

The Relationship Between Parenting Patterns and Body Mass Index (Bmi) in Children at Cipinang 05 Pagi Elementary School, East Jakarta

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Article Info	Abstract
<p>Article History: Received: 24 May 2025 Revised: 03 Juni 2025 Accepted: 16 Juni 2025</p> <p>Keywords: Parenting petterns, body mass index, family, elementary school</p> <p>Corresponding Author: Mara Imbang Satriawan Hasiolan</p> <p>Affiliation Borobudur University</p> <p>Email: maraimbangharahap@gmail.com</p>	<p>Background: Currently many children experience weight problems. So it is important to control the child's body mass index. One of the main actions to handle this problem is through the people closest to them, namely the family. Where children's eating behavior is a reflection of their parents' parenting patterns. In general, each family applies different forms of parenting.</p> <p>Purpose: The aims of study is determine the relationship between parenting patterns and body mass index (BMI) in children at Cipinang 05 Pagi elementary school, East Jakarta.</p> <p>Methods: The research method in this study is a cross-sectional study with a purposive sampling technique. With a sample size of 100 students at SDN Cipinang 05 Pagi, East Jakarta.</p> <p>Results: The results showed that the majority of respondents were male 56,0% (n=56), first child 42,0% (n=42), Authoritarian 73,0% (n=73), underweight 59,0% (n=59). There is a significant relationship between parenting patternss and body mass index in school-aged children, p value = 0.002</p> <p>Conclusion: It is hoped that parents can implement good parenting patterns by not being too pushy about their children in order to shape their children's character, and able to be open in receiving all information about child growth and development care so as to support nutritional status appropriate to the child's age.</p>

Background

School-aged children are at risk of experiencing nutritional problems related to eating habits. School-aged children often experience nutritional problems due to parenting patterns that tend to pay less attention to the food their children consume. Where children consume foods that are high in energy but low in fiber. Apart from that, school-age children tend to prefer snacks at random rather than bringing lunch from home. The consequences of uncontrolled snacking can disrupt the body mass index of children (Ulfa IL., et al. (2022).

Children's eating behavior is a reflection of parenting. Children who have difficulty eating are formed from habits such as the way parents prepare food, giving food, giving snacks to calm

them down, forcing them to eat, giving solid food too late, getting used to eating not on time. The main elements in a child's growth are the need for food, the need for nurturing, love and nurturing which is the basis for children to grow (Khadijah S & Dheska AP. 2022). Inappropriate eating patterns can be the cause of nutritional problems in children. Today's children tend to prefer fast food and processed drinks with high sugar content. In addition, there is also evidence to support that excessive sugar intake with soft drinks, increased portion sizes, and a persistent decrease in physical activity have played a significant role in increasing obesity rates worldwide (Ulfa IL., et al. (2022); (Andas et al., 2024). Childhood obesity can greatly impact a child's physical, social, and emotional health, as well as their self-esteem.

Children who are overweight or obese at an early age tend to remain obese into adulthood. There is a greater chance of experiencing non-communicable diseases (NCDs) at a younger age, one example of which is diabetes or cardiovascular disorders. Despite this, there are still many people and parents who think that children with fat bodies are healthy children, so many parents feel proud to see their children with large (fat) bodies (Triana KY., et al. 2020); (Hasiolan & Irwanto, 2024).

Thinness and obesity are largely preventable and should be a top priority. Data from basic health research in Indonesia shows that the prevalence of obesity in school-age children, namely 5-12 years, reached 8.8%, with the highest prevalence being occupied by DKI Jakarta, which reached 30.1% (Risksedas, 2018).

The implementation of a lifestyle that is fostered in the family environment cannot be separated from the parenting patterns that parents apply to their children. Because this can shape a child's character and habits in their daily life, including forming children's eating habits which have an impact on the child's nutritional status. This research aims to identify the relationship between parenting patterns and body mass index (BMI) in children at Cipinang 05 Pagi elementary school, East Jakarta.

