



NUTRITIONAL ASSESSMENT OF SELECTED FOODS AND THEIR HEALTH PERSPECTIVES

Mr. Dulal Parua

Assistant Professor, Annapurna Memorial College of Education, Kashinagar, Kakdwip, North 24 pgs, W.B., India

ABSTRACT

This study examines the nutritional makeup of frequently consumed foods and uses a qualitative approach to determine their potential health effects. It looks for important nutrients – carbohydrates, proteins, lipids, vitamins, minerals, and dietary fiber – in grains, pulses, milk, fruits, and vegetables using descriptive analysis of primary observations and secondary nutrition data. It then connects these nutrients to energy provision, growth, and preventing disease. Results indicate that while fruits and leafy vegetables provide vitamins, minerals, antioxidants, and fibre that support immunity and metabolic health, cereals (such as rice) primarily provide calories, while pulses and milk supply body-building proteins and micronutrients. Comparative tables highlight the significance of dietary diversification by showing that no single item can satisfy every need. The data supports public health recommendations that relate balanced diets to lower risks of non-communicable diseases and malnutrition. The study draws attention to ongoing deficiencies in comprehensive, food-specific evaluations that link nutritional profiles to useful health perspectives. It comes to the conclusion that eating grains, legumes, dairy, fruits, and vegetables on a regular basis promotes balanced nutrition, aids in growth and development, and increases resistance to chronic illness.

KEYWORDS: Nutritional assessment, Balanced diet, Food composition, Health perspectives, Dietary diversification, Nutrient analysis.

1. INTRODUCTION

Human health, development, and general well-being are strongly correlated with food and nutrition. Researchers, medical professionals, and the general public have been motivated to comprehend the nutritional value of foods consumed by humans on a regular basis by the growing awareness of healthy eating practices in the modern day. Nutritional evaluation is a crucial scientific procedure that assesses the nutritional makeup of foods and ascertains their contribution to disease prevention and health maintenance. A well-balanced diet rich in carbohydrates, proteins, fats, vitamins, minerals, and dietary fibre is required for optimal physiological performance and healthy living. The World Health Organization (WHO) states that eating a balanced diet can help prevent malnutrition and non-communicable diseases like cancer, diabetes, heart disease, and stroke.

The nutritional value of food varies depending on its source, processing processes, method of preparation, and storage conditions. Essential nutrients and bioactive chemicals that improve health are frequently found in traditional cuisines, fruits, vegetables, grains, pulses, and locally accessible dietary products. However, dietary patterns and nutritional balance across many age groups have been adversely affected by quick urbanisation, shifting lifestyles, and a growing reliance on processed and fast foods. The World Health Organization has also highlighted that unhealthy eating habits and excessive consumption of processed foods high in fat, sugar, and sodium are significant causes of health issues worldwide.

Therefore, in order to comprehend the nutritional profile of particular meals and their possible health advantages, a nutritional assessment is required. This evaluation aids in the identification of foods that support growth and development, boost immunity, and lower the risk of persistent health

conditions and nutritional deficiencies. Additionally, learning about the health benefits of various foods raises people's awareness of the importance of making balanced dietary choices. Furthermore, nutrition education, public health planning, and the creation of food policies all greatly benefit from nutritional studies.

The aim of the present research is to evaluate the nutritional qualities of particular foods and consider their importance from a health perspective. It is anticipated that the study will offer valuable insights into the connection between food consumption and health promotion, raising awareness of wholesome eating habits and leading a healthy lifestyle.

2. REVIEW OF RELATED LITERATURE

Any investigation must include a review of related literature in order to gain an understanding of prior research and current knowledge pertaining to the research area of study. It assists the researcher in identifying key discoveries, gaps in the literature, and various viewpoints on the subject being studied. Many national and international studies on nutritional assessment, dietary patterns, eating habits, and health views have been reviewed in this study. This study on the nutritional evaluation of certain foods and their health aspects has a solid foundation thanks to these investigations, which offer insightful information about the connection between nutrition and health. **Bhattacharya et al., (2019)** examined how anthropometric characteristics were used to evaluate the nutritional condition of adult Oraon workers in West Bengal, India. Body Mass Index (BMI), Mid-Upper Arm Circumference (MUAC), and a recently created Composite Score based on many anthropometric variables were among the measurements used in the study. The results demonstrated that undernutrition was highly prevalent among the subjects and that the Composite Score classified nutritional status more accurately than the BMI



and MUAC approaches. The study emphasised the value of anthropometric evaluation as a successful, non-invasive method for assessing population nutritional status.

Green et al., (2020) looked into how agri-food production methods affected environmental sustainability, health, and nutrition. The study emphasised how contemporary food production has a major impact on global issues like cardiovascular diseases, freshwater scarcity, nutritional deficiencies, and climate change. They emphasised the need for more extensive and quantitative strategies to nutritional assessment that incorporate health and environmental considerations. The study also indicated that enhancing food security, nutritional quality, and sustainable eating behaviours requires interdisciplinary and methods based on data.

