IJFANS INTERNATIONAL JOURNAL OF FOOD AND NUTRITIONAL SCIENCES
ISSN PRINT 2319 1775 Online 2320 7876
 Journal Volume 10,Iss 07, 2021

# A Study of Nutritional Status of Preschool Children (3-5 Years) in Jhagaradanga Village, West Bengal

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## ABSTRACT

Rural areas face a significant problem with child health. The study was conducted in the Jhagardanga village in the Jangal Mahal area of Paschim Midnapore, West Bengal. This study assessed the nutritional status of preschool children in this village. These studies used a random sampling method. Randomly selected 36 preschool children aged between 3 to 5 years. Data were obtained from sampled children and parents through interviews and anthropometric measurements, including parent education, family type, and height and weight of sampled children. The study reveals that 92% of families are nuclear, with 8% being joint. Here, the mother education status showed that 19% have higher education, and the rest, 81% of mothers, have secondary education. The findings of the present study showed that 22% of preschool children were Grade I malnutrition based on weight for age, and 17% of children were stunted based on height for age out of 36 children.

**Keywords:** Malnutrition, Preschool Children, Height for Age, Weight for Age.

## INTRODUCTION:

According to the World Health Organisation (WHO), 150-200 million children who are in preschool in underdeveloped countries suffer from underweight and stunted growth.[1] Every year, malnutrition causes 5 million deaths among children globally, either directly or indirectly. The WHO later determined that the most destructive type of malnutrition affects children.[2] Nutritional status is the balancing act between the intake of nutrients and the expenditure of these in growth, reproduction, and health maintenance[3]. Undernutrition can cause severe issues with both mental and physical development, particularly in young children. Children who are malnourished may also be at risk for many diseases due to dietary inadequacies. Diet significantly influences the entire growth pattern, along with the physiological aspect. Children might suffer from inadequate nutrition due to dietary habits, health and nutrition education, and socioeconomic circumstances. In addition to their low incomes, female head porters might be unable to nourish and care for their children properly.[4] Undernutrition is a serious public health

ISSN PRINT 2319 1775 Online 2320 7876
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issue in developing countries like India, Bangladesh, Pakistan, and Sri Lanka. Children under five are considered a priority group due to their significant population size. They account for nearly 13% of India's population. They are also thought of as high-risk or vulnerable groups due to an issue that arises in the course of their survival and growth. In impoverished nations like India, children die in their first five years of life at a rate of 50%. The most common condition impacting children under-five's health state is thought to be malnutrition. Underweight children make up about 47% of India's under-five population. In India, 1 in 3 third adult women are malnourished, exposing their baby at risk for low birth weight. Due to malnutrition, children under five years old are susceptible to a wide range of illnesses, including diarrhea, respiratory infections, measles, pertussis, polio, tuberculosis, and diphtheria.[5] The present study aims to determine the nutritional and health status of children aged 3-5 years in the Jagardanga village in the Passchim Meninipur District in West Bengal, India.

**METHODOLOGY:**

A cross-sectional survey was carried out in Jagardanga village, Passchim Meninipur District. The sample consisted of 36 children (aged 3-5 years) chosen randomly among selected villages. This study followed family members using pretested and predesigned questionnaires through house-to-house visits. Anthropometric measurements such as height and weight were[6] taken with standardized instruments to assess nutritional status, and the data was analyzed using suitable statistical tests.

**RESULT:**

**Part I: Sociodemographic Variables of Preschool Children**

**Table 1: Types of Family of Preschool Children (n=36)**

| Family Type | Frequency | Percentage (%) |
|---|---|---|
| Nuclear Family | 33 | 92 |
| Join Family | 3 | 8 |

Nearly 92% of families were identified as nuclear families, while 8% were classified as joint families.

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**Table 2: Mother Education Status of Preschool children(n=36)**

| Mother Education | Frequency | Percentage |
|---|---|---|
| Up to Secondary | 29 | 81 |
| Above Secondary | 7 | 19 |

This table shows mothers' education levels. Here, 29 mothers have education up to secondary level, while seven mothers have above secondary education, representing around 81% and 19% of the mothers of children, respectively.

