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ACCESSING THE NUTRITIONAL STATUS AMONG SCHOOL CHILDREN

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ABSTRACT- A healthy diet implies a stronger immune system, less disease, greater health, and a more productive society. Most school-age children in India are malnourished, mostly undernourished. The purpose of this review was to determine the prevalence of wasting, stunting, overweight, and obesity. The foundation for good health and a healthy mind is built throughout the school years. As a result, it is a fundamental milestone in a person's existence and is responsible for many of the changes that occur later in life. High levels of dietary deficiency and serious disease at an early age have harmful effects that manifest into adulthood. As a result, school age is nutritionally important, and children are considered a specific risk group.

Keywords- School-going children, HAZ and BAZ, Nutritional status, Nutrients, Stunted.

INTRODUCTION- Children are a nation's wealth since they make up a significant portion of the population. We should care for and nurture them. Good health and nutrition are critical components in a child's growth and development. When compared to children whose nutrition and health are poor, those with superior nutrition and health tend to be bigger. Children between the ages of 5 and 14 are often regarded to be of school age. United Nations Educational Scientific and Cultural Organization (UNESCO) since 1972, for statistics considers 6-11 years as primary school age and 12-17 years as secondary school age. Good nutrition entails maintaining a nutritional status that allows us to develop and be healthy (WHO, 1988). Malnutrition at this period leads to poor academic achievement, job capacity, and physical development (Kumari Sunita, 2005).

This time is distinguished by an unusually quick pace of expansion. Children are continually forming new tissues and replacing old ones. Their dietary needs per unit of body weight are larger than those of adults. If children do not obtain the nutrition they need, undernutrition and malnutrition of some kind will certainly occur, the form and degree of which will depend on the type and quality of nutrients missing in diets (Cravioto et al., 1976).

OBJECTIVES-

- 1) To investigate the socio-demographic characteristics and Nutritional status (HAZ, BAZ) of school-aged children.
- 2) To association between SDV and Nutritional status of school-going children.
- 3) To investigate the frequency of clinical indications of dietary deficiencies in school children.

SIGNIFICANCE

School-age is regarded as a dynamic stage of growth and development for children since they go through physical, mental, emotional, and social changes. The school—age period is nutritionally crucial because it is the optimal time to build up nutrient reserves in preparation for the fast development of adolescence (Awasthi et al, 2000). School-aged children are the future generations of every nation, and their dietary requirements are crucial for societal well-being. A high percentage of children in SEAR suffer from chronic malnutrition and anemia, which has a negative influence on their health and development (WHO 2006). Addressing the dietary requirements of school-aged children might be a critical step toward ending the cycle of intergenerational starvation, chronic illnesses, and poverty. Epidemiological research from both developed and developing nations suggests a relationship between fetal malnutrition and an increased risk of acquiring numerous chronic illnesses in adulthood (ACC/SCN 2000). In India, one-fifth of the population is made up of children aged 5 to 14, including those in primary and secondary school (Srivastava et al, 2012).

MATERIALS AND METHODS

The data was collected via purposeful random sampling and a self-designed questionnaire (Respondent — Mother). Secondary data was gathered via the use of books, e-books, journals, websites, and so on. The Chi-square test and percentage approach were used to analyze the data. The sample size is 100 children aged 6 to 12 years. The pupils were contacted by Angel Global School and Ayesha Tarin Modern Public School in Aligarh. Anthropometric measures, clinical exams, and mothers of children were questioned, and the influence of various symptoms such as night blindness, yellow conjunctiva, and so on was utilized in the nutritional evaluation. WHO Recommends the Z-Score Classification System (2007)-

<u>INDICATORS</u>	<u>CLASSIFICATION</u>	<u>Z-SCORES</u>
Height for Age (HAZ)	Normal	-2SD to +2SD
	Stunted	<-2SD
	Severely Stunted	<-3SD
BMI for Age (BAZ)	Normal	-2SD to +1 SD
	Thin	<-2SD
	Severely Thin	<-3SD
	Overweight	>+ 1 SD
	Obesity	>+2SD

SELECTION OF RESPONDENTS

In the current research, mothers and their children were interviewed to get information on the kid and his sociodemographic profile. If a family had more than one child between the ages of 6 and 12, only the oldest child was chosen.

• Inclusion Criteria:

Children who had turned 6 years old on the day of the interview and were no older than 12 years old.

The research comprised both male and female participants.

The research included children who were both attending and not attending school.

• Exclusion Criteria:

Children under the age of six and those above the age of twelve.

Children with physical limb and spine abnormalities.

Children with illnesses or mental abnormalities were barred from participating in the research.

Children are refusing to cooperate with anthropometric measures.

RESULTS AND DISCUSSION

A) The respondents' socio-demographic profile was collected per the first objective.

