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A Comparative Study On Impact of Breakfast Consumption On Student Academic Performance: An Overview

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Abstract

Breakfast is widely considered one of the most important meals of the day due to its role in replenishing the body's glucose supply after an overnight fast and providing essential nutrients necessary for optimal performance throughout the day. The benefits of a nutritious breakfast go beyond just providing energy; it also aids in improving cognitive function, increasing physical performance, and contributing to better weight management. A balanced breakfast is typically composed of carbohydrates, proteins, and fats, and is influenced by both cultural traditions and nutritional wisdom across the globe. This abstract examines the various types of breakfasts, their nutritive value, the health benefits they provide, and the factors influencing breakfast consumption.

This study examines the impact of breakfast consumption on the academic performance of 145 students aged 5–15 years at Gitanjali High School, Hyderabad. Students were categorized into Primary (5–10 years) and Secondary (11–15 years) groups. Data was collected through a structured questionnaire administered to parents during Health Awareness Week and via Google Forms. Academic performance data was obtained from periodic assessments while ensuring confidentiality. A comparative analysis approach was used, with statistical techniques like percentages and averages. Bar graphs and pie charts illustrated findings, highlighting the correlation between breakfast habits and academic success, emphasizing nutrition's role in cognitive development.

1. Introduction

Academic performance is a crucial measure of a student's educational success and is influenced by a variety of factors. These factors range from personal elements like mental health and nutritional status to broader aspects such as socioeconomic status and parental involvement. Academic performance is typically assessed through exams, grades, and attendance, but it also encompasses participation and behavioural assessments. Nutrition, in particular, has a profound impact on cognitive function, concentration, and overall academic achievement. Research has shown that a balanced breakfast, which provides essential nutrients like carbohydrates, proteins, vitamins, and minerals, plays a vital role in enhancing students' cognitive abilities and academic outcomes. This introduction explores the interconnection between breakfast consumption and academic performance, focusing on how nutritional intake can influence learning, concentration, and long-term academic success. By understanding these relationships, we can foster better educational practices that support students' holistic development.



Keywords: Academic performance, Cognitive development, Breakfast, Nutrition, Memory

2. Materials and method

The present study is a comparative research study aimed at evaluating the impact of breakfast consumption on the academic performance of school students aged 5 to 15 years in the Hyderabad vicinity. The study population consisted of school students from diverse socio-economic backgrounds, categorized into two groups: Primary students (5–10 years) and Secondary students (11–15 years). A total of 145 students participated in the study, with their selection based on interest and availability. The research was conducted at Gitanjali High School, a private school in Bowrampet, which accommodates students from neigh boring areas such as Bowrampet, Bachupally, Pragathi Nagar, Gajularamaram, Mallampet, and Bollaram. Data collection involved administering a structured questionnaire to parents during Health Awareness Week. For those unable to attend, responses were gathered through a Google Form. The questionnaire aimed to assess breakfast consumption patterns, preferences, and their potential impact on students' academic performance. Academic performance data was retrieved from the school's database, specifically from the results of periodic assessments. The study adhered to confidentiality protocols by anonymizing student data to ensure privacy.

The research methodology employed a comparative analysis approach, consolidating the collected data using Microsoft Excel. The study's primary tool was a pre-tested questionnaire divided into four sections, each designed to evaluate different aspects of breakfast consumption and its correlation with academic performance. The questionnaire helped determine students' breakfast habits, food preferences, and meal frequencies. Academic achievement was assessed using the results of periodic tests conducted by the school. Data collected from students' test scores and breakfast habits were systematically presented in tabular format and analysed using statistical techniques such as percentages, averages, and ratios.

For statistical analysis, bar graphs and pie charts were used to illustrate breakfast consumption patterns, preferences, and their frequency among students. The academic performance data, derived from periodic assessment tests, was compared across students based on their breakfast consumption habits. The analysis aimed to identify trends, correlations, and potential impacts of breakfast habits on students' academic achievements. Statistical calculations such as averages and percentages provided a clear understanding of the variations in performance between students who regularly consumed breakfast and those who skipped it. This method ensured a comprehensive understanding of the relationship between breakfast habits and academic performance, providing valuable insights into the importance of proper nutrition in enhancing students' cognitive abilities and school performance.

Results

Part a: Demographic Details

4.1 Data Collection

The questionnaire was answered by over 145 participants anonymously. Demographic variables were recorded along with other factors regarding the breakfast impacts on academic performance.