**Table 3: Age and Sex Distribution of Preschool children(n=36)**

| Age | Male | Female | Total |
|---|---|---|---|
| 3yrs one month to 4yrs | 8 | 4 | 12 |
| 4yrs one month to 5yrs | 12 | 12 | 24 |
| Total | 20 | 16 | 36 |

Table 3 shows eight males and four females between the ages of 3 years, one month to 4 years, for 12 children in that age group. Besides, there are 12 males and 12 females aged four years, one month to 5 years, for 24 children within this category. Overall, there are 20(55.56%) males and 16(44.44%) females from age groups (total 36 children).

**Part II: Anthropometric Assessments of Preschool Children**

**Table 4: Height for Age (Grades of Stunting based on water low Classification)**

| Grades of Stunting | Frequency | Percentage (%) |
|---|---|---|
| Normal (>95%) | 30 | 83 |
| Mildly Impaired (87.5-95%) | 6 | 17 |
| Moderately Impaired (80-87.4%) | 0 | 0 |
| Severely Impaired (<80%) | 0 | 0 |

Regarding height for age (grades of stunting), 30(83%) of preschool children were within the normal range for height, while 6(17%) were mildly impaired.

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 Journal Volume 10,Iss 07, 2021

**Table 5: Weight for Age (Grades of malnutrition based on IAP classification)**

| Grades of malnutrition | Frequency | Percentage (%) |
|---|---|---|
| Normal ≥80% | 28 | 78 |
| Grade I Malnutrition (71-80%) | 8 | 22 |
| Grade II Malnutrition (61-70%) | 0 | 0 |
| Grade III Malnutrition (51-60%) | 0 | 0 |
| Grade IV Malnutrition ≤(50%) | 0 | 0 |

Regarding weight for age, out of 36 preschool children, 28(78%) had a healthy nutritional status, and 8(22%) preschool children were identified with Grade-I malnutrition.

## CONCLUSION:

Healthy children are the future of the nation. Good nutrition is an important variable that impacts the development of children's health. Up to 6 years is important for every child. During this time, maximum physical and mental development occurs. In childhood, if their nutritional needs are not met. The child becomes underweight; that is, the chances of mental and physical health impairment like mental abilities, lower concentration, disorientation, and increased fixation, exacerbated and negatively impact a child's educational performance and can result in a lack of social contact[7]. The main purpose of this study is to determine the nutritional status of preschool children in Jhargradanga, which is situated in a forest area. The end of the present study shows that nearly 92% of families were categorized as nuclear families, with the remaining 8% classed as joint families and mother education study area representing around 81%mothers have education up to secondary level and 19% of mothers have above secondary education. Malnutrition is a real problem among children in the rural area of Paschim Medinipur District. These studies show that 22% of preschool children belong to Grade I Malnutrition according to Weight for Age, and 17% are stunted according to Height for Age.

## REFERENCES

1. United Nations Children's Fund (UNICEF). The state of the world's children. Published online 2000.
2. Sarraf Z, Goldberg D, Shahbazi M, Arbuckle K, Salehi M. Nutritional status of schoolchildren in rural Iran. British Journal of Nutrition. 2005;94(3):390-396. doi:10.1079/bjn20051487

ISSN PRINT 2319 1775 Online 2320 7876
 Journal Volume 10,Iss 07, 2021

3. Omar AA, Mehriban N. Assessment of nutritional status of under 5-year-old children in Banadir Hospital, Mogadishu, Somalia. Matrix Science Pharma. 2019;3(2):32-37.

4. Laditan A. Nutrition and physical growth in children Nigeria. J Nut Sci. 1983;4:5-10.

5. Algur V, Yadavannavar MC, Patil SS. Assessment of Nutritional Status Of Under Five Children In Urban Field Practice Area. Vol 04.; 2012.

6. Asare-Anane H, Botchey CPK, Ofori EK, Boamah I, Crabbe S, Asamoah-Kusi K. Altered immunoglobulins (A and G) in Ghanaian patients with type 2 diabetes. *SAGE Open Med*. 2018;6:2050312118762042.

7. Karak P, Maiti R, Das P, Karmakar A. Assessment of nutritional status of school children in rural and urban areas of Bankura, West Bengal. Int J Pharm Sci Res. 2018;9(1):338-345.