

ABSTRAK

HUBUNGAN ANTARA DAYA LEDAK OTOT LENGAN, KEKUATAN OTOT PERUT, DAN KOORDINASI MATA TANGAN DENGAN KETERAMPILAN PASSING BOLA TANGAN

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Latar Belakang: Bola Tangan merupakan olahraga yang menuntut berbagai komponen teknik, salah satunya akurasi *Passing*. Akurasi *Passing* dipengaruhi oleh *power* otot lengan, kekuatan otot perut, dan koordinasi mata-tangan. Berdasarkan observasi peneliti pada tim bola tangan SMAN 4 Purwokerto, ditemukan bahwa pemain masih banyak melakukan kesalahan dalam *passing*, seperti bola tidak mengarah tepat dan tidak sampai ke target. Hal ini mengindikasikan kurangnya penguasaan teknik dasar. Sehingga peneliti membatasi penelitian apakah terdapat hubungan antara *power* otot lengan, kekuatan otot lengan dan koordinasi mata-tangan dengan keterampilan *passing*.

Metodologi: Penelitian ini menggunakan metode korelasional dengan pendekatan kuantitatif. Sampel penelitian terdiri dari 30 atlet bola tangan SMAN 4 Purwokerto diantaranya 15 atlet laki-laki dan 15 atlet perempuan, berusia 16-17 tahun yang dipilih menggunakan teknik purposive sampling. Variabel yang diukur meliputi *Power* otot lengan (*two-hand medicine ball push test*), kekuatan otot perut (*sit up test*), koordinasi mata-tangan (*tes lempar tangkap bola*), dan keterampilan *passing* (*tes passing dengan sasaran dinding*). Analisis data penelitian ini menggunakan uji prasyarat dan uji hipotesis. Uji hipotesis yang digunakan adalah *pearson corellation* dan uji korelasi ganda.

Hasil Penelitian: Hasil analisis menunjukkan adanya hubungan yang signifikan antara *Power* otot lengan dengan keterampilan *passing* ($r = 13,7\%$; $p < 0,05$), kekuatan otot perut dengan keterampilan *passing* ($r = 33,9\%$; $p < 0,05$), serta koordinasi mata-tangan dengan keterampilan *passing* ($r = 52,4\%$; $p < 0,05$). Analisis regresi menunjukkan bahwa koordinasi mata-tangan memiliki kontribusi terbesar terhadap keterampilan *passing* dibandingkan daya ledak otot lengan dan kekuatan otot lengan.

Kesimpulan: Terdapat hubungan yang signifikan antara *power* otot lengan, kekuatan otot perut, dan koordinasi mata-tangan dengan keterampilan *passing* pada atlet bola tangan SMAN 4 Purwokerto.

Kata Kunci: *Power* otot lengan, kekuatan otot perut, koordinasi mata-tangan, keterampilan *passing*.

ABSTRACT

THE RELATIONSHIP BETWEEN ARM MUSCLE EXPLOSIVE POWER, ABDOMINAL MUSCLE STRENGTH, AND HAND-EYE COORDINATION WITH HANDBALL PASSING SKILLS

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Background: Handball is a sport that requires various technical components, one of which is passing accuracy. Passing accuracy is influenced by arm muscle power, abdominal muscle strength, and hand-eye coordination. Based on the researcher's observations of the handball team at SMAN 4 Purwokerto, it was found that many players still make errors in passing, such as the ball not being accurately directed or not reaching the target. This indicates a lack of mastery of basic techniques. Therefore, the researcher limits the study to examine whether there is a relationship between arm muscle power, abdominal muscle strength, and hand-eye coordination with passing skills.

Methodology: This study uses a correlational method with a quantitative approach. The research sample consisted of 30 handball athletes from SMAN 4 Purwokerto, including 15 male and 15 female athletes aged 16–17 years, selected using purposive sampling. The variables measured include arm muscle power (two-hand medicine ball push test), abdominal muscle strength (sit-up test), hand-eye coordination (ball throw-and-catch test), and passing skills (wall target passing test). Data analysis in this study involved prerequisite tests and hypothesis testing. The hypothesis tests used were Pearson correlation and multiple correlation tests.

Research Results: The analysis results show a significant relationship between arm muscle power and passing skills ($r = 13.7\%$; $p < 0.05$), abdominal muscle strength and passing skills ($r = 33.9\%$; $p < 0.05$), as well as hand-eye coordination and passing skills ($r = 52.4\%$; $p < 0.05$). Regression analysis indicates that hand-eye coordination has the greatest contribution to passing skills compared to arm muscle explosive power and abdominal muscle strength.

Conclusion: There is a significant relationship between arm muscle power, abdominal muscle strength, and hand-eye coordination with passing skills among handball athletes at SMAN 4 Purwokerto.

Keywords: Arm muscle power, abdominal muscle strength, hand-eye coordination, passing skills..