

Exploring the Impact of Malnutrition in Children in Tribal Shirpur: Awareness and Treatment Patterns

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Abstract

Keywords:

Awareness, Malnutrition, childrens.

Malnutrition is in charge of high Morbidity and mortality in Maharashtra state of India. School offspring of inborn locales are more helpless against contaminations due to under nourishment than grown-ups. Shirpur is a town of various inborn races. The Children's living in these places more sensitive to nutrition and health issues because of their vegetarian diet, economical status and illiteracy. Prevalence of hunger and malnutrition among the childrens beneath the age of 10 years are dependably there in their villages on account of deficiency of nutrients. Early identification and provoke administration are fundamental to decrease their mortality rate. The dietary and healthful overviews so far did in India have been to a great extent kept to the urban school youngsters and constrained examinations have so far being completed in rural areas. Dietary status of childrens can be evaluated with imperative apparatuses like clinical examination, anthropometric estimation, and biochemical, most practical and essential part of the nutritional survey. The present follow up study was undertaken to assess the rural tribal primary school children on anthropometric parameters and clinical examination of hemoglobin. The primary goals of this work were to lessen the lack of healthy sustenance and disease burden of Shirpur tribal children (less than ten years) who have high mortality rate

Introduction

Malnutrition is a nutritious issue or condition coming about because insufficient nourishment [1, 2]. It comes about because of unevenness between the body's needs and the admission of supplements, which can prompt disorders of lack or stoutness [2]. It incorporates under-sustenance, in which supplements are undersupplied and over-nourishment. Due to high demand for energy and essential nutrients, infants and children are at particular risk of under nutrition [3]. The rural Shirpur is made out of most crowded towns with most astounding populace of planned clans. The caste wise and gender wise distribution reveals that 39% of the whole population is from general caste, 5% are from schedule caste and 57% are schedule tribes [4]. Child (aged under 6 years) population of Shirpur Tehsil rural part is 16%, among them 52% are boys and 48% are girls. There are about 66 thousand households in the sub district and an average 5 persons live in every family. Literacy rate (children under 6 are excluded) of Shirpur is 60%. 68% of male and 52% of female population is literate here. Overall literacy rate in the sub district has decreased by 3%. Male literacy has gone down by 5% and female literacy rate has gone down by 0% [5, 6, and 7]. Malnutrition in early childhood has serious, long-term consequences because it impedes motor, sensory, cognitive, social and emotional development Malnutrition executes, injures handicapped people and blinds on a monstrous scale around the world [8, 9]. Lack of healthy sustenance isn't just restorative; it is likewise a social issue established in destitution and segregation. [10, 11] It has monetary gradually expanding influences that can risk advancement [12]. Wholesome status is the physiological condition of a person that outcomes from the connection between supplement admission and necessities and from the body's capacity to process retain and utilize these supplements [8 4]. There are different methods for surveying the nutritious status of under-five youngsters [13, 14]. It can be surveyed utilizing clinical signs, biochemical markers, evaluation of dietary admissions and anthropometry [15, 16].

Materials and methods

A community based cross-sectional study design was conducted in Ashram School Kolid village in Boradi, Shirpur taluka tribal region between 5-10 years age group of children who were not sick in the selected households. In this study different variable were performed such as dependant variable to know the status of malnutrition in terms of

stunting, underweight and wasting, Independent variables for socio-economic and demographic factors; sex and age of child, age of mother, educational status, occupation, health status, religion, sex of household head, number of 5-10 years children, household income, Environmental factors such as hand washing, diarrhea episodes, housing conditions, sanitation during feeding and food preparation, source of drinking water and Clinical Parameters i.e. hemoglobin. Interpretation of nutritional indices was done by Anthropometry for measurement of the children used to assess the nutritional status of individuals and population groups and as eligibility criteria for nutrition support program.

Results

Total of 925 school children in the age group of 5-10 years was drawn from seven villages of Shirpur Taluka of Maharashtra. The majority of school children were from low socioeconomic status. After enrolment of children's we have found that total 69.26% male child and 30.75% female child were included for the screening of malnutrition.

