Effects of Obesity on Self-Esteem Among SJKT Students in the Jempol District

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Abstract
This study investigates the prevalence of obesity and its impact on self-esteem among SJKT students in the Jempol district. The research aims to assess the extent of obesity in this student population and investigate its correlation with their levels of self-esteem. Data collection involved 100 respondents from SJKT schools in Jempol, categorized by BMI measurements to determine obesity prevalence. The analysis reveals that a majority of respondents were classified under Class 1 obesity (43%), followed by Class 3 (37%) and Class 2 (20%), highlighting a significant proportion with elevated BMI levels. Additionally, Pearson's correlation analysis was conducted to examine the relationship between obesity and self-esteem among obese SJKT students, revealing a statistically significant positive correlation (r = 0.38, p < .05) with both self-esteem and self-efficacy levels. This suggests that higher levels of obesity are associated with lower self-esteem and self-efficacy among the respondents. In conclusion, this study provides valuable insights into the relationship between obesity and self-esteem among SJKT students in the Jempol district, highlighting the importance of comprehensive strategies to improve the overall well-being of these students.
Keywords: Obesity, Self Esteem, BMI, Malaysia Tamil Schools

Introduction
Malaysia, a rapidly developing Southeast Asian nation, is known for its rich cultural heritage, diverse population, and vibrant economy. However, like many countries worldwide, Malaysia is facing a growing public health challenge: obesity. This issue is not just confined to adults; it significantly impacts children and adolescents, including those attending Sekolah Jenis Kebangsaan Tamil (SJKT) in various districts, such as Jempol. Obesity in young students can lead to numerous health complications and has been linked to various psychological outcomes, including self-esteem and self-efficacy (Ahmad et al., 2021)

Self-esteem refers to an individual's overall sense of self-worth or personal value. It encompasses beliefs about oneself, such as the perception of one's abilities and appearance. For children and adolescents, self-esteem is crucial for healthy psychological development. High self-esteem is associated with positive outcomes, including better academic performance, healthier social relationships, and improved mental health. Conversely, low

self-esteem can lead to various negative outcomes, such as depression, anxiety, and social withdrawal (Ndegemu, 2023).

In the context of obesity, self-esteem can be adversely affected. Overweight and obese children often face stigma and discrimination from peers, which can lead to feelings of shame, isolation, and lowered self-worth. These negative social experiences can diminish self-esteem and impair the development of a positive self-concept. Furthermore, obese students may struggle with physical activities, which can lead to a decreased sense of competence and lower self-esteem.

Research shows obesity affects self-esteem differently based on age, gender, and cultural background (Liu et al., 2024). In Malaysia, with its diverse population, it is important to understand how obesity impacts students from different ethnic groups. For instance, SJKT students, mainly of Indian descent, may experience these effects differently. Jempol in Negeri Sembilan, with its demographic diversity and SJKT schools, is ideal for studying this. These schools are crucial for Malaysian Indian children's education. Investigating how obesity affects SJKT students' self-esteem can reveal the influence of cultural and environmental factors.

Addressing obesity requires a multifaceted approach. It's about promoting physical activity, healthier eating, and creating supportive environments to boost students' self-esteem. Schools, families, and communities must work together. Schools should encourage physical activity, teach nutrition, and create inclusive environments to reduce bullying and support students' self-esteem. Teachers and counselors can help students build positive self-images and resilience. Families play a key role. Parents can model healthy behaviors, provide nutritious meals, encourage physical activity, and communicate about body image and self-worth to help children develop a healthier self-concept and self-efficacy. Communities can support by providing resources and opportunities for physical activities. Public health campaigns can raise awareness about maintaining a healthy weight and the psychological impacts of obesity.

In conclusion, addressing obesity among SJKT students in Jempol requires a comprehensive approach. Obesity significantly affects their physical health, self-esteem. By working together, schools, families, and communities can ensure a healthier and more confident future for these children.

Objective and Significance
So, this study focused on identified answers for objectives and research questions as mentioned in table 1.

Table 1
Research Objective with Its Significance

Research Objective	Research Questions
• Identifying the level of obesity among SJKT students in the Jempol district, Negeri Sembilan.	• What is the level of obesity among SJKT students in the Jempol district, Negeri Sembilan.
• Identifying the relationship between the level of self-esteem and the level of obesity among obese SJKT students in the Jempol district, Negeri Sembilan	• What is the relationship between the level of self-esteem and the level of obesity among obese SJKT students in the Jempol district, Negeri Sembilan.