Method

This research used a descriptive correlational design with a cross-sectional design. The population in this research was all school children at Cipinang 05 Pagi elementary school, East Jakarta. Every child who was willing to be involved in this research had their weight and height measured. Next, based on this data, the BMI of each child is found by dividing the body weight in kilograms by the child's height in meters squared. The value obtained is known as BMI. The BMI obtained for each child is then adjusted to the Anthropometric Standards for Assessment of Children's Nutritional Status table.

This research was conducted in March-April 2024 involving 100 respondents in accordance with the research criteria, namely using a purposive sampling technique. The instrument in this study used The Parenting patterns and Dimension Questionnaire (PSDQ) which consists of 30 question items regarding the parenting patterns applied by parents to children using a

Likert scale. And observation sheet using the BMI curve for school-aged children from the Ministry of Health of the Republic of Indonesia.

Results

Univariate Analysis

Age.

Table 1. Frequency Distribution Based on Age Characteristics of Respondents

Age	Frequency (N)	Percentage (%)
5 – 8	1	1,0
9 – 11	43	43,0
12 – 14	56	56,0
Total	100	100 %

Based on table 1, the majority of the age characteristics of respondents at Cipinang 05 Pagi elementary school, East Jakarta are in the 12-14 year age range, namely 56 people (56%).

Gender.

Table 2. Frequency Distribution Based on Gender Characteristics of Respondents

Gender	Frequency (N)	Percentage (%)
Female	44	44,0
Male	56	56,0
Total	100	100 %

Based on table 2, the majority of gender characteristics of respondents at Cipinang 05 Pagi elementary school, East Jakarta are male, namely 56 people (56%).

Birth order

Table 3. Frequency Distribution Based on Birth Order Characteristics of Respondents

Birth order	Frequency (N)	Percentage (%)
First child	42	42,0
Second child	35	35,0
Third child	16	16,0
Fourth child	5	5,0
Fifth child	2	2,0
Total	100	100 %

Based on table 3, the majority of respondents' birth order characteristics at Cipinang 05 Pagi elementary school, East Jakarta were first children, namely 42 people (42%).

Parenting patterns

Table 4. Frequency Distribution Based on Parenting patterns

Parenting patterns	Frequency (N)	Percentage (%)
Permissive	13	13,0
Authoritarian	73	73,0
Democratic	14	14,0
Total	100	100 %

Based on table 4, the majority of the parenting characteristics of the parents of respondents at Cipinang 05 Pagi elementary school, East Jakarta are authoritarian, namely 73 people (73%).

Body Mass Index

Table 5. Frequency Distribution Based on Body Mass Index.

Body Mass Index	Frequency (N)	Percentage (%)
Underweight	59	59,0
Normal weight	32	32,0
Overweight	2	2,0
Obesity	5	5,0
Obesity II	2	2,0
Total	100	100 %

Based on table 5, the majority of the body mass index characteristics of respondents at Cipinang 05 Pagi elementary school, East Jakarta are underweight, namely 59 people (59%).

Bivariate Analysis

Table 6. Relationship between parenting patterns and body mass index.

Parenting patterns	Body Mass Index										Total	p-value
	Under		Normal		Over		Obesity		Obesity II			
	N	%	N	%	N	%	N	%	N	%		
Permissive	12	92,3	1	7,7	0	0	0	0	0	0	13	0,002
Authoritarian	46	63,0	21	28,8	2	2,7	3	4,1	1	1,4	73	
Democratic	1	7,1	10	71,4	0	0	2	14,3	1	7,1	14	
Total	59		32		2		5		2		100	

Based on table 6, the results of data analysis show that p value = 0.002, which can be concluded that there is a significant relationship between parenting patterns and body mass index in school-aged children.

Discussion

Based on the results of research conducted by researchers at Cipinang 05 Pagi elementary school, East Jakarta with a total of 100 respondents, it is known that there is a significant relationship between parenting patterns and the body mass index of children at that school.

Age.

Characteristics of respondents based on age of children at Cipinang 05 Pagi elementary school, East Jakarta, the majority were aged 12-14 years, namely 56 people (56.0%). Where the thinking abilities of children aged 12 years and over have increased so that they can reason logically and can draw conclusions from information received from their families.

