

ASSESSMENT OF NUTRITIONAL STATUS OF BOYS AND GIRLS IN YVSR & YVR
ZPHS CHILDREN IN UPPALAPADU VILLAGE, NARASARAOPET MANDAL,
ANDHRA PRADESH, INDIA

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ABSTRACT

Introduction: A thorough knowledge of children's health and development requires evaluating the nutritional state of boys and girls in schools, in addition to the educational and professional backgrounds of their parents. Early intervention is made possible, optimum growth is encouraged, academic performance is improved, public health policy is informed, socioeconomic disparities are addressed, health education is supported, and program efficacy is assessed. Such evaluations must be carried out in order to raise a generation that is healthier, more intelligent, and equitable. **Methods and Material:** This was a prospective observational study conducted on 300 students at YVSR & YVR ZPHS Uppalapadu (V), Narasaraopet(M), Andhra Pradesh, India. General Information of the Subjects age, family size, literacy, type of family, income level have been taken into consideration for the study, tabulated and results are given. Anthropometric Assessment of Males and Females these measurements are an important aspect to know individual body composition. After entering the data into a Microsoft Excel spreadsheet, basic statistical procedures were used to do statistical analysis and provide frequencies and percentages. Results were Analyzed using SPSS 19.0 version. **Results:** There were 300 subjects from government secondary schools covered. The children were in the age range of 10 to 15. Of the 178 males in the research area, 70 (23.34) are of normal weight and 108 (36.6) are underweight. Of the 122 females, 41 (13.6) are of normal weight and 81 (27) are underweight. The overall prevalence of underweight in the schoolchildren is found 108 (36.6) in males and 81 (27%) in females. The overall prevalence of malnutrition in school-age children in the current study area among males, it is 91 (30.3%) among females, it is 70 (23.36%). Out of the 300 school-age children in the current study, 25.3% of the male participants had Grade-I malnutrition, 3.4% had Grade-II malnutrition, and 1.66% had overall Grade-III malnutrition. In contrast, among the female participants, 15.3% had Grade-I, 6.67% had Grade-II, and 1.3% had overall Grade-III malnutrition. **Conclusion:** In this study we discovered malnutrition is due to lack of social awareness about the nutritional requirements and dietary interactions to the parents. The government sector and the education department specifically need to look at the dietary needs of children. To prevent morbid conditions caused by malnutrition, all children should undergo routine clinical examinations as part of their education. It is necessary to provide health education to both parents and school teachers.

KEYWORDS: Children, Nutritional status, Malnutrition, Education.

INTRODUCTION

Children's dietary demands are significant since they are going through a crucial developmental and growing period. It is feasible to detect nutritional deficiencies early and avoid long-term health problems including stunted development, cognitive decline, and chronic

illnesses by evaluating the nutritional status of students in schools. Timely actions made possible by early identification can greatly enhance a child's health trajectory.^[1,2,3]

A healthy diet is essential for both cognitive and physical growth. Poor academic performance and developmental delays might result from inadequate nutrition. Through a methodical evaluation of schoolchildren's nutritional state, educators and health experts can guarantee that every kid is provided with the chance to fulfill their maximum potential in terms of both physical and intellectual abilities.^[4,5,6]

Academic achievement and nutrition are closely related. Concentration, memory, and learning capacities can all be negatively impacted by malnutrition, whether it comes from excess or deficiency. Frequent nutritional evaluations can assist in identifying pupils who could be experiencing academic difficulties as a result of inadequate nutrition, allowing schools to put in place support systems that directly address these problems.^[7,8,9]

Children's nutritional status is greatly influenced by their parents' level of education and work. While parents' employment position affects household finances and food security, their educational attainment is frequently correlated with nutritional understanding and dietary choices. Through the analysis of these variables in conjunction with the nutritional condition of children, the research may offer a thorough comprehension of the socioeconomic determinants of nutrition.^[10,11]

Schools provide youngsters with opportunities to learn about healthy lifestyles in addition to academic subjects. Frequent nutritional evaluations provide health education programs a solid basis by demonstrating to kids the value of a balanced diet and excellent eating practices. For a lifetime of health and wellbeing, this information is crucial.^[12,13]

Nutrition programs are widely implemented in schools with the goal of enhancing kids' eating habits. Frequent evaluations aid in assessing the efficacy of these initiatives by offering information to improve and hone them. Comprehending the significance of parental education and profession in these results guarantees comprehensive treatments that tackle all relevant elements.

