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## AN EVALUATION OF HEALTH STATUS OF CHILDREN STUDYING IN SELECTED PRIMARY SCHOOLS IN THE TRIBAL AREAS OF SARBHON PRIMARY HEALTH CENTER (PHC), BARDOLI

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### ABSTRACT

A descriptive study was conducted to assess the health status of the primary school children in the tribal areas of Sarbhon PHC. The purpose of study was to assess the health status of the children, to find out the association between health status and their selected socio demographic variables and to compare the health status of the children between the selected schools. Sample size comprised of 100 students (50 from Nizar primary school and 50 from Pathradia primary school. Samples were selected by purposive sampling technique and physical assessment tool was used to collect the data. The gathered data was analysed using descriptive and inferential statistics. Results depicts that, out of 100 students, significant association was found between health status of school children in Nizar primary school (Group 1) with age and education. No significant association was found between health status of school children in group 1 with gender, dietary pattern and type of family. Significant association found between health status of school children in Pathradia primary school (Group 2) with age, education and dietary pattern. No significant association was found between health status of school children in group 2 with gender and type of family. No significant difference was found in BMI score between children in two different schools.

**Keywords:** Health Status, School Children, Common Health Problems.

### Introduction

Childhood is a wonderful phase in one's life. It's time to let loose and explore various things. With all its great moments, it is also a time when children are susceptible to illnesses as their immune system is still developing<sup>1</sup>. School health can be defined as a state of complete physical, mental, social and spiritual wellbeing and not merely the absence of disease or infirmity among pupils, teachers and others school personnel. Primary school children are vulnerable to develop various health problems which can be of mild to severe intensity. Common health problems of school children are malnutrition, common cold and cough, dental caries, fever, skin diseases etc. Contact dermatitis, Inflammatory skin conditions are common in children. It appears as bright red bumps, patches, and sometimes pus-bumps that are found on the skin and in its folds. Improper personal hygiene, allergy is the cause of skin disease. Dental caries or cavities, more commonly known as tooth decay, are caused by a breakdown of the tooth enamel. This breakdown is the result of bacteria on teeth that breakdown foods and produce acid that destroys tooth enamel and results in tooth decay. Treatments include fluoride, fillings and crowns. Severe cases may need a root canal or removal. The term malnutrition indicates stunting, wasting, overweight and underweight and is used to measure nutritional imbalance; such imbalance results in either under-nutrition (assessed from stunting, wasting and underweight) or overweight<sup>2</sup>. Normal Body Mass Index (BMI) in this age group is above 18kg/m<sup>2</sup>. Common cold or a runny nose is quite frequent in children (an average of 6-8 colds per year) and is often associated with mild fever and myalgia<sup>3</sup>. Child growth data reported that about 30.4% students have abnormal BMI; 19.1% fall in the overweight and obese category 25.5% children have abnormal vision; potentially 1 in every 2 children may need glasses, 50.3% students found to have dental issues; 26.8% have cavities<sup>4</sup>.

**The objectives** of the study were assessing the health status of the children, find out the association between health status and their selected socio demographic variables and compare the health status of the children between the selected schools. The study was based on the assumption that, primary school children from tribal areas of Sarbhon may have normal health status. It was hypothesized that, health status of primary school children will be influenced by their age, sex, type of family and dietary pattern.

**Materials and methods** used in the study were quantitative research approach descriptive research design, research setting was primary schools of Tribal areas, Sarbhon PHC. Sample size were 100 (50 students in Group 1 & 50 in Group 2). Target Population of the study were primary school children in the age group between 6-10 years and purposive sampling technique was used to collect the data.

**Inclusive criteria** of the study were those who are willing to participate in this study using consent from the school principal and class teacher, both the male and female children are included, age group of the children 6-10 years and the students who can follow Gujarati. The students who were sick during the time of data collection were excluded from the study.



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Development and description of the tool were the socio-demographic data deals with age, sex, type of family and dietary pattern of the primary school children and physical assessment checklist consists of head-to-toe examination including height, weight, head circumference, chest circumference, mid arm circumference, abdominal girth and Body mass index (BMI) to find out any abnormalities in the body<sup>7</sup>.

Results: Major findings of the study were presented as follows:

Frequency and percentage distribution of primary school children according to their Socio demographic variables

Demographic characteristics of the children in group 1, majority 25 (50%) of the children belonged to the age group between 09-10 years are and 5 (10%) were belonged to the age group between 08-09 years of age. 25(50%) of subjects were male children and rest 25 (50%) were female children. 12 (22%) are studying in I standard, 9(18%) are in II, 5(10%) are in III and 25 (50%) are studying in IV standard. The majority 32 (64%) of the children were mixed and rest 18 (36%) were in vegetarian dietary pattern. The majority 29 (58%) of children were residing at nuclear family and rest 21 (42%) were residing at joint family.

Demographic characteristics of the children in group 2, majority 17 (34%) of the children belonged to the age group between 07-08 years are and 8(16%) were belonged to the age group between 06-07 years of age. 25(50%) of subjects were male children and rest 25 (50%) were female children. 8 (16%) are studying in I standard, 17(34%) are in II, 13(26%) are in III and 12 (24%) are studying in IV standard. The majority 36 (72%) of the children were mixed and rest 14 (28%) were in vegetarian dietary pattern. The majority 33 (66%) of children were residing at nuclear family and rest 17 (34%) were residing at joint family.