4. 1.1 Gender of The Respondent

Table 1: Details on the gender of the respondent

S. NO	GENDER	NO. OF RESPONDENTS	Z
1.	BOY	75	51.72%
2.	GIRL	70	48.28%
		145	100.0



Among the 145 respondents, 51.78% were boys and the rest of the respondents were girls with 48.28% **Figure 1:** The above Pie chart represents the gender of the respondents. The respondent groups include 48.28% of girls and 51.72% of boys.

4.1.2 AGE GROUP OF THE RESPONDENTS

Percentage analysis was performed to find out the age group of the respondents. The results are shown in Table 2 and Figure 2

S. NO	AGE GROUP	FREQUENCY	PERCENTAGE
1	5-10	50	34.48%
2	11- 15	95	65.52%
TOTAL		145	100.0

Table 2: Details on the age group of the respondents

The above table provides the details of the respondents based on their age group. There were two age groups comprising 5-10 and 11-15. Majority (65.52%) of the students belong to the age group of 11-15 years, followed by the age group of 5-10 years with 50 students





Figure 2: The above Pie chart explains the age group students 145 students filled questionnaires. out of which 50 participants are from the primary classes and 95 are from the secondary classes.

4.2 PART B: BREAKFAST HABITS

4.2.1 FREQUENCY OF BREAKFAST CONSUMPTION



1. How often do you usually have breakfast before going to school?

Fig (3) FREQUENCY OF BREAKFAST CONSUMPTION

Table 3 Details of frequency of breakfast consumption

Daily breakfast	Rarely having breakfast	Several times a week	Never consume
110 students	20 students	6 students	9 students
75%	13%	5%	7%

From the above table we infer that 75% students have breakfast daily, 13% have breakfast rarely, 5% have breakfast several times a week and 7% never consume breakfast.

4.2.2 Types of Breakfast Consumption





Fig (4) Types of Breakfast Consumption

Based on the data analysis of how children feel when they skip breakfast, here are the findings a multiple selection questionnaire involves designing questions that allow respondents to select more than one answer option.

Table 4	Details	of types	of breakfast	consumption
	Details	or types	UI DI CARIASI	consumption

Cereals or porridge	Toast or bread with spreads	Eggs (boiled or scrambled)	Dairy products	Fruits or fruit juices	Proteins	Others
37	51	46	49	32	9	79

From the above data we can infer that majority of the students 51 of them prefer to have toast with bread spreads for breakfast followed by 46-49 students who preferred to have eggs and dairy products followed by 35 students who prefer fruit juices followed by 9 students who prefer to eat meat and beans.

4.2.3 Consequences of Skipping Breakfast



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4.How do you feel if you skip breakfast? 144 responses



Fig (5) Consequences of Skipping Breakfast

Table 5 Details of consequences of skipping of breakfast

Hungry	Feel tried	Distracted	Irritable	Do not notice	Other specific
104 students	40 students	38 students	21 students	19 students	1 student
72.2%	27.8%	26.4%	14.6%	13.2%	0.7%

6.How often do you vary your breakfast choices throughout the week? 144 responses



Form the above data we can infer that the majority of children 72.2% reported feeling hungry when they skip breakfast. Nearly a third of children feel tired when they skip breakfast. Over a quarter of children 26.4% reported feeling distracted during classes when they skip breakfast. A notable percentage of children 14.6% feel irritable when they skip breakfast. Some children 13.2% reported not to notice any immediate effects from skipping breakfast. A small percentage of children 0.7% reported specific symptoms like eye pain, headache, and stomach ache when they skipped breakfast.

4.2.3 Variation In Breakfast Choic

Fig (6) VARIATION IN BREAKFAST CHOICES



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Everyday	Several times a week	Occasionally	Rarely	Never
76 students	26 students	15 students	23 students	4 students
53%	18%	10.4%	16%	2.6%

Table 6 details of variation in breakfast choices

7.On average, how many minutes do you spend having breakfast in the morning? 145 responses



Fig (7) TIME SPEND ON BREAKFAST

From the above data we infer that 53% of the students vary the breakfast choices everyday followed by 18% who vary it by several times a week, followed by 10% who vary the breakfast choices occasionally and 16% who rarely show any variation in the breakfast choices 2% never show variation

4.2.4 Time Spend On Breakfast

5-10min	10-15min	15-20min	More than 20 min	Less than 5 min
55 students	52 students	21 students	10 students	7 students
37.9%	35.9%	14.5%	7%	4.7%

From the data above we understand that 37% of students spend 5-10 minutes a day on breakfast and 35% of the students spend 10-15minutes on breakfast, 14.5% students spend 15-20 minutes and 7% of the students spend more than 10 minutes on breakfast, 4% of the students spent less than 5 minutes on the breakfast.

