Original Research Paper

Volume - 16 | Issue - 06 | June - 2026 | PRINT ISSN No. 2249 - 555X | DOI : 10.36106/ijar

Environmental Science

A MULTI-DIMENSIONAL ASSESSMENT OF NUTRITIONAL PROFILING, HYGIENE PRACTICES AND HEALTH OUTCOMES OF CHILDREN AND WOMEN IN GUJARPUR NAGARIYA, UTTAR PRADESH

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ABSTRACT The health of women and children is one of the most pressing issues related to public health, affecting the well-being of individuals and society as a whole. Malnutrition is a serious problem in India, prevalent among children and women in various rural and peri-urban areas, where socio-economic problems pose serious threats to health and development. This study seeks to assess the health status of the children and women living in the village of Gujarpur Nagariya in terms of their demographics, household practices of hygiene and sanitation, nutrition and health outcomes. The influence of socio-economic factors, including education, household income, and resource access on the health outcomes, will also be examined. A cross-sectional study design compiling quantitative and qualitative data collection techniques was undertaken in February 2026, using a random stratified sample size of 100 participants. Data collection tools included structured questionnaires, anthropometric measurements, field observations, focus group discussions, and mother interviews. Microsoft Excel was used to analyze data. According to the findings, malnutrition was widespread with a greater degree of nutritional deficit in children and females in the reproductive age group. There were marked differences based on the level of socio-economic status with respect to several interview growth indices (height, weight, BMI). The assessments of the population's well-being have shown significant gaps in the areas of hygiene practices, respiratory health, anaemic conditions, and diarrhoeal illnesses. Overall, a multi-sectoral approach is necessitated to address these issues by increasing dietary diversity, educating about hygiene, improving sanitation systems, and implementing nutrition programs for malnourished children and women, thereby improving the health of all the communities within Gujarpur Nagariya.

KEYWORDS : Child Health, Gujarpur Nagariya, Malnutrition, Nutritional Assessment, Socioeconomic Factors, Women Health

INTRODUCTION

Women and child health is recognized as a critical public health concern that impacts and individual's well-being and overall socio-economic growth, more particularly in vulnerable segments of rural and peri-urban communities. The risk of malnutrition, micronutrient deficiencies, and recurring infections is greatly increased when inadequate nutritional intake is coupled with poor sanitation and hygiene habits (Moramarco et al., 2025). The malnutrition issue in India is still quite serious. Despite economic progress, a sizable section of the populace, particularly young children and pregnant women, suffer from nutritional deficits. Hence, access to clean water and proper sanitation is essential to prevent nutrition-related diseases among young children and pregnant women (Soriano & Morales-Suarez-Varela, 2025). Examples of such regions include Gujarpur Nagariya in Greater Noida. The poor nutrition, coupled with economic hardship and lack of adequate health facilities, greatly impacts the well-being of a child.

Chronic malnutrition and poor hygiene lead to a number of harmful outcomes, including susceptibility to diseases, developmental problems, reduced cognitive development, poor school performance, and higher morbidity. Poor nutrition prevents the individual from developing adequately. For instance, it is very hard for a child to develop normally due to poor nutritional status. Adolescence is one of the most important periods for the development of an individual and poor nutrition could cause various health complications (Carducci et al., 2025).

Rationale behind the Study

The assessment of health status of pregnant women and pre-adolescent children will help to determine the causes of malnutrition and take necessary steps accordingly. This research concentrates on Gujarpur Nagariya village, with varied socio-economic status, educational disparities, and different availability of resources. In developing policies designed to reduce the cases of malnutrition and generally improving the health status of the target population, it is essential to have an understanding of the relationship among these variables. The nutritional well-being of individuals is influenced by several demographic factors such as age, sex, socio-economic status, and parental education levels. In this study, an assessment of how socio-economic factors affect women and children's health status is conducted. For example, children from socio-economically disadvantaged backgrounds may be more prone to malnutrition due to poor access to healthy foods compared to their counterparts from educated families who are aware of good eating habits. As per the data from the National Family Health Survey-5 (2019-21), 36% of children below five years are affected by stunting, while 57% of women aged between 15 and 49 years have anaemia (IIPS, 2022; Tripathi et al., 2023).

Objectives of the Study

- To assess the general well-being of women and children in terms of their health status, nutrition level, and dietary patterns in Gujarpur Nagariya.
- To evaluate the household sanitation practices and health problems related to poor sanitation practices and malnutrition.
- To propose solutions that would help improve the health and sanitation conditions for women and children in Gujarpur Nagariya.

Significance of the Study

The immediate need to tackle India's persisting issues related to child malnutrition and unequal distribution of health care facilities, especially in undeveloped regions such as Gujarpur Nagariya, justifies this research work. Child malnutrition has its consequences ranging from mental retardation, poor educational performances, susceptibility to illness, and economic hardships in the future. For the development of successful interventions that will reduce the negative impacts of the problem, it is important to have an understanding of the nutritional and health condition of women and children.