Turrini, (2022) looked into how dietary assessment might help us understand how diet, human health, and disease are related. The study underlined that while improper eating habits may contribute to both communicable and non-communicable diseases, sound dietary practices are crucial for disease prevention and general well-being. In assessing food quality, nutritional sufficiency, and health outcomes, the researcher emphasised the significance of contemporary dietary evaluation techniques. The study also indicated that the promotion of sustainable and healthful eating habits, nutritional surveillance, and public health planning all heavily depend on accurate nutritional evaluation.

Govindan et al., (2023) examined the food habits and nutritional status of teenagers in Trichy SRM Medical College and Research Center's urban field practice locations. According to the survey results, a significant percentage of teenagers suffered from undernutrition and thinness as well as calorie deficits and other types of malnutrition. The results also demonstrated that the participant's nutritional status was greatly impacted by their eating habits and insufficient calorie intake. In order to encourage good eating habits and enhance adolescent health, the researchers stressed the necessity of focused nutritional interventions and awareness campaigns at the community and educational levels.

Kapoor and Talwar, (2024) used updated Indian Academy of Paediatrics (IAP) growth charts and World Health Organization (WHO) criteria to examine the nutritional condition of teenage females in both urban and rural areas of Ambala district, Haryana. The study showed that whereas overweight and obesity were more common for urban girls, under nutrition, including stunting and wasting, was more commonly observed among rural girls. Additionally, they found that the participants' nutritional status was significantly influenced by their dietary habits, demographics, and socioeconomic circumstances. Furthermore, the study found that the IAP growth charts were more appropriate than the WHO standards for evaluating malnutrition in teenage girls. The results highlighted how crucial nutritional evaluation and good eating habits are to preserving teenage health.

Aparicio and Lozano-Estevan, (2025) explored the significance of nutritional screening and assessment for various population groups. The study underlined that accurate

nutritional assessment facilitates the identification of nutritional concerns and aids in the creation of successful therapeutic and preventive measures. They emphasised that in addition to taking into account the cultural and social context of the population, nutritional assessment should be grounded in scientific methodology. The study also showed how important nutritional evaluation is for advancing nutritional research, encouraging healthy eating habits, and enhancing public health policy.

3. RESEARCH GAP

Many on nutritional status, dietary evaluation, malnutrition, and eating habits among various population groups have been carried out, according to the review of related literature. Many studies have concentrated on food habits, anthropometric evaluation, and the impact of nutrition on health. A few studies also looked at the connection between environmental sustainability, public health, and nutrition. However, few research have explicitly examined the nutritional evaluation of certain foods in conjunction with their health views in a comprehensive and qualitative way. Furthermore, research highlighting frequently consumed foods and their role in promoting healthy living from a nutritional and health perspective are scarce. Thus, by investigating the nutritional qualities of particular meals and assessing their significance in preserving human health and wellbeing, the current study aims to close this gap.

4. OBJECTIVES OF THE STUDY

The present study has been undertaken with the following objectives:

1. To assess the nutritional composition of selected foods.
2. To examine the health perspectives associated with the consumption of selected foods.
3. To analyze the relationship between food nutrients and healthy living.
4. To create awareness regarding the importance of balanced and nutritious dietary practices.

5. METHODOLOGY OF THE STUDY

In order to comprehend the nutritional makeup of particular foods and their health perspectives, the current study was carried out using a qualitative research approach. Using descriptive and analytical techniques, the study primarily examined the nutritional value, dietary significance, and health advantages of frequently consumed food products.

A few foods, including cereals, pulses, fruits, vegetables, and regionally accessible foods, were chosen for the study based on their regular intake and nutritional value. Primary and secondary sources were used to gather the data. Observation of food products, conversations about eating patterns, and analysis of nutritional features were used to collect primary data. Secondary data on nutrition and health was gathered from government publications, books, research journals, studies, articles.

The key nutrient contents of the chosen foods, including carbohydrates, proteins, fats, vitamins, minerals, and dietary fibre, were examined using conventional food composition data



and available nutritional information. The nutritional qualities and health views of the chosen foods were interpreted using descriptive analysis.

The nutritional components and comparative nutritional values of the food products were systematically presented using tables. In order to enhance visual comprehension and strengthen the study's qualitative results, supplementary photos of certain foods were also incorporated.

The data was meticulously organised, examined, and analysed to better understand the relationship between food consumption, nutrition, and healthy living. A thorough grasp of the nutritional significance of particular foods and their contribution to human health and well-being was made possible by the methodology of the study.

6. RESULTS AND ANALYSIS

The present investigation looked at the nutritional makeup and health implications of a few items that are often eaten on a regular basis. The results showed that various foods offer

various nutrients that are necessary for preserving human health and wellbeing. The study also showed that healthy living, appropriate growth, and disease prevention are all greatly aided by balanced eating habits. Healthy diets with sufficient nutrients can prevent malnutrition and non-communicable diseases like diabetes, heart disease, stroke, and cancer, according to the World Health Organization (2026).

