

## Original Article

# ASSOCIATION BETWEEN HABITUAL BREAKFAST CONSUMPTION AND PHYSICAL FITNESS AMONG SENIOR HIGH SCHOOL STUDENT, CENTRAL KALIMANTAN

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## ABSTRACT

**Background** : Physical fitness is a person's ability to carry out daily activities without experiencing significant fatigue and still have energy reserves for other activities. In Indonesia, 40% of children skip breakfast. Skipping breakfast can affect the decrease in physical activity. This lack of physical activity has an impact on decreasing physical fitness, so that a person will be more easily tired and less optimal in carrying out daily activities. The purpose of this study is to investigate association between habitual breakfast consumption and students' physical fitness.

**Methods** : The research was conducted in SMA Negeri 1 Pangkalan Banteng, Central Kalimantan. This research is a quantitative study using a cross-sectional approach with a total sample of 69 respondents. The variables studied were breakfast habits and physical activity. Questionnaires are used as instruments in data collection. The chi-square test was used to assess the data.

**Results** : The results of the study used the chi square test and found that there was a relationship between breakfast habits on the physical fitness of students of SMA Negeri 1 Pangkalan Banteng ( $p = 0.035 < 0.05$ ).

**Conclusions** : Breakfast and physical freshness are both very important and support each other's benefits. Therefore, it is important to pay attention to the child's breakfast before activities

**Keywords**: physical fitness, breakfast habits, student

Physical fitness is a person's ability to perform daily activities without experiencing significant fatigue and still have energy reserves for other activities<sup>1</sup>. In Indonesia, 40% of children skip breakfast. Skipping breakfast can affect the decrease in physical activity. This lack of physical activity has an impact on decreasing physical fitness, so that a person will be more easily tired and less optimal in carrying out daily activities<sup>2</sup>.

Breakfast is a routine activity in the morning that must be done to meet the energy needs in the body in order to perform activities optimally. This is especially important for school-age children because it can support growth and development as well as various activities at school<sup>3</sup>.

Breakfast for school-age children is very important, because school time is full of activities that require considerable energy and calories. Breakfast meets one-third of daily nutritional needs, so if someone is not accustomed to breakfast, it will be more likely to occur nutritional problems. Physical fitness obtained from physical activity is very influential in work productivity and study, because regular physical activity helps in thinking, learning, and making decisions. The results of student research at STIKes Persada Nabire, Papua Province, show a significant influence between breakfast habits and physical activity obtained  $p$ value = 0.01<sup>4</sup>.

Research on MAN Insan Cendekia West Halmahera Students and SMAN 11 Tidore Islands showed an  $r$  table value of  $0.361 < r$  counts 0.570 which means that it is positively correlated, this shows that the three variables are unidirectional. The relationship between diet and nutritional

## INTRODUCTION

status with physical fitness level shows that the better the diet and nutritional status of students, the more likely the level of physical fitness is also good<sup>5</sup>.

Research on the Relationship of Breakfast Habits, Supplement Consumption and Nutritional Status with Fitness Level of Adolescent Boys Aged 10-17 Years in SSB South Tangerang, found that there was a relationship between breakfast habits ( $p = 0.023$ ) and fitness level<sup>6</sup>.

Research on the Relationship Between Breakfast Habits and the Level of Physical Freshness of Grade IV and V Students at Sd Negeri 1 Parangritis, Kretek District, Bantul Regency shows that there is a significant relationship between breakfast habits and the level of physical freshness of grade IV and V students at SD Negeri 1 Parangritis, Kretek District, Bantul Regency with a discount factor (df) 66 (3,846 > 1,996) at a significance level of 5%<sup>7</sup>.

Departing from the background that has been described, researchers are interested in conducting research to determine the relationship between breakfast habits and physical fitness in students of SMA Negeri 1 Pangkalan Banteng.

## METHODS

The research was conducted in SMA Negeri 1 Pangkalan Banteng, Central Kalimantan. This research is a

quantitative study using a cross-sectional approach with a total sample of 69 respondents. The variables studied were breakfast habits and physical activity. Questionnaires are used as instruments in data collection. The chi-square test was used to assess the data. The sampling technique uses stratified random sampling. In stratified random sampling, structured random sampling is done by dividing the members of the population into subgroups called strata, then a sample is selected from each stratum. Elements of the population are divided into levels (stratification) based on the character attached to them. In stratified random sampling, population elements are grouped at certain levels with the aim that sampling will be evenly distributed at all levels and the sample represents the character of all heterogeneous population elements.

