

KNOWLEDGE OF SCHOOL HEALTH PROGRAMMES AMONG TEACHERS IN SCHOOLS, GULMI

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ABSTRACT

Background: School teachers should have basic knowledge regarding school health programs to provide promotive and preventive healthcare through the implementation of the program. Thus, the main objective of the study was to assess the knowledge of school health programs among school teachers in the schools of Gulmi.

Method: A cross-sectional descriptive study was designed using a probability proportionate sampling technique and data from 73 respondents were collected using a self-developed structured questionnaire. The study was conducted between 2079/10/01 to 2079/10/30. Data management analysis and interpretation were done using descriptive and inferential statistics and presented in tabulated form.

Result: In total, 49.3 % of the respondents had an adequate level of knowledge. Most (86.3 %) of respondents had a clear concept of the meaning. 90.4% of respondents had adequate knowledge of school health education. 58.9 % and 54.8% of respondents had adequate knowledge of Nutrition and health services, and school health nurses respectively. Only 46.9% of respondents had adequate knowledge of School health education. The study showed an association between the level of knowledge and the level of teaching area of the teachers (P=0.039).

Conclusion: There was Less than half of the teachers had adequate knowledge on school health program. However, there are still gaps in knowledge on school health environment, Nutrition, and health services. Thus the training program should be provided by authorized level regarding this kind of components to enhance knowledge among teachers.

Keywords: Knowledge, School Health Program, Teachers

INTRODUCTION

School health is an important branch of community health that comprises health services, health instruction, and a healthful school environment that contributes to the health promotion and protection of the students and the whole staff of the school.¹ The school is the organizations where student spend 7 hours a day which enhance the well-being of students and school staff.²

Health and education are interdependent and schools provide a unique opportunity to improve the health and education status of school-age children.³ In 2006 School Health program was developed by the Ministry of Health and Population (MoHP) and Ministry of Education (MoE) reflecting the need to address the high burden of diseases in school-age Children and the target groups were primary-level school children. The School Health Program includes school health services, a healthful school environment, Nutrition services, a community support system, and a policy environment. 41 % of Nepal's population is under 16 years of age and 87 % of the nation's children are enrolled in schools.⁸

In Nepal due to inadequate access to Nutrition and Health services in schools, the children are burdened by preventable diseases. FCHV reported 66.27% of children had diarrhea compared to 34% at health facilities, 16.2% had pneumonia, 51% anemia, and National overage of school deworming is only 15% for boys and 16% for girls.⁹

There is limited research done in Nepal and various studies conducted in different countries had shown that lack of knowledge regarding components of SHP. So, this study will help to find out the knowledge on SHP among Teachers and help in the effective involvement of the Teachers in SHP in Ruru VDC. The study might evaluate the existing level of knowledge of School- teachers about the School Health Program. It might provide baseline data to health workers for preparing the awareness program on SHP.

MATERIAL AND METHODS

A cross-sectional descriptive study was designed. The data collection sites were in Ruru VDC wards no.3 and 4, using the Probability Proportionate Sampling (PPS) technique and self-structured questionnaire for data collection. The total sample size was 73.

Ethical approval: Approved from IRC of Manmohan Memorial Institute of Health Sciences

Informed Consent: Written informed consent was obtained from all respondents before the data collection

Data Analysis: Data analysis was done using SPSS version 25; statistical software. Data was interpreted by employing descriptive statistics using mean, chi-square, median, frequency, standard deviation, and percentage.

RESULTS

Table 1. Sociodemographic Characteristics of the Respondents

Variables	Number	Percent
Age of respondents		
20-38	37	50.7
39-58	36	49.3
Mean \pm SD=37.8 \pm 10.5		
Level of education		

Secondary	19	26.0
Bachelor	20	27.4
Master	34	46.6

More than half (50.7%) of the respondents belonged to age group 20-38 years and 46.6% of respondents had completed Master level of education are presented in the Table 1.

Table 2: Service Related Information of Respondents

Variables	Number	Percent
Year of teaching experiences		
1 to 5	29	39.7
6 to 10	13	17.8
11 to 15	12	16.5
>15	19	26.0
Training received		
Yes	44	60.3
No	29	39.7

Nearly one-fourth (39.7%) of the respondent had 1 to 5 years of teaching experience. 60.3% of respondents received training in School Health Programs shown in Table 2.