Gender.

Characteristics of respondents based on gender at Cipinang 05 Pagi elementary school, East Jakarta, the majority were male with a total of 56 people (56.0%). Boys usually tend to be given freedom without many rules or strict supervision.

Birth Order

Characteristics of respondents based on birth order of children at Cipinang 05 Pagi elementary school, East Jakarta, the majority were firstborn children with a total of 42 people (42.0%). The first child has more life experience than his siblings, because parents will give him more certain responsibilities (Untariana AF & Sugito. 2022). As the first child, parents'

parenting patterns is usually more pressure-oriented or authoritarian, where the aim is for the child to have a firm attitude and character and be responsible for his younger siblings.

Parenting Patterns

Characteristics of the parenting patterns received by respondents at Cipinang 05 Pagi elementary school, East Jakarta, the majority was authoritarian with 73 people (73%). In the authoritarian type of parenting, parents will generally give certain rules that children must follow, so that children often become less confident. Therefore, parents are expected to be able to implement appropriate parenting patterns for children, especially in managing children's nutrition. If this is related to the results of this research, it is hoped that parents will be able to show an attitude that does not force their children too much or is excessively permissive (Pangestu., et al. 2022). A firm but educational attitude is needed, so that children can understand the importance of maintaining a balanced nutritional intake and not excessively.

Body Mass Index

Characteristics of the body mass index of respondents at Cipinang 05 Pagi elementary school, East Jakarta, the majority were underweight with 59 people (59%). Body mass index (BMI) is a parameter set by WHO which is determined by measuring body weight and height separately, then dividing body weight and height to get the BMI value in kg/m². (Faradila and Uliya 2024). Underweight can be caused by authoritarian parenting, where parents determine the amount and type of food the child eats, and permissive parenting can also result in children being underweight where parents do not give enough attention to the child.

The Relationship Between Parenting patterns And Body Mass Index

The results of data analysis show that the p value is 0.002, which means there is a significant relationship between parenting patterns and body mass index in school-aged children.

A commitment or principle from an individual to facilitate a child's physical and psychological needs is called a parenting patterns. These three types of parenting have their own characteristics in caring for children.

Various studies show how important the role of parents is in preventing and treating weight problems in children. Every parent plays an important role in understanding the problem of weight in children. So parents are expected to be able to implement appropriate parenting patterns for their children in dealing with the problem of being underweight. Parents who implement balanced and supportive parenting can help children develop healthy eating habits and adequate physical activity. This is in line with previous research showing that emotional support and monitoring of eating habits contribute to children's weight management (Liu et al., 2022); (H. Wada et al., 2024)

Parenting patterns are influenced by the ages of both parents, education, employment and number of children. In educating and caring for children, parents use many variations and models that produce patterns of behavior, attitudes and determine children's growth and development. Good quality care produces children under five with low morbidity and better nutritional status compared to poor quality care. Good parenting means the toddler's nutritional status is good, and vice versa (Khadijah S & Dheska AP. 2022); (Hidayati FA., et al. 2022).

This should be a concern for nurses by applying their role as educators to the community. So that appropriate parenting patterns can be given to children as a promotive effort so that more children do not experience weight problems. Where the problem of being underweight for a long time can result in the emergence of various diseases and hamper the growth and development process which is not optimal. From the results of this research, it is hoped that there will be health promotion regarding body mass index (BMI) in schools so that it can help children recognize normal body weight and of course provide motivation for children to maintain an ideal body weight.

Conclusion

There is a significant relationship between parenting patterns and body weight in school-aged children. This shows that the parenting patterns applied by parents has a significant influence on children's weight. This research identified that supportive parenting (e.g., providing emotional support, paying attention to diet, and managing physical activity) tends to be associated with a healthier body weight. On the other hand, permissive or too strict parenting can contribute to weight problems, both obesity and underweight. Therefore, it is important for parents to implement a parenting patterns that is balanced and responsive to children's needs, in order to support optimal health and growth. This research also emphasizes the need for parental involvement in education regarding nutrition and physical activity to create an environment that supports children's health.

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