4.2.5 Breakfast Consumed Alone/Family



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Fig (8) – Breakfast Consumed Alone/Family

Table 8 Details of breakfast consumed alone /family

With family	Alone	With classmate	With friends
87 students	38 students	12 students	8 students
60%	26.2%	8.3%	5.5%

From the data we understand that over 60% of students have breakfast with family followed by 26% who eat alone, 13% of the students eat along with their classmates or friends.

4.2.6 Frequency Of Breakfast Skipping



9. How often do you skip breakfast due to time constraints or being too busy?

145 responses



Fig (9)- Frequency of Breakfast Skipping

Table 9 Details on frequency of breakfast skipping

Rarely	Sometimes	Never	Always	Often
49 students	39 students	42 students	10students	5 students
33.8%	26.9 %	29%	5.3%	5%

The above data shows that a significant proportion of students i.e 33.8% rarely skip breakfast followed by 26.9% of students who skip breakfast sometimes and 29% who never skip breakfast followed by 5% who always skip breakfast and 5% who often skip breakfast.

4.3 Part C: Nutritional Awareness.

Nutritional awareness refers to the knowledge and understanding that individuals have about nutrition, dietary choices, and their impact on health and well-being.

4.3.1 Knowledge of Importance Of Breakfast



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10.How important do you think breakfast is for your overall health and well-being? 144 responses



Fig (10) – Knowledge of Importance Of Breakfast

Table 10 Details on knowledge of importance of breakfast

Extremely important	Very important	Moderately important	Somewhat important	Not important
64 students	44 students	17 students	18 students	1 students
39.8%	29.9 %	16.1%	12.5%	1%

From the above data we infer that a significant majority (39.8%) of respondents believe that breakfast is extremely important for overall health and well-being. Nearly one-third (29.9%) consider breakfast to be extremely important. A smaller but notable proportion (16.1%) perceive breakfast as moderately important, about (12%) of respondents feel that breakfast is somewhat important. Only 1% of respondents feel that breakfast is not important at all.

4.3.2 Knowledge of Nutritional Benefits



11. How much do you know about the nutritional benefits of having breakfast?

Fig (11) – Knowledge of Nutritional Benefits

Table 11 Details on knowledge of nutritional benefits



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Great deal	Quite a bit	Some	Very little
60students	46students	20students	18 students
39.8%	30.6 %	17.1%	12.5%

We infer the following from the data in the above table which suggests that 40% of the parents are aware of the nutritional benefits of having breakfast, 30% of parents have fair knowledge on nutritional benefits followed by 17% of parents who have some knowledge on nutritional benefits of breakfast followed by 12% parents who have very little knowledge on breakfast and its nutritional benefits.

4.3.3 Thought Process Involved In Preparation Of Breakfast



Fig (12) – Thought Process Involved In Preparation Of Breakfast

Always aware	Sometimes aware	Often aware	Never aware
59students	55 students	23 students	8students
40.7%	37.9%	15.9%	5.5%

We infer the following from the data mentioned in the table that a significant proportion of respondents (40.7%) indicated that they are aware of the nutritional content of their breakfast choices. About 37.9% reported being sometimes aware of the nutritional content, whereas 15.9% of respondents, indicated a moderate level of concern for nutritional content. Conversely, 5.5% mentioned that they never consider the nutritional value of breakfast.

4.4 Part D: Academic Performance



4.4.1 Knowledge Of Importance Of Breakfast On Academic Performance



Fig (13) - Knowledge Of Importance Of Breakfast On Academic Performance

Table 13 Details on knowledge of importance of breakfast on academic performance

Yes positively	Yes negatively	No, not at all	Not sure
73 students	7 students	43 students	22students
50.3%	5.5%	29%	15.2%

We infer the following from the data mentioned in the table that a majority, (50.3%,) of respondents believe that breakfast positively affects academic performance. About 29% of respondents feel that breakfast does not affect academic performance. A smaller segment 15.2%, indicated uncertainty about the impact of breakfast on academic performance. A minority, 5.5% feel that breakfast does not affect academic performance at all.

