



ORIGINAL RESEARCH PAPER

Medical Science

PREVALENCE OF MALNUTRITION AMONG CHILDREN REGISTERED AT ANGANWADI CENTERS UNDER BADAGAON BLOCK, DISTRICT- JHANSI (UP): A CROSS-SECTIONAL STUDY

KEY WORDS: ICDS, Anganwadi, Malnutrition

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ABSTRACT

Background: Integrated Child Development Services Scheme was launched by the Govt. of India about 44 years back with the view of providing supplementary nutrition and pre-school education to children below 6 years.

Objective: To assess the status of malnutrition among children registered at anganwadi centers at Badagaon block in Jhansi district.

Material and Methods: 30 AWCs out of total 147 were selected by simple random sampling and visits were made to view the records maintained by anganwadi workers. WHO criteria was used to classify children under moderate or severe malnutrition.

Results: 6.12% male children and 6.02% female children were found to be severely malnourished. 9.97% males and 10.58% females were having moderate malnutrition.

Conclusion: On statistical analysis, this little difference in proportion of malnourished and severely malnourished boys and girls was not found significant.

INTRODUCTION

According to 2011 census children in the age group of 0-6 years constitute around 158 million of the population of our country. Childhood is one of those times when one needs special attention regarding nutrition. Childhood nutrition forms the foundation of healthy adults which are productive to the economy of the society and the country. Childhood undernutrition leads to a vicious cycle of infections and malnutrition. Proper nutrition is therefore necessary to reduce childhood mortality. This problem led to the development of Integrated Child Development Services (ICDS) Scheme which was launched by Government of India on October 2nd, 1975. Under this scheme, there is provision of cooked meal and take home ration for children below 6 years along with pregnant and lactating females. Children from 3-6 years of age are also given non-formal pre-school education at the centers. Objective of the scheme is to improve the nutritional and health status of the children and lay the foundation for their proper physical, psychological and social development.

OBJECTIVE

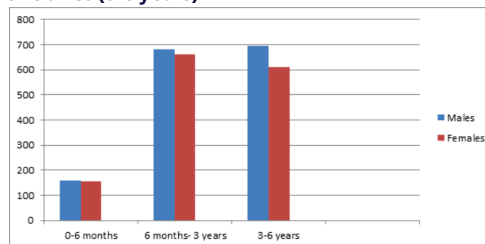
The objective of the present study was to assess the health status of all the children registered at different anganwadi centers by measuring prevalence of undernutrition.

MATERIAL AND METHODS

It was a community based cross-sectional study. It was conducted at the anganwadi centers (AWCs) under Badagaon block of district Jhansi. Out of total 147 AWCs under this block, 30 were chosen by simple random sampling using lottery method. Duration of the study was from April 2017 to September 2017. Permission was taken from institutional ethics committee of Maharani Laxmi Bai Medical College, Jhansi. Anganwadi Centers were visited and the records maintained by the anganwadi workers were viewed to find the malnourished children in each center. All the centers were found open on the first visit, therefore no subsequent visit were made. A total of 2961 children were registered at those 30 AWCs. Weight for age was being used by the anganwadi workers to assess presence of malnutrition according to WHO standards. Children having weight between 2 to 3 standard deviation below normal (yellow zone) were classified as having moderate undernutrition and those having weight greater than 3 standard deviation below normal (red zone) were labeled as having severe undernutrition. The data were entered in Epi Info software and the collected data were consolidated on visual dashboard and further analyzed in Epi Info version 7.1.3.0. Frequency of data was presented in the form of tables and graphs. The data were analyzed by using descriptive and inferential statistics.

RESULTS

Figure 1: Bar Diagram Showing Number of Registered Beneficiaries (0-6 years)



It can be seen that out of total 314 children of upto 6 months age, 160 (51%) were males and the rest 154 (49%) were females. In the age group 6 months to 3 years, 680 (50.7%) were males and 661 (49.3%) were females. Likewise in the age of 3-6 years, out of total 1306 registered children, 53.14% were males and 46.86% were females. On an average, 44 children from 3-6 years were registered at one anganwadi center.

Table 1: Nutritional Status of Children (0-6 years)

Sex	Normal	Malnourished	Severely Malnourished	Total No.
Males	1287 (83.91%)	153 (9.97%)	94 (6.12%)	1534
Females	1190 (83.40%)	151 (10.58%)	86 (6.02%)	1427

Using the criteria of weight for age, it was seen that 153 male children out of total 1534 and 151 female children out of total 1427 were malnourished making the percentage 9.97 for males and 10.58 for females. Likewise 94 male children (6.12%) and 86 female children (6.02%) were found to be severely malnourished. To test the significance in difference in proportions of malnourished boys and girls, Z test was applied which showed that the difference was not statistically significant at 95% confidence interval and 5% level of significance. Same was the result obtained on applying Z test for testing the significance of difference between proportions of severely malnourished boys and girls.

DISCUSSION

In our study, 9.97% of boys and 10.58% of girls were found to be malnourished while the percentage of severely malnourished for boys was 6.12% and for girls was 6.02% in the age group of 0-6 years (Table 1).

A little higher percentage of malnourished children has been noted in other studies. Helena K et al (2014) reported that about

25.3% children were under nourished⁽¹⁾. The 2015 NITI Aayog report states that scrutiny of health records maintained by AWCs for the month of December, 2013 revealed 74.6 %, 19.7 % and 5.7 % of children had Normal (N), moderately malnourished (MM) and severely malnourished (SM) health respectively. Similarly, the health records of children enrolled in AWCs in January 2015 was 75.4 % (N), 19.1% (MM) and 5.5 % (SM). Finally, the health records for February 2015, was 78.8 % (N), 17 % (MM) and 4.2 % (SM). The on the spot weight measurement carried out by the evaluation teams during April, 2014 revealed that 77.4 %, 17.6% and 5 % of the sample children had N, MM and SM health status⁽²⁾.

A very high percentage of malnutrition was noted in a study by Nidhi Thomas et al (2015) in which they reported that 71.9% of the under-5 years old present in the AWCs were malnourished⁽³⁾. Almost similar to our study Chudasama RK et al⁽⁴⁾ (2016) reported that A total of 14.9% children were underweight including 13.5% moderately and 1.4% severely malnourished children, lower than reported in other areas⁽⁵⁾⁽⁶⁾⁽⁷⁾.

CONCLUSION

A total of 1534 boys and 1427 girls were registered at these centers. Out of these 1534 boys, 1287 (83.91%) were normal, 153 (9.97%) were malnourished and rest 94 (6.12%) were severely malnourished. Out of 1427 girls, 1190 (83.40%) were normal, 151 (10.58%) were malnourished and rest 86 (6.02%) were severely malnourished. On statistical analysis, this little difference in proportion of malnourished and severely malnourished boys and girls was not found significant.

Limitation of the study is that the data recorded by the anganwadi workers were used which may have errors in accuracy.

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