

ASSOCIATION OF PARENTAL BEHAVIOR IN CHOOSING SNACKS WITH NUTRITIONAL STATUS OF SCHOOL-AGE CHILDREN AT SDN MOJOLANGU 4

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Abstrak

Parents' behavior in selecting snacks significantly influences children's snacking habits, which are positively associated with nutritional status. The nutritional status of school-age children is influenced by several factors, including their daily eating habits at home instilled by their parents and peer-snacking behavior in the school environment. This study investigated the relationship between parents' behavior in snack selection and the nutritional status of school-age children at SDN 4 Mojolangu. The research employed an analytical correlational design with 160 respondents comprising 80 parents and 80 students in grades 1-4. Additionally, weight and height measurements were taken for the students. Statistical analysis was conducted using the Sommers'D test. The results indicate a significant relationship between parents' behavior in snack selection and the nutritional status of school-age children. The analysis of the correlation between parental behavior and nutritional status (BMI-for-age) yielded a significance value of $p=0.000$ ($r=1.000$), indicating a strong positive correlation. Meanwhile, the correlation between nutritional status (Height-for-age) showed a significance value of $p=0.000$ ($r=0.654$), demonstrating a strong positive correlation.

Keywords: Behavior, Nutritional status, School-age children, Snacks

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1. Introduction

School-aged kids are the future generation and are the bedrock of a nation's quality. Enhancing Human Resources (HR) quality commences in school, profoundly influencing their quality in adulthood [1]. School serves as a platform for these kids to expand their horizons. During this phase, they start owning their conduct and interactions with family, peers, and

others. With a substantial amount of time spent at school, over 50% have at least one meal, and 10% have two meals [2].

School-age children's snacking behavior is significantly impacted by their peers at school and home, with their limited understanding of the health benefits of fruits and vegetables. During this phase, children actively select their snacks, often with less parental oversight regarding their choices at school or while

playing with friends. Unhealthy eating patterns and a need for more awareness among parents about nutritious food components contribute to malnutrition in school-age children. Factors like poor eating habits modeled at home and peer influence to snack in school settings can affect children's nutritional well-being [3].

Parental decisions on snack choices significantly impact children's snacking habits and help safeguard them from harmful snacks containing artificial additives. Children's well-being is closely linked to how parents regulate their snack intake. Parents must distinguish between nutritious snacks suitable for children and those not. This knowledge helps children develop a preference for healthy snacks. In addition to behavior, parental awareness is vital in selecting healthy snacks. However, a Quaved survey of 1,587 parents in Jakarta revealed that 56% of parents remain unaware of the harmful ingredients in commonly consumed children's snacks, posing health risks. Furthermore, parents permitting school snacks influence increased snacking among students [4].

In 2018, according to the data on extraordinary incidents in students' snacks in Indonesia, school children were predominantly affected by poisoning. The Indonesia Food and Drug Authority reported 2,876 exposure cases, leading to 1,661 illnesses. The primary culprits were home-cooked meals, accounting for 42.86% of incidents, and snacks/ready-to-eat items at 33.93%. Elementary/MI educational institutions were the setting for 28.57% of food poisoning cases (BPOM, 2018). Ilmua's research in Jember Regency revealed that 42% of elementary students opted for nutritious snacks, while 57.3% chose unhealthy options.

Nutritional status is determined by the body's need for calories and other nutrients obtained from the food consumed with measurable physical impacts [5]. According to the 2018 National Basic Health Research, many children are already in school, and low

nutritional status is a prominent health and social issue in Indonesia. [6] The percentage of children with good nutritional conditions decreased from 37.2% to 30.8%, while malnutrition rates dropped from 19.6% to 17.7%. Their daily snacks influence a child's growth as certain foods gradually adapt to meet their changing nutrient requirements. The quality of school children is heavily impacted by the nutrients and safety of their food intake [7].

Efforts to prevent school-aged children from indulging in unhealthy snacking habits necessitate vigilance and guidance from both parents and schools [8]. Parents should oversee food and drink provisions from home, limit external snacking occasions, and educate children about the importance of healthy snacks. Schools can partner with Health Services and Community Health Centers to teach youngsters about nutritious snacking choices, fostering a comprehensive understanding among school-age children. Since snacks are crucial in providing energy and nutrients for this age group, parents are essential role models in influencing their children's snack choices [9].

