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Eating Habits among Gifted and Talented Students

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ABSTRACT

The purpose of this study was to investigate the connection between the dietary patterns, lifestyle choices, and academic performance of brilliant and talented children enrolled at PERMATA@Pintar National College, a government-funded boarding school for adolescents between the ages of 12 and 18. These pupils are recognized as possessing cognitive capacities that beyond their mental ages, and they participate in an educational program that deviates from the norm by exposing them to a range of intellectually demanding activities that foster individual growth. There were no significant variations in eating habits by age (p =.079) or gender (p =.182), and there was no significant correlation between eating habits and health issues (p =.398), according to the data analysis. With extremely low contribution values (Nutrition Beta =.001; Lifestyle Beta =.126), regression analysis also revealed that lifestyle and eating patterns had no discernible impact on academic achievement. These results suggest that among brilliant and talented students, lifestyle choices and nutrition do not significantly influence academic achievement or health. Rather, their achievement and well-being may be more significantly impacted by other elements like learning methodologies, social support, academic pressure, and intrinsic drive. According to this study, multiple facets of cognitive, emotional, and social development should be considered when designing educational and health interventions for gifted and talented adolescents.

Keywords: gifted and talented students, eating habits, lifestyle, health, academic achievement

INTRODUCTION

A balanced diet is vital and should be emphasized in the development of excellent human capital. For gifted and talented students, awareness of nutritious eating practices fulfills the nutritional needs of the body to generate optimal physical and mental health. Therefore, this study aims to identify the eating habits of gifted and talented students and their relationship with academic achievement and health issues. This quantitative study involved 110 students aged 15 to 17 from PERMATA@Pintar National College, UKM. Data were analyzed using Statistical Package for Social Science (SPSS) version 21.0 to obtain mean scores, frequency, standard deviation, and percentage based on themes. This study is expected to serve as a guide to improve the standards of food provision for gifted and talented students in line with their cognitive, physical, and mental development.

Problem Statement

Gifted and talented students are national assets that need to be nurtured in various aspects as they are future leaders. However, common health problems among these students such as gastritis, frequent stomach aches, headaches, and mental health issues can affect academic achievement and hinder their full potential. Unhealthy eating habits such as skipping meals, avoiding fruits and vegetables, and consuming unhealthy food can be detrimental. Every individual is advised to follow the food pyramid guidelines to ensure the body receives adequate nutrients (Ministry of Health Malaysia, 2011).

A balanced diet is essential to keep students active and mentally alert to drive excellence. This is supported by the study of Mohd Azlan Abdullah & Noraziah Ali (2011), which found a link between student success and food quality, balanced diet practices, and consistent meal schedules. They also noted that neglecting meals due

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to packed academic and extracurricular schedules and financial issues adversely affects student health and learning.

Gifted and talented students, with an IQ score typically above 130, are expected to be quick learners, mature thinkers, capable of generating brilliant ideas, and high achievers. If their potential is not fully developed, it would be a significant loss to the nation. This is especially true if their decline is due to physical and mental health issues stemming from poor eating habits. As Faridah Abdul Rashid (2009) stated, unhealthy and unbalanced eating habits can cause stress, fatigue, and reduced work capacity, potentially leading to issues like obesity, high blood pressure, lethargy, and loss of motivation. If not addressed, the nation could lose valuable future thinkers needed for development.

Research Questions

What is the level of eating habits among gifted and talented students?

Is there a significant relationship between eating habits and academic achievement among gifted and talented students?

Is there a significant relationship between eating habits and health issues among gifted and talented students?

Do eating habits and health issues affect academic achievement among gifted and talented students?

Objectives

To identify the level of eating habits among gifted and talented students.

To identify the relationship between eating habits and academic achievement.

To identify the relationship between eating habits and health problems.

To identify the influence of eating habits, lifestyle, and health evaluation on academic achievement.