6.1 Nutritional Composition of Selected Foods

Important elements that are required for healthy bodily function, including carbohydrates, proteins, fats, vitamins, minerals, and dietary fibre, were found to be present in the chosen diets. Pulses were high in fibre and proteins, while cereals like rice primarily provided energy and carbohydrates. Vitamins, minerals, antioxidants, and protective compounds found in fruits and vegetables help boost immunity and preserve general health. It has been noted that milk and dairy products are significant sources of the proteins and calcium required for bone formation and body development. These results lend credence to the idea that eating a variety of food types is necessary for a balanced diet and a healthy lifestyle (World Health Organization [WHO], 2026).

Table 6.1
Nutritional Composition of Selected Foods

Selected Food	Major Nutrients Present	Nutritional Importance
Rice	Carbohydrates	Provides energy
Pulses	Protein, Fibre	Supports body growth and tissue repair
Milk	Calcium, Protein	Strengthens bones and muscles
Banana	Vitamins, Potassium	Provides energy and improves digestion
Spinach	Iron, Vitamins	Helps in blood formation and immunity

6.2 Comparative Analysis of Nutrient Content

The comparison investigation showed that the type of food consumed affects the nutrient content. It was found that whereas milk and pulses contributed more protein, cereals had larger levels of carbohydrates. Vitamins, minerals, and dietary

fibre were found in somewhat larger concentrations in fruits and green leafy vegetables. The study emphasised that a variety of food groups must be included in order to maintain nutritional balance and general health because no single food item can supply all nutrients in adequate amounts (WHO, 2026).

Table 6.2
Comparative Nutrient Content of Selected Foods

Food Item	Carbohydrates	Protein	Vitamins & Minerals	Fibre
Rice	High	Low	Low	Low
Pulses	Moderate	High	Moderate	High
Milk	Low	Moderate	High	Low
Banana	Moderate	Low	Moderate	Moderate
Spinach	Low	Moderate	High	High

6.3 Caloric and Energy Value Assessment

The study found that due of their high carbohydrate content, fruits and cereals primarily serve as foods that provide energy. Milk and pulses provided body-building elements including proteins and moderate calories. Vegetables were relatively low

in calories but high in the protective nutrients needed to keep the body healthy and avoid disease. The results indicate that maintaining appropriate nutritional health requires a balanced mix of meals that provide energy, build body mass, and protect the body (WHO, 2026).

Table 6.3
Approximate Energy Value of Selected Foods

Food Item	Approximate Energy Value	Health Role
Rice	High	Energy-giving food
Pulses	Moderate	Body-building food
Milk	Moderate	Growth and development
Banana	Moderate	Instant energy source
Spinach	Low	Protective food

6.4 Health Perspectives of Selected Foods

The results showed that the chosen foods are crucial for reducing nutritional deficits and improving physical health. Fruits and vegetables enhance immunity, digestion, and disease resistance, while diets high in protein aid in tissue repair and bodily development. Vitamin and mineral-rich foods help the body function properly and lower the risk of a number of chronic illnesses. Healthy lifestyle choices and general wellbeing are supported by regular consumption of nutritious, well-balanced foods (WHO, 2026).

6.5 Interpretation of Findings

Thus, the results of this study indicates that nutritional balance is vital for healthy living. Nutrients from various diets help immunity, disease prevention, energy production, and bodily growth. The results also highlight how increasing nutritional status and public health requires awareness of good food choices and appropriate dietary practices. In order to maintain balanced nutrition and lower the risk of malnutrition and lifestyle-related disorders, the study emphasises the significance of including grains, pulses, milk, fruits, and vegetables in daily diets (WHO, 2026).



Figure 6.1: Food Items

7. CONCLUSION

The present research investigation emphasised how crucial nutritional evaluation is to comprehending how food contributes to human health and wellbeing. The results showed that various foods have distinct nutrients that together support immunity, disease prevention, body growth, and energy production. It was found that while pulses, milk, fruits, and vegetables offered proteins, vitamins, minerals, dietary fibre, and protective components necessary for a healthy lifestyle, cereals were the main sources of energy and carbohydrates.

The study additionally showed that maintaining nutritional balance and lowering the risk of malnutrition and lifestyle-related illnesses require balanced eating habits. Consuming nutrient-dense foods on a regular basis can enhance immunity,

boost physical growth, and advance general health. The results also highlighted how crucial it is to raise awareness of healthy food options and appropriate eating practices in order to enhance public health and quality of life.

The study comes to the conclusion that nutritional evaluation of certain meals offers important information about their dietary significance and health implications. The incorporation of balanced and nutritious foods in a daily diet is critical for creating healthy and sustainable lifestyles.

8. SUGGESTIONS FOR FUTURE RESEARCH

1. Future research could examine a wider range of food products from other areas and cultures for a more comprehensive nutritional analysis.



2. Incorporating quantitative and laboratory-based nutritional evaluation approaches can improve accuracy of results.
3. Conducting comparative research across age groups can help identify differences in nutritional requirements and eating preferences.
4. Future studies may examine the connection between dietary habits and particular medical illnesses like diabetes, obesity, and cardiovascular disorders.
5. Research may also concentrate on the nutritional benefits of traditional and indigenous foods and how they support healthy, sustainable lives.
6. The general public may be encouraged to adopt good eating habits through awareness campaigns and community-based nutritional research.

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