



---

**RESEARCH ARTICLE**Article URL: <https://ojs.poltekkes-malang.ac.id/index.php/HAJ/index>

---

**The Relationship Between Breakfast Habits and Learning Concentration of Elementary School Students**

---

**Ananda Ekka Christiana<sup>1(CA)</sup>, Andi Hayyun Abiddin<sup>2</sup>, Wiwin Martiningsih<sup>3</sup>**<sup>1,2,3</sup> Department of Nursing, Poltekkes Kemenkes Malang, IndonesiaCorrespondence author's email (<sup>CA</sup>): [anandaece54@gmail.com](mailto:anandaece54@gmail.com)

---

**ABSTRACT**

Breakfast habit is an activity of eating and drinking in the morning before activities carried out  $\geq 4$  times in one week. Breakfast has an important role but many school children do not or rarely have breakfast. This study aims to analyze the relationship between breakfast habits and the learning concentration of elementary school students at SDN 1 Kedungcangkring. This study used a type of quantitative research with a cross-sectional research design. The population was 66 students and the sample amounted to 35 respondents using purposive sampling. The measuring instrument used was a questionnaire and grid concentration test analyzed by spearman rank correlation. The results of cross-tabulation showed that out of 35 respondents, more than half of the students had good breakfast habits with good concentration (54.3%). The results of statistical tests showed a significant value of p-value = 0.000 ( $<0.05$ ) with a value of  $r = 0.865$  which means that there is a relationship between breakfast habits and learning concentration of elementary school students at SDN 1 Kedungcangkring. It is hoped that this research can be a guideline for educational institutions and parents to remind the importance of breakfast.

Keyword: Breakfast habits; learning concentration

Copyright © 2023 by authors. This is an open-access article under the CC BY-SA License (<https://creativecommons.org/licenses/by-sa/4.0/>)

---

**INTRODUCTION**

Humans as living things certainly need energy to support growth and carry out physical activities (1). This energy is certainly obtained from food ingredients that contain carbohydrates, fats, proteins, and other food substances. In the morning, the body needs energy intake to carry out activities without feeling tired (2). Therefore, breakfast is required after about 10-12 hours of fasting at night (3). Breakfast is an activity in the form of eating done in the morning from 6:00 am to 10:00 am (4). Breakfast is a morning meal activity carried out before starting activities with food consumption which includes

energy substances, building substances, and regulating substances. Breakfast is a source of energy for school children to carry out learning activities at school (5).

The Research and Development Agency of the Indonesian Ministry of Health (2020) stated that out of 34 provinces, a total of 25,0000 children aged 6-12 years, 47.7% of children did not meet the minimum energy needs of breakfast, a total of 66.8% of children had breakfast with low nutritional quality (6). Even seven out of ten children in Indonesia never have breakfast. This is one of the problems of children in Indonesia (7). Information from the results of interviews with public elementary school students 1 Kedungcangkring grade 5 and 6 obtained 13 out of 36 children or 36.1% said they never had breakfast, and 10 out of 36 children or 27.7% said they rarely had breakfast. Even though breakfast has many benefits for the body.

Breakfast provides benefits for the physiological functioning of the body because it provides important contributions of several nutrients such as protein, fat, vitamins, and minerals (8). Breakfast is also useful as a brain refresher because from breakfast the brain gets nutrients so that it can improve thinking ability and maintain focus in learning, work, or activities (9).

According to the Ministry of Health, another benefit of breakfast to health is to prevent various diseases such as ulcers because breakfast fills the stomach with food so that it can neutralize stomach acid. For diabetics, breakfast can control blood sugar. Breakfast can stimulate metabolism so that the production of cholesterol-enhancing enzymes is reduced. Breakfast with enough carbohydrates can increase blood glucose levels. Blood glucose levels can optimize the level of learning concentration (9).

