

“Assessment of selected Nutritional Problems among Primary School Children age between 6-12 year at Primary School G.S. Palya, Bangalore.”

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ABSTRACT

Introduction: Malnutrition is also one of the major problem school children and failure in maintenance of healthy bodily functions and typically associated with extreme poverty in economically developing countries. Most commonly, malnourished children either do not have enough calories in their diet, or are eating a diet that lacks protein, vitamins, or trace minerals. Poor diet especially in primary school children can have an injurious impact on health, causing deficiency diseases such as scurvy, beriberi, and kwashiorkor; health-threatening conditions like obesity and metabolic syndrome etc.

Materials and Methods: It was a Non-experimental descriptive research study carried on a total number of 100 primary school children. Selected nutritional problems along with their relationship with the selected socio demographic data were also studied.

Result: The findings shows that majority of children (60%) had pitting edema on the legs, (56%) of children had puffiness of the face, (70%) had moon face, (15%) had apathy, (20%) had hyper pigmentation of the skin, (25%) had strip of skin and none of subjects had brown hair and patches of dusky erythema. muscle wasting (25%), (10%) had very low weight for height, (32%) had wrinkled (creasy) skin over the buttocks, majority of subjects (65%) had loose skin, (50%) had greater appearance of bones outside and none of them had deep shadow (sunken) eyes. unable to see in dim light, (47%) had dry, soft and creasy conjunctiva, majority of subjects (65%) had unable to read the chalkboard clearly, (56%) had habituated to see television closely and none of subjects had watery eyes, with increased respiration (45%) and (57%) had digestive disturbances, (30%) had low grade fever, (6%) had depression of the sternum and none of subjects had melena and legs usually held in a frog like position.

Conclusion: Age, Gender, Education status of father and mother shows significant association with the selected nutritional health problems of primary school children, while religion, income of the family, occupation of Father, occupation of mother, type of family, and dietary pattern shows no significant association with nutritional problems of primary school children.

Keywords: Selected Nutritional Problems, Primary School Children

INTRODUCTION:

“Wealth and children are the adornment of life.” – Koran “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”. – WHO Health is a resource for life, not the object of living; it is a positive concept emphasizing social and personal resource, as well as physical capacities. All communities have highly variable, unique strength and health needs; and are a common theme in most cultures. Health is multidimensional and the list of health determinants is quite long. They are poverty, lack of education, poor housing inadequate and unsafe water supply, improper sanitary disposal of solid and liquid wastes, availability and type of food supply, ability to purchase food, social and cultural practices and misbelieves Various factors which affect the primary school children's health are nutrition, water supply, school environment, children's habits, health environment, peer group etc.

Poor diet especially in school children can have an injurious impact on health, causing Nutrient deficiency diseases such as Malnutrition, anaemia, scurvy, beriberi and vitamin A deficiency etc.

Malnutrition is a general term for a medical condition caused by an improper or insufficient diet. It most often refers to under nutrition resulting from inadequate consumption, poor absorption, or excessive loss of nutrients.

STATEMENT OF THE PROBLEM

Assessment of selected nutritional problems among primary school children age between 6-12 year at primary school g.s. Palya, bangalore

AIMS AND OBJECTIVES:

1. To identify the selected nutritional health problems of primary school children.
2. To find the association between the selected nutritional health problems and selected socio-demographic variables.

MATERIAL AND METHODS:

The present Non-experimental descriptive survey study was conducted among 100 primary school children between the age group of 6-12 year at primary school G.S.Palya, Bangalore.

Inclusion criteria :

Primary school children in selected schools.

Primary school children who were willing to participate in the study.

Exclusion criteria :

Primary school children more than 12 years are excluded.

RESULTS :