4.4.2 REASONS TO SKIP BREAKFAST





Table 14 Details on reasons to skip breakfast



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Hurry to school	Waking up late	No specific	Donot like the	To lose weight
		reason	breakfast	
60students	30students	25students	12 students	8 students
48.9%	22.2%	20.7%	6%	2.2%

We infer the following from the data mentioned in the table that 60 out of 145 nearly half of the respondents cited hurrying to school as the primary reason for skipping breakfast. 30 out of 145 About one-fifth of the respondents reported waking up late as the reason for skipping breakfast. 25 out of 145 indicated no specific reason for skipping breakfast. 12 out of 145 respondents mentioned not liking breakfast as a reason for skipping it. 8 out of 145 respondents indicated skipping breakfast to lose weight.

4.4.3 Academic Assessment- Primary

Grade	Name of the Candidate	1.How often do you usually have breakfast before going to school?	English	Hindi	Telugu	Math	Science	Social	Total	Percentage
1	Candidate No. 1	Every day	AB	AB	AB	AB	AB	NA		
1	Candidate No. 2	Every day	14	19	19	20	14	NA	86	86
1	Candidate No. 3	Every day	16	18	17	18	14	NA	83	83
1	Candidate No. 4	Every day	16	18	20	20	17	NA	91	91
1	Candidate No. 5	Every day	14	19	19	20	14	NA	86	86
1	Candidate No. 6	Every day	13	18	17	20	14	NA	82	82
1	Candidate No. 7	Sometimes	12	9	12	13	14	NA	60	60
1	Candidate No. 8	Every day	19	19	20	20	17	NA	95	95
1	Candidate No. 9	Every day	13	18	12 1/2	20	13	NA	76.5	76
1	Candidate No. 10	Every day	16	18	19	20	17	NA	90	87
1	Candidate No. 11	Never	10	16	11	18	11	NA	66	90
2	Candidate No. 12	Sometimes	14	13.5	16	17	10	NA	70.5	66
2	Candidate No. 13	Every day	14	17	15	18	13	NA	77	71
2	Candidate No. 14	Every day	14	16	15	16	17	NA	78	77
2	Candidate No. 15	Every day	13	17.5	18	18	13	NA	79.5	78
2	Candidate No. 16	Every day	12	16	18	11	14	NA	71	71
2	Candidate No. 17	Every day	14	19	17	14	12	NA	76	76
2	Candidate No. 18	Every day	14	18	19	20	16	NA	87	87
2	Candidate No. 19	Every day	14	18	19	20	15	NA	86	86
3	Candidate No. 20	Rarely	9	15	6	12	13	1	56	46.67
3	Candidate No. 21	Rarely	AB	17.5	AB	AB	16	AB	33.5	27.92
3	Candidate No. 22	Everyday	15	16	17	14	15	16	93	77.50
3	Candidate No. 23	Every day	16	18.5	18	19	18	8	97.5	81.25
3	Candidate No. 24	Rarely	12	11.5	5.5	5	13	1	48	40.00
3	Candidate No. 25	Every day	14	11.5	10.5	16	20	12	84	70.00
4	Candidate No. 26	Every day	7	11	17	15	20	19.5	89.5	74.58
4	Candidate No. 27	Every day	10	9	3.5	15	20	20	77.5	64.58
4	Candidate No. 28	Every day	19	17.5	18	15.5	12	13.5	95.5	79.58
4	Candidate No. 29	Every day	13	17.5	9.5	15	15	14	84	70.00
4	Candidate No. 30	Every day	14	18	19	20	15	NA	86	86
4	Candidate No. 31	Every day	14	17	20	20	20	17.5	108.5	90.42
4	Candidate No. 32	Every day	16	17	18	20	11	5.5	87.5	72.92
4	Candidate No. 33	Every day	16	18.5	14	19	20	20	107.5	89.58
4	Candidate No. 34	Rarely	1	6.5	3.5	8	9.5	7.5	36	30.00
4	Candidate No. 35	Every day	14	12	12	17	17.5	16.5	89	74.17
4	Candidate No. 36	Every day	16	19	16	17	20	17	105	87.50
4	Candidate No. 37	Never	19	17	19	20	11	0.5	86.5	72.08
4	Candidate No. 38	Rarely	2	13	4	13.5	20	18.5	71	59.17
5	Candidate No. 39	Every day	11	19	18	18 3/4	20	20	106.8	88.96
5	Candidate No. 40	Every day	9	19	15	19	16 1/2	19	97.5	81.25
5	Candidate No. 41	Every day	6	9	15	16 1/4	19 1/2	16	81.75	68.13
5	Candidate No. 42	Rarely	AB	15.5	AB	14 1/2	12 1/2	14.5	57	47.50
5	Candidate No. 43	Everyday	16	19	16	17	20	17	105	87.50
5	Candidate No. 44	Sometimes	6.5	9	11	11	15 1/2	17	70	58.33
5	Candidate No. 45	Every day	9	12	14	15	18 1/2	16.5	85	70.83
5	Candidate No. 46	Sometimes	2	9	11	10	10	15	57	47.50
5	Candidate No. 47	Every day	9	14	11.5	16	15 1/2	19	85	70.83
5	Candidate No. 48	Sometimes	9	12.5	12	18 3/4	14 1/2	18.5	85.25	71.04
5	Candidate No. 49	Sometimes	9	15	15	12 1/2	19	19.5	90	75.00
5	Candidate No. 50	Everyday	6.5	15.5	17	19 1/2	20	19.5	98	81.67