Material and Method
A) Design of Study
In this study, the researcher opted for a quantitative approach to achieve precise analytical measurements of the variables. Given the quantitative nature of the study, surveys using questionnaires were conducted to collect the required data. Descriptive analysis was then applied to the gathered information. The questionnaire aimed to collect data on the level of obesity among students and its impact on the self-esteem of obese students in Tamil national-type schools in the Jempol district, Negeri Sembilan.

B) Sampling Method
In this study, the population consists of students from Tamil National-Type Schools (SJKT) in the Jempol district, while the sample includes obese students from these schools. Generally, there are 12 SJKT schools in the Jempol district, encompassing a total of 978 students. According to reports collected from these 12 schools, the number of obese students is 100.

C) Research Instrument
In this study, the researcher utilized a questionnaire consisting of several sections. Section A of the questionnaire pertains to student demographics. Demographic information includes gender, age, weight, height, and BMI (Body Mass Index). This demographic information will be provided by the teachers of the student respondents.

Section A of the questionnaire covers student demographics. Student demographic information includes gender, age, weight, height, and BMI (Body Mass Index). This demographic information will be provided by the teachers of the student respondents. From Section A, the researcher can gather data regarding demographics as well as measurements to assess the level of obesity among students in SJKT schools in the Jempol district, Negeri Sembilan.

Section B includes items designed to assist the researcher in analyzing the health status among SJKT students in the Jempol district, Negeri Sembilan. This section comprises 5 items related to student health, (Davison & Birch, 2021). Section C involves measuring the level of self-esteem present in children's daily behavior. The instrument in Section C is adapted and modified from (Simmons and Lehmann, 2012). This section comprises 12 items designed specifically for obese students. This study employs the rating scale method to obtain information. A Google Form comprising the rating scale will be distributed to 100 respondents, The rating scale will assist the researcher in obtaining information and facilitate

the analysis of the data using the SPSS application. The questionnaire forms will be distributed via Google Form sharing, and this process will take place over two weeks. Once completed, the completed questionnaire forms will be analyzed using the Statistical Package for Social Science (SPSS) version 23.0.

D) Research Findings

The study continued with a discussion related to the results of the first objective, which was to identify the level of obesity among SJKT students in the Jempol district, Negeri Sembilan. Data analysis based on BMI (Body Mass Index) measurements was conducted and presented in Table 2 to determine the respondents' body size categories. There are three obesity categories: Class 1 (BMI 30 - 34.9), Class 2 (BMI 35 - 39.9), and Class 3 (BMI greater than 40). Meanwhile, table 3 shows the findings of the relationship between the level of self-esteem and the level of obesity among obese SJKT students in the Jempol district, Negeri Sembilan. The study analysis indicates a significant relationship between obesity and the level of self-esteem and self-efficacy of the respondents ($r = 0.38$, $p < .05$).

Table 2
The level of obesity among SJKT students in the Jempol district

BMI (category)	Respondents	Percentage
(BMI 30 - 34.9)	43	43%
(BMI 35 - 39.9)	20	20%
(BMI lebih 40)	37	37%

Table 3
The relationship between the level of self-esteem and the level of obesity among obese SJKT students in the Jempol district

Variable	Regression	Pearson Correlation
Obesity Self Esteem Level	0.38	0.522*

* Significant at $p \leq .05$

Discussion

Based on Table 2, it was found that the majority of respondents, 43 individuals or 43%, were classified under Class 1 obesity, where their BMI ranged from 30.0 to 34.9. There were 37 respondents or 37% classified under Class 3 obesity, with a BMI exceeding 40. The least number of respondents, 20 individuals or 20%, fell under Class 2 obesity, with a BMI ranging from 35.0 to 39.9. The distribution of obesity among the SJKT students in the Jempol district highlights that a significant portion of students are affected by obesity, particularly in Classes 1 and 3. This underscores the prevalence and severity of obesity as a health concern among these students.

Meanwhile, Table 3 shows the relationship between the level of self-esteem and the level of obesity among obese SJKT students in the Jempol district. The study analysis indicates a significant relationship between obesity and the levels of self-esteem and self-efficacy of the respondents ($r = 0.38$, $p < .05$). Since the obtained p-value of 0.522 is greater than the predefined significance level of 0.05. Therefore, it can be concluded that there is a significant relationship between obesity among students and their level of self-esteem in selected

primary schools in the Jempol district, Negeri Sembilan. The significant positive correlation found between obesity and self-esteem/self-efficacy indicates that higher levels of obesity are associated with higher levels of self-esteem and self-efficacy among the students. This finding may seem counterintuitive initially, as obesity is often associated with lower self-esteem due to societal stigma and health implications. However, it could suggest that certain coping mechanisms or support systems in place for these students may contribute to maintaining or even boosting their self-esteem despite their weight status.

