



# A STUDY TO ASSESS PREVALENCE OF MALNUTRITION AMONG SCHOOL GOING CHILDREN AT SELECTED SCHOOL, PERINTHALMANNA.

**Prof. Sini Neeruzhi, Prasanth k, Faseela, Maria Susan Suganthi, Neethu T.P**

## ABSTRACT

The present study was aimed to assess the prevalence of malnutrition among school going children in selected school, Perinthalmanna. The objectives of the study to assess the prevalence of malnutrition among school going children in selected school and to identify the association between prevalence of malnutrition and selected demographic data. Non-experimental descriptive survey was used to select the 95 school going children at selected school, Perinthalmanna. Non-probability convenient sampling was used to select the samples. The tool used was BMI calculation index to assess the prevalence of malnutrition among school going children. The prevalence of malnutrition was assessed by using body mass index after obtaining the informed consent from participants. The findings of the study showed that Out of 95 samples, 87% of study participants were underweight whereas 1% of study participants were overweight and 12% of study participants were having normal weight.

Key words- Malnutrition, prevalence, body mass index, school going children

## INTRODUCTION

Nutrition plays a pivotal role in the overall health and development of school-going children, influencing their physical well-being and cognitive abilities. A balanced and adequate diet is essential for optimal growth, immune function, and academic performance.<sup>1</sup>

Children and women are the most vulnerable groups due to their high nutritional requirements for growth and development. Around half of deaths among children fewer than 5 years of age are linked to under-nutrition. Inadequate household income, food insecurity, poor access to basic sanitation and water services underlying the cause of malnutrition during an individual's childhood. Malnutrition is a health condition resulting from eating food that contains either insufficient or too many calories, carbohydrates, vitamins, proteins or minerals. Malnutrition has negative impact on child health, cognition, education achievement and the quality of life.<sup>2</sup>

Malnutrition is a widespread public health problem all over the world. Globally in 2022, 149 million children under 5 were estimated to be stunted (too short for age), 45 million were estimated to be wasted (too thin for height) and 37 million were overweight or obese. Nearly half of deaths among children under 5 years of age are linked to undernutrition. These mostly occur in low- and middle-income countries. The developmental, economic, social, and medical impacts of the global burden of malnutrition are serious and lasting, for individuals and their families, for communities and for countries.<sup>3</sup>

## STATEMENT OF THE PROBLEM

A study to assess the prevalence regarding malnutrition among school going children at selected school, Perinthalmanna.

## OBJECTIVES

- To assess the prevalence of malnutrition among school going children
- To identify the association between prevalence of malnutrition and selected demographic variables

## MATERIALS AND METHODS

Research approach: quantitative

Research design: non-experimental descriptive survey design

Sample size: 95 study participants

Sampling technique: Non- probability convenience sampling.

## SETTING OF THE STUDY

Setting is a general location and condition in which data collection takes place in the project. The study was conducted at selected school in perinthalmanna. SMUP School was selected for the study.

## POPULATION

Target population is school going children in selected school, Perinthalmanna.

Accessible population is school going children in selected school, SMUP school Perinthalmanna.

## DATA COLLECTION TOOLS

Two tools was used for collecting the data

### Tool 1

The demographic variables of this study which include age, gender, class of study, religion, educational status of the father and mother, area of residence and type of family.

### Tool 2

The pediatric BMI calculation index tool incorporates age of the child (year and month), height in centimeters and weight in kilograms to provide a comprehensive assessment of a child's body weight in relation to their developmental stage.

<b>Weight status</b>	<b>Body mass index</b>
Underweight	<18.5
Normal range	18.5-24.9
Overweight	25.0-29.9
Obese	>30

## **DATA COLLECTION PROCESS**

The study was approved by the institutional ethical committee. Formal permission was obtained from head of institution, Alshifa college of nursing and the official authority of SMUP school perinthalmanna prior to data collection. The date of data collection was 5/12/2023. The researcher selected 95 samples that fulfilled the inclusion criteria by using the non-probability sampling technique. No ethical issues were aroused during the course of study.

## **RESULTS**

### **SECTION A**

Out of 95 samples,

Most of the study participants 21% were belonged to the age group of 6-9 years.

Most of the study participants 52% were girls.

Majority of study participants 80% were studying high school

Majority of study participants 75% were belonged to Hindu religion.

Majority of mothers of study participants 37% and majority of fathers of study participants 32% had completed primary education status.

Majority of study participants 58% were residing in rural area.

Majority of study participants 83% were belonged to Nuclear family

### **SECTION B**

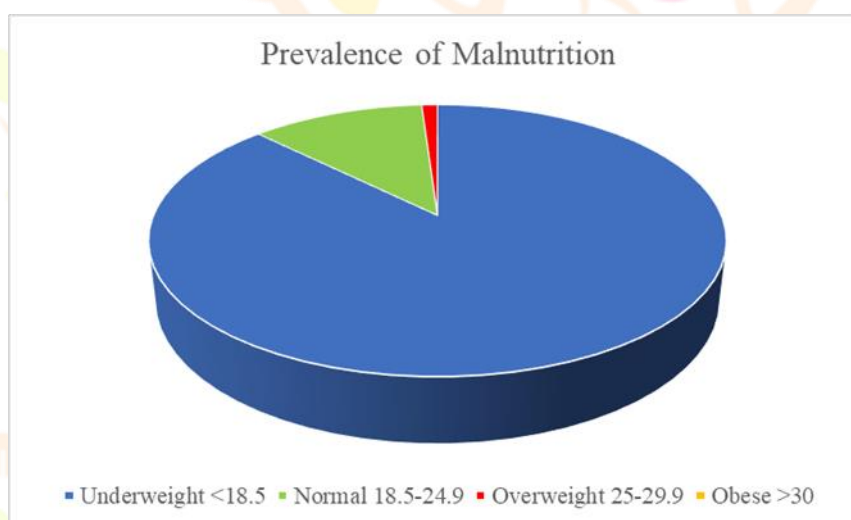
Out of 95 samples, 87% of study participants were underweight whereas 1% of study participants were overweight and 12% of study participants were having normal weight.

