



A Study to Assess the Knowledge of Middle School Teachers Regarding Nutritional Deficiency among School Going Children at Selected Schools of Pampore

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Introduction

Nutrition plays a critical role in children's physical and cognitive development. Middle school teachers are in a key position to influence students' dietary habits. Nutritional deficiencies such as iron, vitamin D, and calcium are common and can hinder academic and physical performance. However, many teachers lack formal training in nutritional education. This study aims to assess the current knowledge levels of teachers regarding nutrition and identify areas where training is needed. It also explores the role of teachers in fostering nutritional awareness among students and the importance of integrating nutritional education into the school curriculum.

What is Nutritional Deficiency? Nutritional deficiency refers to a condition where the body lacks essential nutrients due to inadequate intake or absorption, impacting growth, immunity, and cognitive function. Common deficiencies in school-aged children include iron, vitamin A, calcium, and iodine.

Use of Nutritional Education in Schools Providing proper nutritional education empowers teachers to impart accurate information to students, promote healthy eating habits, and recognize signs of malnutrition. It also bridges the gap between schools and health awareness, creating healthier learning environments.

Material & Methods:

Material and Method: A quantitative descriptive research design is used in this research study. A Non- probability Purposive sampling technique was used. The investigation included 60 samples in total. To evaluate the knowledge, a self-structured questionnaire was created. Both descriptive (frequency, percentage, mean, median, SD, range) and inferential (chi-square test) statistics were used to examine the gathered data. The statistical software SPSS version 26 was used to verify all of the conclusions at the $p < 0.05$ level of significance.

Results:

The findings revealed that Maximum of teachers 20 are of 41-50 years of age, comprising 33.33%, Majority 33 of middle school teachers are female comprising 55%, Among the sample majority of teachers 36(60%) have post-graduation as their educational qualification, 24(40%) teachers have 6-10 years as work experience, Among the sample majority of teachers 29(48.33%) have opted for science stream, Maximum of teachers 26 have attended workshop, comprising of 43.33%, Majority 33 of middle school teachers are married comprising 55%, Majority of teachers among sample that is 51 (85%) have moderately adequate knowledge regarding nutritional deficiencies among school going children at selected schools of pampore. The demographic variable of educational qualification (chi-square value of 9.636 and chi-square table value=7.815), attended any training program (chi-square value of 11.60 and chi-square table value=7.815), marital status (chi-square value of 6.99 and chi-square table value=5.98) found an association with knowledge as the calculated chi square value was greater than chi square table value. Other variables Age (chi-square value 11.94 and chi-square table value 7.815), Gender (chi-square value of 1.374 and chi-square table value=3.841), work experience (chi-square value of 3.117 and chi-square table value=7.815), specialization/stream (square value 2.811 and chi-square table value 7.815) were calculated less than chi square table value so this indicate that there is no correlation.

Methodology

Research Approach:

A quantitative research approach was adopted for the study.

Research Design:

A descriptive research design was adopted.

Research Setting:

The study was conducted in selected middle schools of Pampore area.

Target Population:

Middle school teachers from Pampore area.

Sample and Sample Size:

A total of 60 middle school teachers aged 25 years and above were selected from eight schools.

Sampling Technique:

Non-probability purposive sampling technique was adopted to select the sample.

Description of the Tool:

Two tools were used for data collection based on the objectives of the study:

- i. Socio-demographic questionnaire (age, education, teaching experience)
- ii. Structured questionnaire with 40 questions related to knowledge of nutritional deficiency, attitude, and need for further improvement.

Section I: Description of demographic variables of study subjects

Data Analysis & Interpretation

Characteristics		Frequency and Percentage distribution of Socio-demographic Variables _____	
Age (in years)	Content	Frequency	Percentage
21-30	17	28.33%	
31-40	19	31.67%	
41-50	20	33.33%	
51 and above	4	6.67%	
Gender			
Male	27	45%	
Female	33	55%	
Other	0	0	
Educational qualification			
Graduate	19	31.67%	
Post graduate	36	60%	
Doctorate	5	8.33%	
Post doctorate	0	0%	
Working experience in years			

1-5	12	20%
6-10	24	40%
11-15	15	25%
15 and above	9	15%
Specialization/stream		
Science	29	48.33%
Arts	11	18.33%
Commerce	5	13.34%
Others	15	25%
Attended any training program related to nutrition		
Workshop	26	43.33%
Seminar	23	38.33%
Teaching learning program	5	8.33%
In service education	6	10.01%
Marital status		
Married	33	55%
Unmarried	27	45%

Age: Maximum of teachers 20 are of 41-50 years of age, comprising 33.33%, followed by 19 middle school teachers of 31-40 years of age, comprising 31.67% and 17 of 21-30 33

years of age comprising 28.33%. The least teachers 4 are belonging to age 51 and above comprising 4%.

