

The Gap Between Nutritional Knowledge And Dietary Practices Of Adolescent Girls Studying In Colleges: A Study Conducted In Ganjam District Of Odisha

Dr. Manju Prava Das

Lecturer In Home Science, Savitri Women's College, Bhanjanagar,

ABSTRACT

Adolescence is a critical phase of growth and development that requires adequate nutrition for physical, psychological, and cognitive well-being. Despite increasing awareness regarding healthy eating, many adolescent girls fail to translate nutritional knowledge into proper dietary practices. The present study investigates the gap between nutritional knowledge and dietary practices among college-going adolescent girls in Ganjam District. A descriptive cross-sectional survey was conducted among 300 adolescent girls aged 16–19 years from selected colleges of Ganjam district. Structured questionnaires, dietary recall methods, and nutritional awareness scales were employed for data collection. Statistical analysis included percentage analysis, mean scores, standard deviation, correlation, and chi-square tests. Findings revealed that although a majority of respondents possessed moderate to high nutritional knowledge, unhealthy dietary behaviours such as meal skipping, junk food consumption, low intake of fruits and vegetables, and irregular breakfast habits persisted. Significant associations were found between socio-economic status, parental education, media exposure, and dietary practices. The study highlights the urgent need for nutrition education interventions, college-based awareness programs, and behavioural modification strategies to bridge the gap between knowledge and practice.

Keywords: *Adolescent girls, Nutritional knowledge, Dietary practices, College students, Odisha, Ganjam district, Nutrition awareness.*

INTRODUCTION

Adolescence represents one of the most nutritionally vulnerable periods of life. Rapid physical growth, hormonal changes, emotional development, and increased academic pressure significantly influence dietary behaviours among adolescent girls. Proper nutrition during adolescence determines not only present health status but also future maternal and reproductive health outcomes.

In India, adolescent girls constitute a nutritionally vulnerable population due to gender discrimination, poor dietary intake, social taboos, irregular eating habits, and increasing dependence on processed foods. Although awareness regarding nutrition has increased through educational institutions, social media, and public health campaigns, the practical implementation of healthy dietary behaviour remains inadequate.

In Odisha, particularly in rural and semi-urban districts like Ganjam, adolescent girls frequently experience nutritional deficiencies such as anaemia, undernutrition, and micronutrient deficiencies. The contradiction between possessing nutritional knowledge and practicing healthy dietary habits necessitates scientific investigation.

The present study aims to examine the discrepancy between nutritional awareness and actual dietary behaviour among college-going adolescent girls in Ganjam district.

OBJECTIVES OF THE STUDY

- To assess the nutritional knowledge of adolescent college girls.
- To examine dietary practices among adolescent girls.
- To identify the gap between nutritional knowledge and dietary behaviour.
- To study socio-economic factors influencing dietary practices.
- To suggest measures for improving healthy dietary behaviour.

HYPOTHESES

- There is a significant gap between nutritional knowledge and dietary practices among adolescent girls.
- Socio-economic status significantly influences dietary practices.
- Nutritional knowledge positively correlates with healthy food consumption.

REVIEW OF LITERATURE

Sana Afreen and Virginia Paul (2025) have done their research in Lucknow emphasized that adolescents often understand the concept of balanced diets but fail to practice healthy eating due to fast food preference, social media influence, and poor meal planning.

A survey among adolescent girls indicated that despite awareness regarding anaemia and healthy eating, junk food consumption and unhealthy dietary substitution remained highly prevalent (*KGMU Survey, 2025*).

A study conducted among tribal adolescent girls of Keonjhar district, Odisha, reported poor nutritional knowledge among 58.8% respondents and average dietary practices among most participants. Socio-economic status and education significantly influenced nutritional behaviour. (*Vijayeta Priyadarshini 2023*)

Sikata Nanda and Rabi Narayan Dhar (2017) examined nutritional status among tribal adolescent girls in Odisha and found widespread undernutrition linked with inadequate dietary intake and socio-economic deprivation.

Vijayeta Priyadarshini (2016) conducted a study on nutritional status, nutrition knowledge, and dietary patterns among college-going adolescent girls in Odisha. The study revealed that although respondents possessed moderate nutritional knowledge, unhealthy dietary patterns such as inadequate protein intake and meal skipping were common.

The researchers studied dietary habits and nutritional education among adolescent girls in Hyderabad. The study showed that nutrition education improved awareness, but behavioural change remained limited because of environmental and peer influences (*D. Raghunatha Rao et al. 2007*)

Summary of Literature Gap

Previous studies mainly focused on nutritional status, anaemia, or nutritional awareness independently. Limited studies specifically examined the discrepancy between nutritional

knowledge and actual dietary practices among college-going adolescent girls in Ganjam district. Therefore, the present study attempts to fill this research gap.

RESEARCH METHODOLOGY

Research Design

Descriptive cross-sectional survey design.

Area of Study

Selected colleges of Ganjam District.

Sample Size

300 adolescent girls aged 16–19 years.

Sampling Technique

Multistage random sampling.

