

The nutritional status of children attending anganwadi centres in Khammam (Urban), Andhra Pradesh

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Abstract

Introduction: Childhood under nutrition is a major public health problem in India. To overcome this problem Government of India has established Anganwadis. In order to assess the effectiveness of Anganwadi a study was under taken in Anganwadi centers in khammam (urban), Andhra Pradesh, India.

Aim and objective: To assess the nutritional status of children aged 2-6 yrs attending Anganwadi centers in khammam (urban), AP.

Methodology: This study investigated age and sex variations in height and weight, levels of stunting, underweight and wasting among 252, 2- to 6-year-old children at 18 Integrated Child Development Services (ICDS) centers in khammam (urban), AP, India. Height-for-age, Weight-for-age and Weight-for-height < - 2 z-scores were used to evaluate stunting, underweight and wasting, respectively, following the WHO Guidelines.

Results: The overall (age and sex combined) rates of stunting, wasting, underweight were 45.26%, 14.3% and 33.34%, respectively. Based on the World Health Organization classification of severity of malnutrition, 32.54% are suffering with moderate malnutrition & 23.81% are with severe malnutrition

Conclusion: The nutritional status of the subjects is unsatisfactory. Effective nutrition educational strategies have to be developed so that nutrition at home can be improved.

Introduction

Childhood undernutrition is a major public health problem in India. Globally, more than one-third of child deaths are attributable to under nutrition. According to the Census of India (2001), the child population (0-6 years) was 15.9% of the total population. The prevalence of underweight children in India is among the highest in the world, and is nearly double that of Sub-Saharan Africa. The 3rd National Family Health Survey findings showed that 45% of less than 3 year old children were malnourished. If this continues, India would be

raising a generation which is debilitated and unable to contribute effectively to the productivity of the country[1].

To tackle the problem of malnutrition and the ill health of mothers and children, the Government of India has launched the ICDS program. It is the world's largest early child development Program. It was initiated in India in 1975 with the objective of improving the nutritional status of pre-school children in addition to other Services.

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It was taken to rural areas through “Anganwadi centers” to foster all round development of the preschool child. Recognizing that childhood development constitutes the foundation of human development, ICDS was designed to promote holistic development of children under 6 years of age[2].

Objective

To assess the nutritional status of the children aged 2-6 yrs attending Anganwadi centers khammam (urban), AP, India.

Methodology

A cross-sectional study was conducted in 18 Anganwadi centers in khammam (urban), AP, India among 2-6 yrs children attending Anganwadi Centers. Individual heights & weights measured and their nutritional status was assessed using pre tested, pre validated questionnaire.

This study investigated age and sex variations in height and weight, levels of stunting, underweight and wasting among 252 (118 boys; 134 girls) 2- to 6-year-old children at 18 ICDS centers of Khammam (urban), Andhra Pradesh, India. Height-for-age, Weight-for-age and Weight-for-height < - 2 z-scores were used to evaluate stunting, underweight and wasting, respectively, following the WHO Guidelines.

List of Anganwadi centers (18) Khammam (urban),AP.

1. Raghunadhapalem – 4
2. Ballepalli
3. Balapeta
4. Koichilaka
5. Regulachilaka
6. Papatapalli
7. V.R.banzara
8. B.K. banzara
9. Simhapuri
10. Erlapudi
11. Pangidi
12. Bukya thanda
13. Kothapadu
14. Pandurangapuram -2

Results

A total of 252 children in the age group of 2-6 years were studied, out of this 46.8% were boys and 53.2% were girls [Table 1, Figure 1.]

Based on the World Health Organization classification

32.54 % children are suffering with moderate malnutrition.

