

HUBUNGAN ASUPAN MAKAN SELAMA PANDEMI COVID-19 TERHADAP KOMPOSISI TUBUH DAN DAYA LEDAK OTOT TUNGKAI ATLET *WEIGHT SPORT* DI SMAN OLAHRAGA (SMANOR) JAWA TIMUR

INTISARI

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Latar Belakang: *Weight sport* merupakan olahraga yang melibatkan kategori berat badan dalam pertandingan, salah satunya adalah bela diri. Pencak silat, taekwondo dan karate memiliki persamaan, yaitu merupakan cabang olahraga bela diri kategori memukul dan menendang yang dominan menggunakan teknik tendangan sehingga diperlukan daya ledak otot tungkai yang baik demi mencapai performa optimal. Beberapa faktor yang berperan penting dalam menghasilkan performa yang optimal selain kualitas fisik adalah status gizi dan komposisi tubuh. Berdasarkan penelitian terdahulu menunjukkan bahwa pandemi COVID-19 dapat mempengaruhi asupan makan, komposisi tubuh, dan kebugaran jasmani sehingga dapat bertampak terhadap performa dan prestasi atlet.

Tujuan: Penelitian ini bertujuan mengetahui hubungan asupan makan selama pandemi COVID-19 dengan komposisi tubuh dan daya ledak otot tungkai atlet *weight sport* di SMAN Olahraga (SMANOR) Jawa Timur.

Metode: Penelitian ini merupakan observasional analitik dengan pendekatan *cross-sectional*. Penelitian dilakukan di SMANOR Jawa Timur pada bulan Maret 2022. Subjek berjumlah 41 atlet dari cabang olahraga pencak silat, taekwondo dan karate yang tergabung dalam SMANOR Jawa Timur dan diambil menggunakan teknik *simple random sampling*. Variabel yang diteliti meliputi asupan makan, komposisi tubuh, dan daya ledak otot tungkai. Uji korelasi *rank spearman* dan *pearson product moment* digunakan sebagai uji statistik.

Hasil : Terdapat hubungan negatif signifikan yang lemah antara asupan energi dengan % *subcutaneous fat whole body* ($p=0.05$, $r=-0.308$) dan *legs* ($p=0.49$, $r=-0.309$) serta asupan protein dengan % *subcutaneous fat whole body* ($p=0.35$, $r=-0.330$) dan *legs* ($p=0.41$, $r=-0.320$). Terdapat hubungan positif signifikan yang cukup kuat antara asupan protein dengan % *skeletal muscle trunk* ($p=0.021$, $r=0.359$). Asupan zat gizi lain tidak memiliki hubungan yang signifikan dengan komposisi tubuh ataupun daya ledak otot tungkai.

Kesimpulan: Asupan energi dan protein pada aspek tertentu berhubungan dengan komposisi tubuh. Tetapi tidak terdapat hubungan yang signifikan antara asupan zat gizi lain dengan komposisi tubuh dan asupan makan dengan daya ledak otot tungkai.

Kata Kunci: asupan makan, komposisi tubuh, daya ledak otot tungkai, pandemi covid-19, *weight sport*, pencak silat, taekwondo, karate.

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THE CORRELATIONS BETWEEN DIETARY INTAKE DURING THE COVID-19 PANDEMIC WITH BODY COMPOSITION AND LIMB MUSCLE EXPLOSIVE POWER OF WEIGHT SPORT ATHLETES AT SMAN SPORT (SMANOR) EAST JAVA

ABSTRACT

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Background: Weight sport is a sport that involves weight categories in matches, one of which is martial arts. Pencak silat, taekwondo and karate have something in common, namely that they are martial arts branches in the hitting and kicking categories which predominantly use kicking techniques so that good explosive power of the leg muscles is needed to achieve optimal performance. Several factors that play an important role in producing optimal performance apart from physical quality are nutritional status and body composition. Based on previous research, it has been shown that the COVID-19 pandemic can affect dietary intake, body composition, and physical fitness so that it can affect the performance and achievements of athletes.

Objective: This study aims to determine the correlation between dietary intake during the COVID-19 pandemic with body composition and limb muscle explosive power of weight sport athletes at SMAN Sport (SMANOR) East Java.

Methods: This research is an analytic observational with a cross-sectional approach. The study was conducted at SMANOR East Java in Maret 2022. The subjects were 41 athletes from pencak silat, taekwondo and karate sports who were members of SMANOR East Java and were taken using a simple random sampling technique. The variables studied included dietary intake, body composition, and limb muscle explosive power. Spearman rank correlation test and Pearson product moment were used as statistical tests.

Results : There was a weak significant negative correlation between energy intake and % subcutaneous fat whole body ($p=0.05$, $r=-0.308$) and legs ($p=0.49$, $r=-0.309$) and protein intake with % subcutaneous fat whole body ($p=0.35$, $r=-0.330$) and legs ($p=0.41$, $r=-0.320$). There is a strong positive significant correlation between protein intake and % skeletal muscle trunk ($p=0.021$, $r=0.359$). The intake of other nutrients did not have a significant correlation with body composition or limb muscle explosive power.

Conclusion: Energy and protein intake in certain aspects are correlated with body composition. But there is no significant correlation between intake of other nutrients with body composition and dietary intake with limb muscle explosive power.

Keywords: food intake, body composition, leg muscle explosive power, covid-19 pandemic, weight sport, pencak silat, taekwondo, karate.

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