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Psychological Resilience is Associated with Higher Physical Fitness Scores during Military Training

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Military training exposes candidates to physically demanding multi-stressor environments to ensure they have the ability to execute orders and complete occupational tasks when under extreme stress. The ability to adapt under stress, identified as psychological resilience (RES), has been linked to high levels of physical fitness. **PURPOSE:** To examine if physical fitness scores differ among candidates with high, moderate, and low self-reported RES. **METHODS:** 357 candidates (age: 24.82 ± 3.24 years; BMI: 25.51 ± 2.27 kg/m²; 15.7% women) completed the Connor-Davidson Resilience (CD-RISC) scale prior to the initiation of a 10-week military training program. Candidates were grouped into tertiles based on self-reported CD-RISC score for RES (range: 53 to 100, M \pm SD: 82.42 ± 9.85) defined as low (≤ 77 , n = 111), moderate (≥ 78 and ≤ 87 , n = 120), and high (≥ 88 , n = 126). During training, candidates were scored on military-specific physical fitness tests (PFT): Combat Fitness Test (CFT), inventory PFT (iPFT), and final PFT (fPFT). Differences in fitness scores among RES groups were analyzed using a one-way multivariate analysis of variance, followed by Bonferroni adjusted pair-wise comparisons. **RESULTS:** There was a statistically significant difference in PFT performance based on a candidate's RES grouping ($p = 0.014$; partial $\eta^2 = 0.022$). Following significant univariate tests, pairwise comparisons showed mean CFT scores (high: 282.98 ± 1.59 ; moderate: 276.55 ± 1.63 ; low: 278.82 ± 1.70) were significantly greater in the high vs. moderate RES groups ($p = 0.015$), but not different between high and low RES groups ($p = 0.224$), or low and moderate RES groups ($p = 1.000$). Mean iPFT (high: 269.87 ± 1.71 ; moderate: 264.38 ± 1.75 ; low: 270.22 ± 1.82) scores were not significantly different among RES groups. Mean fPFT scores (high: 283.18 ± 1.30 ; moderate: 278.41 ± 1.34 ; low: 282.88 ± 1.39) were significantly greater in the high vs. moderate RES groups ($p = 0.033$), but did not differ between high and low RES groups ($p = 1.000$), or low and moderate RES groups ($p = 0.063$). **CONCLUSION:** Candidates with high RES scores performed better on two physical fitness tests than those with moderate RES, suggesting a potential link between high physical fitness and resilience during military training.

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