Table 3. Knowledge on School Health Program of Respondents

Variables	Number	Percent
Meaning of School Health Program		
Program adopted for benefit of Schools	4	5.5
Program comprises of Health service, Health instruction and Healthful School Environment #	63	86.3
Program promotes the health of community people	3	4.1
Program that promotes the health of teachers	3	4.1
Aim of School Health program		
To protect health of school parents	2	2.7
To promote, protect and maintain the health of School children #	60	82.2
To create health consciousness among policy makers	1	1.4
To improve health quality of the Nation	10	13.7
Established of School Health program		
2004 AD	9	12.3

2005 AD	9	12.3
2006 AD #	35	47.9
2007 AD	20	27.5
Initiating Sector of School Health Program		
Ministry of Education #	58	79.5
Non-government Sector	6	8.2
Private sectors	2	2.7
Foreign aids	7	9.6
Components of School Health Program*		
School Health Education	48	66.7
School Health Services	34	47.2
Nutritional services	26	36.1
Healthful School environment	36	50.0
School community participation	23	31.9

#Correct Response *Multiple Response

The most (86.3%) respondents answered the meaning of a School Health Program was the program comprises of health services, health instruction, and healthful school environment. 82.2% of the respondents answered the aim of the School Health program was to promote, protect and maintain the health of School Children. 47.9% of respondents answered the correct date of establishment of School health program. 79.5% of respondents answered the initiating sector of School health program by ministry of education and 66.7% of the respondents answered that school health education was component of School health program shown in Table 3.

Table 4. Knowledge on Training Program of Respondents

	n=73	
Variables	Number	Percent
Known about training program of SHP		
Yes	51	69.9
No	22	30.1
Training programs* (n=51)		
First aid	48	91.1
Nutritional	22	43.1
Screening of vision	14	27.5
Identify the hearing defect	12	23.5
Sanitation	29	56.9
Live saving skill	14	27.5

*Multiple Responses

The majority (69.9%) respondents known about training program of SHP and 91.1% of respondents known about training program of first aid presented in Table 4.

Table 5. Knowledge on Component “School Health Environment” of Respondents

Variables	Number	Percent
n=73		
School Health Environment		
Location of the School		
Near the busy road	8	11
Quiet and peaceful area #	63	86.2
Near to the factories	1	1.4
Near the crowded	1	1.4
No. of Students in single class room		
40 #	19	26
Not more than 40	49	67.2
45	5	6.8
More than 40	-	-
Color in classroom		
White #	48	65.8
White and black	4	5.5
White and blue	21	28.7
Black and Blue	-	-
Meaning of Cross ventilation		
Fan in classroom	5	6.8
Cooler in classroom	1	1.4
Windows in opposite site #	61	83.6
AC in classroom	6	8.2
Methods of waste disposal*		
Dumping	43	60.6
Composting	48	67.6
Burning	26	36.6
Placing waste on one side	16	22.5
Recycling	46	64.8
School provide hand washing facilities		
Yes	73	100
Separate toilet for boys and girls		
Yes	73	100

#Correct Response *Multiple Response

Most (86.3%) of the respondents answered, the location of the school should be in a quiet and peaceful area. 67.2% of the respondents answered the number of students in a single classroom were not more than 40 and 65.8% of the respondents answered the white color was appropriate in the classroom. 83.6% of the respondents answered the windows in opposite site was meaning of the cross ventilation. 67.6% of the respondents answered the methods of waste disposal was composting and only 22.5% of respondents answered burning in Table 5.

Table 6. Knowledge on Component “Nutrition and Health services” of Respondents

Variables	Number	Percent
Nutrition and Health services		
Program include in School health and Nutrition service*		
Mid-day meal plan	47	64.4
provision of first aid care	36	49.3
Iron folate supplementation	36	49.3
Vitamin A supplementation	28	38.8
periodic medical examination	23	31.5
Daily morning inspection	20	27.4
Deworming	6	3.1
Started of mid-day meal plan		
2010 AD	3	4.1
2012 AD	13	17.8
2015 AD #	20	27.4
2016 AD	37	50.7
Canteen Facilities consideration		
Open space and quality of food #	22	30.1
Quality of foods and congested space	6	8.3
Congested space and quantity of food	2	2.7
Quality and quantity of foods	43	58.9
Moring inspection in children to notice any abnormality in health*		
Red and flushed face	39	53.4
Red eyes	26	35.6
Sneezing and coughing	49	67.1
Dental Screening	17	23.3
Raise body temperature	27	37.0

Pain and tenderness	14	19.2
Abdominal pain	26	35.6

#Correct Response *Multiple Response

The majority (64.4%) of respondents answered the programs included in Nutrition and health services were Mid-day meal planning however only 3.1% answered Deworming. And 27.4% of respondents answered the correct date of initiation of Mid-day meal planning. 30.1% of respondent answered open space and quality of food should be considered while providing canteen facilities. 67.1% of respondents answered sneezing, coughing should be notice during morning inspection to find out any abnormality in children's, and only 19.2% answered pain and tenderness shown in Table 6.

