

ABSTRAK

HUBUNGAN ASUPAN CAIRAN HARIAN, ASUPAN CAIRAN PERIODE LATIHAN, STATUS HIDRASI, DAN PERSEN LEMAK TUBUH DENGAN PERUBAHAN TEKANAN DARAH PADA ATLET OLAHRAGA *CARDIOVASCULAR ENDURANCE*

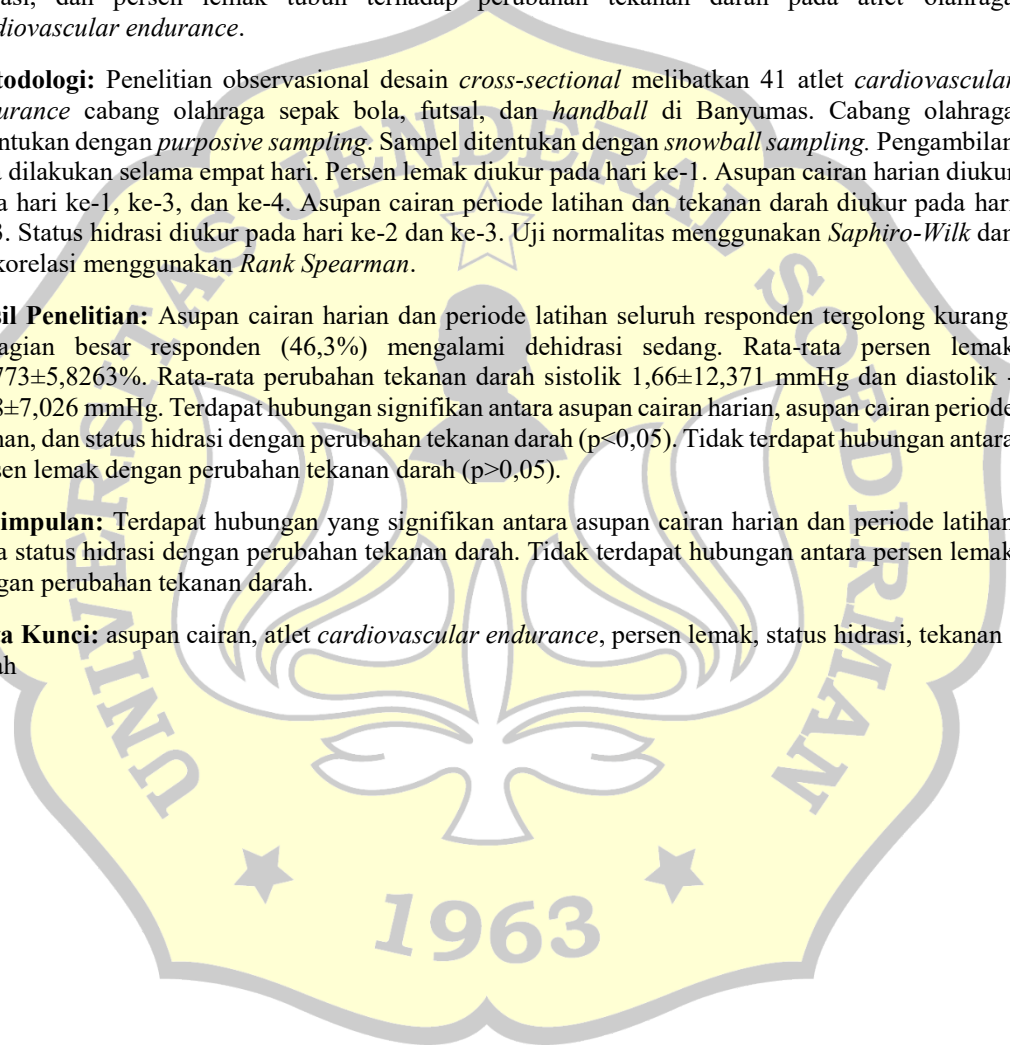
Latar Belakang: Daya tahan jantung atlet *cardiovascular endurance* berpengaruh terhadap pemulihan pasca olahraga serta dipengaruhi komposisi lemak dan keseimbangan cairan. Penelitian ini bertujuan mengetahui hubungan antara asupan cairan harian, asupan cairan periode latihan, status hidrasi, dan persen lemak tubuh terhadap perubahan tekanan darah pada atlet olahraga *cardiovascular endurance*.

