The Impact of Breakfast on the Child's Mental Wellbeing and Academic Performance

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Abstract: Eating is an important part of life's requirements. Every human being needs food as a source of nourishment required for cognitive reasoning. Taking the right nutrients at the right time has been established beyond doubt to aid the growth and holistic development of children. Hence, this study examines the intake of breakfast as a tool for enhancing the child's mental health and performance in school. This includes his participation in class activities, academic performance, and ability to recall. The population was made up of all primary five pupils in public primary schools in Ogun State Nigeria. Data was collected and validated with the aid of two tools developed, namely the Breakfast Assessment Scale [BAS] and the School Performance Questionnaire [SPQ]. These tools were validated with each having 0.91 and 0.86 reliability co-efficient respectively. This study validates that a good breakfast fuels up the child's mind and body, gets him ready for the day, and accordingly enhances his performance; hence the study conclusively validates the importance of breakfast and recommends that the government, parents/caregivers, and child patrons intentionally support the daily consumption of breakfast by every child with the right nutrients.

Keywords: Children, Breakfast, Mental Health, and Academic Performance

Introduction:

Food is life and a necessity for human existence. We all instinctively know from birth that food is essential to our survival (Babarinde and Ajayeoba 2014; James and Rose 2017). Food is essential for health, and dietary risk factors have been well established to cause an estimated number of 11 million mortalities and 255 million disability-adjusted-life-years annually (*Fadnes* et al. 2022). Recent studies have summarized the results of dietary deficiencies of different foods groups includes whole grains, fruits, and vegetables refined grains, nuts and legumes, fish, eggs, milk/dairy, meats, For beverages with added sugar, among others on the risk of premature deaths (Aune et al. 2017; Schwing shackl et al. 2017; Zeraatkar et al. 2019).

The influence of meal frequency and timing on well-being has consistently been a subject of significance over the years (Paoli et al. 2019).Breakfast which is the first meal consumed in the day before performing daily activities usually contributes to about 20% - 30% of overall daily energy requirements (Tanya et al. 2014).The tradition of eating breakfast has existed since ancient times, although it was not until the 15th century that "breakfast" came into usage in transcribed English to describe a morning meal (Arndt 2013). Additionally, the term breakfast generally denotes "break the night's fast" and can be defined as the first meal taken to break the fast from 8 to 12 hours after a person's last meal, the night before (Carroll 2013).Breakfast breaks the stretch of not eating overnight, otherwise known as the overnight fasting period (DeSoto 2022).

A growing body of evidence supports the claim that breakfast is a very important meal (Spence 2017). As duly stated in (Saxelby 2012 and Aline 2022), breakfast is the "brain fuel" needed to replenish the body's supply of glucose necessary to boost energy levels and enhance alertness for whatever activities lay ahead, while also providing other essential nutrients required for optimal health. Correspondingly, the once-popular American nutritionist Adelle Davis famously stipulated in the 1960s: "Eat breakfast like a king, lunch like a prince and dinner like a pauper." (Sifferlin 2013); and according to recent evidence, it is recommended that every individual should aim to expend around 15–25% of their daily energy intake at breakfast (which is 300–500 calories for women and 375–625 for men; while children should consume about 20% of their daily energy intake (Spence2017;Giménez-Legarre et al. 2020). Chulack (2016), opined that a healthy diet will make the child is stronger and more capable of learning. Additionally, food is important for children because it is directly linked to all aspects of their development and growth, and starting the day with a good breakfast, particularly for children, gives them an edge (Hecker 2021). The intake of breakfast appears to have a positive effect on intellectual and cognitive performance as compared to its omission in children and adolescents (Adolphus et al. 2013).

Healthy dietary practices are critical determinants of development in Children and teenagers including weight status, dietary intake, and cognition. One important component of a healthy diet is regular meal consumption, with the consumption of breakfast being of the greatest concern and consequently, the most broadly studied (Wijtzes et al. 2015). In the same vein, Drummond (2014) affirms that eating a proper breakfast improves the mental wellbeing and behavior of children at school while providing them with the energy they require for the day and the nutrients required for development. He further stated that eating good quality breakfast increases the alertness as well as motivation to learn in children.

