



KNOWLEDGE, SUPPORT, AND PRACTICE TOWARDS BREAKFAST FOR MOTHERS OF SCHOOL-AGE CHILDREN IN A VILLAGE (SUDAN)

Nutritional Science

**Dr. Eshraga
Abdallah Ali**

University of Hail, Saudi Arabia

ABSTRACT

This research aims to identify the cognitive information about the importance of breakfast for children in the primary stage and to know the practices that are practiced in preparing this meal. A questionnaire was used for this research, and a random sample of 70 women was selected from the the-Azaza village in the Singa countryside. The questionnaire was analyzed using statistical analysis software. The research concluded that 85.7% of children's mothers are interested in breakfast, 80% of children are supported and encouraged to eat breakfast, and 95.7% of school children eat breakfast at home. Breakfast consists of cooked red beans 1.47% and porridge with milk 30%, and it was found that 5% do not eat breakfast daily due to lack of income and lack of food. The dietary pattern depends on vegetable protein and a lack of vegetables, where the percentage was 97.1%, and the lack of fruits 88.6%. The research came out with several recommendations, the most important of which is the need to support poor families with limited income to provide breakfast for their children and spread awareness of the importance of eating vegetables and fruit.

KEYWORDS

Knowledge, support, practice, Children; Breakfast; school -age. Village- Sudan

INTRODUCTION

Breakfast: We defined breakfast as any food eaten from when a student gets up in the morning until 45 minutes after the start of their school day, which is the criteria we used in our previous study [8]. If breakfast was not eaten for two consecutive mornings, we defined this as "breakfast skippers". "Breakfast eaters" was defined as subjects that ate breakfast on at least one of two consecutive days [2] School-age children who do not practice safe food behavior are at risk of experiencing health problems (11). revealed that children in families with high support for breakfast ate this meal significantly more (4) often. Additionally, children in families with low support for limiting sugar-sweetened beverages

Children who regularly eat breakfast perform better academically than children who skip breakfast [14]. Children who consume a nutritious breakfast score higher on literacy tests than those who skip breakfast [8]. The association between breakfast intake and improved school performance is particularly notable in undernourished children [8]. Some researchers hypothesize that improved academic performance may result from children's increased ability to concentrate when they are adequately fed [2]. Others note that implementing school breakfast programs (the setting for many studies on the effects of breakfast on school performance) improves school attendance, an important contributor to overall improved school performance [8]. The foods selected for the breakfast meal determine their nutritional benefits. For example, individuals who eat breakfast cereals consume less sodium and more sugar, carbohydrates, and fiber than individuals who have non-cereal breakfasts [15], but they also consume fewer added sugars overall than breakfast-skippers [5]. Those whose breakfast meals include animal proteins (e.g., eggs, meat, poultry, fish) consume more saturated fat and sodium daily than breakfast-skippers [3] In three cross-sectional studies, breakfast prevalence in various populations at Inner Mongolia Medical University .showed that breakfast consumption in medical students is higher than that in students from nonmedical faculties, Conclusion Medical students have a higher breakfast consumption than nonmedical students. Male students from nonmedical faculties have the lowest breakfast prevalence and the highest breakfast skip risk in our university [1]

Over the last 30 years, there has been a large number of studies emphasizing the importance of breakfast consumption to maintain adequate nutrient intake [1]–[4]. Breakfast intake has been reported to be associated with decreased obesity and increased cardiometabolic function [3]–[10]. Other studies have reported enhanced learning and cognition abilities associated with breakfast [8]. Skipping breakfast cannot be compensated by other meals throughout the rest of the day [11]. Some signs of skipping breakfast are becoming common worldwide, and recently some studies have shown that more than 30% of study participants skip breakfast in the UK [12], the United States [13], Bangladesh [14], and Brazil [15]. Breakfast consumption is affected by many factors, with demographics playing a large role in breakfast behavior [11]. A study on healthy breakfasts and snacks an

important role in the student's thinking and body health. This study aimed to investigate the behavior and perceptions of mothers about the benefits and barriers to preparing healthy breakfasts and snacks for schoolchildren. The study found that the most important barriers among mothers to preparing a healthy breakfast and quick snacks are their lack of sufficient income and time, and breakfast is boring ($P < 0.001$). Conclusion: According to the results of the study, it is better to plan and design educational interventions to solve children's nutritional problems to reduce the mothers' perceived barriers [13].

MATERIALS AND METHODS

A questionnaire was designed containing 20 questions that included primary information such as educational level, age, monthly income, profession, number of children of primary school age, and the availability of cognitive information about the importance of breakfast for children of primary school age and how to prepare it. The questionnaire was filled out using a personal interview, and the questionnaire was analyzed by the SPSS statistical analysis program to find out the percentages. The research sample was intended and chosen randomly from the mothers of children in the primary stage, the questionnaire was applied to a rural area, and the study was conducted in November 2022.