The habit of having breakfast should be practiced among students. Students who do not eat breakfast will have an impact on their learning concentration. Lack of learning concentration can be caused by hunger. Lack of glucose as the main source of energy will affect the work of organs including the brain (10). So that it will have an impact on working on assignments in class. Breakfast habits on learning concentration, in the long run, will affect learning achievement (12). The habit of not having breakfast which makes nutritional intake less can inhibit children's growth which in the long term will cause intellectual appearance and social appearance to be disrupted (2). The reason for not making breakfast a habit is the rush to go to school. In addition, the factor is parents who do not have time to prepare breakfast because they are rushing to work. Many families underestimate this breakfast problem for various reasons such as children being difficult to invite to breakfast, not having enough time to prepare breakfast, and children who wake up late (7).

From the results of interviews with students of public elementary school 1 Kedungcangkring who do not or rarely have breakfast, they have several reasons including waking up late and some say they are too lazy to have breakfast because they do not taste the side dishes available at home. According to the observation of one of the teachers at Kedungcangkring 1 primary school one of the students who did not have breakfast, in the learning process many levels such as daydreaming, drowsiness, walking around, and also restlessness. Knowing the low interest of school children in doing breakfast activities,

## The Relationship between Breakfast Habits and Learning Concentration of Elementary School Students

---

the researcher needs to know the extent of breakfast habits in elementary school students at public elementary school 1 Kedungcangkring. Based on the above background, the researcher wants to conduct a study with the title "The Relationship between Breakfast Habits and Learning Concentration of Elementary School Students at Elementary School 1 Kedungcangkring".

### METHODS

The design used in this study was correlational with a cross-sectional approach. The population in this study was 1 Kedungcangkring elementary school student in grades IV, V, and VI totaling 66 students. Researchers took the entire population with inclusion criteria, namely grade IV, V, and VI students aged 11-13 years and grade IV, V, and VI students who were willing to take part in the study as evidenced by signing the consent form. The number of samples in this study was 35 people, the sampling technique used was purposive sampling. The independent variable in this study is breakfast habits. The dependent variable in this study is learning concentration. Researchers used a breakfast habits questionnaire quoted from Zhafirah (2018). The breakfast habit instrument used has 5 indicators. On the learning concentration variable, researchers used the grid concentration test adopted from Harris & Harris (1984). This Grid Concentration Test has also been conducted in Indonesia in Nurajab & Hasmarita's research (2021) to measure the level of concentration in athletes aged 11-13 years with the result that there is a high level of concentration in athletes aged 11-13 years through the physical activity of swimming. The way to do this concentration test is to give a sign from the order of the smallest to the largest number 00-99 for 1 minute After the data is collected, and then grouped, the data is tabulated and analyzed using the Spearman correlation test.

### RESULT

Table 1. Frequency distribution of breakfast habits of elementary school students at elementary school 1 Kedungcangkring 1.

<b>Breakfast Category</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Good	22	62,9%
Fair	13	37,1%
<b>Total</b>	<b>35</b>	<b>100%</b>

Based on table 1 shows that in this study students who became respondents were found to be more than half 62.9% (22 children) in the good breakfast category

## The Relationship between Breakfast Habits and Learning Concentration of Elementary School Students

Table 2. Frequency distribution of learning concentration of elementary school students at elementary school 1 Kedungcangkring 1.

Concentration Category	Frequency	Percentage (%)
Good	21	60 %
Fair	13	37,1%
Less	1	2,9%
<b>Total</b>	<b>35</b>	<b>100%</b>

Based on table 2 shows that in this study, more than half of 60% (21 children) were in the good concentration category.

Table 3. Results of Cross Tabulation of breakfast habits with study concentration

Breakfast Habits	Learning Concentration						Total	
	Good		Fair		Less			
	N	%	N	%	N	%	N	%
Good	19	54,3	3	8,6	0	0	22	62,9
Fair	2	5,7	10	28,6	1	2,9	13	37,1

Spearman Rank Test:  $p = 0,000$

Table 3 shows that more than half of the students have good breakfast habits with good concentration. Spearman correlation test results are known = 0.865 with a sig value of 0.000 < 0.05. This shows that there is a correlation between the variable of breakfast habits with the concentration of learning of elementary school students.

