarat memperoleh
gelar Magister pada Sekolah Pascasarjana**

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**PENGARUH *CORE STRENGTH TRAINING (CST)*
TERHADAP *RUNNING ECONOMIC (RE)* DAN PENINGKATAN
QUALITY OF LIFE (QOL) PELARI JARAK JAUH**

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ABSTRAK

Penelitian sebelumnya menemukan cedera yang seringkali terjadi pada pelari pemula jarak jauh didominasi area ekstremitas bawah yaitu sebanyak 80% disebabkan kelebihan beban, dalam hal ini tendon dan ligamen adalah area yang beresiko karena diperlukan adaptasi yang lebih lama dengan program latihan beban (Van Poppel, Dennis, 2020). Menurut Lum (2016), bahwa performa berlari pelari dapat diperoleh dari latihan *strength* melalui adaptasi *neuromuscular* yang lebih baik, didukung penelitian lain yang menyebutkan *core dan strength training* (CST) dapat memperbaiki performa dan efisiensi berlari (RE) pelari jarak jauh (Lundstorm, J.C,2017). Beberapa efek yang diperoleh dari aktivitas fisik kebugaran muskuloskeletal melalui aspek *Quality of Life* (QOL) diantaranya kepuasan hidup, keteraturan tidur, mengurangi stres yang dirasakan, kecemasan dan depresi (Boldt, Patrick., 2018).

Peneliti merespon hal ini melalui penelitian mengenai pengaruh latihan kekuatan inti terhadap efisiensi berlari dan peningkatan kualitas hidup pelari jarak jauh. Penelitian ini merupakan penelitian eksperimen. Penelitian dilakukan dengan melibatkan 12 sampel pelari rekreasi berusia 30-45 tahun yang diambil dari komunitas lari Teman Sporty dengan pendekatan total sampling. Desain tes digunakan untuk menilai perbedaan pengaruh antara latihan lari yang disertai *CST* (treatment) dan latihan lari tanpa disertai *CST* (kontrol). Hasil penelitian berdasarkan uji independent sample *t* – test untuk variabel *running economic* dan *quality of life* perbedaan rata-rata *post-test* sebesar $t = 2,479$ dengan nilai $\text{sig } 0,033 < 0,05$, artinya H_0 ditolak bahwa terdapat pengaruh perbedaan perlakuan latihan lari yang disertai *CST* dibandingkan yang latihan lari tanpa *CST*. Untuk variabel peningkatan QOL ditemukan perbedaan rata-rata pada *post-test* diperoleh nilai 0.027, dengan nilai asymp Sig (2 tailed) 0.027 lebih kecil dari 0.05 dapat disimpulkan ada perbedaan pengaruh perlakuan *CST* terhadap peningkatan QOL.

Dari hasil kesimpulan yang diperoleh, peneliti mengajukan rekomendasi sebagai berikut : 1) mengembangkan program latihan lari bagi pelari jarak jauh dengan menambahkan perlakuan *CST*; 2) memasukan pengembangan aspek psikologi dan aspek psikososial dalam menu latihan; 3) untuk meningkatkan jumlah *cadence* tidak efektif jika diperlakukan *CST* saja perlu ditambahkan menu ABC drill dan intensitas latihan frekuensi langkah dalam berlari (*cadence*) pada lintasan jarak lebih pendek, yaitu lintasan 50-100meter; dan 4) penelitian di masa depan harus melibatkan lebih banyak peserta dalam uji coba terkontrol secara acak tentang pengaruh terhadap efisiensi berlari pelari jarak jauh.

Kata Kunci :performa lari, efisiensi berlari, latihan kekuatan inti, *quality of life*, kecepatan, VO_2 maks, jumlah *cadence*, pelari jarak jauh, pelari rekreasi

ABSTRACT

Eighty percents of injuries occurred to the beginner long-distance runners were located in the lower extremity area, especially in tendon and ligament areas. This was happened because of the overload burden of those areas whereas longer adaptation was needed with a weight training programme (Van Poppel, Dennis, 2020). According to Lum (2016), runners' running performance can be improved by strength training through better neuromuscular adaptation. Lundstorm (2017) also mentioned that core and strength training (CST) can improve the performance and running efficiency (RE) of long-distance runners. Physical activity on musculoskeletal fitness can also provide benefits in the Quality of Life (QOL) include life satisfaction, sleep regularity, reducing perceived stress, anxiety and depression (Boldt, Patrick., 2018).

This study responded to the abovementioned theories by trying to find the effect of core strength training (CST) on running efficiency and the quality of life of long-distance runners. This study was an experimental study which was conducted by involving 12 samples of recreational runners aged 30-45 years taken from the Teman Sporty running community with a total sampling approach. The test was designed to assess the difference in effect between running training accompanied by CST (treatment) and running training without CST (control).

The results of the study based on the independent sample t-test for the variable of running economy and quality of life. The post-test average difference was $t = 2.479$ with a sig value of $0.033 < 0.05$, meaning that H_0 was rejected that there was an effect of differences in the treatment of running exercises accompanied by CST compared to running exercises without CST. For the QOL improvement variable, the average difference in the post-test was found to be 0.027, with an asymp Sig (2 tailed) value of 0.027 smaller than 0.05, therefore it can be concluded that there is a difference in the effect of CST treatment on QOL improvement.

From the conclusions obtained, this research proposes recommendations: 1) develop a training programme for long distance runners by adding CST treatment; 2) include the development of psychological aspects and psychosocial aspects in the training menu; 3) add ABC Drill Menu to the CST Training to increase its' effectiveness in increasing the number of cadence; and 4) future research should involve more participants in randomized controlled trials on the effect on running efficiency of long distance runners.

Keywords: running performance, running efficiency, core strength training, quality of life, speed, VO2 max, number of cadences, long distance runners, recreational runners

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