



Growth Pattern Analysis of Pre-School Children in Scheduled Tribe Communities of Kashipur Block-Purulia District, West Bengal : A Sociological Study

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Abstract

Under nutrition among tribal children in India remains a critical public health concern . This study investigates the growth patterns and nutritional status of pre -school children aged 1-5 years in scheduled tribe communities at Kashipur Block , Purulia District ,West Bengal . The study assessed the nutrition status of 402 children (204 boys and 198 girls) selected through simple random sampling across four villages : Narayangarh, Kapista, Sonaijuri, Simla. The findings revealed alarming levels of undernutrition. Among boys only 14% had normal weight for age. Among girls 13% had normal weight for age. These results highlight the urgent need for nutritional interventions in tribal communities of that region .

Key Words : Pre – School Children , Under Nutrition, Tribal Communities Region.

Introduction

Undernutrition during early childhood is a major public health concern with profound implications for individual and societal development . Globally , undernutrition remains a leading contributor to child morbidity and mortality. These conditions often reflect complex inter-play between poverty, inadequate



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dietary intake , poor sanitation and limited healthcare access. The consequences of under nutrition in the first five years of life resulted impaired cognitive development, weekend immunity, and increased vulnerability to chronic diseases. A present study was conducted to evaluate the growth pattern and nutritional status of pre-school children aged 1-5 years in scheduled tribe communities at kashipur block, purulia district, west Bengal. A sociological viewpoint, the study aims to provide a reliable baseline date on undernutrition. disaggregated by gender and age. The findings intend to inform policy makers, undernutrition programme planners, and public health professionals about the extent and nature of nutrition in these marginalized settings and support the design of context appropriate for such national level problems.

Methodology :

Study area

The study was conducted at Kashipur block, Purulia district, West Bengal . The region is characterized by rural terrain, forested areas, and scattered tribal habitations. agriculture and daily wage labor constitute the primary sources of livelihood. infrastructure , including roads, school, and healthcare facilities are underdeveloped in most parts of that geographical region.

Results

Normal or healthy children of both sexes show higher mean values in height, weight and six types of body circumferences than undernourished children, with statistically significant differences observed (except girls height). In both boys and girls, all circumstance to height ratio shows statistically significant differences between normal and undernourished children (Except head circumference to height ratio in boys).

Compared to twelve parameters, the present study concludes that MUAC is the best indicator for the risk and growth and nutritional deficiencies in boys and girls. A previous study reported that MUAC is a valuable tool for screening and estimating Undernutrition prevalence in preschool children, with a sensitivity and specificity making it a good predictor of child mortality compared to weight for height (



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Briend and Zimicki 1986). MUAC has been proposed as the most effective, simple, cost effective and acceptable anthropometric parameter for evaluating childhood malnutrition.

Limitations

The Present study had some limitations, due to its cross sectional nature and its small sample size in a small geographical region. Therefore, the results can not be generalized to the entire state or country. The study design was such that it could not reveal any correlation between socio economic factors, mortality, morbidity, and Undernutrition based on various parameters.

Recommendation

The Present study found that Undernutrition is a major issue among tribal children and a barrier to their growth and brain development. In India, two main government schemes, the integrated child development services (ICDS) and POSHAN Abhiyaan, are currently operating to provide supplementary food for preschool children. So, there is an urgent need for strengthening existing nutrition schemes, a requirement for regular monitoring for growth indicators, a quality assessment of food distribution, and timely interventions to address gaps. Ensuring community participation, capacity building of Anganwadi workers, and introducing digital tools for real time monitoring can improve accountability and efficiency. Also needed are programmes to raise parents' awareness of their child's growth and development, Nutritional requirements and health. This study also provides cut off values which can be used in future studies of tribal children.

Conclusion

The present study indicates that head circumference (HC) based Nutritional deficiencies are more prevalent than mid upper arm circumference (MUAC) based Nutritional deficiencies among tribal Preschool Children. While low MUAC reflects a high prevalence of Undernutrition, low HC indicates inadequate brain growth and development, thereby underscoring the multifaceted impact of malnutrition. The use of circumference to height ratios further provides critical insights into the proportional growth and development of children.



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