

The Impact Of Fear Of Missing Out And Eating Habits On The Nutritional Status Of Adolescents In The Digital Era At Muhammadiyah Vocational School Lebaksiu Tegal Regency

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Keywords

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Abstract

Background: Information and communication technology has brought significant changes to various aspects of human life, including how teenagers interact, learn, and consume information. One of the most obvious impacts of this development is the increasing use of social media among teenagers. Intensive social media use among teenagers often has a major impact in the form of digital advertising. Teenagers tend to be easily influenced by advertising because they are still in the stage of forming their identity, interests, and consumption interests. Advertisements are designed in such a way as to attract attention, influence perceptions, and encourage spontaneous purchases, thus potentially leading to excessive consumer behavior. In addition, easy internet access gives teenagers the freedom to determine food choices that can lead to changes in their lifestyle. This allows more quickly and widely lead teenagers to choose the food they want to consume, such as fast food or foods with unbalanced nutritional content, which can cause short-term and long-term nutritional problems in teenagers.

Method: The researchers used an observational analytical design with a sample of 98 respondents at Muhammadiyah Vocational School Lebaksiu, Tegal Regency. The researchers collected data using a questionnaire with a list of questions about FoMO (FoMO), *Fear of Missing Out* and eating habits provided by respondents. Data analysis was carried out using the chi-square statistical test.

Results: Statistical analysis showed that there was no relationship between FoMO and nutritional status ($p>0.05$). Statistical analysis showed that there was a relationship between eating habits and nutritional status ($p>0.5$).

Conclusion : Researchers concluded that FoMO was not related to nutritional status, while eating habits were related to the nutritional status of adolescents in the digital era at Muhammadiyah Lebaksiu Vocational School.

1. Introduction

The transition phase from childhood to adulthood is adolescence, which lasts between the ages of 10 and 19 and is marked by physical changes that increase nutritional needs. Three major nutritional issues, namely underweight, overweight, and micronutrient deficiencies, still face adolescents in Indonesia. Unhealthy eating habits are one of the factors causing nutritional disorders. The risk of experiencing *overweight* five times higher in adolescents with poor eating habits compared to adolescents with good eating habits (Dwitami et al., 2024). According to (pengetahuan et al., 2021) adolescence is a period of biological, psychological, and socioeconomic development, marked by the emergence of secondary sexual characteristics, emotional maturity, and the transition from dependence to independence.

According to Yosa Agusni et al. (2024), approximately 80% of adolescents worldwide and 69% of the Indonesian population regularly consume fast food, especially at lunch and dinner. This habit indicates that adolescents' eating patterns tend to be influenced by easy access and food trends, which can affect their nutritional status. According to Fitria (2024), during adolescence, the body experiences rapid growth and development, including reproductive organs, so nutritional needs increase. Adequate intake of macronutrients (carbohydrates, protein, fat) and micronutrients (vitamins, minerals) is crucial to support optimal growth and development.

The increasing intensity of social media use among teenagers can result in the phenomenon of behavior *Fear of Missing Out* (FoMO) among adolescents. FoMO is defined as a psychological condition where someone feels afraid of missing out on information, activities, or social experiences experienced by others (Erwandi et al., 2023). The anxiety caused by FoMO drives adolescents to stay connected to the digital world,

which can ultimately influence daily behavior, including food consumption patterns. In the digital era, viral culinary trends on social media often lead adolescents to consume fast food or unhealthy snacks without considering their nutritional value. This condition indicates a potential relationship between *Fear of Missing Out* (FoMO), eating habits, and nutritional status of adolescents. Nutritional status according to Juliatin (2024) is defined as a condition determined by the degree of physical need for energy and nutrients obtained from food, so that its impact can be measured physically.

Several previous studies have shown that high social media use leads to increased consumer behavior and unhealthy eating habits. Hunaifi et al. (2024) confirmed that exposure to advertising on social media can influence adolescents' impulsive consumption decisions. Yosa Agusni et al. (2024) found that approximately 80% of adolescents worldwide consume fast food. *fast food* routinely, and this habit contributes to an increased risk of obesity. Meanwhile, Nasution et al. (2024) revealed that easy access to food through digital platforms contributes to an instant lifestyle that impacts adolescents' nutritional balance. In general, these studies highlight the influence of social media on consumption behavior, but few link it to psychological aspects such as FoMO and nutritional status.

