

Assesment of Nutritional Status among Under-Five Children in Bishoftutown, Oromiya Region, Ethiopia 2006 e.c.

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DOI: <http://dx.doi.org/10.15520/ijnd.2015.vol5.iss11.114.10-12>

Abstract: Globally malnutrition is one factor which contributes to over 6 million under five children death. In developing countries 140 million under five children are underweight and 60 million under five children are wasted. So we plan to assess the prevalence and associated factors of under nutrition among children of under- five years of age in Bishoftu Town, 2014 G.C.

Methods and Material: A cross-sectional community based study design was employed to assess the nutritional status of under -five children. systematic simple random sampling techniques to select the children. Weighting scale and Anthropometry were used for quantitative data measurements of body dimensions and determinant factors. The study included a total of 361 under five children out of which 198 (54.8%) were males and 163 (45.2%) were females. According to the NCHS the study children of who fell below -2SD of the indicators (underweight, stunted and wasted) were 25.2%, 38.8% and 46.3% respectively. Out of the 361 children who measured their MUAC, most of them (53.2%) were normal(> =13cm), 3.6% were severely malnourished(<11cm) and 18.6% moderately malnourished(11-12cm).

CONCLUSIONS: Under nutrition especially stunting is a serious public health problem among under-five children in the study area. Therefore, HEW should work hard on nutrition education at community level for increasing mother's awareness related to risk factors of under nutrition.

Keyword:

TVET	Technical and vocational education and training
UNICEF	United National International Children's Fund
W/A	Weight for age
WAZ	Weight for age Z score
WFP	World Food Programme
WHO	World Health Organization

INTRODUCTION

Nutrition is the sum total of the processes involved in the taking and the utilization of food substances by which growth, repair and maintenance of the body are accomplished. It is science of food, the nutrient in foods and how the body uses those nutrients (1). The health status of a person which is influenced by intake and utilization of nutrients is called nutritional status. Impairment of this nutritional status is called malnutrition. Malnutrition generally implies both under and over nutrition. Underweight, wasting and stunting are classification of under nutrition. Underweight is a composite index of weight-for-age and it takes into account both acute and chronic malnutrition. . Weight-for height is a composite index for wasting. Stunting is a composite index of height-for-age, and it is an indicator of past growth failure, which is a sign of poor nutritional history. Anthropometry is one of the direct methods of nutritional status assessment, UNICEF has developed and promoting inclusive conceptual framework for organizing scientific knowledge and experience concerning under nutrition or malnutrition . In worldwide about 90% of child deaths occur in 42 countries. Out of this 25% of these deaths occur before the age of five in the poorest countries. The major cause for this tragedy situation is malnutrition. Almost 60% of deaths of under-five children in the developing world are due to malnutrition and its interactive effects on preventable diseases.

LITERATURE REVIEW

Family factors: Parental EducationalStatus:

The associated risk factors of malnutrition among under-five children in Bangladesh in 2007, shown that children of mothers with no education and primary education were 28% and 33% respectively more stunted than Children with secondary or higher level educated mothers.

Mothers Employments and sex of head of house hold: In contrast to this a study conducted in Kenya showed that Children from female-headed households were more underweight than those from male-headed households.(31)

Income , and number of under-fives in the family: A study conducted in southern part of Ethiopia which found that greater than one under five children was a risk factor for being stunted p value <0.05.(33)

Maternal factors: BMI of the mother:

A study conducted to determine the relationship between the nutritional status of the mother and that of the child on 339 children aged 3–36 months and their mothers in Bangladesh were studied. The child's nutritional status, as indicated by weight for age (as a percentage of NCHS median), was associated with the body mass index of the mother ($P<0.001$), in a multivariate analysis after adjusting for

several prognostic factors indicate that maternal nutritional status is a proximate determinant of a child's nutritional status. (35)

ANC follow up of the mothers:

A study in southern Ethiopia indicated that number of ANC visits the mother had during pregnancy linked to chronic malnutrition.