Table 15 Details	on academic assess	ment -Primary
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Fig (15) Academic Assessment

EVERYDAY	RARELY	NEVER
34	9	3

We infer the following from the data mentioned in the table that out of 45 students, 34 students have breakfast every day, 9 students rarely have breakfast and 3 students never have breakfast.

Academic Assessment- Higher



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	Name of the	1.How often do you usually have breakfast before								
Grade	Candidate	going to school?	English	Hindi	Telugu	Math	Science	Social	Total	Percentage
6	Candidaate No. 1	Never	1	5	1	0		4	11	9.2
6	Candidaate No. 2	Never	9	10	8	12	12	14.5	65.5	54.6
0	Candidaate No. 3	Every day	2.5	19	9	4	6.5	10.5	42.5	35.4
6	Candidaate No. 4	Every day	3	2	16	8	6	16.5	51.5	42.9
6	Candidaate No. 5	Every day	1	6.5	10.5	18 1/2	6.5	16.5	59.5	49.6
0	Candidaate No. 6	Every day	16.5	16.5	15.5	15	15	18.5	9/	80.8
0	Candidaate No. /	Every day	5	100	12.5	8	1	12.5	39.5	32.9
0	Candidaate No. 8	Every day	14.5	16.5	1/	18	15	17.5	98.5	82.1
0	Candidaate No. 9	Every day	10.5	16.5	15.5	15	15	18.5	9/	80.8
0	Candidaate No. 10	Every day	17.5	10	12	13 1/2	19.5	10	90.5	00.4
0	Candidaate No. 11	Never Every day	7.5	9.5	AB	51/2	10	11	33.3	21.9
0	Candidaate No. 12	Every day	5.5	15.5	11 1/2	9.5	10	17.5	()	72.0
0	Candidaate No. 13	Every day	4.5	15	19	13 1/2	19	17.5	88.5	73.8
0	Candidaate No. 14	Every day	11.5	10	1/	18	13.5	18	88	13.3
0	Candidaate No. 13	Every day	7.5	10.5	9.5	91/2	10	17.5	04.5	53.8
0	Candidaate No. 10	Every day	7.5	17.5	19	1/ 1/2	18.5	10	90	80.0
0	Candidaate No. 17	Every day Several times a	9	12.5	12	18 3/4	14 1/2	18.5	85.25	/1.0
6	Candidaate No. 18	week	6.5	4	7.5	16	16	15	65	54.2
6	Candidaate No. 19	Every day	18.5	6.5	17.5	16 1/2	19	20	98	81.7
6	Candidaate No. 20	Rarely	7	5.5	15	14	10.5	12.5	64.5	53.8
6	Candidaate No. 21	Every day	18.5	6.5	17.5	16 1/2	19	20	98	81.7
6	Candidaate No. 22	Every day	9.5	14	19	13	12.5	19	87	72.5
6	Candidaate No. 23	Rarely	9.5	14.5	14.5	12 1/2	13	17	81	67.5
6	Candidaate No. 24	Rarely	11	18.5	19	11 1/2	15.5	18.5	94	78.3
6	Candidaate No. 25	Every day	2	5	11.5	12 1/2	9.5	17	57.5	47.9
6	Candidaate No. 26	Rarely	11.5	10	13.5	14 1/2	17	14	80.5	67.1
7	Candidaate No. 27	Every day	13	20	17.5	9	19	15	93.5	77.9
7	Candidaate No. 28	Never	13	20	15.5	15	12	15	90.5	75.4
7	Candidaate No. 29	Every day	17	8	15	16	14	19	89	74.2
7	Candidaate No. 30	Every day	17.5	12	20	16.5	16.5	20	102.5	85.4
7	Candidaate No. 31	Every day	17	17.5	17.5	20	14	19	105	87.5
7	Candidaate No. 32	Every day	18	18	20	19	17.5	19.5	112	93.3
7	Candidaate No. 33	Every day	17	16	19	19	18.5	20	109.5	91.3
7	Candidaate No. 34	Rarely	8	19.5	18	19.5	13	20	98	81.7
7	Candidaate No. 35	Every day	6.5	19.5	8	15	0.5	12.5	62	51.7
7	Candidaate No. 36	Rarely	15	15	14.5	13.5	9	16.5	83.5	69.6
7	Candidaate No. 37	Every day	19	20	19	20	19	20	117	97.5
7	Candidaate No. 38	Every day	10.5	7	5	9	4.5	12.5	48.5	40.4
7	Candidaate No. 39	Every day	17	18	20	17	13.5	20	105.5	87.9
7	Candidaate No. 40	Every day	15	19.5	18	19.5	14.5	20	106.5	88.8
7	Candidaate No. 41	Every day	15	7.5	6.5	12	7.5	14.5	63	52.5
7	Candidaate No. 42	Every day	10.5	7	5	9	4.5	12.5	48.5	40.4
7	Candidaate No. 43	Rarely	16	7	20	18	19	20	100	83.3
7	Candidaate No. 44	Rarely	17	6	15	9.5	12.5	18.5	78.5	65.4
7	Candidaate No. 45	Rarely	15	16	19	18	15.5	18.5	102	85.0
7	Candidaate No. 46	Rarely	19	12	19	19.5	15.5	19	104	86.7
8	Candidaate No. 47	Every day	16	14.5	19	15.5	20	14.5	99.5	82.9
8	Candidaate No. 48	Every day	14	11	9.5	6	10.5	15.5	66.5	55.4
8	Candidaate No. 49	Every day	16	14	14.5	13.5	16.5	17.5	92	76.7
8	Candidaate No. 50	Every day	16	15.5	19	17	17	19.5	104	86.7



