

# Breakfast Eating Habit and Dairy Consumption in Relation to Nutritional Status among Junior High School Student in Painan, West Sumatra Province

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**Keyword:** Teenager, Breakfast Habits, Dairy Consumption, Nutritional Status of Students.

**Abstract:** Breakfast and dairy consumption has been labelled the most important meal of the day, especially in early adolescent. This study was conducted to analyse the nexus between breakfast habit and dairy consumption with the nutritional status of junior high school in Painan, West Sumatera Province. This research method is correlation descriptive with a sample of 67 junior high school students taken by quota sampling method. The instrument used in the form of a questionnaire sheet for Breakfast Habit, dairy consumption and nutritional status of adolescents. Bivariate analysis of statistical tests used chi square test. The results showed that 29 students (43%) belonged to the thin category, the breakfast habit in the skipper category was 23 people (34,3%), dairy consumption in the rare category was 10 people (15%). Bivariate analysis described a relationship between breakfast habit and dairy consumption with the nutritional status of students with p values of 0.2 and 0.0001, respectively. In conclusion, breakfast habit have significant correlation with nutritional status of students. From the results of this study, it is suggested that there is a need for nutritional education to students to increase the awareness of breakfast and dairy consumption.

## 1 INTRODUCTION

Adolescents are one of the important elements in the development of a society nation that needs to pay attention to its health. Adolescence is an age the transition from childhood to adulthood, starting from the age of 10-19 years and not married (Depkes, 2010). During adolescence, many changes that happened. In addition to physical changes due to increased muscle mass, also Increased fat tissue in the body and hormonal changes occur. These changes basically greatly affect nutritional and food needs in adolescents (Sulistyoningsih, 2011).

The imbalance between energy intake in adolescents can cause nutritional problems, both overnutrition and undernutrition (Sulistyoningsih, 2011). The prevalence of overnutrition in adolescents in Indonesia is increasing every year. Based on data

from Basic Health Research (Riskesdas 2013) The prevalence of adolescents in the obese category in Indonesia based on Riskesdas data in 2007 was 8.8%, in 2010 was 1.4%, while in 2013 it was 5.7%. There was an increase of 4.3% from 2010 to 2013.(7) As for the prevalence of underweight adolescents in 2007 was 14.8%, in 2010 it was 7.1%, while in 2013 it was 7.5 %. There was an increase from 2010 to 2013 by 0.45.(8) Provinces with The highest obesity prevalence was DKI Jakarta (4.2%) and the lowest was West Sulawesi (0.6%) (5-7). Meanwhile, West Sumatra is in the 6th lowest in the overweight category. As many as 10.08% of the population of West Sumatra are overweight. For the skinny category, West Sumatra is in the top 10, with 11.84%.

Eating habits acquired during adolescents will have an impact on health in later life, after adulthood and old age. The role of parents is very important in regulating breakfast patterns morning son. Breakfast

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is a human need that should be done regularly every morning, for nutritional needs and brain development and avoid risks malnourished and obese children (Waryono, 2010). Dairy products are considered as healthy diet by providing important amount of protein, energy, micronutrients such as magnesium, calcium, Vitamin B1, B2, and B12 (Pereira, 2014).

Various attempts have been made by youth to lose weight or maintain nutritional status, one of which is by skipping breakfast and reducing consumption of dairy products. Surveys in five major cities show, 17% adults don't eat breakfast, and 13% don't eat breakfast every day. Number of no breakfast in children varied from 17% in Jakarta, to 59% in Yogyakarta (Hardinsyah & Aries, 2012). Opposite with the perception of adolescents in general, research shows the habit of skipping breakfast instead are at risk for being overweight and obese higher (Rampersaud et al. 2005).

Several studies have linked nutritional status with breakfast eating and dairy consumption (Rohmah et al, 2020; FAO, 2013). However, many of them were relatively small or conducted in selected groups. The purpose of this study was to determine the relationship between breakfast habit and dairy consumption with the nutritional status of junior high school in Painan, West Sumatera Province

## 2 METHOD

This research was conducted at one of Junior High School in Painan, West Sumatera Province in February until April 2021. This research method is correlation descriptive with a sample of 67 junior high school students taken by quota sampling method. The instrument used in the form of a questionnaire sheet for Breakfast Habit, dairy consumption and nutritional status of adolescents. Research design used was cross sectional. Population of this research is students of class 7 and 8 SMPN 2 Bayang, as many as 67 people. students were chosen using quota sampling. The data that had been collected included eating breakfast habits and dairy consumption which gained by interview using questionnaire, and nutritional status was determined based on BMI for Age measurement.