**Table 1: Frequency and percentage distribution of study participants based on the prevalence of malnutrition**

n=95

Weight status	BMI kg/m <sup>2</sup>	Frequency	Percentage
Underweight	<18.5	83	87
Normal	18.5-24.9	11	12
Overweight	25-29.9	1	1
Obese	>30	0	0

Table 1 portrays that 87% of study participants were underweight whereas 1% of study participants were overweight and 12% of study participants were having normal weight.

**Association between prevalence of malnutrition with selected demographic variables of study participants**

N=95

SL NO	DEMOGRAPHIC VARIABLE	PREVALANCE OF MALNUTRITION						X <sup>2</sup>
		Underweight		Normal		Overweight		
		f	%	f	%	f	%	
1	<b>Age</b>							
	6-9 years	19	20%	1	1.05%	0	0%	1.38251
	10-14 years	64	67.3%	10	10.52%	1	1.05%	NS
2	<b>Gender</b>							
	Boy	43	45.2%	2	2.10%	1	1.05%	5.4737
	Girl	40	42.1%	9	9.47%	0	0%	NS
3	<b>Class of Study</b>							

	Primary school	18	18.94%	1	1.05%	0	0%	1.21577
	High school	65	68.42%	10	10.52%	1	1.05%	NS
4	<b>Religion</b>							
	Hindu	64	67.3%	7	7.36%	0	0%	4.39773
	Muslim	18	18.94%	4	4.21%	1	1.05%	No
	Christian	1	1.05%	0	0%	0	0%	significance
5	<b>Educational status of Father</b>							
	No formal education	13	13.68%	2	2.10%	0	0%	3.56031 No significance
	Primary school	27	28.42%	4	4.21%	0	0%	
	High school	24	25.26%	4	4.21%	1	1.05%	
	Higher secondary	15	15.78%	1	1.05%	0	0%	
	Graduate	4	4.21%	0	0%	0	0%	
	Post graduate and above	0	0%	0	0%	0	0%	
6	<b>Educational status of Mother</b>							
	No formal education	7	7.36%	2	2.10%	0	0%	5.05068 No significance
	Primary school	33	34.71%	2	2.10%	0	0%	
	High school	29	30.52%	5	5.26%	1	1.05%	
	Higher secondary	10	10.52%	2	2.10%	0	0%	
	Graduate	4	4.21%	0	0%	0	0%	
	Post graduate and above	0	0%	0	0%	0	0%	
7	<b>Area of residence</b>							
	Urban	35	36.84%	5	5.26%	0	0%	0.778029
	Rural	48	50.52%	6	6.31%	1	1.05%	No significance
8	<b>Type of Family</b>							
	Joint	14	14.73%	2	2.10%	0	0%	0.216666
	Nuclear	69	72.63%	9	9.47%	1	1.05%	No significance

P value >0.05 hence null hypothesis accepted and alternative hypothesis rejected, so there was no significant association between prevalence of malnutrition and selected demographic variables.

## DISCUSSION

The aim of the present study is to assess the prevalence of malnutrition among school going children. In this non experimental descriptive study, 95 school going children was selected by using convenient sampling method. A body mass index calculation tool with socio demographic variables of 8 items was used to collect the data. Result of the study reveals that out of 95 samples, 87% of study participants were underweight whereas 1% of study participants were overweight and 12% of study participants were having normal weight.

The present study was supported by a cross sectional study which was conducted to assess the prevalence of malnutrition in government School children in the field area of Azad nagar Bangalore. A total of 500 pupils (382 boys and 118 girls) aged 8-14 years participated in the study. The subjects were selected through random sampling procedures. Semi structured, pre tested questionnaire was administered to each child to collect data on socio-demographic profile and All the anthropometric measurement were taken following the standard techniques recommended by ( Lohmann et al,1998) and body mass index was determined by the CDC table for calculated Body Mass Index. The study results reveals that the study reveals that the average of government school children in Azad Nagar are underweighted.<sup>4</sup>

## CONCLUSION

The aim of the present study is to assess the prevalence of malnutrition among school going children. The study concluded that majority of participants were underweight.

## REFERENCE

1. World Health Organization (WHO). (2003). Diet, nutrition, and the prevention of chronic diseases: Report of a Joint WHO/FAO Expert Consultation. Geneva, Switzerland: WHO.
2. Govender I, Rangiah S, Kaswa R, Nzaumvila D. Malnutrition in children under the age of 5 years in a primary health care setting. *S Afr Fam Pract* (2004). 2021 Sep 7;63 (1):e1-e6. doi: 10.4102/safp.v63i1.5337. Erratum in: *S Afr Fam Pract* (2004). 2021 Dec 14;63(1):5416. PMID: 34677078; PMCID: PMC8517826.
3. <https://www.who.int/news-room/fact-sheets/detail/malnutrition>