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8	Candidaate No.	51	Rarely	15	17	1	17.5	20	20	19	108.5	90.4
8	Candidaate No.	52	Every day	11	16.5	1	16.5	17.5	19	19	99.5	82.9
8	Candidaate No.	53	Every day	18	17		7.5	20	20	20	102.5	85.4
8	Candidaate No.	54	Every day	AB	AB	AB		AB	AB	AB	AB	
8	Candidaate No.	55	Every day	12	12.5		19	16	14.5	16	90	75.0
		962	Several times a		1000		200	800000	10000000		100000	A Section and A
8	Candidaate No.	56	week	15	14		18.5	19.5	19.5	18.5	105	87.5
8	Candidaate No.	57	Every day	15	13		17.5	18.5	19	19	102	85.0
8	Candidaate No.	58	Every day	17	9.5		18.5	15	14.5	15.5	90	75.0
8	Candidaate No.	59	Every day	16	13.5		15.5	15	17	16.5	93.5	77.9
8	Candidaate No.	60	Every day	16	17.5		19.5	19	18.5	19	109.5	91.3
8	Candidaate No.	61	Every day	16	17	1	19.5	19.5	16.5	20	108.5	90.4
8	Candidaate No.	62	Every day	17	15		6	17.5	18	19	92.5	77.1
8	Candidaate No.	63	Every day	18	12.5	1	19.5	18	19	20	107	89.2
9	Candidaate No.	64	Every day	11	18.5		20	15	18	11	93.5	77.9
9	Candidaate No.	65	Every day	12.5	17.5		18	15	10	18	91	75.8
9	Candidaate No.	66	Every day	18	17		17	19	17	16	104	86.7
9	Candidaate No.	67	Every day	17	15		18	19.5	18	14	101.5	84.6
9	Candidaate No.	68	Every day	18	18.5	5	19.5	19	17.5	18	110.5	92.1
9	Candidaate No.	69	Never	15	4		10	2	6.5	9.5	47	39.2
9	Candidaate No.	70	Rarely	8	9		6	11	15	12	61	50.8
9	Candidaate No.	71	Rarely	12	15.5		6.5	14.5	7.5	9	65	54.2
9	Candidaate No.	72	Rarely	12	15.5		6.5	14.5	7.5	9	65	54.2
	11. Carlo - 17.04		Several times a		-							1000
9	Candidaate No.	73	week	11	10.5	-	9	9.5	11	12	63	52.5
	On the state Ma		Several times a	10			10	10		13.5		75.0
9	Candidaate No.	74	week	18	1/	-	19	10	14.5	12.5	91	15.8
9	Candidaate No.	15	Rarely	12	11.5		5.5	5	13	1	48	40.0
9	Candidaate No.	10	Every day	14	11.5		10.5	16	20	12	84	70.0
9	Candidaate No.	11	Every day	10		-	1/	15	20	19.5	89.5	74.6
9	Candidaate No.	78	Every day	10	17.5		3.5	15	20	20	11.5	64.6
9	Candidaate No.	19	Every day	19	17.5		18	15.5	12	13.5	95.5	79.0
9	Candidaate No.	80	Every day	13	17.5	-	9.5	15	15	14	84	70.0
9	Candidaate No.	81	Every day	14	18		19	20	15	11	80	/1./
9	Candidaate No.	82	Every day	14	1/	-	20	20	20	17.5	108.5	90.4
9	Candidaate No.	83	Every day	16	1/	-	18	20	11	5.5	87.5	72.9
9	Candidaate No.	84	Every day	16	18.5	-	14	19	20	20	107.5	89.6
9	Candidaate No.	85	Rarely	1	0.5	-	3.5	8	9.5	7.5	36	30.0
10	Candidaate No.	86	Every day	14	12	-	12	1/	17.5	16.5	89	14.2
10	Candidaate No.	8/	Every day	16	19	-	16	1/	20	1/	105	87.5
10	Candidaate No.	88	Never	19	17		19	20	11	0.5	86.5	72.1
10	Candidaate No.	89	Rarely	2	13	-	4	13.5	20	18.5	/1	59.2
10	Candidaate No.	90	Every day	11	19		18	18 3/4	20	20	106.8	89.0
10	Candidaate No.	91	Rarely	2	13		4	13.5	20	18.5	/1	59.2
10	Candidaate No.	92	Every day	11	19		18	18 3/4	20	20	106.8	89.0
10	Candidaate No.	93	Every day	9	19		15	19	16 1/2	19	97.5	81.3
10	Candidaate No.	94	Every day	6	9		15	16 1/4	19 1/2	16	81.75	68.1
10	Candidaate No.	95	Rarely	AB	15.5	AB		14 1/2	12 1/2	14.5	57	47.5