Children factors:

Age and sex of the child: a study in Northern Ethiopia in 2006 showed that the highest proportion of stunted children was observed in age group 13-24 months (51%) followed by age group 25-36 months (45%); while child stunting was lowest among infants in the youngest age group of 0-6 months (16.7%). (37)

Child illness:

The fraction of disease attributed to being under weight was 61% for diarrhea, 57% for malaria, 53% for pneumonia, 45% for measles and 53% for other infectious disease.(37) According to the study done in West Gojam zone, the incidence of diarrhea is negatively associated with stunting.

METHODOLOGY

4.1 Study Design : A cross-sectional communitybased study was utilized to assess the nutritional status of under -five children.

4.2 Study Area and period: This study has been conducted in Bishoftu town, which is found in eastern Showa of Oromiya regional state, Ethiopia.

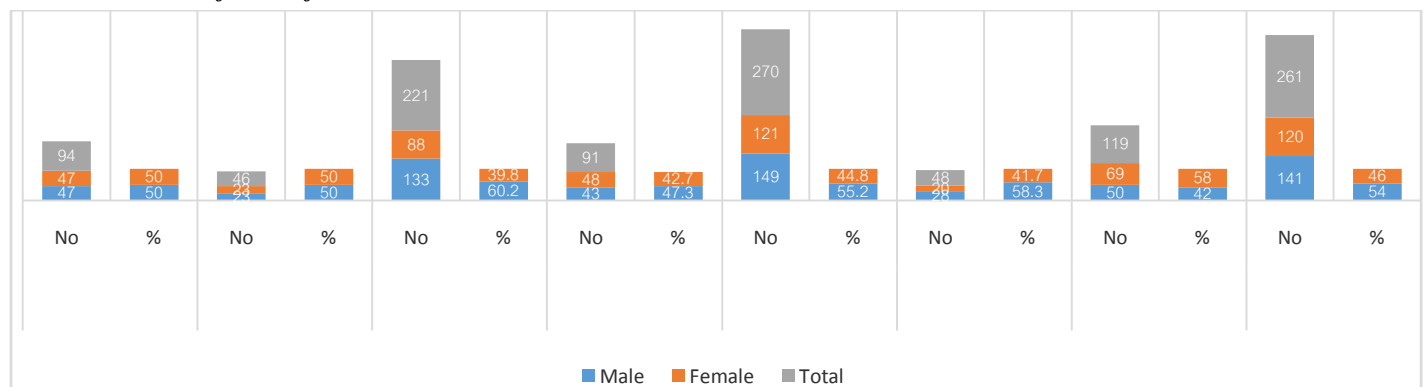
4.3 Study Population: The Selected population was only under five children in the families and their care takers in the town.

4.4. Inclusion criteria: All mothers or caretakers of all under five years of children who are living in the study area for more than or equal to 6 months.

Exclusion criteria: Mothers or Caretakers with Children of under Five years who are seriously ill and who are with visible physical deformity at the time of data collection

4.5. Sample size Determination: Sample size was calculated by applying single population proportion sample size determination and according to the Ethiopian National Demographic Health Survey 2011

Nutritional status of under five children:



Prevalence	Marginal error	CI	Sample size n=
P(stunting)=0.444	5%	95%	379

Hence ,p value of stunting yields the largest sample because it is the most prevalence and have irreversible and permanent damage compared to others, which is=379

4.6. Sampling Techniques: The study was employed by systematic simple random sampling method.

Data Collection Instrument: Data was collected using well structured easily understandable questionnaire adopted from Ethiopian National nutrition survey

RESULTS

Coming to educational status 35(9.7 %) of mothers were illiterate,138(38.2%) had a primary education,146 (40.5%) had a secondary level education and the other 42 (11.6%) had higher level educations. 15(4.2%) of fathers were illiterate, 116 (32.2 %) had a primary education,124 (34.3%) had a secondary level education and the other 106 (24.3 %) had higher level educations. Concerning to the occupational status, 175(48.5%) of mothers were house wives.