23.81 % children are with severe malnutrition

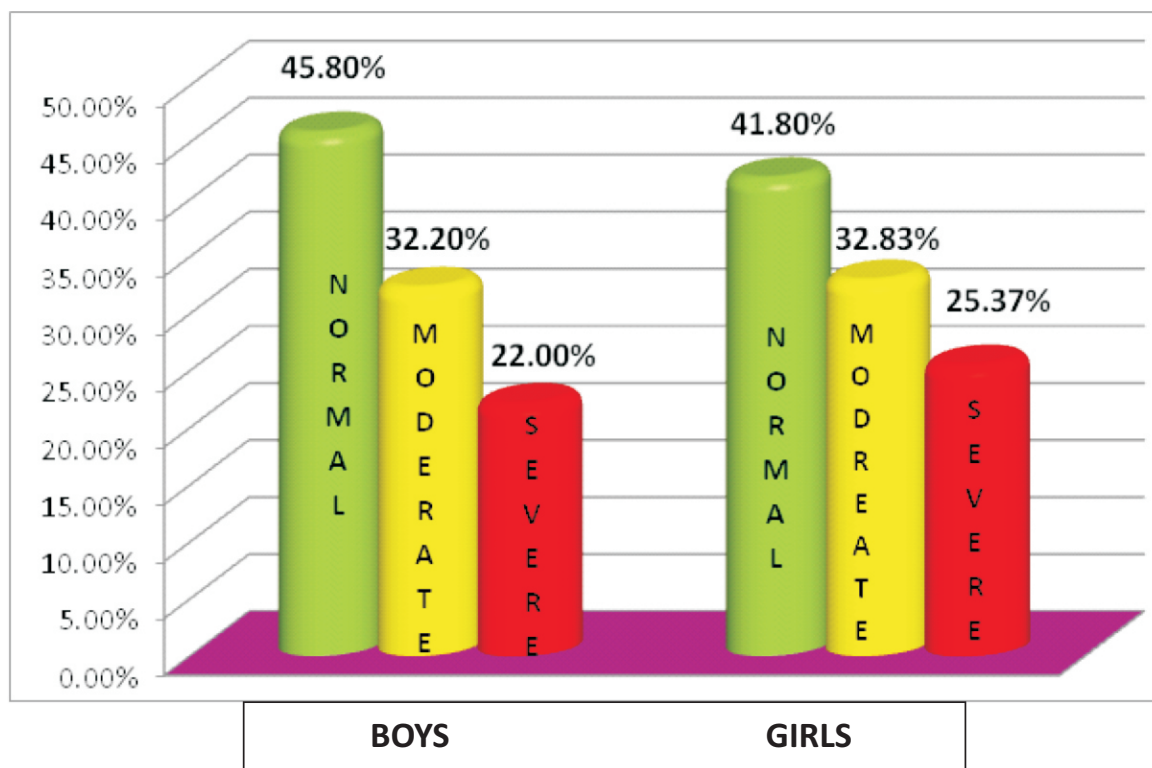
Table 1. Grades of Malnutrition

NUTRITIONAL STATUS	TOTAL
NORMAL	110 (43.65%)
MODERATE MALNUTRITION	82 (32.54%)
SEVERE MALNUTRITION	60 (23.81%)
TOTAL	252 (100%)

Table 2. Grades of Malnutrition Boys vs Girls

Grades	Boys	Girls	TOTAL
Normal	54(49.1%)	56(50.9%)	110 (100%)
Moderate (z score -2 to -3)	38(46.34%)	44(53.66%)	82(100%)
Severe (z score < -3)	26(43.3%)	34(56.7%)	60(100%)
TOTAL	118(46.8%)	134(53.2%)	252(100%)

Girls are more malnourished than boys. Among the moderately malnourished children 46.34% are boys, 53.66% are girls. Among the severely malnourished children 43.3% are boys and 56.7% are girls [Table 2, Figure2.].



Severe malnutrition was marginally greater in female children.

Figure 1. Malnutrition in Boys vs Malnutrition in Girls

Table 3. Indicators of Malnutrition

	INTERPRETATION	NO.	PERCENTAGE
Stunting	Low Ht for age	114	45.23%
Wasting	Low wt for height	36	14.28%
Under weight	Low wt for age	84	33.33%

