INTERNATIONAL GRADUATE COLLOQUIUM

i-SPEAK 2026

SPORTS AND PHYSICAL EXERCISE ASSEMBLY OF KNOWLEDGE SHARING



SERIES 1. 2026

COLLOQUIUM PROCEEDINGS

EXTENDED ABSTRACT

Malaysia, 10 February 2026

eISBN 978-629-7989-01-3

The Impact of Physical Activity on Mental Health Among Students at UiTM Seremban 3

Nur Aisyahirah Abd Wahab[1], Ummi Kalthum Mohd Mokhtar[1]*, Nur Hani Syazwani Bakri[1], Adzly Rajli[1], & Siti Aida Lamat[1]

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

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

Keywords: *Physical activity, Mental health, Depression, Stress, Anxiety, University students, UiTM Seremban 3*

I. Introduction

In recent years, mental health issues such as depression, anxiety, and stress have become increasingly prevalent among university students due to academic pressure and sedentary lifestyles. While physical activity (PA) is recognized as a protective factor for mental well-being, empirical evidence within the local university context remains limited. This study investigates the impact of PA on mental health outcomes among students at UiTM Seremban 3.

II. Methods

This research employed a quantitative, non-experimental cross-sectional survey design. A total of 221 students from UiTM Seremban 3 were selected via simple random sampling. Two validated instruments were used: the International Physical Activity Questionnaire (IPAQ) to categorize PA into low, moderate, and high levels, and the Depression, Anxiety, and Stress Scale (DASS-21) to measure psychological distress. Data were analyzed using descriptive statistics and inferential tests, including Linear Regression and Independent T-tests, to determine the impact of PA and gender differences.

III. Results and Discussion

The descriptive analysis focused on the distribution of PA levels and the severity of MH symptoms. As shown in Table 1, the majority of the 221 respondents (85.1%) reported high levels of physical activity. Regarding mental health status, most students fell within the "Moderate" range for all three categories. Despite these generally positive figures, university students remain a high-risk group for psychological distress [1] [2].

Table I
Scoring Summary for Physical Activity and Mental Health

Variables	Category	Frequency (n)	Percentage (%)
Physical Activity (IPAQ)	Moderate	33	14.9
	High	188	85.1
Mental Health (DASS-21)			
Depression	Moderate	212	95.9%
Anxiety	Severe	204	91.9%
Stress	Moderate	200	90.5%

A. Impact of Physical Activity on Mental Health

Linear regression analysis was conducted to determine the extent to which mental health variables (depression, anxiety, and stress) predict physical activity levels among the participants. As summarized in Table 2, the analysis revealed that the model was not statistically significant.

The coefficient of determination ($R^2 = 0.0119$) indicates that only approximately 1.2% of the variance in physical activity can be explained by the students' mental health status. Furthermore, all p-values exceeded the standard significance threshold ($p > 0.05$), confirming that mental health variables are not significant predictors of physical activity in this cohort. These results are consistent with findings that suggest university students' activity levels may be more influenced by environmental factors and academic schedules than by their immediate psychological state [3] [4]. Additionally, no significant gender differences were observed in stress ($p = 0.682$), depression ($p = 0.056$) and anxiety factors ($p = 0.575$), indicating a uniform psychological profile across the sample.

TABLE II
LINEAR REGRESSION ANALYSIS OF PHYSICAL ACTIVITY ON MENTAL HEALTH

Variables	R	R^2	p-value
Depression	0.109	0.00119	0.425
Anxiety	0.109	0.00119	0.428
Stress	0.109	0.00119	0.468

IV. CONCLUSIONS

The study concludes that while students at UiTM Seremban 3 are physically active, this activity does not serve as a significant predictor for depression, anxiety, or stress. It is recommended that the university adopt a holistic wellness framework that integrates physical recreation with psychological interventions and academic stress management.

ACKNOWLEDGMENT

The authors would like to express sincere appreciation to all respondents who voluntarily participated in this study. Gratitude is also extended to the faculty members and university administration for their support and assistance in facilitating data collection. Their cooperation and contribution were invaluable in the completion of this research.

REFERENCES

[1] Arifin, S., et al. (2023). The Prevalence of Mental Health among Malaysian University Students. Int. J. Acad. Res. Bus. Soc. Sci. 13 (12).

[2] Congsheng, L., Kayani, S., & Khalid, A. (2022). An empirical study of physical activity and sports affecting mental health of university students. Front. Psychol. 13.

[3] Hong, Y., et al. (2024). The association between physical fitness and mental health among college students. Front. Public Health, 12.

[4] Hugh-Jones, S., et al. (2023). Age-gender differences in the relationships between physical activity and mental health. Front. Psychol.