By identifying the health hazards unique to women and children in Gujarpur Nagariya, this study provides valuable information to health administrators, policymakers, teachers, community members, and non-governmental organizations. The implications of the study will be to identify vulnerable groups of individuals who require special attention and develop appropriate strategies that ensure sustainability of public health policies through an examination of the socio-economic factors and nutritional issues.

Methodology

Study Design

The research design involved the use of a descriptive cross-sectional approach combining both quantitative and qualitative methods to give an overall perspective on the health and nutrition of women and

children in Gujarpur Nagariya. The study combined the statistical trends and sanitation practices along with the perceptions and attitudes of villagers' regarding nutrition and overall health outcomes for women and children.

Sample Population

The study subjects were women and children (3-10 year-old) enrolled in govt./private schools. Selected mothers with under-five children in the sample households were surveyed for further understanding of the subject matter. Couples that were of reproductive age in the selected households participated in discussion about family planning and under-five children were assessed nutritionally and knowledge on vaccination. The survey further covered various aspects like household hygiene, sanitation, food habits, quality of living, women and children health. A stratified random sampling technique was used to choose 100 participants in order to provide a representative sample that reflected the variety of the community.

Data Collection and Study Variables

Data collection tools included structured questionnaires, an observation checklist, and standardized health assessment methods to collect both qualitative and quantitative data. The household survey questionnaire covered diverse topics on demographic profiles, nutritional profiling and dietary practices, hygiene and sanitation, health risks and illnesses, and awareness of government schemes. Primary data were collected through a combination of methods, including interviews of female community health volunteers, observations, questionnaires, focus group discussions, and formal/informal meetings.

Secondary data was obtained from NFHS-5, WHO and UNICEF reports, and official government documents on nutrition and hygiene. Quantitative data was gathered through face-to-face interviews and direct observations of events and people, emphasizing gathering specific numerical data. Nutritional status was assessed using anthropometric measurements and household observations (e.g., water storage, damp walls, cracked floors, etc.) were conducted to understand the living conditions. Qualitative data was collected through focus group discussions and personal interviews among various members of the community. The nutritional status was determined on the basis of degree of malnutrition in terms of percentage of the body weight against the expected weight for height as mild malnutrition (75-89%), moderate malnutrition (60-74%), and severe malnutrition (<60%).

Data Processing and Analysis

Collected responses were analysed in Microsoft Excel, and a summary of demographic features, dietary patterns, and nutritional markers was presented in terms of frequency or percentage. Findings were illustrated in the form of pie charts, bar graphs, and column charts for clear visual interpretation.

RESULTS

Nutritional Profiling of Women and Children

Nutritional status of the sampled population is illustrated in Figure 1(a). Very high rates of malnutrition were detected. Around 42% of the malnourished individuals were underweight, while 31% had signs of being stunted. This is clearly an indication of significant problems with respect to availability of nutritious food for these people, resulting in effects that will adversely affect the development and education of their children. There are clear signs of inadequate nutrition among young women, especially in relation to anaemia.

Dietary Diversity and Feeding Practices

The nutrition habits in the community were found to be quite monotonous (Figure 1(b)). The food for the children included mostly items such as roti, rice, and dal. There were occasional additions to the menu in the form of fruits, vegetables, and products of animal origin. While only 22% of the families mentioned the consumption of fruits by the children on a daily basis, another 43% stated that there was very little or no consumption at all. On the other hand, vegetable consumption was relatively better, but still lacked considerably. Milk consumption among children was found to be irregular in several families owing to economic reasons.

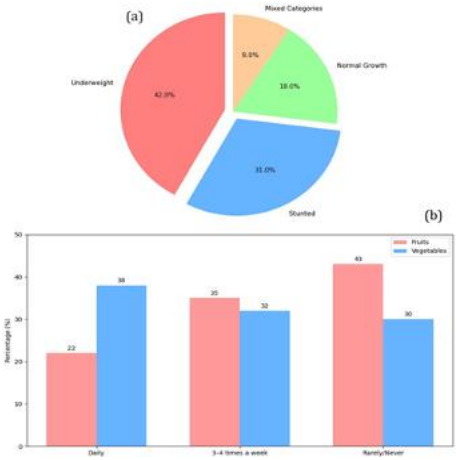

Fig. 1 (a) Nutritional profile of children reported by caregivers and (b) Frequency of fruit and vegetable consumption among children (n = 100).