### DISCUSSION

Based on the results of the study, show that more than half of the students in Kedungcangkring 1 public elementary school have good breakfast habits. This is evidenced by the results of research on the frequency of breakfast habits. The results showed that less than half of the students always have breakfast. Of the students who always do breakfast, more than half of the parents prepare breakfast and they have breakfast before going to school. Meanwhile, less than half of the students have sufficient breakfast habits. This is evidenced by research on the frequency of breakfast habits where less than half answered sometimes or never have breakfast. Students who have sufficient breakfast habits turned out to be less than half of them answered the unavailability of breakfast at home.

This is in line with Sundari's, 2016 (11) research which shows that 25 out of 41 respondents which means more than half are in the good breakfast category. Good breakfast habits have an impact on the body because it provides energy so that in the long run it can have an impact on the growth and development of children. Breakfast becomes a good behavior if done regularly. Breakfast habit behavior is said to be good if done regularly which is done > 4 times a week (12).

## **The Relationship between Breakfast Habits and Learning Concentration of Elementary School Students**

---

This is in line with the research of Rosalina & Djayusmantoko (13), who obtained 27 out of 49 respondents which means more than half have good breakfast habits because they are used to having breakfast before going to school. According to Gani et al (14), a good breakfast is before going to school because 1-2 hours after eating glucose levels in the blood will rise so that it can be used as an energy source. In addition, another factor that affects breakfast habits is the availability of breakfast at home. In the study of Rosyidah (15), more than half had negative breakfast habits. This is due to the unavailability of breakfast at home. In this case, employment status can affect breakfast habits. Mothers who do not work tend to have more time to provide breakfast at home compared to mothers who work in the morning. In addition, it turns out that not having a taste for food is also an influence on breakfast habits Rosyidah et al. This is in line with Al-Faida's research (16), more than half of whom do not have good breakfast habits. One of the reasons is that the food does not taste good. In addition, students who often or sometimes have breakfast replace it by bringing lunch from home or replacing it with snacks at school.

According to the researcher's assumption, a person's breakfast habits depend on how the person gets used to it. In addition, external factors also affect breakfast habits such as the availability of breakfast at home. Most of the students at Kedungcangkring 1 Elementary School live around the school, which means that the majority of parents' jobs are not tied to working hours such as farmers, which allows their parents to still provide breakfast before going to school. But it also depends on each individual in getting used to having breakfast. Despite the availability of breakfast at home, it turns out that the factor of changing the breakfast menu served is just that, causing children to have no appetite and prefer to replace it with snacks at school whose nutritional value is unknown.

In this study, it was found that more than half had good and sufficient learning concentration with the highest score being 17. While a small proportion of students had poor learning concentration with the lowest concentration score of 10. This is in line with Haqiki's research (18) which shows that more than half of students have good and sufficient learning concentration obtained from students who have good breakfast habits because children who have regular breakfast will have more energy than children who skip breakfast (18).

This is in line with Rosalina (13) which shows that more than half of students have good breakfast habits with good learning concentration. Children who have good breakfast habits tend to focus on completing school assignments and are not bored participating in learning. Conversely, children who have poor breakfast habits or always skip breakfast will have an impact on their concentration such as feeling hungry during class hours, sleepy, and easily bored.

However, this is not in line with the research of Nisa & Arifin (4) which states that student learning concentration is not affected by breakfast habits. In the study, students who never had breakfast their learning concentration remained stable. This may be influenced by other factors.

## **The Relationship between Breakfast Habits and Learning Concentration of Elementary School Students**

---

In this study, a small proportion of students who had low concentration were known to have adequate breakfast habits. The causal factor for the low concentration score was the child's inability to understand the command, which was indicated by the child doing the concentration test with the paper position that had not been turned over. Given that the student has low self-confidence. This is in line with (19) which states that factors that affect learning concentration are emotional factors including low self-confidence, anxiety, and depression. In addition, other factors that affect learning concentration according to Hakim (2014: 21) in Setyani (20), two factors inhibit a person from concentrating, namely internal factors and external factors. Internal factors inhibiting concentration are hunger, drowsiness, health problems, and factors that come from mental states (not calm, anxious, nervous, and stressed). External factors inhibiting concentration are a dirty study room, hot air temperature, and uncomfortable conditions (noise).

