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The Relationship Between Mental Toughness Level and Demographic Factors Among Final Camp Students of the Faculty of Sports Science and Recreation, UiTM Seremban 3 Campus

Amir Harith Hilmi Mohamad Hizam[1], Muhammad Wafi A. Rahman[1*], Nur Hani Syazwani Bakri[1], Siti Aida Lamat[1], Mohamad Firdaus Ahmad[1], & Nur Syazwani Zulaikha Safwan[2]

[1]*Faculty of Sports Science and Recreation, Universiti Teknologi MARA Negeri Sembilan, Seremban Campus, Malaysia*

[2]*Faculty of Sports Science and Recreation, Universiti Teknologi MARA Shah Alam, Malaysia*

[*]*Corresponding author: wafiarahman@uitm.edu.my*

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I. Introduction

Mental toughness is the inner strength that allows individuals to remain calm, confident, and focused under pressure. While it has been extensively studied in sports, its role in adventure-based learning environments remains underexplored in the Malaysian context. This study investigates the level of mental toughness and its relationship with demographic factors among Final Camp students at UiTM Seremban 3. The research focused on seven dimensions of the Adventure-based Mental Toughness Inventory (AbMTI): self-confidence, motivation, coping skills, focus, challenge, control, and commitment.

II. Methods

This study utilized a quantitative, non-experimental research design. A purposive sampling technique was used to select 157 Final Camp students from the Faculty of Sports Science and Recreation (FSR). Data were collected using a structured questionnaire comprising demographic information and the 38-item AbMTI. The instrument demonstrated excellent internal consistency in a pilot study, with Cronbach's Alpha values ranging from 0.967 to 0.974. Statistical analysis was conducted using JAMOVI software, employing descriptive statistics (mean and standard deviation), Chi-square tests for relationships, and Welch's One-Way ANOVA for group differences.

III. Results and Discussion

A. Important Factors of Mental Toughness

To identify mental toughness levels, descriptive analysis was conducted. Results showed a "very high" overall level, with Self-Confidence, Motivation, and Commitment recording the highest mean scores ($M = 4.33$). While Focus was the lowest ($M = 4.27$), it still reflected a high degree of agreement. These findings suggest that students are psychologically well-prepared for the Final Camp, with internal drive and confidence being their most dominant strengths.

B. Mental Toughness Level

Descriptive analysis showed a "very high" mental toughness level ($M = 4.31$, $SD = 0.377$). These results indicate that respondents possess exceptional psychological resilience with high consistency in their responses. This suggests that the Final Camp environment successfully fosters a uniform level of mental strength among students, regardless of individual differences.

C. Outdoor Participation and Mental Toughness

Chi-square results showed no significant relationship between outdoor activity frequency and mental toughness ($p = .142$). This indicates that mental toughness levels are uniform across participants, suggesting that the intensive nature of the Final Camp itself drives resilience more than prior experience.

TABLE I
CHI SQUARE TEST OUTPUT

Test	Value	df	p
χ^2	6.90	4	0.142
N	152		

D. Difference of Mental Toughness in Terms of Age

A Welch's one-way ANOVA was conducted to examine differences in mental toughness based on age. Results showed no significant difference across age groups ($p = 0.581$), indicating that mental toughness levels are uniform. Contrary to expectations, younger students were as mentally tough as older ones, suggesting that factors like training environment and exposure to challenges influence resilience more than age itself.

TABLE II
ONE WAY ANOVA TEST OUTPUT

Variable	F	df1	df2	p
Mental Toughness	0.572	2	10.3	0.581

IV. CONCLUSIONS

Final Camp students at UiTM Seremban 3 generally show a very high level of mental toughness, especially in terms of self-confidence and motivation. The results also show that age and frequency of outdoor activities do not significantly affect their mental toughness. This indicates that the structured and challenging learning environment in the Faculty of Sports Science and Recreation (FSR) may play a key role in shaping students' resilience.

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