## 3 RESULT AND DISCUSSION

### 3.1 Overview of the Nutritional Status of Junior High School Students/Adolescents

An overview of the nutritional status of junior high school students can be seen in Table 1. It shows the distribution of adolescent students nutritional status /from a total of 67 students.

Table 1: Percentage of Nutrition Status Junior High School Students

No.	Nutritional status	n	%
1	Underweight	29	43
2	Normal	32	48
3	Overweight	3	4
4	Obesity	3	4

Based on Table 1 above, the number of students with underweight nutritional status is almost the same as the number of students with normal nutritional status with 29 (43%) and 32 (48%) students respectively out of a total of 67 students.

### 3.2 Overview of Junior High School Teenagers Breakfast Habits

An overview of the breakfast habits from junior high school students can be seen in Table 2.

Table 2: Percentage Breakfast Habits of Junior High School Students

No.	Breakfast Habits	n	%
1	Breakfast	44	66
2	Breakfast Skipping	23	34
	Total	67	100

The study has shown a prevalence for breakfast consumption is 66%. Meanwhile, another data shows that the breakfast habit in the skipper category was 23 people (34,3%). Furthermore, about 83,1% of the breakfast eaters indicated that the routine as a result of a family habit. In addition, 16,9% of them ate breakfast because of the passion to be active and to tackle hunger during the morning period. Healthy breakfast foods provide school-age teenager with the fundamental nutrients that needed for their activities. Moreover, it is also linked to the long-term health status throughout their life. Meanwhile, skipping breakfast means higher risk with many health problems and reduced cognitive and psycho-social functions performance. In addition, missing breakfast

is also associated with academic learning capability and achievement. Skipping breakfast for students may also affect difficulty in concentrating in the afternoon. Moreover, students tend to be fatigue as a consequence of the reduced of energy levels at the end of school time (ALBashtawy, 2017).

According to this research, most of adolescent student (83,1%) ate breakfast because of their family habit. This finding is the same with Albashtawy research. It indicates that parents and caregivers are the main figure to represent their children how to live a healthy life by showing them to eat a healthy diet. (ALBashtawy, 2017).

### 3.3 Overview of Junior High School Teenagers Dairy Consumption

Below table shows an overview of dairy consumption of junior high school students.

Table 3. Dairy consumption percentage junior High School Students

No.	Dairy Consumption	n	%
1	Everyday	48	72
2	2-3x/week	10	15
3	Never	9	13
	Total	67	100

Some 42.6% of the children were categorized in the everyday dairy consumption. One or  $\geq 2$  consumption of dairy per day was associated with a lower risk of being stunted (Bao et al, 2018). Most of student who never consume dairy products explained that it happened because they do not like and familiar with dairy products.

### 3.4 Correlation between Breakfast Habits and Dairy Products Consumption toward Nutritional Status of Junior High School Students

An overview of correlation between breakfast habits and dairy products consumption toward nutritional status of junior high school students can be seen in Table 4.

Table 4. Relation between Breakfast Habits and Dairy Products Consumption

Variables	Nutritional Status				Total		P Value
	Normal		Not Normal		n	%	
	n	%	n	%			
<b>Breakfast Habit</b>							
Breakfast	29	66	15	34	44	100	0,01
Breakfast skipping	3	13	20	87	23	100	
Total	32	48	35	52	67	100	
<b>Dairy consumption</b>							
Yes	31	53	27	47	58	100	0,2
No	1	11	8	89	9	100	
Total	32	48	35	52	67	100	

The present study shows that the incidence of breakfast habits is positively associated with the nutritional status. Children are less likely to be stunted or underweight when breakfast is part of their daily diet. Stunting is associated with increased morbidity and impacts cognitive development [Black et al, 2008; Grnatham et al, 2007]. This finding was in line with Rohmah et al research. Skipping breakfast habit may lead to the insufficiency of energy and other nutrition intake for the best function of our organ. As a result, students seemed weak, lack of concentration, and even loss of consciousness. Missing breakfast in the morning also give rise to hunger so that triggers students to even consume more snacks at school. The side effect of excessive snacking habit can lead to excessive intake of unhealthy foods. The later can generate a condition of obesity which causes degenerative diseases in the future. (Rohmah et al, 2020).

No significant differences were found in correlation between dairy consumption with nutritional status of students. This finding is similar with bao in 2018. One or  $\geq 2$  consumption of dairy per day was associated with a lower risk of being stunted. Meanwhile, dairy consumption was not significantly associated with the risk of being thin, overweight or obese.

## 4 CONCLUSIONS

Breakfast habits is positively associated with the nutritional status ( $P < 0,05$ ). No significant differences were found in correlation between dairy consumption with nutritional status of students.

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