RESULTS AND DISCUSSION

Table (1) shows the general characteristics of the research sample:

	General characteristics	Frequency	Percentage
1	Age group		
	20-30 years	50	71.4%
	31-40 years	18	25.7%
	41 and above	2	2.9%
2	Educational level		
	No formal education	10	14.3%
	Primary	45	64.2%
	Secondary	12	17.2%
3	College and above	2	2.9%
	Income level		
	High	5	7.2%
	Medium	40	57.1%
4	Low	25	35.7%
	Nutrition information		
	Yes	55	78.6%
5	No	15	21.4%
	Source of nutrition information		
	Health professionals	3	4.2%
	Family	40	57.1%
	Media	20	28.6%
6	Friends	7	10%
	The number of children in primary school		

	Less than 5	46	65.7%
	More than 5	24	34.3%
7	Family size		
	Less than 7	55	78.5%
	More than 10	15	21.4%

Table No. (1) shows the general characteristics of the research sample, as it was found that 70.4% of them are between the ages of 20-30 years, the percentage of primary education is 64.2%, and the percentage of illiteracy is 14.3%. The average income level is 1.57%, and the low-income rate is 35.7%. Lack of good food with its content of vitamins and minerals. The primary education rate was 64.2%, the illiteracy rate was 14.3%, the average income level was 1.57%, and the low-income rate was 35.7%. Not having a good diet of vitamins and minerals (8)

When asked about nutritional knowledge, it was found that 78.7% had nutritional information, and that educated young women had better knowledge of nutrition, (14) 15% had no nutritional information, and the source of information was 57.1% from the family, 28.6% from the media, 10% from friends, and 4.2 % of health professionals and their role are weak in providing nutritional education to mothers in villages. The number of children in primary school aged five and under was 43.3% and over five was 65.7%. The size of the family ranged from less than 10 members, 78.5%, to more than 10, 21.4%. The large size of the family affects the food intake for each member of the family (10)(11.)

Table No. (2) shows knowledge of the importance of breakfast for children of school age about the research sample.

	Variables	Frequency	Percentage
1	Is breakfast prepared at home?		
	Yes	66	94.3%
	No	4	5.7%
2	Is breakfast prepared daily?		
	Yes	60	85.7%
	No	10	14.3%
	Breakfast is nutritionally important for children		
	Yes	60	85.7%
	No	10	14.3%
3	I make sure my children eat breakfast		
	Yes	56	80%
	No	14	20%
4	Do your children eat breakfast at home?		
	Yes	67	95.7%
	No	3	4.3%
5	What foods are usually eaten for breakfast		
	Cooked red beans	33	47.1%
	Porridge with Edam milk	21	30%
	Porridge with Edam meet	16	22.8%

Table (2) shows children's mothers' knowledge of the importance of breakfast, as it was found that 94.3% of the food is prepared at home and 5.7% depends on ready-made meals. Regarding the importance of breakfast in terms of nutrition for children, 85.7% answered that it is important, and 14.3% do not realize the importance of breakfast, which indicates ignorance and lack of knowledge. And 80.5% are aware of the importance of eating breakfast, and 95.1% of children eat breakfast at home, due to the proximity of schools to home. When asked about the type of foods usually eaten for breakfast, cooked red beans accounted for 47.1%, corn porridge with milk 30.2%, and cooked meat 22.8%. In terms of nutritional value, we find that breakfast is concentrated on legumes, grains, and milk, and lacks vegetables and fruits. This dietary pattern could affect the health of school children in the future. When mothers were asked about the method of preparing the most common meal, they answered the following: How to prepare cooked red beans: Rinse and sort the beans. Soak if desired (optionally soak baby red beans) and add water and beans into a soup pot over high heat (use coal, wood, or gas) and bring to a boil for 30 minutes. Simmer, stirring occasionally, until tender, about 1 1/2 hours. add water if necessary; The liquid level should be at least 1/2 inch higher than the beans during cooking. It is served with bread, oil, and onions, and sometimes tomatoes are added, or it is eaten without bread (4).

Table No. (3) Shows The Practice And Type Of Foods Used For Breakfast For School-age Children.

	Variables	frequency	Percentage
1	Choose foods available at home		
	Yes	65	92.8%

	No	5	7.1%
2	Breakfast is prepared for all family members		
	Yes	68	97.1%
	NO	2	2.9%
3	Breakfast is fixed and repeated daily		
	Yes	50	71.4%
	No	20	28.6
4	I care about saturated food for my children		
	Yes	30	42.8%
	No	40	57.1%
5	Use vegetables for breakfast		
	Yes	8	11.4%
	No	62	88.6%
6	Make sure my baby eats the fruit		
	Yes	2	2.9%
	No	68	79.1%

Table (3) shows support for mothers and encourages their children to eat useful foods for breakfast. It was found that the type of foods used in breakfast for children of school age. When asked about the foods used in preparing breakfast, it was found that 92.8% depended on the foods available at home, and 7.1% relied on the foods available at home. They depend on prepared foods. 97.1% of food items are prepared for all family members and breakfast is repeated daily by 71.4%, and it was found that 42.8% are interested in saturated foods for children, 57.1% are not interested in them, 88.6% do not use vegetables for breakfast, and this is a poor dietary pattern, and 42.8% 57.1% give their children fruits and emphasize eating them, and 57.1% do not emphasize them. This is due to the economic situation and lack of income, and relying on a fixed diet is dangerous for children's health (8) (11).

CONCLUSION AND RECOMMENDATIONS

In general, the general characteristics of the research sample showed a high percentage of illiteracy, low family income, and a high number of family members. Regarding knowledge, it has been shown that there is a weakness in the level of knowledge of the importance of nutrition for children of school age, and mothers receive information about nutrition from family and friends. There is a lack of interest on the part of health professionals in spreading food awareness in rural areas, and the breakfast prepared by mothers for children of school age is the same meal for all family members, by analyzing the meal from a nutritional point of view, it was found that it focuses on grains and legumes and lacks vegetables and fruits.

The research came out with several recommendations, the most important of which are:

- 1- Spreading health and nutritional awareness about the importance of eating breakfast for children and the diversity of the meal in terms of nutrients
- 2- Taking care of vulnerable families in the countryside and providing them with financial support and food security

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