Gender: Majority 33 of middle school teachers are female comprising 55% and 27(45%) are male.

Educational qualification: Among the sample majority of teachers 36(60%) have post-graduation as their educational qualification, 19(31.67%) was graduate and least no. of samples 5(8.33%) were doctorate.

Work experience in years: 24(40%) teachers have 6-10 years as work experience, followed by 15 (25%) have 11-15 years' experience, followed by 12 (20%) have 1-5 years' work experiences. While as 9(15%) teachers have 15 and above as work experience.

Specialization stream/: Among the sample majority of teachers 29(48.33%) have opted for science stream, 15(25%) opted for others, 11(18.33%) for arts and least no. of samples 5(13.34%) have opted for commerce as their specialized subject.

Attended any training programme related to nutrition: Maximum of teachers 26 have attended workshop, comprising of 43.33%, followed by 23 middle school teachers have attended seminar, comprising of 38.33% and 6 for in-service education comprising of 10.01%. The least teachers 5 (8.33%) attended teaching learning programme.

Marital status: Majority 33 of middle school teachers are married comprising 55% and 27(45%) are unmarried.

Section II: Description of level of knowledge scores of middle school teachers regarding nutritional deficiencies among school going children at selected school of Pampore

N=60

Level of knowledge	Frequency	Percentage
Inadequate knowledge (0-9)	0	0%
Moderately adequate knowledge (10-20)	51	85%
Adequate knowledge (21-27)	9	15%

Minimum Score: 0

Maximum Score: 27

The frequency and percentage distribution of level of knowledge scores of middle school teachers regarding is displayed above. Majority of children among sample that is 51 (85%) have moderately adequate knowledge, while as 9(15%) children's have adequate knowledge and none of the teachers in sample have inadequate knowledge as is evident from the above table.

Association between knowledge of teachers with selected Demographic Variables.

N=60

N=60 Association between knowledge of teachers with selected Demographic Variables.

Variables	Opts	Inadequate knowledge	Moderately adequate	Adequate knowledge	χ^2 Test	χ^2 table Value	df	P value
Age	21-30	0	4	7	11.94	7.815	3	0.02S
	31-40	0		25		14		
	41-50	0		9		17		
	51 and above	0		4		0		
Gender	Male	0	0	0	1.374	3.841	1	0.288NS
	Female	0		35		44		
	Other	0		1		0		
Educational qualification	Graduate		0		0		0	
	Post graduate	0	13	6	9.636	7.815	3	0.02S
	Doctorate		0	22		29		
	Post doctorate		0	4		1		
Work experience	1-5		0		5		0	
	6-10	0	4	2	3.117	7.815	3	0.374NS
	11-15		0	8		7		
	15 and above		0	15		7		
Specialization/stream	Science		0		17		20	
	Arts	0	10	10	2.811	7.815	3	0.422NS
	Commerce		0	17		9		
	Others		0	9		12		
	0		8			5		
Attended any training program related to nutrition	Workshop	0	6	1	11.60	7.815	3	0.0090S
	Seminar		0	14		8		
	Teaching learning program		0	15		7		
	In service education		0	9		20		

Marital Status	Married	0	4	2	6.99	5.98	2	0.01S
	Unmarried	0		10		2		
	0		7			5		

Age: The analysis reveals significant association between age and knowledge level with chi-square value 11.94 and p-value 0.02 (df=3 and table value 7.815).

Gender: Religion is not significantly associated with knowledge level, as indicated by chi-square value of 1.374 and p-value of 0.288 (df=1 and table value=3.841 **Educational qualification:** Educational qualification is significantly associated with knowledge level, as indicated by chi-square value of 9.636 and p-value of 0.022 (df=3 and table value=7.815).

Work experience: There is no significant association between work experience and knowledge level, as indicated by chi-square value of 3.117 and p-value of 0.374 (df=3 and table value=7.815).

Specialization/ stream: The analysis reveals that there is no significant association between specialization and knowledge level with chi-square value 2.811 and p-value 0.422 (df=3 and table value 7.815).

Attended any training programme: Training and knowledge is significantly associated with each other, as indicated by chi-square value of 11.605 and p-value of 0.009 (df=3 and table value=7.815)

Marital status: Marital status is significantly associated with knowledge level, as indicated by chi-square value of 6.99 and p-value of 0.01 (df=3 and table value=7.815)

Conclusion:

In this study the majority of middle school teachers possess moderately adequate knowledge regarding nutritional deficiencies among school-going children. Educational qualification, attendance at training programs, and marital status were significantly associated with the age, level of knowledge, indicating that these factors may influence a teacher's understanding of the topic. However, variables such as gender, work experience, and specialization/stream did not show significant associations. Thus there is a need for additional training programs and workshops to enhance teachers' knowledge.

Keywords: Knowledge, Assess, enhance.

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