Following the interview with the Deputy Principal at Mojolangu 4 State School, it was noted that a canteen was available. Parents were advised to provide snacks for their children to prevent them from snacking carelessly at school. Despite warnings and appeals to buy snacks from the school's canteen, approximately 30% of students still purchase snacks elsewhere. The school has forbidden external vendors from selling food near the premises, but some still need authorization. Consequently, researchers find the correlation between parental snack choices and the nutritional health of school children worthy of investigation

2. Method

The research method utilized in this study is quantitative analysis. It employs correlational analytics through a cross-sectional design to examine the

interplay of risk factors and outcomes by simultaneously gathering data in one location.

Data collection involved a questionnaire to assess parental snack selection behavior. Additionally, students in grades 1-4 underwent height and weight measurements. The study encompassed 160 participants, with 80 parents and 80 students in grades 1-4, all included in the analysis. The Somers'D test was employed for data analysis to uncover the relationship between the variables under scrutiny.

3. Results and Discussion

The results of the study examining the characteristics of parental snack selection behavior with the nutritional status of school-aged children are presented below:

Table 1. Parents Behavior in Choosing Snacks

Parents Behavior	f	%
Excellent	13	16.3
Good	37	46.3
Sufficient	23	28.8
Poor	7	8.8
Total	80	100

According to Table 1, results from a sample of 80 respondents show that most parents exhibited positive behavior when selecting snacks for their children. Thirty-seven respondents (46.3%) were classified as "Good," 23 respondents (28.8%) as "Sufficient," 13 respondents (16.3%) as "Excellent," and fewer than seven respondents (8.8%) as "Poor." These findings align with Cassandra's (2014) research, indicating that higher family income and maternal knowledge positively influence children's nutrition. Effective parental management of children's dietary choices is significantly linked to their favorable nutritional well-being.

This research at SDN Mojolangu 4 found that parents behave well when selecting snacks for their children.

Table 2. Respondents Nutritional Status (Weight/Age)

Nutritional Status (Weight/Age)	f	%
Normal	41	51.3
Overweight	13	16.3
Underweight	26	32.5
Total	80	100

As shown in Table 2, among the 80 respondents, 41 children (51.3%) were identified as having normal nutritional status, 26 children (32.5%) were classified as undernourished, and 13 children (16.3%) were categorized as overnourished. According to Gibson (2017), body weight provides insight into the body's presence of protein, fat, water, and bone minerals. However, it does not capture the dynamic changes in these components. This metric is commonly used to assess protein-energy malnutrition (PEM) and determine the prevalence of acute and overnutrition.

Table 3. Respondents Nutritional Status (Height/Age)

Nutritional Status (Height/Age)	f	%
Severely stunted	6	7.5
Stunted	19	23.8
Average	46	57.5
Tall	9	11.3
Total	80	100

Berdasarkan Tabel 3 Dari hasil penelitian dengan jumlah 80 responden menunjukkan bahwa anak yang memiliki Tinggi Badan normal lebih banyak dibandingkan dengan lainnya yaitu berjumlah 46 responden (57.5%), tinggi badan pendek berjumlah 19 responden (23.8%). Dan tinggi badan tinggi berjumlah 9 responden (11.3%). Sedangkan tinggi badan sangat pendek berjumlah 6 responden (7.5%). Menurut Gibson (2017), indeks TB/U lebih menggambarkan status gizi masa lalu. Serta digunakan untuk memantau status gizi jangka panjang, karena indeks ini lebih stabil dan tidak terpengaruh oleh perubahan status gizi yang sifatnya musiman.

Table 4. Association of Parents' Behavior with Nutritional Status (Weight/Age)

		Nutritional Status			Total	Somer Test
		Underweight	Normal	Overweight		
Parents' Behavior	Excellent	0	4	9	13	p:0.000
	Good	0	37	0	37	r:1.000
	Sufficient	23	0	0	23	
	Poor	3	0	4	7	
Total		26	41	13	80	

Based on Table 4, a study involving 80 participants indicates that the group with normal nutritional status consisted of 41 respondents, with 37 respondents falling into the good category for parents' snack selection behavior. Additionally, 13 respondents were classified as excellent, while the poor nutritional status group comprised 26 respondents. Furthermore, only 23 respondents were identified in the sufficient category for parents' snack selection behavior. Meanwhile, the overweight status group totaled 13 respondents, and seven respondents fell into the poor category for parents' snack selection.

The analysis results from the Somer's Test revealed a p-value of 0.000 (<0.005) and an r-correlation value of 1.000, indicating a strong positive correlation. This suggests a significant relationship between school-aged children's nutritional status (Weight/Age) and parents' snack selection behavior, based on the data collected from 80 respondents.

