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EXTENDED ABSTRACT

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SLEEP-EXERCISE DYNAMICS AND STUDENT WELL-BEING: INSIGHTS FROM A MALAYSIAN UNIVERSITY STUDENT COHORT

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I. INTRODUCTION

This study explores the correlation between sleep quality and physical activity among FSR students at UiTM Seremban 3. By examining sleep patterns, activity levels, and their interrelationship, this research aims to uncover significant behavioral insights, addressing a growing need for health-related awareness among university students [1,2].

II. METHODS

A quantitative, non-experimental survey design was employed using questionnaires to assess sleep quality and physical activity. A random sampling method was applied to select 333 participants from a population of 1,000, ensuring representativeness. Standardized tools measured sleep quality and activity levels, adhering to Krejcie and Morgan's guidelines for sample size determination.

III. RESULTS AND DISCUSSION

A. Sleep Quality Levels

Inferential statistics revealed an average sleep quality score of 2.26 ± 0.44 , indicating moderate sleep quality with minimal variability. Most students reported consistent, moderate sleep quality.

B. Physical Activity Levels

Descriptive statistics showed high physical activity levels among 167 students, moderate levels in 77, and low levels in 89. The mean physical activity score was 2.04 ± 0.71 , reflecting moderate variability [3].

C. Association Between Sleep quality and Physical Activity

A Spearman correlation analysis identified a significant negative relationship ($r = -0.091$, $p = 0.048$) between sleep quality and physical activity. This counterintuitive result suggests factors like overtraining or timing may affect sleep and warrants further investigation [1]. Figure 1 shows the correlation between sleep quality and physical activity levels.

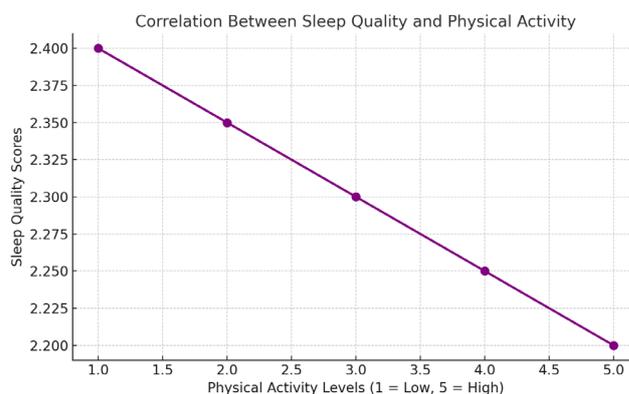


Fig. 1 The correlation between sleep quality and physical activity levels

IV. CONCLUSIONS

This study identified moderate sleep quality and high physical activity levels among FSR students. A significant but negative correlation was found between these variables, suggesting complex influences like overtraining or lifestyle factors. These findings highlight the need for tailored strategies to optimize both sleep and activity for student health.

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