In a nutshell a thorough knowledge of children's health and development requires evaluating the nutritional state of boys and girls in schools, in addition to the educational and professional backgrounds of their parents. Early intervention is made possible, optimum growth is encouraged, academic performance is improved, public health policy is informed,

socioeconomic disparities are addressed, health education is supported, and program efficacy is assessed. Such evaluations must be carried out in order to raise a generation that is healthier, more intelligent, and equitable.^[14,15]

AIM

The main aim of this study to assess the Nutritional Status in School Children.

OBJECTIVES

1. To find out malnutrition in different age groups
2. To find out the parental educational and occupational status
3. To find out the weight of students and to determine nutritional grading
4. To improve the health care hygiene

METHODOLOGY

Ethical Approval: The study was initiated after the clearance of institutional ethics committee.

Study Site: This research was carried out at YVSR & YVR ZPHS Uppalapadu (V), Narasaraopet(M), Andhra Pradesh, India.

Study Duration: The study is conducted over a period of 6 months.

Study Design: This is a Prospective observational study

Sample Size: 300 Students were enrolled into this study

Study method: General Information of the Subjects age, family size, literacy, type of family, income level have been taken into consideration for the study, tabulated and results are given. Anthropometric Assessment of Males and Females these measurements are an important aspect to know individual body composition.

STUDY CRITERIA

Inclusion Criteria

- Subjects who are willing to participate from the age group 10-15 years

Exclusion Criteria

- Subjects who are not willing to participate in the study and with co-morbidity condition

Statistical Analysis

After entering the data into a Microsoft Excel spreadsheet, basic statistical procedures were used to do statistical analysis and provide frequencies and percentages. Results were Analyzed using SPSS 19.0 version.

RESULTS

1. STUDENT CHARACTERISTICS

STUDENT CHARACTERISTICS		NO OF STUDENTS	PERCENT (%)
Age	10-10.11 Months	40	13.3
	11-11.11 Months	35	11.6
	12-12.11 Months	43	14.3
	13-.13.11 Months	62	20.6

	14-14.11 Months	57	19
	15-15.11 Months	63	21
Gender	Male	178	59.4
	Female	122	40.6
Parental Socio economic status	Upper middle class	32	10.67
	Lower middle class	128	42.66
	Upper lower	140	46.67

There were 300 subjects from government secondary schools covered. The children were in the age range of 10 to 15. Of the 300 kids, 40 (13.3%) belonged to the 10 to 10.11 months age group, 35 (11.6%) to the 11 to 11.11 months age group, 43 (14.3%) to the 12 to 12.11 months age group, 62 (20.6%) to the 13–13.11 months age group, 57 (19%) to the 14–14.11 months age group, and

63 (21%) to the 15–15.11 months age group. 178 (59.4%) of the 300 individuals in total were men, and 122 (40.6%) were women. When the socioeconomic condition of the parents was evaluated, it was discovered that the majority of the students belonged to the upper lower class, which was followed by the lower and higher middle classes.

2. PARENTAL EDUCATIONAL AND OCCUPATIONAL STATUS

Parental Educational & Occupational status		MOTHER		FATHER	
		No of students	Percent %	No of students	Percent %
Educational StatusOf The Parents	Illiterate	105	35	79	26.3
	Primary	62	20.6	77	25.6
	High school	72	24	50	16.6
	Intermediate	50	16.67	27	9.2
	Under graduate	6	2	36	12
	Masters and above	5	1.66	31	10.3
Occupation StatusOf The Parents	Skilled worker or Self-employment	20	6.66	136	45.34
	Semiskilled	32	10.6	58	19.34
	Private Employee	60	20	60	20
	Government employee	15	5.14	32	10.66
	Unemployed	173	57.6	14	4.66

The majority of the children belonged to nuclear families, a small percentage to joint families, and extremely few to three generational households. Of the 105 (35) mothers of children in the center of the study region, 62 (20.6%) have only completed primary school. 50 (16.7%) up to intermediate school, and 72 (24%) up to high school, Six (2%) were undergrads, and five (1.66%) were master's degree holders. In contrast, dads made up 79 (26.3%) are illiterates, 77 have completed only primary school, 50 have completed high school, 27 have completed intermediate, 36 have completed under

graduation and remaining 31 have completed masters and above. 20 (6.66%) of the children in the study had a mother who was skilled in her line of work, 136 (45.34%) had a father who was skilled in that field, under semiskilled category - mother 32 (20%), father 58 (19.34%), under private employee category - mother 60 (20%), father 60 (20%), under government employee category - mother 15 (5.14%), father 32 (10.66%), and under unemployed category mother 173 (57.6%), father 14 (4.6).