Metodologi: Penelitian observasional desain *cross-sectional* melibatkan 41 atlet *cardiovascular endurance* cabang olahraga sepak bola, futsal, dan *handball* di Banyumas. Cabang olahraga ditentukan dengan *purposive sampling*. Sampel ditentukan dengan *snowball sampling*. Pengambilan data dilakukan selama empat hari. Persen lemak diukur pada hari ke-1. Asupan cairan harian diukur pada hari ke-1, ke-3, dan ke-4. Asupan cairan periode latihan dan tekanan darah diukur pada hari ke-3. Status hidrasi diukur pada hari ke-2 dan ke-3. Uji normalitas menggunakan *Saphiro-Wilk* dan uji korelasi menggunakan *Rank Spearman*.

Hasil Penelitian: Asupan cairan harian dan periode latihan seluruh responden tergolong kurang. Sebagian besar responden (46,3%) mengalami dehidrasi sedang. Rata-rata persen lemak $18,773 \pm 5,8263\%$. Rata-rata perubahan tekanan darah sistolik $1,66 \pm 12,371$ mmHg dan diastolik $-4,88 \pm 7,026$ mmHg. Terdapat hubungan signifikan antara asupan cairan harian, asupan cairan periode latihan, dan status hidrasi dengan perubahan tekanan darah ($p < 0,05$). Tidak terdapat hubungan antara persen lemak dengan perubahan tekanan darah ($p > 0,05$).

Kesimpulan: Terdapat hubungan yang signifikan antara asupan cairan harian dan periode latihan serta status hidrasi dengan perubahan tekanan darah. Tidak terdapat hubungan antara persen lemak dengan perubahan tekanan darah.

Kata Kunci: asupan cairan, atlet *cardiovascular endurance*, persen lemak, status hidrasi, tekanan darah



ABSTRACT

RELATIONSHIP BETWEEN DAILY FLUID INTAKE, TRAINING PERIOD FLUID INTAKE, HYDRATION STATUS, AND PERCENT BODY FAT WITH CHANGES IN BLOOD PRESSURE IN CARDIOVASCULAR ENDURANCE ATHLETES

Background: Heart performance of cardiovascular endurance athletes affects post-exercise recovery. Heart capacity is influenced by fat composition and fluid balance. This study aims to determine the relationship between daily fluid intake, training period fluid intake, hydration status, and percent body fat on changes to blood pressure in cardiovascular endurance athletes.

Methods: Observational study of cross-sectional design involving 41 cardiovascular endurance athletes in soccer, futsal, and handball in Banyumas. Sports are determined by purposive sampling. Sample was determined by snowball sampling. Data collection was carried out for four days. Percent fat was measured on day 1. Daily fluid intake was measured on days 1, 3, and 4. Fluid intake for the training period and blood pressure were measured on day 3. Hydration status was measured on days 2 and 3. Normality test used Saphiro-Wilk and correlation test used Rank Spearman.

Results: All respondents had deficient daily fluid intake and training period. Most respondents (46.3%) were moderately dehydrated. The average percent body fat of the respondents was $18.773 \pm 5.8263\%$. The average change in systolic blood pressure was 1.66 ± 12.371 mmHg and diastolic -4.88 ± 7.026 mmHg. There was a significant relationship between daily fluid intake, training period fluid intake and hydration status with changes in blood pressure ($p < 0.05$). There was no relationship between body fat percentage and blood pressure changes ($p > 0.05$).

Conclusion: There was a significant relationship between daily fluid intake, training period fluid intake, and hydration status with changes in blood pressure. There was no relationship between percent fat and changes in blood pressure.

Keywords: blood pressure, cardiovascular endurance athlete, fat percentage, fluid intake, hydration status