Table No. 1

Total 69.26% male child 30.75% female child were included for the screening of malnutrition; parent's education was found to be about 59.75% were illiterate and 40.25% were literate respectively, diet of the family, it seems that 55.36% peoples was vegetarian and 62.83 % was Non Vegetarian respectively. Low economic status was about 69.25%, medium economic status was about 11.35% and high economic status was about 19.4 % so more poor children's ration was observed.

Table No. 1. Demographic Data of the Children

Gender			Parent Education		Diet		Economic Status		
Male	Female	Total	Literate	Illiterate	Veg	Non Veg	.Low (<50,000)	Medium (<1,0000)	High (>1,0000)
69.26%	30.75%	925	59.75%	40.25%	55.36%	62.83%	69.25%,	11.35%	19.4 %.

Total Drop outs

It shows total number of children's during baseline, first follow up and second follow up screening program. It has observed that reduction in the number of children during each follow up was due to reluctance of the parents to participate in the study and rejection for the filling of parent consent form.

Table 2. Total Drop outs

Children Drop out during First and Second follow up		
Baseline	First Follow up	Second Follow up
925	37	46

Table 03 Describes observed percentage and number of children's in the category of malnutrition. Here we have considered the most recent formula of weight for age of children's according to "Gomez Classification of malnutrition. On the basis of the criteria, we observed that 12 (1.33%) children's were found in obese category, 16.21% (150) were in normal category, 35.45 % (328) in mild, 32.10 % (297) in moderate category, It has observed that percentage of the children's in severe and very severe category was very less, about 12.21% (113) in severe category, 2.7% (25) in very severe category. From the result, it has cleared that Percentage of the children's in the mild and moderate category of undernourishment is highest. It reveals that problem in the areas is not severe but it can turns in the severe if proper counseling has not done. Our students recorded all the details of each child during screening program and the same was used to the results of next follow up. Maximum number of children's in mild and moderate category. Then door to door visit was given to the parents whose children are found in the undernourished and over nourished category. We imparted advice to them about the management of malnutrition and adherence to the treatment of their nearby primary health care centre. The children's who were anemic were put on the treatment of PHC and suggested the parents for consumption of fruits which contain higher concentration of folic acid and iron. After six months we again conducted the follow up screening program for weight and hemoglobin to observe weight gain and elevation of Hb after counseling to parents.

Malnutrition in Children's during Baseline Screening

During first six months follow up and alteration in the result due to counseling to the parents about health management. But Some parents rejected to participate his child in the study while some were not available at the time of follow up, Some houses were closed during door to door visits for the follow up screening program hence the students could not take the follow up 37 children's and they were excluded from the study. Therefore, during first six month follow up total 888 children's included for the screening program. The result shows that the percentage of the children's in malnutrition category of mild and moderate and severe class were reduced up to (33.78 %, 12.04% and 10.13%) because of the counseling to the parents for the management of the diet by students. 29.84% were found in normal category. Very few children was observed in the very severe category which is depicted in Table No. 4

Table No 3. Malnutrition in Children's during Baseline Screening

Sr. No.	Gomez Criteria	Number of Children
1.	Obese	1.33%
2.	Normal	16.21%
3.	Mild	35.45%
4.	Moderate	32.10%
5.	Severe	12.21%
6.	Very Severe	2.7%
7.	Total	925

Table 4. Malnutrition during first and second follow up camp

Sr. No.	Gomez Criteria	Number of Children (First Follow-up)	Drop out	Number of Children	Drop out
1.	Obese	1.01 % (09)	37	0.59 % (05)	46
2.	Normal	29.84% (265)		60.21%(507)	
3.	Mild	33.78% (300)		23.75%(200)	
4.	Moderate	12.04% (107)		12.35%(104)	
5.	Severe	10.13% (90)		7.12%(60)	
6.	Very Severe	1.91 % (17)		12%(1.42)	
7.	Total	888		842	

Anemic category (Mild, Moderate and Severe) on the basis of hemoglobin concentration of the children's during baseline, first follow up and second follow up it was observed that most of the children's are in normal category during all three screening programs, while The percentage of the children's in the mild moderate and severe category was reduced after follow up which is depicted in fig No.1