Hygiene and Sanitation Practices

Hygiene was moderate and quite variable within the community (Figure 2(a)). As a result of the Swachh Bharat initiative, most households in the village had access to toilet facilities; however, washing hands with soap was not prioritized by them during important times. There were poor water purification measures observed, whereby approximately half (50%) of the village population failed to invest time into treating or storing water. In instances where there were toilet facilities available, they remained dirty for a few days. Fecal wastes from young children often littered the open spaces.

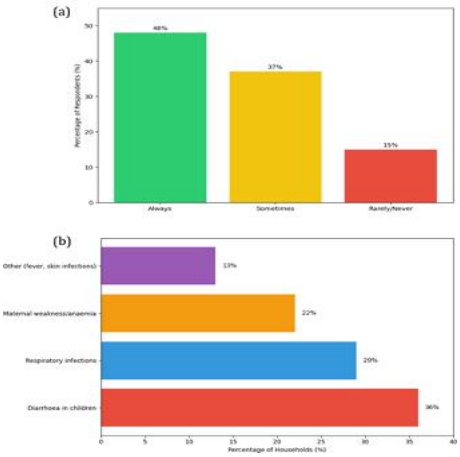

Fig. 2 (a) Handwashing practices at critical times and (b) Common health issues reported in the last 6-12 months (n = 100).

Associated Health Risks and Common Illnesses

The recurrent health issues in the village were clearly related to low nutrition and poor hygiene. The most often reported ailments among children were respiratory infections and diarrhea. Women frequently complained of persistent fatigue, weakness, and anemia symptoms. Numerous homes also reported recurrent episodes of fever and other diseases, which seemed to be closely linked to filthy surroundings and inadequate hygiene. Overall, frequent episodes of diarrhea among children were reported by 36% of households, respiratory illnesses by 29%, signs of maternal weakness or anemia by 22%, and other health issues like fever or skin diseases by 13% (Figure 2(b)).

Awareness of Government Schemes

There was only a moderate level of public awareness on important health and nutrition programs. A major proportion of the respondents were aware of Anganwadi centers and the extra meals they offer, but relatively few were fully aware of the government's flagship programs. According to Figure 3(a), 38% of respondents knew everything there was to know about POSHAN Abhiyaan and programs like Anaemia Mukt Bharat, 35% had only heard the scheme's name, and 27% had no idea at all. The best use of the government assistance that is available is hampered by this knowledge gap.

Satisfaction with Nutrition, Hygiene, and Health Services

The overall satisfaction with the current health and nutritional services

was more on the negative side, with a few respondents reporting dissatisfaction. Most of the respondents believed that there was no adequate teaching of hygiene practices, the rate of health check-ups was too low, and the quality of the supplementary food provided had to be enhanced. Around 14% of the participants reported being highly satisfied, while 28%, 24%, and 34% of the participants were satisfied, neutral, and dissatisfied or highly dissatisfied respectively (Figure 3(b)).

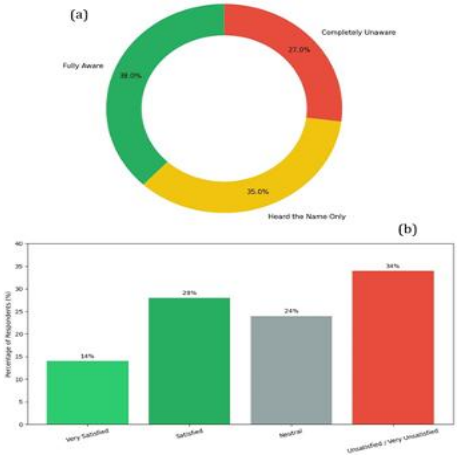

Fig. 3 (a) Awareness of government schemes and (b) Household satisfaction with current nutrition and health services (n = 100).

CONCLUSION

The current study offers some important insights regarding the issues of nutrition, hygiene, and health of women and children in Gujarpur Nagariya. While basic food access exists, deficiencies in dietary quality, inconsistent hygiene behaviours, and gaps in service delivery continue to contribute to undernutrition and preventable illnesses. Inconsistent hygiene behaviours exacerbate infection risks and contribute to the burden of malnutrition and anaemia among children and women. Therefore, it is important to conduct routine school screenings for early detection of malnutrition and nutritional awareness programs at the community level to ensure better access to health care. In order to fight problems like worm infestations and respiratory ailments, it is essential to emphasize hygiene and sanitation. These results offer stakeholders and legislators a road map for creating all-encompassing plans that lessen health inequalities and advance children's and women well-being.

Recommendations

1. Conduct nutritional education campaigns within communities for parents and caregivers to raise awareness about proper nutrition and healthy eating habits.

2. Schools must conduct health check-ups regularly to assess the growth and nutritional status of children to help diagnose any malnutrition problem at an early stage.

3. Emphasize cleanliness and hygiene education to deal with problems like respiratory ailments and worm infestations.

4. Advocate for government policies that promote food security, fair access to healthcare, and more financing for children and women nutrition initiatives.

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