Hypotheses

H_0: There is no significant difference in eating habits based on gender.

H_0: There is no significant difference in eating habits based on age.

H_0: There is no significant relationship between eating habits and health problems.

H_0: Eating habits, lifestyle, and health evaluation do not influence academic achievement.

METHODOLOGY

This survey-based study used a quantitative method. Data were collected via a validated and refined questionnaire tested in a pilot study.

Population and Sampling

The sample consisted of 110 gifted and talented students from Foundation 1 to Level 2 at PERMATA@Pintar National College, UKM. Stratified random sampling was used based on gender, ethnicity, and age.

Research Instruments

The questionnaire contained four sections:

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Section A: Demographic Information

(Background information of respondents)

Section B: Knowledge of Balanced Diet

(Awareness of the need for a balanced diet based on the food pyramid and knowledge of healthy food intake)

Section C: Lifestyle and Eating Practices of Students

(Eating habits, food intake patterns, types of nutrients frequently consumed, frequency and type of physical activity, sleep patterns)

Section D: Students' Health Information

(Health assessment, frequency of medical check-ups, supplements)

Each section targeted specific constructs. A pilot test with 20 respondents ensured the reliability of the adapted questionnaire. Data were analyzed using SPSS v21.0 through descriptive analysis, T-tests, Pearson Correlation, and Regression.

FINDINGS

Descriptive analysis showed no significant difference in eating habits based on gender ($p = .182$) or age ($p = .079$). This suggests that both gender and age do not significantly influence eating habits, likely due to uniform nutrition awareness and access to health information.

There was also no significant relationship between eating habits and health issues ($p = .398$), implying other dominant factors such as academic pressure, lifestyle, or genetics may play a more significant role.

Regression analysis showed no significant impact of eating habits and lifestyle on academic achievement. Lifestyle contributed minimally to CGPA scores (Beta = .126 or 12.6%) and eating habits even less (Beta = .001 or 1%). Both variables were not significant ($p > .05$). Regression equation: CGPA Score = 0.038 (Lifestyle) + 0.000 (Eating Habits) + 2.868.

The findings of this study support the conclusion that lifestyle and dietary practices are not the main predictors of variation in students' academic achievement. This may be due to the influence of other factors such as motivation, family support, or learning strategies, which are likely to have a stronger impact on academic performance. In this study, social support from family and peers was discussed and found to be a major contributing factor influencing the health and well-being of gifted students, enabling them to learn more effectively, with a total score of 81.3%. Nevertheless, other factors such as motivation and learning strategies were not examined in detail, leaving room for further investigation.

DISCUSSION AND CONCLUSION

Overall, the study found that demographic factors (gender and age), lifestyle, and eating habits did not significantly affect the health or academic performance of gifted and talented students. These students likely have balanced access to nutrition information, academic support, and health awareness regardless of individual differences.

This aligns with Waling & Larsson (2019), who found that school environment and peer influence are stronger determinants of teenage eating habits than gender or age. Gifted students may live structured lives with holistic education systems, reducing individual differences in health behaviors.

The absence of a link between eating habits and health problems suggests other psychosocial factors like academic stress, sleep deprivation, or emotional imbalance (Regehr et al., 2016; Pérez-Wilson et al., 2020)

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may affect health more. Pérez-Wilson et al. found psychological stress had a stronger correlation with student health than diet or physical activity.

Likewise, the lack of significant influence from lifestyle and eating habits on academic performance supports the view that achievement results from more complex factors. Richardson et al. (2012) and Muenks et al. (2020) highlight intrinsic motivation, self-discipline, and learning strategies as stronger predictors of academic performance than physical health.

Thus, support for gifted students should emphasize psychological and emotional well-being and sustainable learning skills. Tomyn et al. (2019) emphasized the role of holistic well-being in academic success. Psychosocial interventions, life skills like time management, stress control, and self-motivation are more effective in supporting academic achievement (Putwain et al., 2018)

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