HUBUNGAN ANTARA FLEKSIBILITAS OTOT HAMSTRING DAN *FOOTWORK* PADA ATLET BULUTANGKIS REMAJA

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Abstrak

Latar Belakang: *Footwork* merupakan komponen penting dalam bulutangkis yang dipengaruhi oleh kondisi fisik, khususnya fleksibilitas otot hamstring. Keterbatasan fleksibilitas dapat menghambat jangkauan gerak, kecepatan perubahan arah, dan efisiensi gerakan kaki, terutama pada atlet remaja yang berada dalam fase pertumbuhan. **Tujuan Penelitian:** Mengetahui hubungan antara fleksibilitas otot hamstring dan *footwork* pada atlet bulutangkis remaja. **Metode Penelitian:** Penelitian ini menggunakan metode korelasi kuantitatif, desain *cross-sectional*. Sampel terdiri dari 52 atlet bulutangkis remaja yang dipilih melalui total sampling. Pengukuran fleksibilitas menggunakan *sit and reach test*, sedangkan kemampuan *footwork* diukur dengan *badcamp agility test*. Analisis data dilakukan menggunakan uji normalitas *shapiro–wilk* dan uji korelasi *pearson*. **Hasil Penelitian:** Rata-rata fleksibilitas otot hamstring sebesar 34.038 dengan mayoritas kategori "baik sekali". Rata-rata kemampuan *footwork* sebesar 10.70 dengan kategori terbanyak "cukup". Uji korelasi *pearson* menunjukkan hubungan signifikan namun lemah ($r = -0.278$; $p = 0.046$). **Kesimpulan:** Terdapat hubungan signifikan namun lemah antara fleksibilitas otot hamstring dan kemampuan *footwork* pada atlet bulutangkis remaja, sehingga faktor lain seperti kekuatan otot, kecepatan, dan koordinasi neuromuskular juga berperan penting.

Kata Kunci: Fleksibilitas Otot Hamstring, *Footwork*, Atlet Bulutangkis Remaja

RELATIONSHIP BETWEEN HAMSTRING MUSCLE FLEXIBILITY AND FOOTWORK IN ADOLESCENT BADMINTON ATHLETES

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Abstract

Background: Footwork is a crucial component in badminton and is influenced by physical conditions, particularly hamstring muscle flexibility. Limited flexibility may restrict range of motion, reduce the speed of directional changes, and decrease movement efficiency, especially in adolescent athletes who are in a growth phase. **Objective:** This study aimed to determine the relationship between hamstring muscle flexibility and footwork ability in adolescent badminton athletes. **Methods:** This study employed a quantitative correlational method, cross-sectional design. The sample consisted of 52 adolescent badminton athletes selected using total sampling. Hamstring flexibility was measured using the sit and reach test, while footwork ability was assessed using the badcamp agility test. Data analysis was conducted using the Shapiro–Wilk normality test and Pearson correlation test. **Results:** The mean hamstring flexibility score was 34.038, with the majority of participants classified as "excellent." The mean footwork score was 10.70, with most athletes categorized as "fair." Pearson correlation analysis revealed a significant but weak relationship ($r = -0.278$; $p = 0.046$). **Conclusion:** There is a significant but weak relationship between hamstring muscle flexibility and footwork ability in adolescent badminton athletes, indicating that footwork performance is also influenced by other factors such as muscle strength, speed, and neuromuscular coordination.

Keywords: Hamstring Muscle Flexibility, Footwork, Adolescent Badminton Athletes