Table 16 Details on academic assessment - Secondary







Table no. 17. Details of academic performance

	RANKERS	AVERAGE	LEARNERS
PERCENTAGE IN PA RESULTS	75-100%	50-70%	35-50%
NO. OF STUDENT SECURED POSITION	102	26	17
TOTALNO.OFSTUDENT	145	145	145

We infer the following from the data mentioned in the table Periodic Assessment result was considered to assess the student academic performance, from the data above we infer 102 students out of 145 have scored between 75 to 100% followed by 26 students who have scored marks between 50 to 74% and 17 students who have scored between 35- 49%

4.4.4 Consumption Of Breakfast



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Fig (18) Consumption Of Breakfast

Table no. 18 Details of breakfast consumption

	EVERYDAY	RARELY	NEVER
NO. OF STUDENTS	102	26	17
PERCENTAGE	70.3%	17%	11%

We infer the following from the data mentioned in the table out of 145 students, 102 students (70.3%) had breakfast everyday followed by 26 students (17%) had breakfast rarely and 17 students (11%) never had breakfast.





Fig (19) Interpretation Of Academic Performance On Breakfast Consumption

Table no .19 Details of interpretation of academic performance on breakfast consumption



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	Students having regular breakfast	Students rarely having breakfast	Students not having breakfast regularly
Academic performance	75-100%	50-70%	35-50%
Number of students	102	26	17

We infer the following from the data mentioned in the table, The vast majority of students (102) who consistently have breakfast have shown a remarkably high academic performance rate of 75-100% Among students who rarely have breakfast (26) the academic performance rate is noticeably lower at 50-70% Students who do not have breakfast regularly (17) exhibit the lowest academic performance rate of 35-50%.