Sundari's research (11) shows that there is a relationship between breakfast habits and learning concentration. This study said that children who do not have the habit of having breakfast will experience physical disorders lack of energy during activities as well as lack of concentration and drowsiness. Leaving breakfast has a negative impact including an imbalance in the central nervous system characterized by body trembling, dizziness, and even fatigue. So in this situation, the child will experience a decrease in concentration (8).

Researchers have the assumption that learning concentration depends on each individual in the concentration of the mind because, in addition to the internal factors of the breakfast habit itself, other factors affect a person in his concentration. But in this case, breakfast habits still have a relationship with learning concentration. Students who have good breakfast habits during the learning process are more focused. Students who do not have good breakfast habits in the learning process feel less focused because they feel hungry. The lack of concentration in students who do not have breakfast habits is due to the lack of glucose levels in the blood it has an impact on their physical body, namely the body feels weak and not excited. In addition to the breakfast habit factor, it turns out that other factors hinder concentration, namely the hot classroom conditions.

The results showed that learning concentration was better in the group of students who had good breakfast habits compared to students who had poor habits. Table 3 shows that more than half of the students have good breakfast habits and good learning concentration. Based on the results of the analysis using the Spearman rank correlation test, it was found that there was a relationship between breakfast habits and the learning concentration of elementary school students. Based on the results of Table 3 show that the correlation coefficient is 0.883 which means there is a strong correlation between breakfast habits and the learning concentration of elementary school students.

This is in line with Rosalina's research (13) which shows that there is a significant relationship between breakfast habits and learning concentration. This result can be caused because students who have good concentration are higher than those who have good breakfast habits.

Breakfast has benefits for learning concentration because it helps the digestive process so that it can increase glucose levels as a brain fuel that helps maintain concentration and alertness according to (13).

However, this is contrary to the research of Mustikowati (21) which found that the results of the Spearman rho correlation test did not have a significant relationship between breakfast habits and learning concentration. However, the results of the study still show that respondents who have breakfast habits have more frequency to concentrate well than those who do not have breakfast habits.

In addition to improving internal and external factors that affect concentration, it turns out that this can be trained. Concentration can be trained by trying to focus attention on something for a certain period and increasing the duration gradually (20). In research, Heni & Nurlika (23) through brain gym turned out to have an effect in increasing learning concentration. The results showed that the average concentration level before brain gym was 6.18, while after brain gym it was 7.01.

Researchers have the assumption that the better a person's breakfast habits, the better his or her learning concentration will be. Children who often skip breakfast have adverse effects that interfere with the school learning process. So in the long run if concentration is disturbed it will have an impact on learning achievement. So that the importance of breakfast can be socialized again to students, teachers, and parents.

### CONCLUSION

Based on the results of research and discussion, it can be concluded that more than half of the students have good breakfast habits, this is due to several factors such as individual habits in having breakfast, the availability of breakfast at home, and changing the breakfast menu every day. In the learning concentration variable, it is found that more than half of the students have a good level of concentration, this is due to good breakfast habits and breakfast time before going to school. The results of the study using the Spearman rank correlation test found that there was a relationship between breakfast habits and the learning concentration of elementary school students.

### REFERENCES

1. Syaffa, A., Adha, A., & Suseno, S. H. (2020). Staple Food Consumption Patterns and Their Contribution to the Energy Adequacy Level of Sukadamai Village Community 2 (November), 988-995.