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Going to Deshmukh –Taskar et al. (2010), Children who regularly eat breakfast have a higher likelihood of having optimal nutritional intake including a higher intake of dietary fibre, total carbohydrates and lower total fat and cholesterol. A filling breakfast will give the preschooler the energy he needs to focus on playing, learning, memorization, and problem-solving. In line with this, Pivik et al. (2012) claimed that breakfast improves children's cognitive performance, especially in the areas of memory and attention. Children who eat breakfast are also said to be better able to focus, pay attention, and be more alert to their studies, according to Hoyland et al. Since every parent wants to see their kids succeed in school, it is crucial for parents and other caregivers to maintain a healthy nutritional foundation for their charges. This paper, therefore, seeks to investigate the relationship between breakfast, health, and academic performance of pupils in primary schools.

Education is and always will be essential in building a strong foundation in one's life Mckay (2015). We all want our children to be well-informed, innovative, and capable of making significant contributions to society. The successful climbing of the ladder of success is most often possible through proper education; however, overwhelming evidence has stipulated the importance of breakfast, especially for children to achieve desirable goals. Going to school is not enough; and according to Obanya (2001), feeding is cited as a necessary condition for academic performance. Thus, it has been suggested that breakfast must be in every nation's Universal Basic Scheme.

breakfast is consumed a crucial part of every child's day and according to Bergman et al. (2010), schooling on an empty stomach can result in poor behaviour. Children can become restless in class, tired and irritable without a good morning meal. It also affects everything from retention to creativity in the classroom. They tend to become distracted from learning at school or give up easily when faced with challenges (Healthy eating, 2017). Comparably, Sanderock etal. (2010) maintain that kids who skip breakfast are more likely to engage in less physical activity. Toros, (2005) also affirms that children who skip breakfast are less able to differentiate among visual images, show increased errors and have slower retentive capacity. Hence parents and caregivers must consider breakfast as a vital factor in enhancing greater school performance.

In a research study by Simeon and Granthem–McGregor (1989) the results of missing breakfast on the elementary age children's overall performance, mainly their cognitive functioning, the effect of omitting breakfast was looked at in children of differing nutritional status. The first group of children was the stunted group who were defined as linear growth –retarded (low weight-for-age due to under nutrition) school children. The second group was the non–stunted control group (non-growth retarded) and the third group was the severely malnourished student (malnourished in early childhood). The children were given a series of tests to measure their performance. Three tests—an arithmetic exam, a digit span memory recall test, and a coding test—were part of the Wechsler IQ scale for children (substituting symbols for numbers as quickly as possible). These tests were chosen for the study because the performance on these tests is affected by attention and distractibility which are things likely to be susceptible to missing breakfast. The result shows that the control group was not adversely affected when they missed breakfast; it, therefore, concluded that missing breakfast could be a serious participation in the poor performance observed in undernourished elementary-age school children.

A similar study by Crockett and Sims (1995) on the effects that the consumption of breakfast according to SBP guidelines had on two groups of students' performance. The study discovered that eating the meal positively influenced children's nutritional status, growth and learning ability, unlike those who skipped breakfast completely. Also, children who regularly eat breakfast have more energy and are less likely to exhibit aggressive behaviours but better attitudes towards school. Also, a study published in 1998 in the Archies of Pediatrics and adolescent medicine showed significantly higher math test scores after children ate breakfast. This and others show that kids who consistently eat breakfast score higher in most academic areas.

Hypothesis:

To actualize the objectives for the study, the following hypotheses were formulated and tested at 0.05 alpha levels.

- 1. There is no significant relationship between taking breakfast and academic performance
- 2. There is no relationship between taking breakfast and pupils' participation in class activities.
- 3. There will be no significant relationship between taking breakfast and pupils' ability to recall information (memory).

Methodology

The study employed the ex-post facto descriptive research design.

Population

The population for the study comprises all pupils in public primary schools in Ogun State Nigeria.

Sample and sampling Techniques

A total number of 800 pupils participated throughout the study, the multi-stage sampling was used. The first four geopolitical divisions in the State (Remo, Ijebu, Yewa, and Egba,) were treated as strata. Two hundred students were drawn from each stratum. Secondly, with the aid of simple random sampling techniques, 5 schools were selected to participate in the study in each division. Finally, 40 students were randomly selected in each school to participate in the study.

