

**HUBUNGAN TINGKAT AKTIVITAS FISIK TERHADAP
TRUNK LEAN MASS, TRUNK FAT MASS, DAN CORE
ENDURANCE PADA MAHASISWA FISIOTERAPI
UPN “VETERAN” JAKARTA**

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Abstrak

Latar Belakang: Aktivitas fisik berkaitan dengan *trunk lean mass* (TLM), *trunk fat mass* (TFM), serta *core endurance* yang berperan dalam stabilitas dan efisiensi gerak. Mahasiswa fisioterapi memiliki tuntutan akademik dan praktik klinis yang melibatkan aktivitas fisik cukup tinggi, sehingga membutuhkan kondisi fisik yang optimal. Namun, penelitian terkait hubungan antara ketiga variabel tersebut terhadap mahasiswa fisioterapi masih terbatas. **Tujuan:** Mengetahui hubungan tingkat aktivitas fisik terhadap *trunk lean mass*, *trunk fat mass*, dan *core endurance* pada mahasiswa fisioterapi UPN “Veteran” Jakarta. **Metode:** Penelitian menggunakan desain *cross sectional*. Sampel terdiri dari 179 mahasiswa fisioterapi angkatan 2024 dan 2025 yang dipilih dengan teknik *purposive sampling*. TLM dan TFM diukur menggunakan InBody 570, *core endurance* diukur dengan *Front Plank Test*, dan tingkat aktivitas fisik diukur menggunakan IPAQ-SF. **Hasil:** Analisis menunjukkan adanya hubungan signifikan antara aktivitas fisik dan TLM ($p < 0.001$; $\rho = 0.365$), aktivitas fisik dan TFM ($p = 0.003$; $\rho = -0.224$), serta TLM berhubungan positif dengan *core endurance* ($p < 0.001$; $\rho = 0.269$) dan TFM berhubungan negatif dengan *core endurance* ($p < 0.001$; $\rho = -0.382$). Selain itu, aktivitas fisik *core endurance* ($p < 0.001$; $\rho = 0.357$). **Kesimpulan:** Tingkat aktivitas fisik memiliki hubungan dengan *trunk lean mass*, *trunk fat mass*, dan *core endurance* pada mahasiswa fisioterapi UPN “Veteran” Jakarta.

Kata Kunci: *Trunk Lean Mass* (TLM), *Trunk Fat Mass* (TFM), *Core Endurance*, Aktivitas Fisik, Mahasiswa Fisioterapi

**ASSOCIATIONS OF PHYSICAL ACTIVITY LEVELS WITH
TRUNK LEAN MASS, TRUNK FAT MASS, AND CORE
ENDURANCE AMONG PHYSIOTHERAPY STUDENTS
AT UPN “VETERAN” JAKARTA**

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Abstract

Background: Physical activity is associated with trunk lean mass (TLM), trunk fat mass (TFM), and core endurance, which play essential roles in movement stability and efficiency. Physiotherapy students face substantial academic demands and clinical practice involving relatively high levels of physical activity, requiring optimal physical condition. However, studies examining the relationships among these variables in physiotherapy students remain limited. **Objective:** To examine the associations between physical activity levels with trunk lean mass, trunk fat mass, core endurance among physiotherapy students at UPN “Veteran” Jakarta. **Metode:** This study employed a cross-sectional design. A total of 179 physiotherapy students from the 2024 and 2025 cohorts were recruited using purposive sampling. Trunk lean mass and trunk fat mass were measured using InBody 570, core endurance was assessed using the Front Plank Test, and physical activity levels were measured using the International Physical Activity Questionnaire–Short Form (IPAQ-SF). **Results:** Analysis showed a significant association between physical activity and TLM ($p < 0.001$; $\rho = 0.365$), physical activity and TFM ($p = 0.003$; $\rho = -0.224$), as well as a positive relationship between TLM and core endurance ($p < 0.001$; $\rho = 0.269$) and a negative relationship between TFM and core endurance ($p < 0.001$; $\rho = -0.382$). In addition, physical activity was positively associated with core endurance ($p < 0.001$; $\rho = 0.357$). **Conclusion:** Physical activity levels is associated with trunk lean mass, trunk fat mass, and core endurance among physiotherapy students at UPN “Veteran” Jakarta.

Keywords: Trunk Lean Mass (TLM), Trunk Lean Mass (TLM), Core Endurance, Physical Activity, Physiotherapy Students