



CORRELATION OF PARENTING PATTERNS WITH THE RISK OF OBESITY IN ADOLESCENTS IN SMK IT RAFLESIA DEPOK

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ARTICLE HISTORY

Received: 10 July 2022

Accepted: 28 August 2022

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ABSTRACT

Introduction: Obesity is a condition when an individual is overweight beyond normal weight. Adolescents have a risk of obesity which may occur into adulthood that it can have a negative impact on the development of adolescents both physically and psychologically. Parental feeding management has a significant relationship with adolescent food quality. This study aims to determine the relationship between parenting patterns with the risk of obesity in adolescents at SMK IT Raflesia Depok.

Method: The method used was an observational quantitative research with analytic design and using a cross sectional study approach. The sample used was 102 samples obtained through the Stratified Random Sampling technique. Measurements were made using height and weight measurements and filling out a questionnaire using a structured instrument.

Results: The results of the analysis with the chi square test showed that there was a relationship between parenting pattern with the risk of obesity in adolescents with p value = 0.018 (<0.05).

Conclusion: Parenting in accordance with the development of adolescence must also be considered for parents in an effort to overcome the risk of obesity.

Keywords: *adolescence; obesity risk; parenting patterns*

Cite as:

Anggraini, N. V., Yuliningtias, A. S., Ratnawati, D., & Ritanti (2022). Correlation Of Parenting Patterns With The Risk Of Obesity In Adolescents In Smk It Raflesia Depok. *Indonesian J. of Community Health Nurs.*, 7(2), 62-67. Doi: 10.20473/ijchn.v7i2.39219

INTRODUCTION

Youth is a valuable asset for the development of a country because of its very important role for the future (Anggraini et al., 2021). Adolescents are one of the groups at risk for obesity (Kurdanti et al., 2015). Lack of nutritional knowledge causes errors in determining food and has an impact on nutritional status, if a balanced diet is applied, the nutritional status will be good (Sugiatmi & Handayani, 2018). Unhealthy dietary habits are one of the risk behaviors seen during this period. An unhealthy diet in adolescence can lead to growth failure, delayed puberty, iron deficiency anemia, overweight, malnutrition, and obesity (Eker et al., 2018).

Obesity is a condition where fat accumulates in the body and exceeds the limit required by the body (Anies, 2018). Many obese people are found in adolescents due to frequent consumption of excess food, lack of physical activity, and exercise (Mulyani et al., 2020).

Obesity in adolescents is a complex multifactorial influenced by physiological, socioeconomic, genetic and environmental conditions (Cominato et al., 2021). Overweight in children and adolescents, particularly those who are obese, have a higher risk for gastrointestinal, musculoskeletal, and orthopedic complications, sleep apnea, cardiovascular disease, fatty liver, impaired glucose intolerance, and diabetes type 2. (United Nations Children's Fund (UNICEF), 2019).

Globally, the prevalence of overweight and obesity in children and adolescents aged 5-19 years has increased drastically from just 4% in 1975 to more than 18% in 2016 (WHO, 2018). Among children aged 5 to 19 years, it is estimated that more than 340 million children are overweight, which is almost 18 percent (United Nations Children's Fund (UNICEF), 2019).

Meanwhile, the prevalence of obesity in Indonesia based on data from the Indonesian Ministry of Health (2018), the Prevalence of Nutritional Status (BMI/U) in adolescents in Indonesia aged 16-18 years who are obese is 4.0% in boys, and adolescents women by 4.5%. Likewise, the prevalence of West Java province is 4.5%. Meanwhile, adolescents in Depok City who are obese are 5.75%. To maintain a more regular adolescent nutrition, parental supervision is needed, through regular monitoring of diet and lifestyle at home (Sholikah & Nurhayati, 2021). In the case of obesity, interventions can be carried out starting from the family environment. The management of feeding by parents is significantly related to the food quality of adolescents, as their children (Sari et al., 2019).

Parenting patterns in educating children will definitely be different for each family, and generally parenting styles are inherited from their previous parents. Parenting is a pattern of interaction that occurs between a child and his parents in meeting physical needs (such as eating and drinking), psychological needs (such as affection, security and comfort), as well as socialization needs such as the norms prevailing in society. so that children can interact with their environment (Latifah, 2011).