Table 5. Association of Parents' Behavior with Nutritional Status (Height/Age)

		Nutritional Status (height/age)				Total	Somer Test
		Severely stunted	Stunted	Normal	Tall	m	
Parents' Behavior	Excellent	0	0	1	2	13	P:0.000
	Good	0	0	30	7	37	r:0.654
	Sufficient	0	18	5	0	23	
	Poor	6	1	0	0		
Total		6	19	46	9	80	

Based on the data presented in Table 5, the research findings from a cohort of 80 respondents reveal that within the normal nutritional status group, there were 46 respondents. Among these, 37 respondents exhibited good behavior in selecting snacks, while 13 demonstrated excellent behavior. In contrast, the short nutritional status group comprised 19 respondents, with only 23 respondents falling into the sufficient category of snack selection behavior. Furthermore, there were nine respondents in the high nutritional status group, six in the severely stunted nutritional status group, and seven respondents categorized under poor snack selection behavior.

The statistical analysis utilizing Somer's Test yielded a p-value of 0.000 ($p < 0.005$) and an r-correlation value of 0.654. This statistical outcome suggests a positive correlation with a significant strength of association among the 80 respondents surveyed. Hence, a notable relationship exists between parental snack selection behavior and the nutritional status of school-aged children, particularly in terms of height for age.

Association of Parents' Behavior with Nutritional Status in School-age at SDN Mojolangu 4

The research shows that parental behavior plays a crucial role in meeting children's dietary requirements to support their growth, development, and overall nutritional status. Parental knowledge, attitudes, and actions regarding food choices significantly influence the selection of snacks for children—previous studies [10] in [11] have highlighted the pivotal role of parents in guiding children toward making healthy snack choices. Moreover, a higher level of family nutritional knowledge correlates with an increased likelihood of children adopting healthy snacking habits [7].

The research underscores that most parents exhibit positive behavior in providing snacks to their children, which includes considerations such as selecting

clean and nutritious snacks and regulating the consumption of sugary foods, among others [12]. Nutritional status emerges as a critical determinant of an individual's health and well-being [13]. Nutrition is an essential biological process encompassing digestion, absorption, transport, storage, metabolism, and elimination of nutrients essential for sustaining life, supporting growth, maintaining organ function, and providing energy [8]. Evaluating body weight and height among students in grades 1-4 indicated that a significant proportion had normal nutritional status based on body weight and height measurements, demonstrating a positive trend towards optimal nutrition among school-aged children.

The data analysis in this study employed the Somers statistical test to ascertain a relationship between parental snack selection behavior and the nutritional status of school-age children at SDN Mojolangu 4. The results revealed a statistically significant relationship between parental snack selection behavior and the nutritional status of school-age children based on both body weight/age and height/age measurements, indicated by a p-value of 0.000 (<0.005) for both analyses.

This study's findings are consistent with prior research [14] which demonstrated a significant association between positive snack habits and good nutritional status among the respondents, further supported by a statistical test yielding a p-value of $P=0.039$ ($P<0.05$). Moreover, the results align with the outcomes of research [15] which sought to investigate the relationship between parental food selection behavior and the nutritional status of school-aged children. The Spearman rank test analysis in this prior study indicated a significant relationship between the nutritional status of school-aged children and parental snack selection behavior, with a noteworthy p-value of (0.000) (0.050) and a strong positive correlation denoted by the r-value of 0.700.

4. Conclusion

The study conducted at SDN Mojolangu 4 examined the relationship between parents' snack selection behavior and the nutritional status of school-age children. The findings indicated that a majority of parents exhibited good behavior in choosing snacks for their children, with 46.3% falling in the good category, while 28.8% were rated as fair, and 16.3% as excellent. Conversely, a smaller percentage of parents, 8.8%, displayed poor snack selection behavior.

In terms of the children's nutritional status based on weight/age, 51.3% were classified as having a normal status, 32.5% were underweight, and 16.3% were overweight. When considering the nutritional status based on height/age, 57.5% were within the normal height range, 23.8% were stunted, 11.3% were tall, and 7.5% were severely stunted.

The analysis revealed a notable relationship between parental snack selection behavior and the nutritional status of school-age children, as indicated by the measurements of weight/age and height/age. The study emphasizes the importance of parents being aware of which snacks are nutritious and beneficial for their children, as well as understanding which snacks may not be ideal. By making informed choices about snacks, parents can help instill healthy eating habits in their children, promoting overall well-being and proper nutrition.

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