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Nutritional status of under five children

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Abstract

A descriptive study was conducted to assess the nutritional status of under five children. The main aim of the study was to assess the nutritional status of under five children. A sample of 60 mothers was selected for this study by using non probability convenience sampling technique. After obtaining informed consent from the participant, observational checklist was used. Height, weight, mid arm circumference and 24 hours recall was assessed. The result reveals that, majority of under five children had normal nutritional status.

Keywords: Under five Children, Nutritional status

Introduction

Proper nutrition is a powerful good; people who are well nourished are more likely to be healthy, productive and able to learn good nutrition benefits families, their communities and the world as a whole. Nutrition plays a key role in physical, mental and emotional development of children and much emphasis has been given to provide good nutrition to growing populations especially in the formative years of life. Globally more than one third of child deaths are attributable to under nutrition.

Under nutrition is by the same logic, devastating. It blunts the intellect, saps the productivity of every one. It touches and perpetuates poverty.

As UNICEF in its 2013 reporting in, "improving child nutrition. The achievable imperative for global progress". The scope of under nutrition goes beyond the crises we in the headline stunting affects 165 million children under five years old one out of every four. The malnutrition arises from a complex of nutritional social and biological deprivation and is manifested in various forms such as shunting under weight, wasting growth retardation, demised subcutaneous fat and ill health with high mortality rate. Malnutrition does not often in exert equal impact on all population groups. The causes of malnutrition are multidimensional and include both food and non food factors such as low income, uneven house hold food distribution, poor sanitation, infection, inadequate food production, marketing and preservation as well poor knowledge of nutrition.

In 2012, an estimated 25% of children under five year of age were stunted globally, or 162 million children, which represents a 37% decrease from an estimated 257 million in 1990. However, a new lancet article on nutrition from 6 June 2013 shows that progress is not fast enough, so what is needed now is strong, global commitment and leadership to accelerate effort.

Worldwide obesity has nearly doubled since 2011. In more than 1.4 billion adults 20 and older, were overweight, 200 million men and nearly 300 million women were obese 35% of adults aged 20 and over were weight in 2011, and 11% were obese 65% of the world population live in countries where over weight and obesity kills more people than underweight more than 40 million children under age of 5 were overweight. In 2012 obesity is preventable.

Statement of the Problem

"A STUDY TO ASSESS THE NUTRITIONAL STATUS OF UNDER FIVE CHILDREN AT KAKATUR, NELLORE."

Objectives

- 1) To assess the nutritional status among under five children.
- 2) To associate the nutrition status of under five children with the selected socio demographic variables.

Methodology: A descriptive study was conducted among under five children. Sample size of 60 underfive children were selected through non-probability convenience sampling technique in Kakatur village, Nellore. Methods: Observational checklist was used. Nutritional assessment of the under 5 children are age of the child in year, height of the child in meters, weight of the child in kilograms, height for age in children, weight for age. Dietary intake, assessment of clinical examination of head to foot and 24 hours nutritional recall.

Data Collection Procedure

After obtaining ethical clearance from institutional ethical committee and formal permission from the Medical officer of Primary health center, data collection was started. 60 samples were selected by Non- probability convenience sampling technique. Under five children who fulfilled the inclusion criteria were included for this study. Informed consent was obtained from the mothers of under five children. Confidentiality of stated information was assured. For the present study observation checklist was used to collect the data. For the present study observational checklist was adopted to collect the data.

Plan for data analysis

Data analysis was done by using descriptive and inferential statistics.

Result

Table 1: Frequency and percentage distribution of under five children based on age. (n=60)

Age	Ffrequency (F)	Percentage (%)
a)1-2 years	7	11.7
b)3-4 years	32	53.3
c)4-5 years	21	35
Total	60	100

Table 2: Frequency and percentage distribution of under five children based on gender. (n=60)

Gender	Frequency (f)	Percentage (%)
a. Boys	35	58.3
b. Girls	25	41.7
Total	60	100

Table 3: Frequency and percentage distribution of under five children based on developmental stage. (n=60)

Developmental stage	Frequency (f)	Percentage (%)
a)Toddler	16	26.7
b)Pre scholar	44	73.3
Total	60	100

Table 4: Frequency and percentage distribution of under five children based on birth weight. (n=60)

Brith Weight	Frequency (F)	Percentage (%)
A)Less Than 2.5kg	5	8.3
B)2.5-3.5kg	55	91.7
Total	60	100