The study subject comprised of 100 primary school children between the age group of 6-12 year. Results shows that majority 47 (47%) of the primary school children belong to the age group of 9-11 years and only 15 (15%) of the subjects were aged 6-8 years. It is interesting to note that maximum of the subjects 57 (57%) were males and 43 (43%) were females. With respect to religion 66 (66%) of the subjects were Hindus and 10 (10%) of them were Christians. On considering the educational status of the father 42 (42%) of them had high school education and 8 (8%) had post-graduation. Regarding the educational status of the mother 50 (50%) of them had high school education and 8 (8%) of them had post-graduation. Results Depicts the family income per month, on considering the monthly income majority 53% had income < 3000 and 8% had 5000 and above income per month. With regards to the occupation of the father 26% of them had no employment and 14% of them had Government employment and 4% were others. With regards to the occupation of the mother 63% were housewife and 10% were agriculture. Regarding the type of family majority 55% were in nuclear family and 45% were in joined family. On considering the dietary pattern majority 34% are having non-vegetarian diet and 12% are ova – vegetarian. Results depict the presence signs and symptoms of kwashiorkor of primary school children majority (60%) of the subjects had pitting edema on the legs, (56%) of subjects had puffiness of the face, (70%) had moon face, (15%) had apathy, (20%) had Hyper pigmentation of the skin (25%) had strip of skin and none of subjects had brown hair and Patches of dusky erythema. Results depict the presence of signs and symptoms of marasmus of primary school children majority (25%) of the subjects had muscle wasting, (10%) of them had very low weight for height, (32%) had wrinkled (creasy) skin over the buttocks (65%) had loose skin, (50%) had greater appearance of bones outside and none of the subjects had deep shadow (sunken) eyes. Results depict the presence of signs and symptoms of

vitamin A deficiency of primary school children majority (45%) of the subjects were unable to see in dim light, (47%) had dry, soft and crease conjunctiva (65%) subjects were unable to read the chalk board clearly, (56%) had habituated to see television closely and none of the subjects had watery eyes.

Results depict presence signs and symptoms of scurvy of primary school children that majority (45%) had increased respiration, (57%) had digestive disturbances, (30%) had low grade fever, (6%) had depression of the sternum and none of subjects had melena and legs usually held in a frog like position.

It reveals that there is significant association between selected nutritional problems with age, gender, religion, educational status of the father, educational status of the mother of socio-demographic variables evident of $P < 0.05$ level and there is no relationship between the religion at $P > 0.05$. Results reveals that there is no significant association between nutritional problems with income of family, occupation of father and mother, type of family and dietary pattern of socio demographic variables evident of $P < 0.05$ level. Hence the null hypothesis stated “there is no significant association between the selected nutritional health problems with socio demographic variables. So the null hypothesis accepted. Results depict the mean, mean% and standard deviation value for selected nutrition problems. It is curious to note that majority of primary school children have a vitamin A deficiency which evident from a mean score of 2.13, mean percent 42.6% and standard deviation 10.34. It also interesting to note that the second highest nutritional health problem Scurvy with mean score 1.95, mean percent 32.5% and standard deviation 9.69. The overall nutritional problems with the mean 8.36 mean percent 33.44% and standard deviation 5.55.

DISCUSSION:

This chapter deals with the discussions in accordance with the objective of the study and hypotheses. The problem statement was “A descriptive study to assess the selected nutritional health problems of primary school children, at government primary school G.S.PALYA, Bangalore.”

1. The first objective was to identify the nutritional health problems of primary school children. The findings shows that majority of children (60%) had pitting edema on the legs, (56%) of children had puffiness of the face, (70%) had moon face, (15%) had apathy, (20%) had hyper pigmentation of the skin, (25%) had strip of skin and none of subjects had brown hair and patches of dusky erythema. muscle wasting (25%), (10%) had very low weight for height, (32%) had wrinkled (creasy) skin over the buttocks,

majority of subjects (65%) had loose skin, (50%) had greater appearance of bones outside and none of them had deep shadow(sunken)eyes. unable to see in dim light, (47%) had dry, soft and creasy conjunctiva, majority of subjects (65%) had unable to read the chalkboard clearly, (56%) had habituated to see television closely and none of subjects had watery eyes, with increased respiration (45%) and (57%) had digestive disturbances, (30%) had low grade fever, (6%) had depression of the sternum and none of subjects had melena and legs usually held in a frog like position. The findings of the study supported by a study conducted in Semnan city. The sample size was 256 primary school children divided into four areas (North, South, West and East) according to socio-economic status. Two schools were selected from each of the four different areas by using a two-stage random sampling method. Only data collection took two months (April and May 2004). Questionnaires were pretested and modified according to the study objectives. The prevalence of underweight, at risk and overweight was 5.9%, 11.7% and 4.7% respectively. Underweight was slightly higher (9.4%) and the highest percentage of obesity (6.3%) was but these differences were not significant.

2. The second objective was to find the association between the selected nutritional health problems and selected socio-demographic variables. findings revealed that the socio-demographic variables associated with selected nutritional problems i.e. age, gender, education status of father, education status of mother while other socio-demographic variables shows that there is no association with selected nutritional problems i.e. religion , family income, occupation of father, occupation of mother, type of family and dietary pattern. The findings of the study supported by a study conducted in nandnagri in east Delhi regarding utilization of ICDS facilities among 1243 children (636 boys and 607 girls) in the age group of 7-13 years. The study finds that aganwadi attendance score, age, gender of the child and educational status of the father showed statistically significant association $p < 0.005$ with malnutrition.