There are several types of parenting according to Hurlock, Hardy & Heyes, they are permissive parenting, authoritative parenting, authoritarian parenting (Ayun, 2017). Parenting patterns have an influence on healthy eating habits and adolescent diets. Parenting applied by a family can affect the nutritional state of children, frequency of eating, effort, and or children's motivation to eat is also influenced by family parenting (Sinaga, 2017). Parents should pay more attention to the needs of their children, the better parents pay attention to their children, the children's lifestyle will remain regular and awake to meet the maximum needs of life. important to measure. Therefore, parenting patterns need to be considered (Sholikah & Nurhayati, 2021). Families have an effect on behavior change, especially in achieving weight loss goals and regular physical activity in adolescents and families. Families also play a role in influencing their children in shaping their diet, doing good physical activity, then as a form of

support for adolescents to lose or control their weight, and to maintain a healthy and active lifestyle. (Sari et al., 2019).

Research by Demir & Bektas (2017) shows that there is a correlation between parenting and feeding patterns on the incidence of obesity. This research is in line with research conducted by Sholikah & Nurhayati at SMK Negeri 6 Surabaya which states that there is a significant relationship between parenting patterns and nutritional status, with a sig value of 0.033 (<0.05) which is 11.7%. This means that the nutritional status of students is influenced by parenting patterns (Sholikah & Nurhayati, 2020).

Research by Thompson (2010) revealed that parents must have an understanding of the importance of the risk of obesity in children, so that appropriate parenting patterns can be applied by parents to their children in dealing with and preventing obesity.

A preliminary study conducted on adolescents aged 15-18 years at SMK IT Raflesia Depok showed that there were students with overweight who were included in the risk of obesity as much as 24.4%. Meanwhile, students with obesity themselves are still quite high with a percentage of 11.8% exceeding the obesity rate in Depok City, which is 5.75%. Interviews were conducted with 10 students at risk of obesity and 3 obese students saying that they eat 3-4 times a day on average with 1 serving, like fast food and fried snacks in the school canteen, and do not do any sports at home other than activities from sports subjects. at school, they also said that their parents tend to be less controlling about eating and eating patterns, and leave their children free to eat what they like as long as they don't overdo it.

From this statement, it can be concluded that the diet, lifestyle and physical activity patterns of adolescents at SMK IT Raflesia Depok are very at risk of causing adolescents to become obese, and if left untreated it will cause quite complex health problems caused by obesity. Based on what has been described above, the research was conducted with the aim of analyzing the relationship between parenting and the risk of obesity in adolescents at SMK IT Raflesia Depok.

METHOD

This study applies an analytical observational quantitative research design with a cross sectional study. Samples were taken using stratified random sampling with a total sample of 102 respondents who had the following inclusion criteria: Students who were willing to become respondents, students aged 15-18 years, students of class X, XI, XII who attended

SMK IT Raflesia Depok, students in the obesity risk group (BMI/U category of normal nutrition and overweight).

Data were collected by measuring the height and weight of adolescents and then calculating the z-score results obtained by each teenager using MS. Excel based on BMI by age (BMI/U). After that, it was continued by filling out the questionnaire, there was a questionnaire A to obtain data on the characteristics of adolescents, and a questionnaire B, namely the Parental Authority Questionnaire - Revised (PAQ-R), which had been translated and tested for validity and reliability with the test results declared valid for all 30 statement items and declared reliable based on Cronbach's Alpha value of 0.862. This instrument was used to obtain data on the type of parenting style of adolescents.

The data was taken through visits from class to class (door to door), then took anthropometric measurements and then distributed a questionnaire in the form of a G-form link to the WhatsApp group of each class through the class teacher. The data obtained were then analyzed by bivariate statistics using the chi square test at a significance level of 0.05. This research has received ethical approval from the Health Research Ethics Commission (KEPK) UPN Veteran Jakarta with an Ethics Approval Letter No : 310/VI/2022/KEPK.

RESULTS

This research was conducted at SMK IT Raflesia Depok. The study was conducted by collecting data through filling out questionnaires and measuring the height and weight of adolescents aged 15-18 years. Data were obtained by visiting each class directly within 3 days.

Univariat Analysis

Table 1 Average Distribution of Adolescents by Age at SMK IT Raflesia Depok (n=102)

Characteristics	Mean	Median	SD	Min-Max
Age	16.7	17	0.947	15

Source: Researcher Data, 2022

Based on table 1, it is known that the average age of 102 adolescents at SMK IT Raflesia Depok is 16.7 years, with the youngest age being 15 years and the oldest being 18 years, the mean obtained is 17 years, and the standard deviation is 0.947.