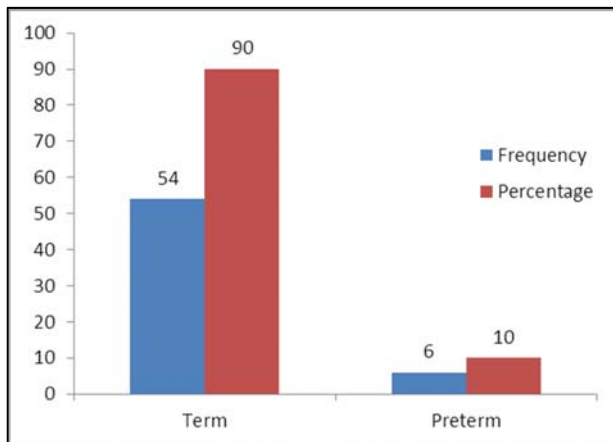


Fig 1: Percentage distribution of under five children based on Maturity at birth

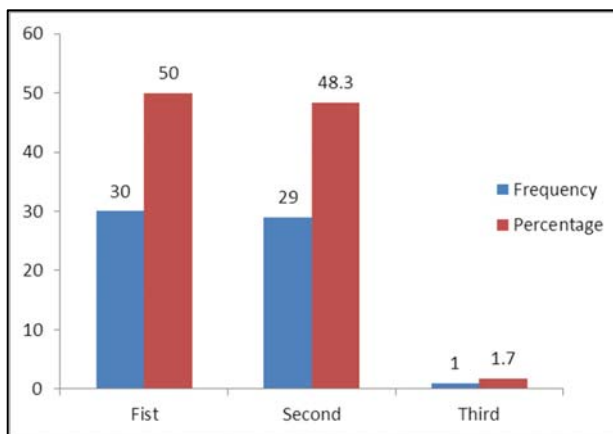


Fig 2: Percentage distribution of under five children based on order of the child in the family.

Table 5: Frequency and percentage distribution of under five children based on history of previous illness. (N=60)

History of Previous illness	Frequency (f)	Percentage (%)
a)yes	5	8.3
b)No	55	91.7
Total	60	100

Table 6: Frequency and percentage distribution of nutritional status of children based on Weight

Nutritional status based on Weight	Frequency (f)	Percentage (%)
a) Normal	45	75
b) Mild	14	23.3
c) Moderate	1	1.7
TOTAL	60	100

Table 7: Frequency and percentage distribution of nutritional status of children based on Mid arm circumference.

Nutritional status based on midarm	Ferquency (f)	Percentage (%)
a) Normal	52	86.7
b) Mild	5	8.3
c) Moderate	3	5
Total	60	100

Table 8: Frequency and percentage distribution and interpretation of RDA based on 24 hours Nutritional recall.

24hours Nutritional recall	Lessthan Normal		Morethan Normal	
	(F)	(%)	(F)	(%)
a) Protein	51	85	9	15
b) Fat	34	56.7	26	43.3
c) Calcium	59	98.3	1	1.7
d) Iron	52	86.7	8	13.3
e) Kg calorie	56	93.3	4	6.7

Table 9: Association between Nutritional Status of Under Five Children based on,Weight for age with demographic variables. (N=60)

S NO	Demographic variables	Normal		Mild		Moderate		Chi-square
		F	%	F	%	F	%	
1)	AGE	4		3	5	-	-	C-4.85 T-9.49 df-4 NS P-0.05
	a)1-2yrs	24	6.7 40	7	11.7	1	1.7	
	b)3-4yrs		28.3					
	c)4-5yrs	17		4	6.7	-	-	
2)	GENDER	23		11	18.3	1	1.7	C-4.634 T-5.99 df-2 NS P-0.05
	a)Male	22	33.3	3	5	-	-	
	b)Female		36.7					
3)	Developmental stage	11	18.3	4	6.7	1	1.6	C-3.235 T-5.99 df-2 NS p-0.05
	a)Toddler	34	56.7	10	16.7	-	-	
	b)Preschooler							
4)	Birth weight of the child	4	6.7	1	1.7	-	-	C-3.724 T-5.99 df-2 S* P-0.05
	a)less than 2.5 kg							
	b)2.5 -3.5 kg	41	68.3	13	21.6	1	1.7	
5)	Maturity at birth	41	68.3	12	20	1	1.7	C=5.968 T=5.99 df=2 NS P=0.05
	a)Term	4	6.7	2	3.3	-	-	
	b)Pre term							
6)	Order of child in the family	24	40	6	10	-	-	C=5.9892 df-4 T-9.49 NS P=0.05
	a)Fist	21	35	7	11.6 1.7	1	1.7	
	b)Second			1		-	-	
	c)Third	-	-					
7)	History of previous illness	2	3.3	3	5	-	-	C-9.9283 df-2 T-5.99 S* P-0.05
	a)yes	43	71.7	11	18.3	1	1.7	
	b)No							