3. DISTRIBUTION ACCORDING TO WEIGHT

Gender	No of children	Normal weight	Percent %	Underweight	%
Males	178	70	23.34	108	36.6
Females	122	41	13.6	81	27

From the above table a total 300 children males were 178. Out of 178 males 70(23.34) are in normal weight and 108(36.6) are in underweight whereas in females out of 122 females 41(13.6) are in normal weight and 81 (27)

are underweight in the study area. The overall prevalence of underweight in the schoolchildren is found 108 (36.6) in males and 81 (27%) in females.

4. DISTRIBUTION ACCORDING TO MALNUTRITION

Gender	No of children	Normal	%	Malnutrition	%
Males	178	82	27.34	91	30.3
Females	122	57	19	70	23.36

The overall prevalence of malnutrition in school children of the present study area among the males it is 91(30.3%) where as in females it is 70 (23.36%) may be it is due to

economic status of parents and family, lack of knowledge on nutritional importance and among the boys poor in dietary habits.

5. DISTRIBUTION ACCORDING TO NUTRITIONAL GRADING

Gender	No of children	Normal weight	Nutritional grade by using BMI		
			Grade I	Grade II	Grade III
Males	178	82(27.34%)	76(25.3)	10(3.4)	5(1.66)
Females	122	57(19%)	46(15.3)	20(6.67)	4(1.3)

In the present study out of total 300 school going children among males - 25.3% had Grade-I, 3.4% had Grade-II and 1.66% had overall Grade-III malnutrition, Where as in females over - 15.3% had Grade-I, 6.67% had Grade-II and 1.3% had overall Grade-III malnutrition.

in the schoolchildren is found 108 (36.6) in males and 81 (27%) in females.

The overall prevalence of malnutrition in school-age children in the current study area among males, it is 91 (30.3%) among females, it is 70 (23.36%).

DISCUSSION

There were 300 subjects from government secondary schools covered. The children were in the age range of 10 to 15. Of the 300 kids, 40 (13.3%) belonged to the 10 to 10.11 months age group, 35 (11.6%) to the 11 to 11.11 months age group, 43 (14.3%) to the 12 to 12.11 months age group, 62 (20.6%) to the 13–13.11 months age group, 57 (19%) to the 14–14.11 months age group, and 63 (21%) to the 15–15.11 months age group. 178 (59.4%) of the 300 individuals in total were men, and 122 (40.6%) were women. When the socioeconomic condition of the parents was evaluated, it was discovered that the majority of the students belonged to the upper lower class, which was followed by the lower and higher middle classes.

Out of the 300 school-age children in the current study, 25.3% of the male participants had Grade-I malnutrition, 3.4% had Grade-II malnutrition, and 1.66% had overall Grade-III malnutrition. In contrast, among the female participants, 15.3% had Grade-I, 6.67% had Grade-II, and 1.3% had overall Grade-III malnutrition.

CONCLUSION

In this study we discovered malnutrition is due to lack of social awareness about the nutritional requirements and dietary interactions to the parents. The government sector and the education department specifically need to look at the dietary needs of children. To prevent morbid conditions caused by malnutrition, all children should undergo routine clinical examinations as part of their education. It is necessary to provide health education to both parents and school teachers.

The majority of the children belonged to nuclear families, a small percentage to joint families, and extremely few to three generational households. Of the 105 (35) mothers of children in the center of the study region, 62 (20.6%) have only completed primary school. 50 (16.7%) up to intermediate school, and 72 (24%) up to high school, Six (2%) were undergrads, and five (1.66%) were master's degree holders. In contrast, dads made up 79 (26.3%) are illiterates, 77 have completed only primary school, 50 have completed high school, 27 have completed intermediate, 36 have completed under graduation and remaining 31 have completed masters and above. 20 (6.66%) of the children in the study had a mother who was skilled in her line of work, 136 (45.34%) had a father who was skilled in that field, under semiskilled category - mother 32 (20%), father 58 (19.34%), under private employee category - mother 60 (20%), father 60 (20%), under government employee category - mother 15 (5.14%), father 32 (10.66%), and under unemployed category mother 173 (57.6%), father 14 (4.6).

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