S. NO.	N=100	SOCIO-DEMOGRAPHIC PROFILE OF RESPONDENTS					
1)	Age (years)	6-7 Years =32%	7-8 Years =27%	8-9 Years =18%	9-10 Years =8%	10-11 Years =9%	11-12 Years =6%
2)	Gender	Girls= 48%			Boys= 52%		
3)	Father's education	Illiterate =24%		Literate = 50%		Primary Education =26%	
4)	Father's occupation	Skilled Worker =37%			Unskilled Worker = 63%		
5)	Mother's education	Illiterate =46%		Literate = 32%		Primary Education =19%	
6)	Mother's occupation	Working = 36%			Non-working = 64%		
7)	Type of family	Joint = 60%			Nuclear = 40%		
8)	Siblings	More than 3 = 59%			Less than or equal to 3 = 41%		
9)	HAZ	Normal = 32%		Stunted = 40%		Severely Stunted =28%	
10)	BAZ	Normal = 20%		Stunted = 51%		Severely Stunted =29%	

According to the table above, the majority of children (32%) in the age group of 6-7 years were followed by 27% and 18% in the age groups of 7-8 and 8-9 years. In contrast, the minimal proportion of children was 8.0%, 9%, and 6% in the age categories 9-10, 10-11, and 11-12 years, respectively. The research included the majority (52%) of boys and 48% of girls among 100 school-aged youngsters. The highest number of schoolchildren, 46%, had illiterate moms, while 35% had literate mothers. Only 19% of children were raised by moms who had completed primary school. The majority of children (63%), had dads who were unskilled workers, while just 37% had fathers who were skilled workers. The bulk of children (60%) came from mixed families, while 40% came from nuclear households. The categorization of 100 school-age children based on their height for their age. According to the table, 32% of the children were normal, 40% were stunted, and 28% were severely stunted. Among school-age children, the total prevalence of stunted (Stunted + Severely Stunted) youngsters was 68%. The chart above categorizes 100 school-age children based on their BMI for their age. According to the table, 20%, 51%, and 29% of the youngsters were normal, thin, or seriously thin, respectively. Among school-aged youngsters, the total prevalence of thinness (Thin + Severely Thin) was 79.4%.

B) Association between SDV and Nutritional status.

Socio-demographic Factor	Nutritional status (HAZ, BAZ)	Test of Significance	p-Value
Age of Children	HAZ	Insignificance	$p > 0.05$
	BAZ	Significance	$p < 0.01$
Gender	HAZ	Insignificance	$p > 0.05$
	BAZ	Significance	$p < 0.01$
Father's Education	HAZ	Insignificance	$p > 0.05$
	BAZ	Significance	$p < 0.01$
Mother's Education	HAZ	Significance	$p < 0.01$
	BAZ	Significance	$p < 0.01$
Father's Occupation	HAZ	Significance	$p < 0.01$
	BAZ	Significance	$p < 0.01$
Mother's Occupation	HAZ	Significance	$p < 0.01$
	BAZ	Significance	$p < 0.01$
Family Type	HAZ	Significance	$p < 0.01$
	BAZ	Significance	$p < 0.01$
Number of Siblings	HAZ	Significance	$p < 0.01$
	BAZ	Significance	$p < 0.01$

According to Babar et al. (2010), nutritional difficulties are more than simply medical issues; they have roots in many areas of development, including the economy, education, and so on. According to Srivastava et al. (2012), nutritional status was strongly connected with age, suggesting low nutritional status of young children, but the current research found no significant correlation ($p > 0.05$) between age group and height for school-aged children. In another research, Saluja et al (2010) discovered that the prevalence of stunting was greater in females (46.0%) than in boys (41.8%).

C) Examine clinical indications of dietary deficiencies in school children.

Signs/Symptom	Present	Absent	Nutrients
Thin and Lustre less Hair	21%	79%	Protein
Bitot Spot	6%	94%	Vitamin A
Night Blindness	6%	94%	Vitamin A
Pale Conjunctiva	23%	77%	Iron
Koilonychia	17%	83%	Iron
Glossitis	8%	92%	Vitamin B complex
Cheilosis/Angular Stomatitis	6%	94%	Vitamin B2
Bleeding Gums	13%	87%	Vitamin C
Goiter	0%	100%	Iodine

According to the above data, the incidence of thin and lustrous hair was 21% among 100 school-aged youngsters. Bitot spots and night blindness were both seen in 6% of children. Pale conjunctiva and koilonychia were seen in 23% and 17% of school-aged children, respectively, whereas glossitis and cheilosis were found in 8.0% and 6.0%. 13% of the youngsters had bleeding gums. Remarkably, no cases of goiter were discovered throughout the investigation. According to Chauhan et al. (2011), girls and boys had a much greater prevalence of VAD. Nigudgi et al (2012) discovered a very high frequency of Bitot spot (48.80%) among school students in Gulbarga, India. Prabhankar and Gangadhar (2009) discovered a 94.1% prevalence of loss of luster among the youngsters investigated, which was higher than the current study's results.

CONCLUSION-

Good nutrition throughout school age is crucial for compensating for childhood deficiencies. Dietary intake in terms of appropriate availability of food in terms of quantity and quality (especially the mean calorie intake), capacity to digest, absorb, and utilize food, and societal prejudice against females may all have a significant impact on these children's adequate nutrition. Nutrition monitoring assists in assessing the type, extent, and distribution of nutritional problems in the community, both among problem groups and geographical regions. This kind of long-term monitoring allows us to investigate the changes that occur over time.

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