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**Hubungan Somatotype dengan Performa Atlet Pencak Silat dan Karate di Indonesia**
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# ABSTRAK

**Latar Belakang:** Pencak silat dan karate merupakan bagian dari olahraga prestasi. Dalam meningkatkan prestasi olahraga nasional, penting untuk memperhatikan perencanaan berdasarkan kondisi objektif. Performa seorang atlet dapat dipengaruhi salah satunya oleh *somatotype*. Beberapa penelitian menunjukkan bahwa komponen *somatotype* yaitu *endomorph*, *mesomorph,* dan *ectomorph* berhubungan dengan performa fisik dan dapat menjadi prediktor performa. Selain itu, terdapat kecenderungan somatotype pada atlet elite cabang olahraga tertentu. Oleh karena itu penelitian ini bertujuan untuk mengetahui hubungan somatotype dengan performa atlet di Indonesia.

**Tujuan:** Mengetahui profil, kesesuaian, dan hubungan antara somatotype dengan performa atlet pencak silat dan karate di Indonesia

**Metode:** Penelitian ini merupakan penelitian observasional dengan desain penelitian *cross-sectional study*. Penelitian ini menggunakan data sekunder penelitian terdahulu. Subjek terdiri dari 27 atlet pencak silat dan 22 atlet karate yang berada di bawah binaan nasional.

**Hasil:** Rata-rata nilai *somatotype* atlet pencak silat yaitu 3,59-3,35-2,65, sedangkan atlet karate yaitu 4,15-3,71-1,86. Ditemukan perbedaan yang signifikan (*p-value<0,05*) nilai *ectomorph* kedua cabang olahraga. Selain itu, terdapat lima atlet dengan nilai *mesomorph* ekstrem (>7,0). Atlet pencak silat didominasi *somatotype endomorph-ectomorph* sebesar 25,93%, sedangkan atlet karate didominasi *somatotype mesomorph-endomorph* sebesar 27,27%. Rata-rata hasil tes performa atlet pencak silat sebesar 74,9% ± 6,39% dan atlet karate sebesar 73,1 ± 4,01%. Tidak ditemukan perbedaan yang signifikan pada performa fisik atlet kedua cabang olahraga. Terdapat hubungan yang bermakna antara nilai *endomorph* dengan performa atlet karate (r = -0,459) dan nilai *ectomorph* dengan performa atlet pencak silat (r = -0,421).

**Kesimpulan:** Terdapat hubungan yang bermakna antara nilai *endomorph* dengan performa fisik atlet karate dan antara nilai *ectomorph* dengan performa fisik atlet pencak silat.

**Kata Kunci:** *ectomorph, endomorph, mesomorph,* performa fisik, dan *somatotype*

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# ABSTRACT

**Background:** Pencak silat and karate are part of achievement sports. In improving national sports performance, it is important to pay attention to planning based on objective conditions. An athlete's performance can be influenced, among other things, by somatotype. Several studies show that somatotype components, namely endomorph, mesomorph, and ectomorph, are related to physical performance and can be predictors of performance. In addition, there is a tendency for somatotypes in elite athletes of certain sports. Therefore, this study aims to determine the relationship between somatotype and athlete performance in Indonesia.

**Objective:** To determine the profile, suitability, and relationship between somatotype and the performance of pencak silat and karate athletes in Indonesia.

**Methods:** This research is an observational study with a cross-sectional study design. This study uses secondary data from previous research. The subjects consisted of 27 pencak silat athletes and 22 karate athletes under national training.

**Results:** The average somatotype values for pencak silat athletes were 3.59–3.35–2.65, while karate athletes were 4.15–3.71–1.86. A significant difference (p-value<0,05) was found in the ectomorph values between the two sports. Furthermore, there were five athletes with extreme mesomorph values (>7,0). Pencak silat athletes were dominated by the endomorph-ectomorph somatotype at 25.93%, while karate athletes were dominated by the mesomorph-endomorph somatotype at 27.27%. The average performance test results for pencak silat athletes were 74,9% ± 6,39% and karate athletes were 73,1 ± 4,01%. No significant difference was found in the physical performance of athletes from both sports. There was a significant relationship between endomorph values and karate athlete performance (r = -0,459) and ectomorph values with pencak silat athlete performance (r = -0,459).

**Conclusion:** There is a significant relationship between endomorph values and the physical performance of karate athletes, as well as between ectomorph values and the physical performance of pencak silat athletes.

**Keyword:** ectomorph, endomorph, mesomorph, physical performance, and somatotype