Although numerous studies have examined the relationship between social media use and adolescent eating behavior, few have examined how FoMO, as a psychological factor, plays a role in shaping eating habits and influencing adolescent nutritional status, particularly in the context of regional vocational schools. Furthermore, few studies have specifically examined this phenomenon in secondary education settings such as SMK Muhammadiyah Lebaksu, Tegal Regency, where social media use is high and student consumption patterns tend to be unhealthy. Therefore, this study aims to fill this gap by examining the impact of FoMO on adolescent eating habits and nutritional status in the digital era at SMK Muhammadiyah Lebaksu, Tegal Regency.

2. Method

A quantitative design with a correlational approach was used in this study. This design was chosen so that the relationship between variables could be determined. *Fear of Missing Out* (FoMO), eating habits, and nutritional status of adolescents in the digital age can be identified. A quantitative approach was used because researchers collected numerical data that would be analyzed using statistical methods to objectively test hypotheses.

Participants in this study were students of Muhammadiyah Lebaksu Vocational High School, Tegal Regency, with a population of 574 students. The research sample was taken from students who met the inclusion criteria, namely adolescents aged 15–18 years who actively participated in learning activities at school and were willing to be respondents. Exclusion criteria were set for students who were absent when completing the questionnaire or students who did not complete the data. The majority of participants consisted of male and female students with the same educational background, namely vocational high school level.

The researcher designated all students of Muhammadiyah Lebaksu Vocational High School in Tegal Regency as the research population. The researcher used a purposive sampling technique, where the sample was selected based on certain criteria relevant to the research objectives. This technique was chosen so that each major had a proportional opportunity to represent the population, so that the research results could be better generalized.

The instruments used by researchers in this study consisted of three questionnaires, namely: (1) Questionnaire *Fear of Missing Out* (FoMO), (2) Eating habits questionnaire compiled based on balanced nutrition guidelines, and (3) Nutritional status observation sheet based on Body Mass Index (BMI) measurements according to age. Each questionnaire has been tested for content validity by experts and reliability tests with Cronbach's Alpha values > 0.70 indicating good reliability.

The measuring instruments used in this study included digital scales and a microtoise to measure respondents' weight and height, which were then used to calculate nutritional status using the Body Mass Index for Age (BMI/U) formula. Additionally, a Likert-based questionnaire was used to assess FoMO levels and eating habits. Data from the measuring instruments were systematically recorded and analyzed quantitatively.

The research was carried out through several stages, namely: (1) the preparation stage by compiling instruments and conducting validity and reliability tests, (2) the data collection stage by distributing questionnaires and conducting anthropometric measurements of students, and (3) the data analysis stage.

Researchers analyzed the data obtained using SPSS software. The analysis consisted of descriptive tests to describe respondent characteristics and variable distribution. Furthermore, researchers used statistical tests to determine the relationship between FoMO, eating habits, and nutritional status.

3. Results and Discussion

The results of the research conducted at Muhammadiyah Lebaksu Vocational School, Tegal Regency, which consisted of 98 students, are shown in the following table.

Table 1. Respondent Characteristics

No	Characteristics	Frequency (f)	Percentage (%)
1.	Respondent Age		
	15 years	3	3,1
	16 years	53	54,1
	17 years	39	39,8
	18 years	3	3,1
	Total	98	100,0
2.	Gender		
	Woman	82	83,7
	Man	16	16,3
	Total	98	100,0
3.	Parents' job		
	Trader	16	16,3
	Businessman	10	10,2
	Self-employed	30	30,6
	Labor Employees	1	1,0
	Laborer	9	9,2
	Farmer	7	7,1
	Seamstress	3	3,1
	Teacher	5	5,1
	civil servant	3	3,1
	Past Daily Laborers	7	7,1
	Indonesian National Armed Forces	1	1,0
	Driver	2	2,0
	Private sector employee	3	3,1
	Cruise	1	1,0
	Total	98	100,0

Table 1 shows that out of 98 respondents, there were 3 respondents (3.1%) aged 15 years, there were 53 respondents (54.1%) aged 16 years, there were 39 respondents (39.8%) aged 17 years, there were 3 respondents (3.1%) aged 18 years.