Table 7. Knowledge on Component of School Health Education of Respondents

	n=73	
Variables	Number	Percent
Aim of Health Education		
To bring desirable change in health, knowledge ,attitude and practice #	62	84.9
To increase national income	3	4.1
To achieve high quality education	4	5.5
To promote health of the guardians	3	4.1
Outdoor program in School		
Once a week #	54	74
Twice a week	10	13.6
Annually	8	11
Biannually	1	1.4
Meaning of first aid		
Health checkup	7	9.6
Medical treatment	1	1.4
Immediate care is given to the person suffering from illness #	64	87.6
Prevent health deterioration	1	1.4
Person teaching on Health subject		
Doctors	5	6.8
Health teachers #	58	79.5
Social workers	4	5.5
Nurse	6	8.2

#Correct Response

Most (84.9%) of respondents answered aim of Health education was to bring desirable changes in health, knowledge, attitude and practice. 74.9% of respondents answered outdoor program should be conduct once a week in school. 87.6% of respondents answered the meaning of first aid was

immediate care given to person suffering from illness and 79.5% of the respondents answered Health teachers was a person who should teach on health subject presented in Table 7.

Table 8 Knowledge on Component “School Health Nurse” of Respondents

Variables	Number	Percent
School Health Nurse		
Ratio between School Health Nurse and School		
1:1#	42	57.5
2:1	11	15.1
3:1	7	9.6
4:1	13	17.8
Purpose of School Health Nurse		
To provide emergency medical services	22	30.1
To counsel on reproductive health and sex education	4	5.5
To inspire children to become future Nurse	5	6.8
Both a and b #	42	57.5
Activities carried by School health Nurse*		
Health Assessment	55	76.4
Immunization	25	34.7
Medicine Administration	28	38.9
Counseling on reproductive health education	35	48.6
Others	-	-

#Correct Response *Multiple Response

More than half of the respondents answered ratio between nurse and school is 1:1. 57.5% answered purposes of school health nurse were to provide emergency medical services and to counsel on reproductive health and sex education. 76.4% of respondents answered the health assessment was the activities carried out by school health nurse presented in Table 8.

Table 9. Source of Information on School Health Program

Variables	Number	Percent
Source of information *		
Multimedia	42	66.7
Health personnel	24	38.1
Books	41	65.1
News paper	22	34.9
Friends	16	25.4

*Multiple Responses

The majority (65.7%) of respondents answered the Multimedia as source of information 65.1% answered books followed by Health personnel 38.1% and newspaper 34.9% however only 25.5% answered Friends as s source of information shown in Table 9.

Table 10 Level of Knowledge on School Health Program

Level of Knowledge	Number	Percent
Adequate (>23)	36	49.3
Inadequate (≤23)	37	50.7
Median (23)		

Level of knowledge was categorized on basis of median score (23). Only 49.3 % of respondents had adequate knowledge and 50.7% of respondents had inadequate knowledge on school health programs shown in Table 10.

Table 11 Association between Levels of Knowledge and Socio-Demographic Variables

Variables	Level of Knowledge		X ² value	P- value
	Adequate Knowledge No. (%)	Inadequate Knowledge No. (%)		
Age of respondents				
20-38	24(64.9)	13(35.1)	5.533	0.19
39-58	13(37.1)	22(62.9)		
Level of education				
Secondary	7(36.8)	12(63.2)	1.973	0.373
Bachelor	11(55)	9(45)		
Master	19(55.9)	15(44.1)		

*Significant at P value < 0.05

The association between level of knowledge with level of teaching area of teachers (P = 0.039) however no association is found with other variables presented in Table 11.

