

The Effect of Short-Term Adventure-Sport Curriculum on the Level of Mental Toughness of Undergraduate Students

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ABSTRACT

Mental toughness (MT) has been associated with both higher academic and physical performance. Adventure sports studies involve exposure to exploratory and risk-taking activities aiming to facilitate positive psychological characteristics. Although such programs are frequently promoted for this purpose, there is lack of empirical evidence concerning the effects of such a curriculum on the levels of MT in undergraduate students. **PURPOSE:** To examine the efficacy of an adventure-sport curriculum on the levels of MT of freshmen, undergraduate students throughout their first semester in the program. Hypothesis: The MT levels of the participants increase at the end of the semester. **METHODS:** In total, 13 students agreed to participate. The sample was of the same Expeditionary Studies class, predominantly male (Mage = 18.7, SD = 1.1). The Mental Toughness Index (MTI) was used for data collection. MTI was administered in the first, seventh, twelfth, and fifteenth week of classes. The analysis consisted of one-way ANOVA with repeated measures in IBM SPSS Statistics. The confidence interval was set at 95%. Normality was checked via the Shapiro-Wilk test. Sphericity was checked via the Mauchly's test. **RESULTS:** Assumptions were satisfied. The curriculum had a positive effect on students' levels of MT at the end of the semester ($F(3,36) = 7.629, p < 0.01, \eta_p^2 = 0.39$). On average, overall MT scores improved by 9.5 points. Therefore, evidence to support the hypothesis was found. However, pairwise comparisons revealed no statistically-significant mean difference between the first and the second assessment. **CONCLUSION:** These preliminary results indicate that an adventure-sport curriculum may increase the level of MT of undergraduate students, but not before seven weeks. Therefore, the authors suggest that these programs should be considered as facilitators of MT, but caution should be placed on the duration of intervention. MT's high level of transferability (e.g., from the classroom to the field to personal life) adds significance to these findings. Future studies should include comparison with students of unrelated courses, higher number of assessments, longer periods of intervention, and experimental design. Possible limitations include small sample size, convenience sample, and limited number of assessments.