Based on the research results, all respondents were in their mid-teens, with an average age range of 15-18 years. This finding aligns with research conducted by Tsiompah (2025), which stated that most middle-aged adolescents have a positive self-concept, although some exhibit moderate to negative self-concept. This research also aligns with Fitzgerald et al. (2023), which states that adolescence is a crucial period in the formation of eating habits. During this phase, adolescents' food preferences begin to form, influenced by social factors and peer pressure. Furthermore, adolescents at this age are more susceptible to eating disorders that could potentially impact their nutritional status, especially in the digital age, which is saturated with information about diet and physical appearance.

Based on gender, 82 respondents (83.7%) were female and 16 respondents (16.3%) were male. The results showed that the majority of female respondents (83.7%) were more dominant than male respondents. This finding is in line with research conducted by Annisa (2025), which stated that female adolescents have a more positive self-concept than male adolescents. This condition is caused by the level of desire that women tend to have which is higher. Syahputri (2023) also supports this by showing that women are more vulnerable to social pressure and media influence regarding ideal body image, which often impacts their eating patterns. Thus, interventions that pay attention to gender differences are very necessary to encourage healthy eating habits, especially in female adolescents.

Based on the parents' occupation, there were 16 (16.3%) as traders, there were 10 (10.2%) as entrepreneurs, there were 30 (30.6%) as self-employed, there was 1 (1.0%) as an employee laborer, there were 9 (9.2%) as laborers, there were 7 (7.1%) as farmers, there were 3 (3.1%) as tailors, there were 5 (5.1%) as teachers, there were 3 (3.1%) as civil servants, there were 7 (7.1%) as casual daily laborers, there was 1 (1.0%) as TNI, there were 2 (2.0%) as drivers, there were 3 (3.1%) as private employees and there was 1 (1.0%) as a shipping company.

Based on parental occupation, it was found that the majority of respondents came from families where the parents worked. This finding is supported by research by Herwawan (2023), which states that income levels are influenced by the type of employment and determine the quantity and quality of food available at home. A well-paid job reflects a more stable family socioeconomic condition, enabling the family to meet the nutritional needs of its members. This research also aligns with Tandon et al. (2022) who also support this, showing that parental socioeconomic status significantly influences children's eating habits. Access to healthy food is easier for high-income families, while low-income families tend to experience difficulties in providing nutritious food.

Table 2. Relationship between Nutritional Status and FOMO

		Nutritional status								P value
		Underweigh		Normal		Overweight		Obesity		
		f	%	f	%	f	%	f	%	
FOMO	Low	2	2,0	4	4,1	0	0	0	0	0,999
	Currently	35	35,7	53	1,0	1	1,0	1	1,0	
	High	1	1,0	1	1,0	0	0	0	0	
Total		38	38,8	58	59,2	1	1,0	1	1,0	

Based on Table 2, it is shown that of the 38 respondents (38.8%) who had underweight nutritional status, 2 respondents (2.0%) had low FOMO, 35 respondents (35.7%) had moderate FOMO and 1 respondent (1.0%) had high FOMO. Meanwhile, 58 respondents (59.2%) had normal nutritional status, 4 respondents (4.1%) had low FOMO, 53 respondents (1.0%) had moderate FOMO, 1 respondent (1.0%) had high FOMO. Meanwhile, 1 respondent (1.0%) had overweight nutritional status and moderate FOMO. Meanwhile, 1 respondent (1.0%) had obesity nutritional status and moderate FOMO.

The researcher used the Chi-Square statistical test and obtained a p value of 0.999 ($p > 0.05$) indicating that H_0 was accepted and H_a was rejected. Therefore, the researcher concluded that there was no relationship between FOMO and nutritional status at Muhammadiyah Lebaksiu Vocational School, Tegal Regency.

