

# THE RELATIONSHIP BETWEEN MENTAL HEALTH AND PHYSICAL ACTIVITY: A CASE STUDY OF MALAYSIAN SPORT STUDIES STUDENTS

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Keywords: Mental health, Physical activity, Gender differences, University students, Sport science

#### I. Introduction

Stress, derived from the Latin term meaning "tense" or "uncertain," is a response to demands on mental and physical health, which, if prolonged, can negatively impact overall well-being [1,2]. Encouraging physical activity is crucial to mitigating stress-related conditions in students by improving their physical, mental, and emotional health. Stress also impairs attention, memory, and cognitive abilities, leading to difficulties in learning and reduced academic success [3].

### II. METHODS

Mental health levels were assessed using the 21-item Depression, Anxiety, and Stress Scale (DASS-21). Physical activity involvement was measured using the International Physical Activity Questionnaire Short Form (IPAQ-SF), evaluating self-reported activity over seven days. A non-experimental, quantitative approach was used, with 362 respondents from UiTM Seremban 3 selected through convenience sampling to explore association between mental health and physical activity.

## III. RESULTS AND DISCUSSION

## A. Mental Health

The analysis of mental health levels among 359 participants revealed a mean score of  $2.33 \pm 0.64$ , indicating a high level of mental health based on the measurement scale utilized. The low standard deviation suggests minimal variability, with scores consistently clustered around the mean. These findings emphasize the critical need for targeted interventions to address mental health challenges affecting student well-being and academic performance.

# B. Physical Activity Involvement

Among FSR students, 66% reported high physical activity involvement, 27% moderate, and 7% low. Most students actively engage in vigorous physical activities, aligning with global recommendations. This highlights a positive trend toward maintaining an active lifestyle among the student population, supporting their physical well-being.

## C. Mental Health and Gender

A Mann-Whitney U test was conducted to compare mental health scores between males  $(n = 240, 2.36 \pm 0.63)$  and females  $(n = 119, 2.27 \pm 0.65)$ , with a total sample size of

356 (2.33  $\pm$  0.64). The test yielded a U-statistic of 13096, Z = -1.29, and p = 0.199, indicating no statistically significant difference between the two groups (p>0.05). The effect size (r = -0.243) further supports this result. Consequently, we fail to reject the null hypothesis and conclude that there is no significant difference in median mental health levels between males and females in this sample. Previous studies identified gender-based differences in mental health, favoring males, whereas our findings revealed no significant difference between males and females

## D. Association Between Mental Health and Physical Activity

Chi-Square analysis showed that there is no significant association between mental health and physical activity involvement ( $\chi^2 = 0.761$ ; p = 0.583). This suggests a weak or no relationship, indicating that physical activity alone may not be a determinant of mental health outcomes in FSR students, highlighting the need for broader mental health interventions. Previous studies demonstrated a positive association between physical activity and mental health, whereas our findings indicate no significant relationship between these variables among FSR students.

## IV. Conclusions

This study identified high levels of mental health concerns and physical activity among FSR students, with no significant gender differences or associations between the two variables. These findings emphasize the importance of addressing mental health needs through broader strategies beyond physical activity, promoting overall student well-being.

### ACKNOWLEDGMENT

The researchers express gratitude to the students of the Faculty of Sport Science and Recreation, and Deerantler for their invaluable support and contributions.

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M.A.M., Saadan, & A.R.A., Rasid, Proceedings of the International Graduate Colloquium: Sports and Physical Exercise Assembly of Knowledge Sharing, i-SPEAK, 2025, 05th-06th February, Malaysia.