Child health condition and caring practice:

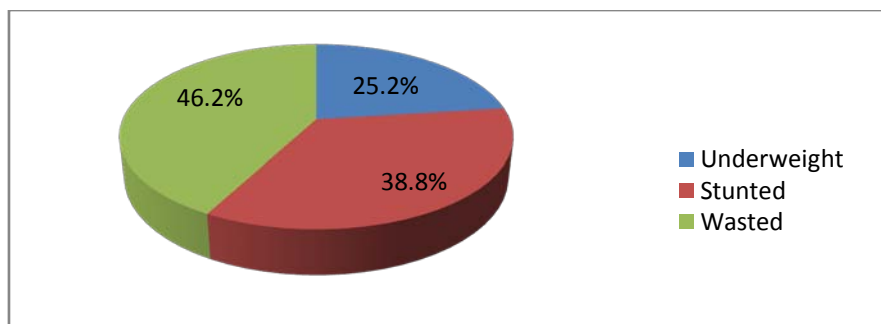
Most children 353 (97.7%) were immunized according to their age. Two weeks before data collection time, 23(6.4%) children had diarrhea and 37 (10.2%) had fever. During data collection 10(2.8%) children had edema. From the total children 356 (98.7%) were ever breast feed and only 44(12.4%) were breast feed for the total duration of less than 6 month.

MATERNAL CHARACTERISTICS

Of the total mothers 336(93.1%) had ANC follow up during pregnancy of the selected child. Regarding hand washing practice of mothers288(79.8%) of them have a practice of washing their hands at all critical times of hand washing and 228(78.1%) of mothers usually use water and soap to wash their hands

Environmental and housing conditions:

Among all sample size, Source of drinking water for all 361 (100%) of households was taking the tap water. Of the total households 359(99.2%) had toilet. A total of 188(52.2%) of households use pit to dispose garbage and among 361 households 351(97.2%) has windows.



Factors associated with stunting: There was an association of stunting with maternal education, income, and diarrhea in the last two weeks, sex, age, and exclusive breast feeding didn't have significant influence on stunting.

DISCUSSION

Although the prevalence rates of malnutrition computed from the anthropometric measurements of the study children were not very severe compared to the national figure, there is still a high level of malnutrition. The Ethiopia Demographic and Health survey indicates that underweight, wasted and stunted were 28.7%, 9.7% and 44% respectively (38).

CONCLUSION

Some socio-economic and demographic factors are found to be significantly associated with the high prevalence of under-nutrition among children.

- ✓ Male children and those aged between 25-59 months are at risk of acute malnutrition and stunting respectively. Higher birth order is positively associated with stunting and underweight.
- ✓ Underweight mothers are at higher risk of having stunted and underweight children.
- ✓ Mothers who did not have ANC follow up during pregnancy of selected child had more increased risk of having underweight and wasted child.

REFERENCES

- [1]. The state of the world's children, malnutrition cause (1998), (WWW.unicef.org/sowc98/fs 01.htm).
- [2]. Nandy S, et al. Poverty, child under nutrition and morbidity, new evidence from India.2005, Bulletin of World health Organization: vol 83, (210-216).
- [3]. Tsinuel G et al, Pediatric and child health science students lecture note.
- [4]. Somaliland journal, malnutrition brings children to brink of deaths and the nutritional status of under-five children in central and southern Somalia is a cause for great alarm, 2011, Somalia.
- [5]. Concise Medical dictionary, USA Oxford University Press, (2010), 8th Edition.
- [6]. Kebede E, Prevalence and Determinants of Child Malnutrition In Gimbi district, Oromia Region, Ethiopia Community Health Department, Faculty of Medicine Addis Ababa University.2007
- [7]. World hunger and poverty facts and statistics,2013
- [8]. Gorden M et al. perspectives in nutrition Breast-feeding is one important beneficial tradition among Ethiopians.1995, 10 CSC 2011)
- [9]. Malnutrition in the world children (:http:WWW.progressiveic.com /23 on feb2014
- [10]. EDHS, Preliminary report central statistical Agency; Ethiopia, Nov, 2007,.
- [11]. Victoria C et al. Maternal and child under nutrition. Consequences for adult health and human capital.2008, Lancet vol: 371(9609), 340 -357.
- [12]. Welfare Monitoring Survey (WMS), The Federal Democratic Republic of Ethiopia, Central Statistical Authority, Addis Ababa),Analytical Report. Statistical Bulletin 339-A, 2004