CONCLUSION:

The results revealed that majority (56%) of the primary school children had mild nutritional problems, while (44%) had moderate nutritional problem. Socio-demographic variables have influence on the selected nutritional health problems. Age (years), gender,

education status of father and mother shows significant association with the selected nutritional health problems of primary school children.

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RESEARCH METHODOLOGY

Research Method- Descriptive evaluative approach as the study aimed at development of an intervention (early ambulation) for adults.

Research Design- Quasi-experimental approach, two group post-test design, keeping in the view the objectives of the study. The investigator observed the experimental and control groups after intervention (Post test).

Dependant variable- Post operative complications.

Independent variable- Early ambulation.

Hypothesis

H₀. There will be no significant difference in the post operative complications among the patients following abdominal surgery after early ambulate.

Setting of the Study

The study was conducted in Talera Hospital, Moraya hospital, Dr D.Y.Patil hospital and research centre, Pimpri chinchwad area of Pune City.

Population

The population of the present study comprises selected abdominal surgery patients of Dr.D.Y.Patil Hospital and Y.C.M.Hospital, PCMC .

Sample Size and Sampling Technique

The sample selected for the present study comprised of 50 patients of following abdominal surgery of Dr.D.Y.Patil Hospital and YCM Hospital, Pimpri Chinchwad .Non-probability purposive sampling approach uses participants who are easily accessible to the researcher and who meet the criteria of the study.

In the study, Meshplasty, cholecystectomy, Exploratory laparotomy, appendectomy patients are selected by purposive sampling technique by the investigator. It is suitable keeping in view the time provided for data collection and the study.

Sample size for this study is 50 patients following abdominal surgery. Selections were made among those who fulfilled the sampling criteria.

Inclusion Criteria

- ✓ Patients following abdominal surgery.
- ✓ Patients who are willing to participate in study.

Exclusion criteria

- ✓ Patients who are critically ill.

DATA COLLECTION TECHNIQUE AND TOOL

An observation check list was prepared and used for data collection. A semi structured interview was developed for demographic variables and an observation checklist was developed for assessing the

effect of early ambulation among the patients following abdominal surgery in selected hospital of PCMC.

DESCRIPTION OF THE TOOL

The tool is consisting of 3 sections:

Section A: This section is the first section seeking information on demographics data of client i.e. age of sample, gender, educational status, occupation, smoking history, name of surgery, incision type, types of anesthesia and weight of sample .

Section B: This section observation checklist is the second part of tool, which consist of 11 observations for assessing the effect of early ambulation.

SCORING

There were two options given for each observation. The scoring for normal measures is '2' and '1' for the deviation in normal measure. The scores range from a minimum of 11 to a maximum score of 22.The effect of early ambulation on post operative complications has been classified as.

Poor	(11-14)
Average	(15-18)
Good or less complication	(19-22)

RESULT

Table 1: Description of samples in Experimental group& Control group according to Demographic characteristics by frequency and percentage N=25

Demographic variable	Category	Experimental Group		Control Group	
		Freq	%	Freq	%
Age	16-25 yrs	4	16%	3	12%
	26-35 yrs	9	36%	6	24%
	36-45 yrs	7	28%	7	28%
	46-55 yrs	1	4%	7	28%
	56-65 yrs	4	16%	2	8%
Gender	Male	11	44%	13	52%
	Female	14	56%	12	48%
Educational status	Illiterate	1	4%		
	Primary	10	40%	6	24%
	Secondary	8	32%	6	24%
	Graduation	6	24%	13	52%
Name of surgery	Exploratory laparotomy	4	16%	6	24%
	Cholecystectomy	6	24%	7	28%
	Appendectomy	8	32%	4	16%
	Meshplasty	7	28%	8	32%

Occupation	Industrial worker	4	16%	5	20%
	Teacher	2	8%	2	8%
	House wife	5	20%	10	40%
	Farmer	4	16%		
	Any other	10	40%	8	32%
Smoking history	Current	6	24%	4	16%
	Non- smoker	18	72%	20	80%
	Ex-smoker	1	4%	1	4%
Incision type	Midline	7	28%	10	40%
	Sub costal	10	40%	10	40%
	Inguinal	8	32%	5	20%
Types of anaesthesia	General	11	44%	12	48%
	Spinal	14	56%	13	52%
Weight of patient	Normal	13	52%	16	64%
	Underweight	11	44%	2	8%
	overweight	1	4%	7	30%

Table 2: Mean and Standard deviation of test score on day 1st morning and 5th day evening after early ambulation in experimental group. **N=25**

Day	Mean	SD	T	df	p-value
Day1 Morning	19.12	0.93	15.81	24	0.000
Day5 Evening	21.96	0.20			

Table 3: Mean and Standard deviation of test score on day 1st morning and 5th day evening in control group.