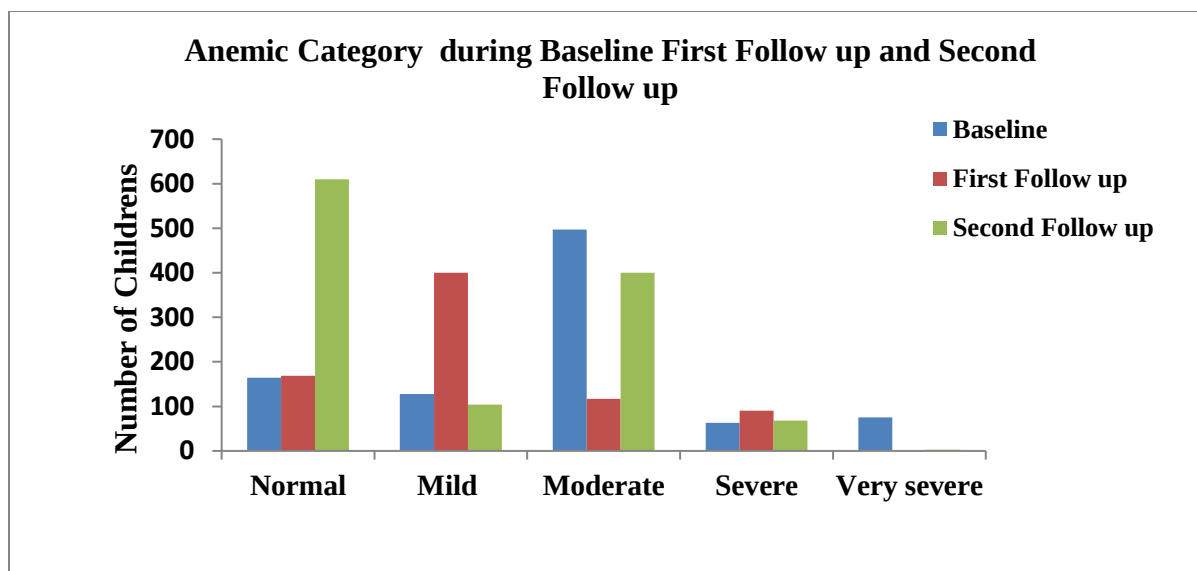


Fig No.1: Anemic Category during baseline, first and second follow-up

Discussion

The present study reveals that, the schools going rural children of these regions of Shirpur are suffering from different grades of malnutrition of the weight by age criteria of Gomez classification. The main factors affecting health and nutritional status of these children's are poverty, dependence of the forest, inferior quality food inaccessible habituation, vegetarian diet and non availability of the regular health service [17]. Significant alteration in the percentage of undernourishment after first and second follow up screening was obtained due to proper counseling for the management of malnutrition by the community workers. To encourage students for the community pharmacy practice really gains an outcome of their active involvement to conduct such type of studies [18]. After this study we could develop professional attitudes, judgment and skill in the students needed to gain the greater appreciation for the profession of pharmacy as practices in the community. Such screening camps should be regularly conducted by the community pharmacy workers. Parents of these children should be educated about the importance of balanced diet after screening. Consumption of healthy food like cereals, pulses, green leafy vegetables, roots and tubers, sugar, fats and oil, milk, milk products, fruits etc., should be promoted [19]. Malnutrition and other nutritional disorders make the children more susceptible to infection and thus not only contribute to increases mortality but also leads to retardation of physical and mental health which in turn, again contribute to increased morbidity [20]. Thus a vicious cycle is setup for malnutrition leading on to less work. Capacity-leading to poor purchasing power leading on to further malnutrition. Under-nourishment imposed in the earlier age of development is more likely to have permanent effect [21]. The results indicate that nutritional status is a proximate determinant of tribal children's nutritional status and should be considered in programmer aiming at improving child health.

Conclusion

Financial factor, poor nourishment, and moms' information and encouraging practices prompted increment in the commonness of lack of healthy sustenance. In this manner, changes in youngster nourishing and better instruction to parents are expected to keep up the nutritious status of kids less than 5 years of age living in Shirpur tribal region

Conflict of interest

The authors declare no conflict of interest

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