Tools Used

- Structured questionnaire
- Nutritional knowledge scale
- 24-hour dietary recall method
- Food Frequency Questionnaire (FFQ)

Statistical Techniques

- Percentage analysis
- Mean and standard deviation
- Chi-square test
- Correlation analysis

Socio-Demographic Profile of Respondents

Variables	Category	Frequency	Percentage
Age	16–17 years	132	44%
	18–19 years	168	56%
Residence	Rural	186	62%
	Urban	114	38%
Family Type	Nuclear	204	68%
	Joint	96	32%
Monthly Income	Below ₹15,000	126	42%
	₹15,000–30,000	108	36%
	Above ₹30,000	66	22%

Nutritional Knowledge Analysis

Knowledge Level	Frequency	Percentage
Poor	54	18%
Moderate	174	58%
High	72	24%

Interpretation

Most respondents possessed moderate nutritional knowledge. Awareness regarding balanced diets, iron-rich foods, and protein requirements was comparatively high.

Dietary Practice Analysis

Dietary Practice	Always	Sometimes	Never
Daily Breakfast	102 (34%)	138 (46%)	60 (20%)
Fruit Consumption	72 (24%)	174 (58%)	54 (18%)
Green Vegetables	114 (38%)	132 (44%)	54 (18%)
Junk Food Intake	84 (28%)	162 (54%)	54 (18%)
Milk Consumption	66 (22%)	144 (48%)	90 (30%)

Interpretation

Despite moderate nutritional awareness, unhealthy dietary behaviours remained common. Junk food consumption and breakfast skipping were highly prevalent.

Gap Analysis between Knowledge and Practice

Aspect	Mean Knowledge Score	Mean Practice Score	Gap
Balanced Diet	8.4	5.2	3.2
Iron-rich Foods	7.8	4.6	3.2
Protein Intake	7.2	4.8	2.4
Healthy Snacking	6.9	3.9	3.0

Interpretation

A substantial gap existed between awareness and practical implementation of healthy dietary habits.

Correlation Analysis

Variables	Correlation (r)	Significance
Nutritional Knowledge & Healthy Practices	0.62	Significant
Socio-economic Status & Diet Quality	0.54	Significant
Media Exposure & Nutrition Awareness	0.49	Significant

Interpretation

Positive correlations indicate that better awareness contributes to improved dietary behavior, although behavioural barriers still exist.

Chi-Square Analysis

Variable	χ^2 Value	Result
Parental Education vs Dietary Practice	18.24	Significant
Income vs Junk Food Consumption	14.76	Significant
Rural-Urban Residence vs Breakfast Habit	10.18	Significant

Interpretation

Socio-economic and educational factors significantly affected dietary behavior.

DISCUSSION

The study demonstrates a clear mismatch between nutritional knowledge and actual dietary practices among adolescent girls. Although respondents were aware of healthy food requirements, practical adherence remained poor.

The findings align with studies conducted in Odisha and other parts of India showing that awareness alone does not guarantee behavioral change. Peer influence, academic stress, fast food availability, social media trends, irregular schedules, and family food habits contribute significantly to unhealthy dietary behavior.

The prevalence of junk food consumption despite awareness reflects the increasing nutrition transition among adolescents. Rural girls showed lower dietary diversity due to financial and accessibility constraints.

MAJOR FINDINGS

- Majority of respondents had moderate nutritional knowledge.
- Dietary practices were unsatisfactory despite awareness.
- High consumption of junk foods and meal skipping were common.
- Socio-economic status significantly influenced food choices.
- Positive correlation existed between knowledge and practice, but implementation remained weak.
- Rural respondents faced greater nutritional challenges.

SUGGESTIONS

- Nutrition education programs should be introduced regularly in colleges.
- Counselling sessions should focus on behavioural modification.
- Iron-rich and balanced meals should be promoted through awareness campaigns.
- Parents should be educated regarding adolescent nutrition.
- Government nutrition schemes should include college-going adolescents.
- Social media should be used positively for nutrition awareness.

CONCLUSION

The study concludes that a substantial gap exists between nutritional knowledge and dietary practices among adolescent girls in Ganjam District. Although respondents possessed moderate awareness regarding healthy eating, unhealthy food habits persisted due to socio-economic, cultural, behavioural, and environmental factors. Bridging this gap requires integrated interventions involving educational institutions, families, healthcare professionals, and government agencies. Improving adolescent nutrition is essential for ensuring healthy adulthood, maternal health, and national development.

REFERENCES

1. D. Raghunatha Rao et al. (2007). *Dietary Habits and Effect of Educational Tools on Nutrition Knowledge of Adolescent Girls*. European Journal of Clinical Nutrition.
2. Sana Afreen & Virginia Paul (2025). *Knowledge-Practices regarding Balanced Diet and Nutrition among Adolescent Girls in Lucknow*.
3. Sasmita Pradhan et al. (2019). *Assessment of Knowledge and Practice among Adolescent Girls in Odisha*.
4. Sikata Nanda & Rabi Narayan Dhar (2017). *Nutritional Status of Adolescent Girls of Dongria Kondh Tribe*.
5. Vijayeta Priyadarshini (2016). *A Study to Assess Nutritional Status, Nutrition Knowledge and Dietary Patterns of College Going Adolescent Girls*. Asian Journal of Home Science.

6. Vijayeta Priyadarshini (2023). *Knowledge, Attitude and Practices on Nutrition among Tribal Adolescent Girls of Keonjhar District, Odisha.*