

KORELASI TINGKAT AKTIVITAS FISIK DENGAN FUNGSI KOGNITIF PADA SISWA SMAN 1 BATURRADEN

ABSTRAK

Latar Belakang: Masa remaja merupakan periode penting dalam perkembangan kognitif. Fungsi kognitif memiliki peran penting dalam mendukung proses pembelajaran. Aktivitas fisik diketahui memiliki korelasi positif terhadap peningkatan fungsi kognitif melalui beberapa mekanisme neurobiologis sehingga aktivitas fisik yang memadai berperan dalam menunjang fungsi otak dan kemampuan belajar. **Tujuan:** Penelitian ini bertujuan mengetahui korelasi antara tingkat aktivitas fisik dan fungsi kognitif pada siswa SMAN 1 Baturraden. **Metode:** Penelitian ini merupakan studi analitik observasional dengan pendekatan *cross-sectional* pada 35 siswa kelas 11 yang dipilih menggunakan teknik *purposive sampling*. Tingkat aktivitas fisik diukur menggunakan kuesioner PAQ-A, sedangkan fungsi kognitif dinilai dengan MoCA-Ina. Analisis data dilakukan secara univariat dan bivariat (Spearman's rho). **Hasil:** Uji korelasi menunjukkan korelasi positif yang cukup kuat antara tingkat aktivitas fisik dan fungsi kognitif ($p = 0,000$; $r = 0,586$). Rata-rata skor MoCA-Ina adalah $24,46 \pm 2,47$ (di bawah nilai normal), sedangkan rata-rata skor PAQ-A $2,57 \pm 0,72$ (kategori tingkat aktivitas rendah). **Kesimpulan:** Aktivitas fisik berkorelasi positif yang cukup kuat dengan fungsi kognitif siswa, yang berarti semakin tinggi aktivitas fisik, semakin baik pula fungsi kognitif siswa.

Kata kunci: aktivitas fisik, fungsi kognitif, MoCA-Ina, PAQ-A, remaja, siswa SMA

CORRELATION BETWEEN PHYSICAL ACTIVITY LEVEL AND COGNITIVE FUNCTION AMONG STUDENTS OF SMAN 1 BATURRADEN

ABSTRACT

Background: Adolescence represents a critical window for cognitive development, where cognitive functions serve as a fundamental pillar for the learning process. Physical activity is positively correlated with enhanced cognitive performance through various neurobiological mechanisms, suggesting that adequate physical engagement is vital for optimizing brain function and learning capabilities. **Objective:** This study aimed to determine the correlation between physical activity level and cognitive function among students at SMAN 1 Baturraden. **Method:** This study used an analytic observational design with a cross-sectional approach and involved 35 eleventh-grade students selected through purposive sampling. Physical activity levels were measured using the PAQ-A questionnaire, while cognitive function was assessed using the MoCA-Ina. Data were analyzed using univariate and bivariate (Spearman's rho) analysis. **Result:** The correlation test shows a moderately strong positive relationship between physical activity level and cognitive function ($p = 0.000$; $r = 0.586$). The mean MoCA-Ina score is $24,46 \pm 2,47$, which is below the normal cutoff, while the mean PAQ-A score is $2,57 \pm 0,72$, indicating a low physical activity level. **Conclusion:** Physical activity demonstrates a moderately strong positive correlation with students' cognitive function, indicating that higher levels of physical activity are associated with better cognitive performance among students.

Keywords: adolescents, cognitive function, MoCA-Ina, PAQ-A, physical activity, students