Table 10: Association between nutritional status of under five children based on mid arm circumference with demographic variables. (N=60)

S NO	Demographic variables	Normal		Mild		Moderate		Chi-square
		F	%	F	%	F	%	
1)	AGE	3	5	3	5	1	1.7	C-15.112 T=9.49 df-4 S* P=0.05
	a)1-2yrs	29	48.3	2	3.3	1	1.7	
	b)3-4yrs							
	c)4-5yrs	20	33.3	0	0	1	1.7	
2)	GENDER	30	55	3	5	2	3.3	C-0.421 T=5.99 df-2 NS P=0.05
	a)Male	22	36.7	2	3.3	1	1.7	
	b)Female							
3)	Developmental stage	12	20	3	5	1	1.7	C=0.421 T=5.99 df-2 NS P=0.05
	a)Toddler	40	66.7	2	3.3	2	3.3	
	b)Pre schooler							
4)	Birth weight of the child							C-0.839 T-5.99 df-2
	a)less than 2.5 kg	5	8.3	-	-	-	-	
	b)2.5 -3.5 kg							

		47	78.4	5	8.3	3	5	NS P=0.05
5)	Maturity at birth a)Term b)Pre term	46 6	76.7 10	5 -	8.3 -	3 -	5 -	C-0.752 T-5.99 df-2 NS P=0.05
6)	Order of child in the family a)1 st b)2 nd c)3 rd	25 27 -	41.7 45 -	5 - -	8.3 - -	- 2 1	- 3.3 1.7	C-11.852 T-9.49 df-4 S* P-0.001
7)	History of previous illness a)yes b)no	5 47	8.3 78.4	- 5	- 8.3	- 3	- 5	C-0.0839 T-5.99 df-2 NS P-0.05

Discussion

Nutritional status of under five children.

Among 60 samples based on weight, 45(75%) are having normal nutritional status 14(23.3%) having mild malnutrition 1(1.7%) is having moderate malnutrition.

Based on mid arm circumference, 52(86.7%) are normal, 5(8.3%) are having mild malnutrition and 3(5%) are having moderate malnutrition.

Based on 24 hours nutritional recall. 51(85%) are consuming protein less than the normal RDA. 9(15%) are consuming protein more than normal RDA.

*Regarding consumption of fat, 34(56.7%) are consuming less than normal RDA, 26(43.3%) are consuming more than normal RDA.

- Regarding calcium intake, 59(98.3%) are taking less than normal RDA, 1(1.7%) is taking more than normal RDA.
- Regarding iron intake, 52(86.7%) are consuming less than normal RDA, 8(13.3%) are consuming more than normal RDA.
- Regarding calorie intake, 56(93.3%) are taking less than normal RDA, 4(6.7%) are taking more than normal RDA.

Conducted a study to assess the adequate food and good feeding practice are essential for the normal growth of a under 5 children. Show that 150 million (26.6%) were under weight, while 182 million (32.5%) were stunted all over the world. More than half of the world’s under nourished people live in India. Nutritional status of children did not vary from normal to 3rd degree mal nourishment. Nearly 45.8% were normal 1.8% were over nourished and 2.2% were 3rd degree malnourished, so, we need to give highest priority to child health and nutrition if we hope for a brighter future of our country.

Association between Nutritional Status of under Five Children with their selected socio demographic variables.

Association between Nutritional Status of under Five Children based on, Weight for age, birth weight of the child and history of previous illness, have a significant association with nutritional status of under five children.

Association between nutritional status of under five children based on mid arm circumference, Age, order of child has a significant association with nutritional status.

Conducted a study to assess the nutritional status and characteristics related to malnutrition in children less than 5 years of age nyhean, Vietnam with 650 samples revealed

that 193 were under weight 269 (44.3%) were stunting and 72 (11.9%) were wasting region of residence house size, family knowledge, number of children in the family, weight at birth and duration of exclusive breast feeding were found to be significantly related to malnutrition.

Recommendation For Further Study

- The study can be conducted to correlate the nutritional status, and cognitive, social and emotional language, physical, motor, development and cumulative long learning among school going children.
- The study can be conducted on Prevalence of obesity and its associating factor among school going children.
- The study can be conducted on effect of nutritional status and quality of life among school going children.
- A comparative study to assess the nutritional status with the nutritional habits.

Conclusion

The study concluded that majority of under five children are well nourished based on their age.

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