Age is not an anthropometric parameter, but age is very important to determine nutritional status because body growth is related to age, and the speed of growth over time is not the same (Harjatmo et al., 2017). The growth and physical development of adolescents is generally very rapid at the age of

12/13-17/18 years. At this time, adolescence is an unstable period, teenagers like to try everything, and don't think long term. Teenagers also often consume excessive food, lack of physical activity, and exercise (Mulyani, 2020).

Table 2 Frequency Distribution of Adolescents by Gender at SMK IT Raflesia Depok (n= 102)

Characteristics	Frequency	Precentage (%)
Gender		
Male	31	30.4
Female	71	69.6
Total	102	100.0

Source: Researcher Data, 2022

Table 2 shows that based on the results of the analysis of adolescent characteristics from 102 adolescents at SMK IT Raflesia Depok, there were more female, that were 71 people (69.6%), while who male students were 31 people (30.4%).

In assessing nutritional status, gender must also be considered because the growth patterns of boys and girls will be different (Harjatmo et al., 2017). Based on reseach by Nugroho (2020) there is a relationship between gender and obesity with a p-value of 0.000 with a COR of 0.595; 95% CI 0.493-0.718 which interprets that women have a risk of obesity 0.595 than men. This is similar to the characteristics of students in research by Sugiatmi & Handayani (2018) showed that obesity is more experienced in female students than male students. This is because the excess energy in adolescent girls is stored more as fat storage while the excess energy in boys will be used more for protein synthesis, and in general the amount of fat in the body of adolescent girls is twice as much as that of boys. to prepare for pregnancy, so women are more likely to be at risk of experiencing overnutrition (Sugiatmi & Handayani, 2018).

Table 3 Frequency Distribution of Adolescents Based on Living with Parents at SMK IT Raflesia Depok (n=102)

Living with Parents	Frequency	Precentage (%)
Yes	102	100
No	0	0
Total	102	100

Source: Researcher Data, 2022

Based on the results of the analysis in table 3, it is known that from 102 respondents at SMK IT Raflesia Depok, there are 102 people (100%) living with their parents, which means that all respondents live with their parents, and none (0%) live with a caregiver or a substitute family. (guardian, grandparent, or other).

Table 4 Frequency Distribution of Adolescents Based on Nutritional Status (Risk of Obesity) at SMK IT Raflesia Depok (n=102)

Nutritional Status (BMI/U)	Frequency	Percentage (%)
Normal Nutrition	69	67.6
Overnutrition (Overweight)	33	32.4
Total	102	100.0

Source: Researcher Data, 2022

The description of the nutritional status of adolescents in table 4 above can be seen from 102 respondents at SMK IT Raflesia Depok, the nutritional status of the most respondents is normal nutritional status, that were 69 people (67.6%), while respondents with more nutrition (Overweight) are less, that were 33 people (32.4%).

The most influential risk factor for obesity in adolescents is diet. Teenagers usually eat junk food. This can affect the accumulation of fat in the body because the number of calories in fast food exceeds the daily calorie adequacy rate for a teenager, this behavior will become a nutritional problem. (Hendra et al., 2016). Therefore, adolescents need the support of values in the family that influence adolescents in regulating diet and exercise (Sari et al., 2019).

Table 6 Analysis of the Correlation between Parenting Patterns and the Risk of Obesity in Adolescents at SMK IT Raflesia Depok (n=102)

Parenting Patterns	Obesity Risk				Total		P-Value
	Normal Nutrition		Overnutrition (Overweight)				
	N	%	N	%	N	%	
Permissive	9	67.6	4	30.8	13	100	0.018
Authoritarian	14	100	0	0.0	14	100	
Authoritative	46	61.3	29	38.7	75	100	
Total	69	67.6	33	32.4	102	100	

Source: Researcher Data, 2022

Based on the results of the research analysis in table 6 shows that of 102 respondents at SMK IT Raflesia Depok that the type of permissive parenting pattern in respondents with normal nutrition were 9 people (67.6%), and overweight (Overweight) 4 people (30.8%). Authoritarian parenting pattern in respondents with normal nutrition were 14 people (100%), and overnutrition (Overweight) (0%). Authoritative parenting pattern in respondents with normal nutrition were 46 people (61.3%), and

Table 5 Frequency Distribution of Adolescents Based on Parenting Patterns at SMK IT Raflesia Depok (n=102)

Parenting Patterns	Frequency	Percentage (%)
Permissive	13	12.7
Authoritarian	14	13.7
Authoritative	75	73.5
Total	102	100.0

Source: Researcher Data, 2022

The results of the analysis in table 5 showed that the parenting pattern of 102 students at SMK IT Raflesia Depok is dominated with authoritative parenting that were 75 people (73.5%), meanwhile by authoritarian parenting were 14 people (13.7%), and the lowest is the type of permissive parenting, which is 13 people (12.7%).