Health status of the children studied

Table 1: Frequency and percentage distribution of primary school children according to their Health status

N<sub>1</sub>=50, N<sub>2</sub>=50

Health status	Group 1		Group 2	
	f	%	f	%
Normal	5	10.0	2	4.0
Mild	35	70.0	34	68.0
Moderate	10	20.0	14	28.0
Severe	-	-	-	-

It is evident from Table 1 depicts that, 35(70%) have mild, 10(20%) have moderate malnutrition and only 5(10%) are normal. 34(68%) have mild, 14(28%) have moderate malnutrition and only 2(4%) are normal.

Comparison of health status of the children between 2 schools

Table 2: Comparison of health status of the children

N<sub>1</sub>=50, N<sub>2</sub>=50

	Median	Quartile deviation	Man Whitney U value	Z value	p value
Group 1	3.0	0	1100.00	1.275	0.202 (NS)
Group 2	3.0	0.5			

t= 1.96 when df= 98 at 0.05 level of significance NS= Not significant

Data presented in table 2 revealed that children studying in both the schools had same median health status (3.0). Mann Whitney U value (1100.00) and z value (1.275) obtained indicated that there was no significant difference between health status of children in two different schools (p<0.05)<sup>8</sup>.



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Comparison of BMI of the children between 2 schools

Table 3: Significance of difference between Mean scores of BMI of children N<sub>1</sub>=50, N<sub>2</sub>=50

	Range	Mean	SD	Mean difference	t value	p value
Group 1	12.0- 19.8	16.00	1.45	0.244	0.906	0.574 (NS)
Group 2	13.4- 18.4	15.76	1.24			

t=1.984 when df= 98 at 0.05 level of significance

NS= Not significant

Data presented in table 3 revealed that the mean BMI score of groups 1 (16.0 ± 1.45) is higher than that of group 2 (15.76 ± 1.24) with a mean difference of 0.244. The t value obtained (0.906) was lesser than the table value t (1.984).

Association between health status and their selected socio demographic variables among samples in Group 1

There was a significant association found between health status of school children in group 1 with age (χ<sup>2</sup> value = 18.753, p<0.05) and education (χ<sup>2</sup> value = 18.753, p<0.05). No significant association found between health status of school children in group 1 with gender, dietary pattern and type of family.

Association between health status and their selected socio demographic variables among samples in Group 2

There was a significant association found between health status of school children in group 2 with age (χ<sup>2</sup> value = 14.420, p<0.05), education (χ<sup>2</sup> value = 14.420, p<0.05) and dietary pattern (χ<sup>2</sup> value = 11.485, p<0.05). No significant association found between health status of school children in group 2 with gender and type of family.

Discussion

The present study was under taken to assess the health status of primary school children in selected schools. The objectives of the study were assessing the health status of the children, find out the association between health status and their selected socio demographic variables and compare the health status of the children between the selected schools. The descriptive survey has conducted using physical assessment tool.

The study results showed that, there was a significant association found between health status of school children in in Nizar primary school (Group 1) with age and education. No significant association found between health status of school children in group 1 with gender, dietary pattern and type of family.

The same findings were incorporated study was conducted by Syed Abid Asghar, Pratibha Gupta et.al (2017) to assess the health status of primary school children with the objective to assess health status of primary school children in rural areas of Lucknow<sup>5</sup>. Purposive sampling technique was adopted to select primary schools from 1st to 5th standard. All students who were present at the time of survey were included in the study. A pre-structured Performa for each student was used to record information regarding anthropometric measurements, physical examination/ personal hygiene, clinical findings. Results of the study was a total of 170 children were examined, among these 82 (48.23%) were boys and 88 (51.77%) were girls. Dental caries was the most common infirmity observed in 63 (37.05%) children with 95% CI (33.35- 40.75) and was statistically significant (p<0.05) with boys 29.27% and girls 44.31%. Anaemia was found in 65 (38.23%), boys were 32.92% and girls 43.18%. Ear discharge was seen in 17 (10%) children, boys were 6.10% and girls 13.63%. The study concluded that the common infirmity found were dental caries, anaemia and ear discharge<sup>9</sup>. Effective strategy with good monitoring and evaluation is imperative in ensuring adequate and optimal implementation of school health services in primary schools.

There was a significant association found between health status of school children in Pathradia primary school (Group 2) with age, education and dietary pattern. No significant association found between health status of school children in group 2 with gender and type of family. Few children were suffering with common cold, cough, fever and dental carries in both schools.

The same findings were incorporated study was conducted by Muralidhar M Kulkarni, N Varun et. al (2016) to assess the health status of school children in rural area of coastal Karnataka<sup>6</sup> with the objective to assess the morbidity pattern and nutritional status among school children. Materials and Methods were used that the study setting was in 14 schools with a total strength of 909 children in a rural area of coastal Karnataka. Data regarding anthropometric measurements, refractory error, medical problems and



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minor ailments were collected using a predesigned proforma. Results of the study was a total of 797 children were examined. Dental caries was the most common ailment observed in 31.86% of children 43.32% of the children were underweight, 53.03% were normal, and 3.65% were overweight for age. The study concluded that the school health program provides a good opportunity to screen, identify and impart education regarding health-related issues. The common morbidities found were dental caries, pallor, upper respiratory tract infection and refractory error. Overweight was also observed in the school children and needs to be addressed. There is a scope of providing comprehensive school health services by incorporating dental care.

### Conclusion

The findings of the study revealed that there is special care should be given to the children and awareness to their parents to improve the health status and hygienic practices in order to prevent malnutrition and health problems<sup>10</sup>.

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