Discussion

Breakfast, often considered the most important meal of the day, plays a crucial role in ensuring overall health and well-being, particularly among children and adolescents. Understanding breakfast consumption habits and their impact is essential for promoting healthy dietary practices and optimizing academic performance. This analysis examines survey data on breakfast habits, nutritional awareness, and the perception of breakfast's influence on students' academic outcomes.

Research has consistently shown that a nutritious breakfast provides essential energy and enhances cognitive functions such as concentration, memory, and overall academic achievement. More than 58% of parents in the survey acknowledged the importance of breakfast, with 28% considering it extremely important. However, only 40% of parents reported a high level of awareness regarding breakfast's nutritional benefits, while 30% had moderate awareness, 17% had some awareness, and 12% had very little awareness. This indicates a need for awareness programs to educate parents about the benefits of a nutritious breakfast.

Regarding breakfast choices, 41% of respondents considered nutritional value, while 38% were occasionally aware, 16% had a moderate understanding, and 6% did not consider nutrition at all. Although 40% of the population made informed choices, a majority (60%) were either unaware or partially aware of how breakfast impacts students' academic performance.

Survey results indicated that 75% of students regularly consumed breakfast, while 13% rarely did, 5% ate breakfast several times a week, and 7% skipped it entirely. The majority of students preferred Indian breakfast items such as idly, dosa, and upma, which provide sustained energy and essential nutrients. Other popular choices included whole-grain bread with spreads (35.2%), boiled or scrambled eggs (31%), cereals and dairy products, and fruits or fruit juices (22%). These choices contribute to cognitive function, bone health, and overall development.

Skipping breakfast was linked to hunger (72%), tiredness (27%), distraction (27%), and irritability (14%), reinforcing the importance of regular breakfast consumption. Students who skipped breakfast experienced



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difficulty concentrating and maintaining energy levels throughout the day. Research suggests that breakfast skipping negatively impacts mood, cognitive functions, and overall well-being.

Breakfast choices also varied among families, with 58% of parents regularly altering their breakfast menu, 18% changing it multiple times a week, and 16% rarely making changes. Research highlights the benefits of incorporating diverse, nutritious options to positively influence cognitive function, mood, and overall health. The average time spent on breakfast ranged from 5 to 15 minutes for most students, which aligns with studies indicating that urban adolescents typically spend 15-20 minutes on breakfast.

The survey revealed that 50% of parents believed breakfast influenced academic performance, while 29% disagreed, 15% were unsure, and 5% saw no correlation. Academic performance data indicated that 73% of regular breakfast eaters performed above average, whereas 17% of irregular eaters and 10% of breakfast skippers showed lower academic performance. Studies suggest that inconsistent breakfast habits disrupt metabolic and cognitive functions, negatively affecting academic success over time.

Understanding the relationship between breakfast and academic performance is vital. While breakfast is only one of many factors influencing student achievement, research underscores its significance. Raising awareness about the importance of a nutritious breakfast and encouraging consistent, healthy eating habits can contribute to better academic performance and overall well-being among students.

Conclusion

The study on breakfast habits and their impact on students' well-being and academic performance highlights the vital role of regular breakfast consumption. A majority of students and parents recognize breakfast as essential for health, with a strong correlation between regular breakfast intake and improved academic performance. Students who consistently eat breakfast demonstrate higher cognitive abilities, including better memory, attention, and problem-solving skills, which are crucial for learning.

Despite general awareness, the study reveals gaps in knowledge about the nutritional benefits of breakfast. Enhancing nutrition education can help reinforce the importance of balanced meals. Time constraints and busy mornings are the primary reasons for skipping breakfast, emphasizing the need for practical solutions. Schools can play a crucial role by implementing breakfast programs, organizing breakfast clubs, and promoting quick, nutritious meal options.

To support students' academic success and overall well-being, schools should integrate nutrition education into the curriculum and create an environment that encourages healthy eating habits. By addressing barriers and raising awareness, schools can foster lifelong healthy habits. In conclusion, ensuring regular breakfast consumption among students is crucial for their cognitive development and academic performance, reinforcing the need for targeted interventions that promote consistent, nutritious breakfast habits.

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