## RESULTS

In this study, breakfast variables were measured from students' breakfast consumption (at least 300 calories) before doing daily activities, while physical fitness variables were measured from total physical activity, namely whether or not the students sat often, stood, walked, lifted weights, and exercised.

**Table 1.** Breakfast Habits of Students of SMA Negeri 1 Pangkalan Banteng, Central Kalimantan

Breakfast Habits	Frequency (n)	Persen (%)
Yes	47	68,1
No	22	31,9
<b>Total</b>	<b>69</b>	<b>100,0</b>

From Table 1, it was found that most students of SMA Negeri 1 Pangkalan Banteng (68.1%) consumed breakfast before doing their daily activities.

**Table 2.** Physical Activity of Students of SMA Negeri 1 Pangkalan Banteng, Central Kalimantan

Variable	Physical Activity	Frequency (n)	Persen (%)
Sitting Often	Yes	21	30,4
	No	48	69,6
Frequent Standing	Yes	31	44,9
	No	38	55,1
Frequent lifting of heavy weights	Yes	51	73,9
	No	18	26,1
Regular Exercise	Yes	10	14,5
	No	59	85,5

Table 2, it was found that the most frequent activity carried out by students of SMA Negeri 1 Pangkalan Banteng was often lifting heavy weights, which was 51 people (73.9%), while the least frequent activity was exercising, which was 10 people (14.5%).

**Table 2.** Physical Fitness of Students of SMA Negeri 1 Pangkalan Banteng, Central Kalimantan

Variable	Physical Fitness		Total	P
	Fit	Not in shape		
Yes	33 (76,7%)	13 (52,0%)	46 (67,6%)	0,035
No	10 (23,3%)	12 (48,0%)	22 (32,4%)	
<b>Total</b>	43 (100,0 %)	25 (100,0%)	68 (100%)	

After going through the chi square test, in Table 3 it was found that the value of  $p = 0.035 < 0.05$  means that  $H_a$  is accepted, meaning that there is a relationship between breakfast habits and physical fitness of students of SMA Negeri 1 Pangkalan Banteng.

## DISCUSSION

Breakfast and physical freshness are both very important and support each other's benefits<sup>8</sup>. Breakfast is a routine activity in the morning that must be done to meet the energy needs in the body in order to perform activities optimally. This is especially important for school-age children because it can support growth and development as well as various activities at school<sup>9</sup>.

Low fitness was found in many studies in Indonesia, including those conducted on FKM UI students, as many as 67.9% were included in the no category<sup>13</sup>. While research on adolescent grade XI students of SMKN 11 Semarang showed that the majority of fitness levels were very poor, namely 60.7%. Physical activity levels have a positive correlation with physical fitness levels, meaning that the more physical activity, the higher the fitness level<sup>10</sup>.

The results of this study are in line with the research of Ave Maria Rosario, et al. (2019) on breakfast habits related to the level of physical fitness in elementary school-age children at SD Budya Wacana Yogyakarta, the results of the analysis show that there is a relationship between breakfast habits and physical fitness levels ( $p = 0.023$ ), and there is a relationship between nutritional status and physical fitness levels ( $p = 0.000$ )<sup>11</sup>.

Other studies on the relationship between breakfast habits, supplement consumption, and nutritional status with adolescent fitness levels, also showed results that there was a relationship between breakfast habits ( $p = 0.023$ ) with the fitness levels of adolescent boys aged 10-17 years at ASTAM South Tangerang Football School<sup>12</sup>.

According to Sulaksa (2017), breakfast and fitness are very important and support each other. Someone who regularly eats breakfast will have a better level of physical fitness compared to those who do not regularly eat breakfast.

Most nutritional needs in a day can be met from breakfast, because breakfast will contribute 25-30% of nutrient intake<sup>13</sup>. Children will feel easily tired if they do not eat breakfast because they experience a lack of energy that has an impact on physical activity and also decreases their cognitive function<sup>14</sup>.

## CONCLUSION

Breakfast and physical freshness are both very important and support each other's benefits. Breakfast is a routine activity in the morning that must be done to meet the energy needs in the body in order to perform activities optimally. This is very important, especially for school-age children because it can support growth and development as well as various activities at school. Based on the results of the study, it was concluded that there was a relationship between breakfast habits and physical fitness of students of SMA Negeri 1 Pangkalan Banteng ( $p = 0.035 < 0.05 = H_a$  received).

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