Table 12 Association between Level of Knowledge and Service Related Variables

Variables	Level of Knowledge		X ² value	P-value
	Adequate Knowledge No. (%)	Inadequate Knowledge No. (%)		
Year of teaching experiences				
1 to 5	16(55.2)	13(44.8)	1.181	0.758
6 to 10	6(46.2)	7(53.8)		
11 to 15	7(58.3)	5(41.7)		
>15	8(42.1)	11(57.9)		
Training received				
Yes	2(22.2)	7(77.8)	3.327	0.068
No	35(54.7)	29(45.3)		

*Significant at P value < 0.05

There is no association between level of knowledge and service related variables presented in Table 12

DISCUSSION

Our study results demonstrate that only 37.1% of the respondents who belonged to age ≥ 39 years had adequate knowledge. This finding is discrepancy with findings of similar study done in Nigeria ⁷. This is due to difference in sample size i.e. 382 in previous study and teacher's difference levels of education.

Regarding year of teaching experiences 42.1% of the respondents having >15 years of teaching experiences had an adequate knowledge. Variance to the study done by Abubakar where 83.8 % of respondents have adequate knowledge.⁷ This could be due to recent employment of the teachers in which most of them were fresh graduates. Present study showed that 55.9% of the respondents who had master level of education had adequate knowledge. This study is contrast to the study done in Nigeria by Abubakar where 78.8 % of the respondents who had post graduate education had adequate level of knowledge.⁷ This may be due to different in setting of the research. Likewise 82.2% of the respondents answered the aim of school health program. This is contradictory by the study done in Sudan by Saadia where 68% of the respondents had clear concept about aim of SHP and another study done by Abubakar where 68.3% of respondents had adequate knowledge.^{6, 7}

This discrepancy in the findings is due to present study done the teachers who teach at primary and secondary level while another study done at only primary level schoolteachers.

Concerning knowledge on school health education 90.4% of respondents had adequate knowledge. This study is variance to the study done by Obembe where, 64.1% of respondents had adequate knowledge while by Saadia only 34.2% had good knowledge and by Odeyemi&Chukwu43.8% of teachers had good knowledge.^{3,6,4} The inconsistency in the findings could be due to differences in the setting and questionnaires for the assessment of knowledge. In regard to respondents knowledge of the school health environment, 46.9% of respondents had adequate knowledge. A similar study conducted by Abubakar revealed that 69.1% of respondents had adequate knowledge, similarly, study done by Obembe revealed that 50% of respondents had adequate knowledge and another similar study done by Saadia revealed 55.75% of respondents had adequate knowledge.^{7,3,6} The discrepancy in the findings of the study could be due to difference in sample size, research setting time duration and questionnaire for the assessment of knowledge.

In regard to respondents knowledge on nutrition and health services 58.9% of respondents had adequate knowledge. In this study revealed majority 60.3 % of the respondents have received the training on school health program. This findings is agree with study done by Obembe where, respondents knowledge on nutrition services 45.5% and health services 53.1% respectively.³ There is no evidence with the study conducted by Chavan & Chavan where only 10.4% of the teachers received the training on school health program.⁵ This may be due do difference in setting and training provided by the country according to their need.

In this study, the knowledge regarding the components i.e. Nutrition and health services in which only 3.1% of the respondents known about the deworming program and 38.7% of respondents known about the methods of pre-screening of children's. This is contrast with the study conducted by Saadia where 16.9% of respondents known about the deworming program and 74.5% of respondents known about the pre-screening technique.⁶ Similarly, no evidence with another study conducted by Abubakar where only 42.7 % of the respondents known about daily inspection of children.⁷ This discrepancy in findings is could be due difference in setting and service provided by the nation. In present study 67.6%of the respondents answered the method of waste disposal is composting. This is supported by same study conducted by Saadiawhich had mentioned that the average knowledge of appropriate methods of waste disposal was 66.2%.⁶In this study 74% of the respondents knew about physical education in school. This study is consistent with another study by Abubakar where 80.6 % of the respondents knew about physical education.⁷

The findings of the study represent significant association ($P=0.039$) between the level of knowledge and the respondent's teaching area however these results had not previously been described in other studies and the present study shows no association between the level of knowledge with age, gender, level of education and year of teaching experiences this is similar to the study done by Saadia where the p-value is greater than 0.05.⁶

CONCLUSION

Based on the findings of the study conclude that less than half the teachers had adequate knowledge on school health program however inadequate knowledge on components like school health environment and Nutrition and Health services. The study showed association between the level of knowledge and level of teaching area of the teachers.

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