The results of this study are in line with research by Jannah (2012) which explains that parents who apply authoritative parenting will produce good moral behavior in children as expected. Baumrind (1967) also said that authoritative parenting is the best parenting pattern in nurturing and educating children, because it can balance the practice of control and warmth, parents can continue to prioritize children without hesitation to control them.

overnutrition (Overweight) 29 people (38.7%). The results of statistical tests carried out using chi square, obtained a P-value of 0.018 (<0.05) which means Ho is rejected and Ha is accepted, so it can be concluded that there is a significant correlation between parenting patterns and the risk of obesity in adolescents at SMK IT Raflesia Depok. This study shows results that are in line with the research by Sholikah & Nurhayati (2020) which shows that there is a significant correlation between parenting patterns and nutritional status at SMK Negeri 6

Surabaya with a sig value of 0.033 (<0.05). These results are supported by research conducted by Pratiwi & Hamdiyah (2019) who also stated that there was a relationship between food intake parenting and the incidence of obesity in Maritengngae District, Sidrap Regency with p value = 0.002 (p value <0.005). Other studies also showed the same results, namely there was a significant correlation between parenting patterns and the incidence of obesity with p value < 0.05 (p value = 0.012) and 95% CI (Triana et al., 2020).

DISCUSSION

Based on the results of observations and interviews conducted by researchers, in this study it was found that some students at SMK IT Raflesia Depok that their parents did not give too many rules regarding their children's diet, and tended to let their children eat anything as long as it was not excessive. This is of course a statement that shows that parents do not pay too much attention to the type of food and diet of teenagers so that the habits of teenagers will cause the risk of obesity.

The type of parenting style for adolescents at SMK IT Raflesia Depok is dominated by authoritative parenting that were 75 people (73.5%), this is in accordance with research conducted by (Livana et al., 2018) which states that authoritative parenting has the potential to cause obesity in children. Parents are indirectly role models for their children, whatever they see, feel, the child will learn from their parents, whether it is painful or pleasant, will be imitated. (Tentama, 2012). So that the eating style of parents is also a factor in causing the risk of children to be obese because children will imitate the behavior and habits of the parents they see. This is especially true in democratic parenting where parents give their children little freedom and do not control and direct their children's behavior too much.

CONCLUSION

This study shows that based on the results of the chi square test, it is found that there is a significant correlation between parenting patterns and the risk of obesity in adolescents at SMK IT Raflesia Depok. Researchers concluded that parenting applied by parents will determine children's attitudes to regulate eating patterns. Good parenting will have a positive impact on the growth and development of children, especially teenagers. However, in families with authoritative and permissive parenting, it is associated with freeing children in choosing food and not giving control to children in eating patterns. In

permissive parenting, parents tend to be very liberating of children, in authoritative parenting, parents give children opportunities to be independent and not too dependent on parents. Both parenting styles allow teenagers to be free to determine their own food and eat whatever they want.

Meanwhile authoritarian parenting is a parenting pattern that is quite strict and controls the behavior of their children, including matters relating to eating patterns, authoritarian parenting has a low potential in causing children to be at risk of obesity.

Adolescents are expected to maintain a balanced nutritional intake and reduce fast food, adopt a healthy lifestyle, and perform appropriate physical activities to prevent the risk of obesity and maintain an ideal body weight. Likewise with families, especially parents, to increase knowledge about nutrition through activities provided by local health services, parents are expected to play a role in changing behavior, getting used to physical activities with children on weekends, and forming good eating patterns for teenagers at home.

Next researchers are expected to be able to examine parenting patterns, especially permissive and authoritative parenting, which have a greater influence in causing obesity risk by using other research methods, other factors and changing or increasing the characteristics of the study. And for the government, it is hoped that it will continue to provide programs to overcome obesity rates in Indonesia, such as the Nusantara Movement to Reduce Obesity Rates (GENTAS), and ensure that these programs continue to run and have a positive impact in reducing the incidence of obesity.

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