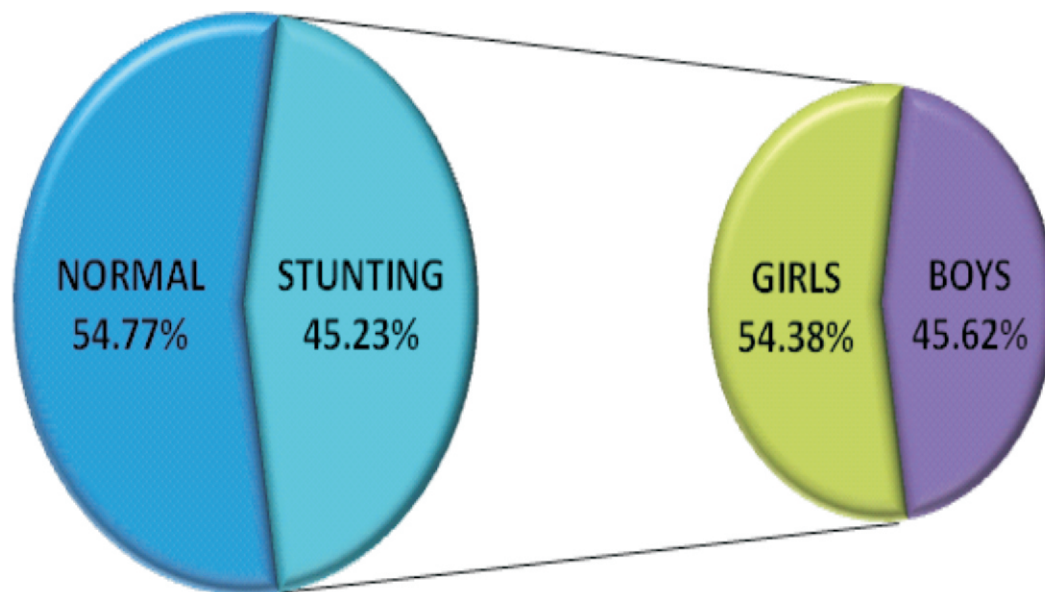


Figure 2. Sex Wise Distribution of Stunting

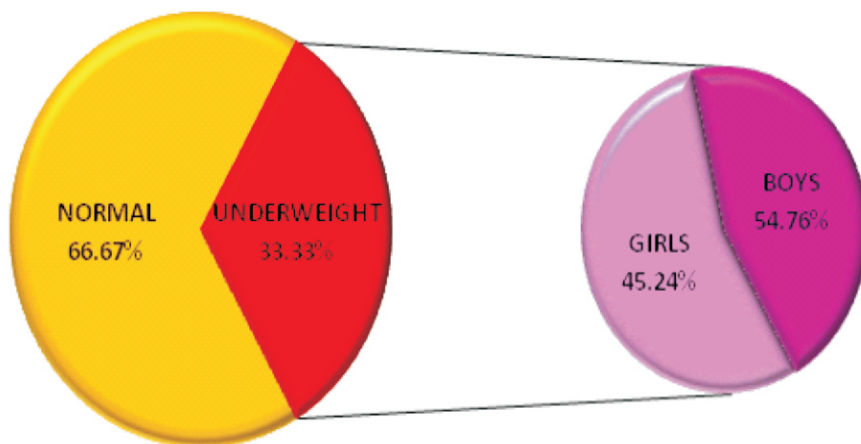


Figure 3. Sex wise Distribution of Wasting

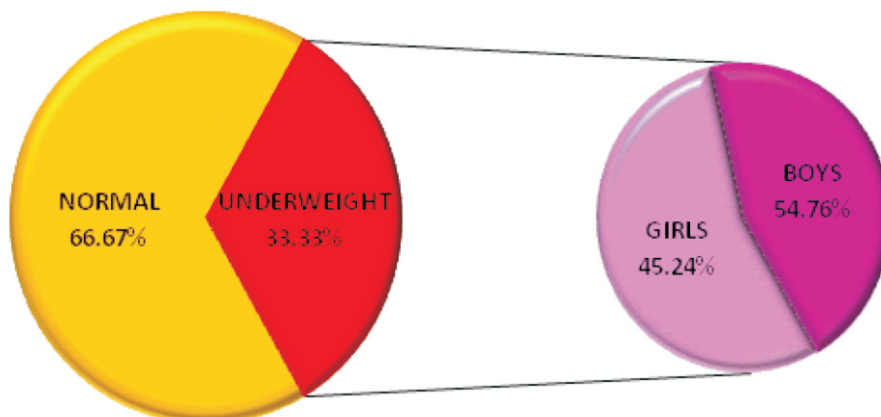


Figure 4. Sex wise Distribution of Underweight

The overall combined rates of stunting, underweight, wasting were 45.23%, 33.33% and 14.28% respectively. The rate of stunting & wasting was higher among girls compared with boys [Table 3, Figure 1, 2,3.]

Discussion

Adequate food and good feeding practices are essential for the normal growth of a young child. In the present study stunting, underweight, wasting were 45.23%, 33.33% and 14.28% respectively. Studies conducted by Alhaji et al. (2002) show that 150 million (26.6%) were underweight, while 182 million (32.5%) were stunted all over the world. More than half of the world's undernourished people live in India. Mishra et al. (1999) in their study found that about 54% children were underweight, 52% were stunted, while 17% was wasted. Garg et al. (1997) in Ghaziabad, Bhandari et al. (1993)[3] in Rajasthan, found that prevalence of malnutrition in children below the age of five years was higher inspite of the fact that these population was being served by ICDS. So, we need to give highest priority to child health and nutrition if we hope for a brighter future of our country. Further research is needed in enhancing protein and calorie content of the supplementary food being provided by Anganwadi centers. A limitation of this study was not accounting for the registered Anganwadi children who did not attend the Anganwadi centers, but for whom supplementary food was provided.

Conclusions

1. The nutritional status of the subjects is unsatisfactory.
2. An effective nutrition educational strategy has to be developed so that nutrition at home can be improved.

References

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