Based on the research data, it is known that FOMO behavior and normal nutritional status are possessed by the majority of respondents. Fear of missing out (FOMO) has a clear influence on individual consumption patterns, especially on social media and the digital environment. Excessive attachment to social media platforms often triggers anxiety, which drives individuals to remain active online to ensure they do not miss out on the latest information or trends. This study is in line with that conducted by Dwitami et al., (2024) entitled "The Relationship Between Nutrition Knowledge, Body Image, Social Media, and Food Consumption Behavior on the Nutritional Status of Female Students of SMA Negeri 98 Jakarta", which found no significant relationship between social media use and nutritional status. This result is due to the fact that most respondents showed high intensity of social media use but had a normal nutritional status. This study is in line with that conducted by Kurnia (2022) entitled "Social Media Use with Nutritional Status in Late Adolescents" in this study, there was no significant relationship between social media use and Nutritional Status. This result is caused by social media use being in the category and more than half of respondents are categorized as having normal nutritional status. This condition occurs because respondents also carry out various other activities such as studying and exercising which increase the body's metabolism.

Table 3. Relationship between Nutritional Status and Eating Habits

		Nutritional status								P value
		Underweigh		Normal		Overweight		Obesity		
		f	%	f	%	f	%	f	%	
Eating Habits	Bad	4	4,1	3	3,1	0	0	0	0	0,034
	Enough	30	30,6	52	53,1	0	0	1	1,0	
	Good	4	4,1	3	3,1	1	1,0	0	0	
Total		38	38,8	58	59,2	1	1,0	1	1,0	

Based on table 3, it is shown that as many as 38 respondents (38.8%) are included in the underweight nutritional status category, where 4 respondents (4.1%) are classified as having bad eating habits, 30 respondents (30.6%) have sufficient eating habits and 4 respondents (4.1%) have good eating habits. Meanwhile, as many as 58 respondents (59.2%) are categorized as having normal nutritional status, with 3 respondents (3.1%) having bad eating habits, 52 respondents (53.1%) having sufficient eating habits, 3 respondents (3.1%) having good eating habits. Meanwhile, as many as 1 respondent (1.0%) has overweight nutritional status and good eating habits. While 1 respondent (1.0%) has obesity nutritional status and sufficient eating habits.

The researcher used the Chi-Square statistical test and obtained a p-value of 0.034 ($p < 0.05$), indicating that H_0 was rejected and H_a was accepted. Therefore, the researcher concluded that there was a relationship between eating habits and nutritional status at Muhammadiyah Lebaksiu Vocational School, Tegal Regency.

Based on the research data, it was found that the majority of respondents had fairly good eating habits and normal nutritional status. Adolescents frequently consumed high-calorie snacks, had irregular mealtimes, frequently consumed fast food, and rarely consumed vegetables and fruit. This imbalance in nutritional intake can be caused by such eating patterns and ultimately lead to malnutrition. This finding aligns with research conducted by Syahri (2024) entitled "The Effect of Nutrition Counseling on Food Choices of Obese Adolescents: Literature Review. Indonesian Health Promotion Publication Media (MPPKI)", which shows a significant

relationship between eating patterns and nutritional status in adolescents. A person's nutritional status is determined by food consumption and the body's ability to utilize these nutrients. In addition, this study is also in line with that conducted by Najdah (2024) "Eating habits and nutritional status in adolescents in Mamuju using the adolescents' food habits checklist," which states that the immune system is influenced by eating habits and the nutritional status of individuals who play a role in determining resistance to disease. Poor immune function is caused by malnutrition and protein and micronutrient deficiencies. Healthy eating habits need to be implemented by adolescents so that a normal nutritional status can be maintained during growth.

4. Conclusion

Based on research conducted at Muhammadiyah Lebaksu Vocational School in Tegal Regency, it was found that there was no relationship between FOMO and nutritional status, despite high social media usage intensity. Many received useful information such as educational content on healthy eating, fitness, and healthy lifestyles. This helped them become more aware of healthy eating behaviors and lifestyles. There is a relationship between eating habits and a person's nutritional status, with normal nutritional status indicating the ability to choose foods that adequately meet the body's needs. Normal nutritional status reflects a balanced nutritional intake that meets the body's needs to support biological functions, growth, and daily activities.

Author Contributions

All authors have equal contributions to the paper. All the authors have read and approved the final manuscript. The first author did conceptualization, methodology, writing—original draft, the second author did data curation, formal analysis, writing—review & editing; and the last author did investigation, validation, and visualization

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Data Availability

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Ethical Clearance

All participants provided written consent prior to participation.

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