Suggestions and Implication
Understanding the relationship between obesity and self-esteem/self-efficacy among students is crucial due to its implications for developing effective interventions and support strategies. As highlighted in the analysis (Table 3), there is a significant positive correlation between obesity and self-esteem/self-efficacy among SJKT students in the Jempol district. This correlation suggests that as obesity levels increase, so do levels of self-esteem and self-efficacy, which is an important insight for educators and health professionals aiming to support these students (Davison & Birch, 2021).

Addressing the complex relationship between obesity and students' self-esteem/self-efficacy requires schools and communities to implement targeted programs and initiatives that encompass both physical health and psychological well-being. Comprehensive health programs should be developed, integrating regular physical activity sessions, nutritional education, and counseling focused on promoting positive body image and self-esteem among students. By fostering inclusive and supportive school policies, conducting awareness campaigns, and organizing workshops that celebrate body diversity and acceptance, environments that promote positive body image can be cultivated.

Moreover, resilience-building activities should be embedded into the curriculum to help students cope with challenges associated with obesity and enhance their self-efficacy. These activities, such as goal-setting, problem-solving exercises, and peer support groups, play a crucial role in developing students' emotional resilience and overall well-being. Collaboration between educators, school counselors, and health professionals is essential to provide holistic support to students. This collaborative approach ensures that interventions are tailored to address both the physical health needs and emotional well-being of students, fostering a comprehensive support system within the school community.

Family involvement is equally important in supporting students' health and well-being. Encouraging open communication between parents and children about nutrition, physical activity, and self-esteem can significantly impact students' habits and perceptions. Providing resources and conducting workshops for parents further promotes healthy behaviors at home, reinforcing positive messages and habits learned at school.

Implementing mechanisms for continued monitoring and evaluation is essential to assess the effectiveness of interventions. Regular assessments of students' physical health, self-esteem, and academic performance allow for adjustments and improvements in support strategies. By addressing both the physical and emotional aspects of obesity, schools and communities can create nurturing environments that support students in achieving overall well-being and academic success. This holistic approach not only benefits individual students but also

contributes to building healthier, more resilient school communities capable of nurturing the potential of every student.

Conclusion

Obesity among students in Malaysia, particularly among those attending Sekolah Jenis Kebangsaan Tamil (SJKT) in the Jempol district, Negeri Sembilan, presents a significant public health concern. This issue extends beyond physical health implications to encompass psychological well-being, notably impacting self-esteem. Understanding the effects of obesity on self-esteem is crucial for developing effective interventions and support strategies tailored to the needs of these students.

The prevalence of obesity among SJKT students in Jempol is concerning, as evidenced by data showing a significant number falling into Class 1 and Class 3 obesity categories, with BMIs ranging from 30.0 to over 40. Obesity at such young ages predisposes students to various health risks, including type 2 diabetes, cardiovascular diseases, and psychological challenges like low self-esteem and poor self-image (Davison & Birch, 2021).

Research indicates a complex relationship between obesity and self-esteem among students. While societal stereotypes often associate obesity with low self-esteem, studies among diverse populations suggest nuanced effects. In the context of SJKT students in Jempol, a significant positive correlation has been found between obesity and levels of self-esteem and self-efficacy (Davison & Birch, 2021). This unexpected finding suggests that some students may develop coping mechanisms or receive support that buffers the negative psychological impacts traditionally associated with obesity.

Obese students may face stigma and discrimination, leading to social isolation and negative self-perceptions. These experiences can exacerbate feelings of shame and inadequacy, affecting academic performance and overall well-being. Addressing these psychological implications is critical to nurturing a supportive environment that promotes positive self-image and resilience among students (Puhl & Latner, 2007).

In conclusion, the effects of obesity on self-esteem among SJKT students in the Jempol district highlight a multifaceted issue that requires comprehensive intervention. While obesity poses significant health risks, its impact on self-esteem underscores the need for targeted strategies that foster positive psychological development alongside physical health improvements. By addressing these challenges holistically and collaboratively, schools and communities can create nurturing environments where students can thrive academically, emotionally, and socially.

Understanding and addressing the effects of obesity on self-esteem among SJKT students is pivotal in ensuring their holistic development and well-being. By implementing evidence-based interventions and fostering supportive environments, educators and health professionals can empower students to overcome the challenges associated with obesity and cultivate resilience, positive self-image, and academic success. This conclusion underscores the importance of ongoing research and collaborative efforts to address the complex interplay between obesity and self-esteem among school-going children in Malaysia.

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