2. Surayaa, d. (2019). "Sarapan Yuks" The Importance of Breakfast for Children. *Journal of Indonesian Community Service*, 201-207.
3. Sitoayu, L., Wahyuni, Y., Angkasa, D., Noviyanti, A., Studi, P., Gizi, I., Kesehatan, F. I., Unggul, U. E., Utara, J. A., Tol, T., & Jeruk, K. (2016). Healthy Breakfast towards a healthy generation of achievers 1,2,3,4.
4. Nisa, N. H. P. K., & Arifin, M. B. U. B. (2021). The Effect of Breakfast Habits on Concentration and Learning Outcomes of Javanese Language Class 5 MINU Durung Bedug Candi Sidoarjo. *Didaktis: Journal of Education and Science*, 21(2), 152-163. <https://doi.org/10.30651/didaktis.v21i2.7598>
5. Prasetyo, T. J., Nuraeni, I., Wati, E. K., Rizqiawan, A., (2020). Effect of Healthy Breakfast Education on Knowledge and Attitudes of Elementary School Children in Purwokerto
6. Prastiwi, M. (2022). UGM Expert: Breakfast has not become a habit, this is the impact on children. *Kompas.com*
7. Apriyani, S. S., Larasaty, D., Indraswari, D., Lusiana, E., & Anna, T. (2019). "SARAPAN YUKS" The Importance of Breakfast for Children. 2(1), 201-207.
8. Astuty, P., Setyowati, S., Midwifery, P. S., Midwifery, A., & Husada, W. (n.d.). The relationship between breakfast habits and Ks4W333rdsoncentration in adolescents. 26-35.
9. Wahyuni, I. P. (2022, August Friday). Let's Have Breakfast! Healthy Body Smooth Activity.
10. Rohmah, N., Ningrum, M. K., & Malaka, S. O. (2023). Systematic Literature Review (SLR): Breakfast Habits on the Learning Concentration Level of Elementary Students. 1(4).
11. Sundari, S. (2016). The Relationship of Breakfast Habits with Learning Concentration of Muhammadiyah Karang Tengah Elementary School Students. 53-61.
12. Alvin, H. (2021). Thesis on the Relationship between Breakfast Habits and Learning Concentration of Stikes Santa Elisabeth Medan Students.
13. Rosalina, E. (2021). The Relationship Between Breakfast Habits With Learning Concentration of Sd 37 / Iii Students in Koto Tuo Village, 2021. 06(02), 26-31.
14. Gani, K., Erwin, A., & Serni. (2017). The Relationship of Breakfast Habits and Nutritional Status with Learning Achievement of Students of Sd Negeri 1 Lelamo, North Buton Regency. 4(2), 57-64.
15. Rosyidah, I., Rahmawati, I., & Indrawati, U. (2023). Breakfast Habits with Learning Concentration of Grade 5-6 Children in Elementary School. *Journal of Nursing & Health*, Vol 8 nomo, 200-206.
16. Al-Faida, N. (2021). The Effect of Breakfast Habits on Learning Concentration of Stikes Persada Nabire Students, Papua Province. *Ikesma*, 17(2), 81. <https://doi.org/10.19184/ikesma.v17i1.22397>
17. Verdiana, L., & Muniroh, L. (2018). Breakfast Habits Associated with Learning Concentration in Sukoharjo I Malang public elementary school students. *Indonesian Nutrition Media*, 12(1), 14. <https://doi.org/10.20473/mgi.v12i1.14-20>
18. Fatchuroji, A., Yunus, S., Jamal, M., Somelok, G., & Yulianti, R. (2023). The Effect of Concentration Level on Learning Outcomes. 05(04), 13758-13765.
19. Setyani, M. R. (2018). Students in the Mathematics Learning Process are given Learning Outcomes Prepared to Fulfill Part of the Requirements. *Mathematics Education*, 01, 73-84.
20. Mustikowati, T., Rukmana, H. T., Nuraini, U., & Rahmawati, A. (2022). DASAR NEGERI SUKAWERA Relationship of Breakfast Habits Towards Concentration of Children's Learning at School-Age Children in Public Elementary School Sukawera. 1(1), 8-12
21. Heni, & Nurlika, U. (2021). Level of Children's Learning Concentration in Iv Sd Class Students Through Brain Gym. *Silampari Nursing Journal*, 5, 222-232.