Day	Mean	SD	T	df	p-value
Day1 Morning	18.28	1.40	8.72	24	0.000
Day5 Evening	20.56	0.82			

Table 4: Comparison of mean and standard deviation of test scores of complications between experimental and control group.

S.No.	Day	Mean	SD	T	df	p-value
1	Experimental	2.84	0.90	1.77	48	0.042
2	Control	2.28	1.31			

Table 5 : Relationship between complications and selected demographic variables for patients following abdominal surgery .

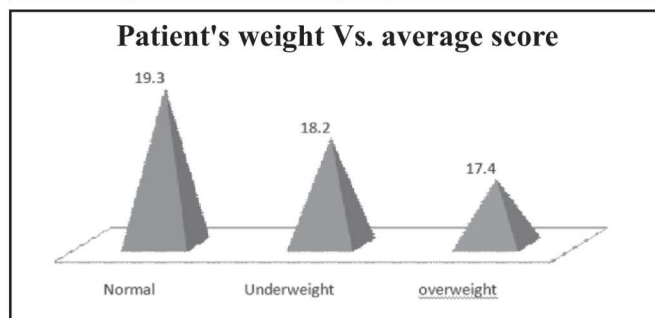
S.No.	Demographic variable	F	p-value	Association
1	Age category	0.17	0.950	Not Significant
2	Gender	0.4	0.531	Not Significant
3	Educational status	0.21	0.887	Not Significant
4	Name of surgery	0.79	0.503	Not Significant
5	Occupation	0.43	0.789	Not Significant
6	Smoking History	2.47	0.095	Not Significant
7	Incision Type	0.12	0.891	Not Significant
8	Types of Anaesthesia	1.96	0.168	Not Significant
9	Weight of patient	12.47	0.000	Significant

Table 6 : One-way ANOVA: Complications score versus Weight of patient

Source	DF	SS	MS	F	P
Weight of patient	2	26.52	13.26	12.47	0.000
Error	47	49.98	1.06		
Total	49	76.5			

Table 7: Mean test score versus weight of Patients

S.No.	Weight of Patient	Mean score
1	Normal	19.276
2	Underweight	18.231
3	Overweight	17.375



Fig; Bar diagram shows normal weight patient have more mean average test score than the underweight and overweight.

MAJOR FINDING OF THE STUDY

In experimental group majority of 80% of patients on Day 1 Morning had good post operative

complications score (19-22) and 20% of them had average post operative complications score (15-18), whereas day5 evening all 100% of the patients had less complications score (19-22), which indicates that early ambulation was effective in improving the complications of the patient following abdominal surgery.

In control group majority of 36% of patients on Day 1 Morning had good score (19-22) and 64% of them had average score (15-18), whereas on day 5 evening all 100% of the patients had less complications score (19-22).

Researcher applied two sample t test at 5% level of significance to compare difference between changes in scoring from day1 morning to day5 evening. Since P value is less than 0.05 (P value = 0.000) difference in average scores is statistically significant. Researcher concluded at 5% level of significance and 48 degrees of freedom that the above data gives sufficient evidence to conclude that patients following abdominal surgery after receiving early ambulation had more improvement for experimental group than for control group. Hence we reject null hypothesis and accept research hypothesis. It can be concluded that, the early ambulation is proved to be effective in improving the complications.

It can be concluded that, the early ambulation is proved to be effective in decreasing post operative complications.

The findings on relationship of selected variable of patients following abdominal surgery shows that, weight of patient is the only demographic variable which was found to have significant association with complications.

RECOMMENDATIONS

Following study can be undertaken in relation to present study;

- ✓ A comparative study can be done to assess effect of early ambulation on post operative complications among patient between abdominal surgery and cardiac thoracic surgery to help to look at the problem in a broader perspective.
- ✓ A similar study may be replicated on large samples; there by findings can be generalized.
- ✓ The study can be undertaken in different settings and different target population such as patients following cardiac surgery, thoracic surgery.

- ✓ A similar study can be repeated with assess the other post operative complications also in different settings & population.

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