Instrumentation

In this study, two instruments were developed and validated by the researcher. Breakfast Assessment Scale [BAS] has two sections. Section A elicited demographic data while section B contains 12 items measuring the quantity and quality of pupils' breakfast intake. The School Performance Questionnaire (SPQ) also has two sections. Section A elicited demographic data while Section B contain 24 items measuring school performance (class – participation and recall ability). Pupils' performance in their last class test in the English Language provided data to measure academic performance. The BAS measures the quantity and quality of breakfast as a

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construct. Its contents cover all food categories offered in the state, ensuring the validity of both the construct and content tests. The SPQ assesses recall capacity and class engagement as indicators of academic performance. The two instruments' dependability was determined using the test-retest reliability method. A Pearson item Moment analysis produced values of 0.91 and 0.86 for the two sets of scores produced for each instrument.

Results

The results obtained from data analysis using Pearson Products Moment correlations are presented in the following summary tables. **Table 1: Relationship between Breakfast and Academic performance**

		Breakfast	Academic Performance
Pearson Correlation	Breakfast	1.000	0.614
Sig. (2tailed)	Academic Performance		
	Ν	0.614	1.000
		800	800

P<0.05

It is clear from table 1 above that there is a strong positive correlation between breakfast intake and academic performance (r=0.61; N=800, P<0.05). As a result, the previously stated null hypothesis is disproved in favor of the alternative hypothesis. Research demonstrates that eating breakfast and academic success have a significant favorable link.

Table II: Relationship between Breakfast and Class-Participation

		Breakfast	Class-Participation
Pearson Correlation	Breakfast	1.000	0.843
Sig. (2tailed)			
	Class – Participation	0.843	1.000
	N	800	800

P<0.05

Table II above shows that there is a strong positive relationship between breakfast intake and class- participation (r= 0.84; N=800; P<0.05). Therefore, the null hypothesis stated earlier is rejected in favour of the alternative hypothesis. This means that breakfast has a positive relationship with pupils' class – participation.

Table III: Relationship between Breakfast and Recall Ability

		Breakfast	Recall ability
Pearson Correlation	Breakfast	1.000	0.921
Sig. (2tailed)			
	Recall ability	0.921	1.000
	N	800	800

P<0.05

Table III: The information above demonstrates that eating breakfast and recall capacity have a significant positive association (r=0921; N=800; P0.05). As a result, the previously stated null hypothesis is disproved in favor of the alternative hypothesis. Research demonstrates that breakfast has a significant favorable impact on pupils' memory.

Discussion

The data analysis findings gave the researcher the ability to disprove all three of the study's null hypotheses. The results show a high correlation between breakfast and students' ability, class involvement, and academic performance. Given that people occasionally need to refuel their energy, these findings seem logical.

The discovery that breakfast consumption has a significant, favorable connection with academic performance corroborates Chulack (2016), who opined that a nutritious diet will make the child healthier and better able to learn. It also encourages Sanderock etal. (2010) who maintain the fact that youngsters who skip breakfast greater likelihood of less physically active, Children are expected to perform better in their academic endeavors with the newfound vitality and vigor that breakfast is supposed to give them. According to this, it makes sense that breakfast and class engagement have a significant favorable link. Lack of breakfast can cause hunger, which can cause someone to lose interest in class activities, have trouble focusing, or even fall asleep during class activities. This finding supports a number of earlier researches that have been done on the subject of the study (Morse and Pollack, 1988; Kleman, 1998). They all came to the conclusion that breakfast and involvement in class activities are related.

Last but not least, the discovery that breakfast has a significant positive correlation with recall capacity supports human logic. Materials need to allow for focus, clear perception, and rehearsal in order to stick in human memory. A person who skipped breakfast and is hungry may forget all of these throughout a class, which will affect their capacity to recollect the information. This result confirms Pollit's (1995) findings that breakfast eaters and non-eaters performed differently on a test of spatial memory and instantaneous recall.

Recommendation and Conclusion

This research has numerous implications for Parents/Caregivers, Governments and other policy-making agencies. The results show that students' need for breakfast must receive the proper attention and acknowledgement. To enable parents to effectively feed their kids, the fight against poverty must be strengthened. The government's interest in enhancing students' breakfasts as a part of UBE should be maintained and strengthened in the interim. The results also suggest that school counselors should assist in identifying students who skip breakfast in order to draw attention to their problem among the appropriate authorities.

To enhance pupils' academic performance, involvement in class, and memory, their parents should offer consistent and wellbalanced nutritional morning meal for them. The government should promote meal intake in children, most especially in the rural areas. other non-profit organizations, like non-governmental organizations, religious organizations and civic-minded people ought to support this as well.

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