



Breakfast Skipping And Nutritional Deficiencies Among Homemakers In Rural Areas Of Chennai: A Cross-Sectional Study

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Abstract

Background: Breakfast plays a vital role in maintaining nutritional balance and metabolic health. Skipping breakfast has been linked to multiple health concerns including obesity, metabolic syndrome, and nutritional deficiencies. Homemakers play an important role in family nutrition; however, their own dietary habits are often overlooked.

Objective: To assess the prevalence of breakfast skipping and examine its association with selected nutritional deficiencies among homemakers residing in rural villages of Chennai.

Methods: A descriptive cross-sectional study was conducted among 100 homemakers aged 21–60 years residing in selected villages of Chennai. Participants were recruited using purposive sampling. Data were collected through a structured questionnaire consisting of demographic characteristics, a breakfast-skipping scale, and a nutritional deficiency checklist. Descriptive statistics were used to summarize the data, and inferential statistics including Pearson's correlation coefficient and Chi-square tests were applied to determine associations.

Results: The majority of participants (31%) were aged 21–30 years, and 72% belonged to nuclear families. Most participants reported low nutritional deficiency (74%). Breakfast skipping behaviour was generally low (97%). Pearson's correlation analysis showed a statistically significant positive relationship between breakfast skipping and nutritional deficiency ($r = 0.373$, $p < 0.001$).

Conclusion: The study identified a significant relationship between breakfast skipping and nutritional deficiency among homemakers. Promoting regular breakfast consumption through community-based nutrition education programs may improve nutritional status and overall health outcomes.

Keywords: breakfast skipping, nutritional deficiency, homemakers, dietary habits, rural health, women's nutrition

Introduction

Breakfast is considered an essential component of a healthy dietary pattern because it provides the body with energy and nutrients after overnight fasting. Regular consumption of breakfast contributes to

improved metabolic functioning, enhanced cognitive performance, and better nutritional intake throughout the day.

Numerous studies have shown that individuals who regularly consume breakfast have higher dietary quality and increased intake of essential nutrients such as calcium, iron, fibre, and vitamins. Conversely, skipping breakfast has been associated with adverse health outcomes including obesity, metabolic syndrome, cardiovascular diseases, and poor glycaemic control.

Women who manage households, commonly referred to as homemakers, play a crucial role in shaping family dietary patterns. Despite their responsibility in food preparation and meal planning, homemakers may prioritize family needs over their own nutritional requirements. Time constraints, domestic responsibilities, and socio-economic challenges may contribute to irregular eating behaviours including breakfast skipping.

Globally, breakfast skipping has become increasingly common. Previous studies indicate that between 10% and 48% of adults skip breakfast regularly. In India, urbanization and lifestyle changes have contributed to similar patterns, particularly among women.

In addition to lifestyle factors, breakfast skipping has been associated with nutritional deficiencies. Individuals who skip breakfast often consume fewer essential nutrients, which may increase the risk of deficiencies over time.

Although several studies have examined breakfast habits among students and working adults, limited research has focused on homemakers living in rural communities. Therefore, this study aimed to assess breakfast-skipping behaviour and its association with nutritional deficiencies among homemakers residing in rural villages of Chennai.

Methods

Research Design

A descriptive cross-sectional research design was adopted for this study.

Study Setting

The study was conducted in selected rural villages located in Chennai, Tamil Nadu, India.

Population and Sample

The study population consisted of homemakers aged between 21 and 60 years. A total of **100 participants** were selected using **non-probability purposive sampling**.

Inclusion Criteria

Participants who:

- Were homemakers aged 21–60 years
- Resided in selected villages
- Provided informed consent

Exclusion Criteria

Participants who:

- Were unavailable during data collection
- Declined participation

Data Collection Instruments

The structured questionnaire consisted of three sections:

1. **Demographic variables**
2. **Breakfast skipping scale** (4-point rating scale)
3. **Nutritional deficiency checklist**

Ethical Considerations

Ethical approval was obtained from the Institutional Ethics Committee of MMM College of Nursing. Written informed consent was obtained from all participants before data collection.

Data Collection Procedure

Face-to-face interviews were conducted using the questionnaire. Each interview lasted approximately **10–15 minutes**, and data collection was completed within **one week**.

Statistical Analysis

Data were analysed using **descriptive and inferential statistics**.

Descriptive statistics:

- Frequency
- Percentage
- Mean
- Standard deviation

Inferential statistics:

- **Chi-square test**
- **Pearson correlation coefficient**

Statistical significance was set at **$p < 0.05$** .

Results

Table 1: Demographic Characteristics of Participants (N = 100)

Variable	Category	Frequency	Percentage
Age	21–30 years	31	31%
	31–40 years	26	26%
	41–50 years	22	22%
	>50 years	21	21%
Family Type	Nuclear	72	72%
	Joint	28	28%
Religion	Hindu	75	75%
	Others	25	25%

Variable	Category	Frequency	Percentage
Monthly Income	< ₹20,000	48	48%
	≥ ₹20,000	52	52%

Table 2: Nutritional Deficiency Levels Among Participants

Nutritional Deficiency Level	Frequency	Percentage
Low deficiency	74	74%
Moderate deficiency	21	21%
High deficiency	5	5%

Table 3: Breakfast Skipping Behaviour

Breakfast Skipping Level	Frequency	Percentage
Low skipping	97	97%
Moderate skipping	3	3%

Table 4: Correlation Between Breakfast Skipping and Nutritional Deficiency

Variables	Pearson Correlation (r)	p-value
Breakfast Skipping & Nutritional Deficiency	0.373	<0.001

Interpretation:

A statistically significant positive correlation was observed between breakfast skipping and nutritional deficiency.

Discussion

The findings of this study indicate that breakfast skipping is significantly associated with nutritional deficiency among homemakers. Although the prevalence of breakfast skipping was relatively low, the presence of moderate and high nutritional deficiency suggests that dietary patterns may still contribute to nutritional imbalance.

These results are consistent with previous studies that have reported an association between breakfast skipping and poor nutritional status. Research conducted by Haldar et al. (2023) found that individuals who frequently skipped breakfast were more likely to experience nutrient deficiencies.

Similarly, Sayed et al. (2022) reported that irregular breakfast consumption was associated with anaemia among women. Other studies have also demonstrated that breakfast skipping can negatively affect metabolic health and nutrient intake.

Homemakers influence family dietary patterns and food choices. Therefore, promoting healthy eating behaviours among this population group can have a broader impact on household nutrition.

Community health professionals and nurses can contribute to improving dietary behaviours through health education programs focusing on the importance of regular breakfast consumption.

Limitations

The study had several limitations:

1. The sample size was relatively small (N = 100).
2. The study used purposive sampling, which may limit generalizability.
3. Nutritional deficiency was assessed using a symptom checklist rather than laboratory measurements.
4. The cross-sectional design does not allow causal inference.

Future studies should include larger samples and biochemical assessments of nutritional status.

Conclusion

The study demonstrated a significant association between breakfast skipping and nutritional deficiency among homemakers in rural areas of Chennai. Although the frequency of breakfast skipping was low, individuals who skipped breakfast were more likely to experience higher levels of nutritional deficiency.

Promoting regular breakfast consumption through community-based nutrition education programs may help improve the nutritional health of homemakers and their families.

Conflict of Interest

The authors declare that there is **no conflict of interest** regarding the publication of this study.

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