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Knowledge and Attitude of School Teachers on School Health Programme, Biratnagar

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ABSTRACT

Background : The School Health Programme is a strategy to promote primary health care services in a school community. The goal of a school health program is to ensure student's physical, mental and social well- being throughout their schooling years. Teachers play a critical role in the effectiveness of this program, through their involvement and support. In Nepal, the School Health Programme is considered an important component of achieving the goal of "Education for All". The objective of this study was to find out the level of knowledge and attitude regarding the school health Programme among teachers of a school in Biratnagar.

Methods: A descriptive cross-sectional study was conducted in the selective schools of Biratnagar, Morang. 103 School Teachers were selected as the sample using a non-probability, purposive sampling technique. The structured self-administered questionnaire was used to collect the data. Data was analyzed using descriptive statistics, e.g. frequency, percentage, mean, median, standard deviation and inferential statistics (chi-square test) was used to assess the association of knowledge with selected demographic variables.

Results: The findings of the study have shown that out of 103 respondents, most of them (85.4%) had adequate knowledge of the school health programme, and almost all teachers had a positive attitude regarding the school Health programme. A significant association was found between the level of knowledge and educational qualification, with a *p-value* less than 0.05.

Conclusion: The study concluded that the majority of school teachers have good knowledge and a positive attitude towards School Health Program, which favor the school students' health and outcomes.

Keywords: Attitude, Knowledge, School Health Programme, School Teachers

INTRODUCTION

The School Health program provides an affordable solution in low-resource countries, where there are more schools and teachers than healthcare facilities andhealthcareprofessionals.[1] However, a largenumber of school-age children in Nepal suffer from problems like diarrhoea, worm infestations, malnourishment, visual impairments, dental disorders, and poor mental health that are preventable and treatable.[2] Teachers play a crucial role in carrying out health programs within schools, as their knowledge and perspectives significantly influence a comprehensive approach that nurtures students' physical, emotional, and academic health. Their involvement helps create a school environment that supports well-rounded development, addressing health alongside education to foster overall student well-being.[3]

A study conducted among public primary school teachers found that nearly half of them had inadequate knowledge of the School Health Programme. This lack of awareness could potentially prevent many school children from maintaining good health and fully benefiting from their education. It is strongly recommended to implement awareness campaigns and training on SHP to address this knowledge gap.[4] Schools play a crucial role in helping young people

develop knowledge, socio-emotional skills such as self-regulation and resilience, as well as critical thinking abilities that are key to a healthy future. Having access to education and safe, supportive school environments has been associated with improved health outcomes. Similarly, good health contributes to lower dropout rates, higher educational achievement, better performance, and increased employment and productivity. [5]

A healthy school environment helps to increase academic performance and can help avoid harmful behaviors. Preventing health problems and promoting wellness should begin early, and schools are the ideal setting for these programs. Effective school-based programs should encourage children to think critically about the risks of common risky behaviors and to take health knowledge seriously. The goal of attaining "better health through better schools" is in line with this strategy.[6] A school health program takes a comprehensive approach to improving students' health and fostering healthy behaviors and lifestyles. It is designed to enhance the well-being of both students and school staff. The program seeks to safeguard, promote, and instil healthy learning habits in students, which can contribute to the long-term development of individuals who are physically, mentally, socially, and morally sound, benefiting the nation as a whole.[7] This study might provide baseline information on teachers' level of knowledge and attitudes toward the school health program and help in planning the training and educational programs to improve their knowledge related to the school health program.

METHODOLOGY

A descriptive cross-sectional research design was used to assess the knowledge and attitude of School Teachers on the School Health Programme. The study was conducted in two government schools of Biratnagar Metropolitan City, Shree Gograha Secondary School and Aadarsha Secondary school which were selected purposively. These schools are affiliated by the National Examinations Board (NEB) and approved by the Ministry of Education, ensuring that the education provided is of the highest quality. The study population was all the school teachers from ECD to grade 12. The sample of the study was teachers who are currently working in Adarsha Secondary School and Gograha Secondary School. The Non-Probability Purposive sampling technique was used for data collection, during the two weeks' time of data collection period, from 2081/08/ 30 to 2081/09/14, 103 full-time teachers were available who were included in the study sample. The structured self-administered questionnaire was used for the data collection from the respondents. The Question consists of three parts: Part 1 related to socio-demographic variables, source of information and professional information, Part 2: Questions related to knowledge on the school health Programme and Part 3 related to attitude on the school health Programme. The 4- point Likert scale was used in which responses were collected under categories: Strongly agree (4), Agree (3), Disagree (2), and Strongly Disagree (1) for a positive statement scoring. Content validity was maintained through logical validation, extensive literature review, opinions of teachers and colleagues, consultation with concerned research advisers and specialist in related fields. Approval was taken from Research Management Committee (RMC) of Biratnagar Nursing Campus, Biratnagar. Descriptive and inferential statistics were used for data analysis. The data was analyzed based on the objectives of the study using descriptive statistics, e.g. frequency, mean, standard deviation and inferential statistics, e.g. fisher exact test, to assess the level of knowledge and attitude.

RESULTS

Findings of this study showed that the mean age of respondents was 38.50 ± 9.899 years. Nearly half (44.7%) of the respondents had completed the Master's level of education. Only 15.5 % had received training on the School Health program, and less than one fourth (20.6 %) of teachers were teaching Health Education related subject (Table 1). The majority (89.3 %) of the respondents correctly answered the meaning of SHP. Similarly, 90.3 % of the respondents correctly answered the primary goals of SHP, 78.8% of the respondents identified the components of SHP as school health services & health education, followed by a healthful school environment (72.8%) (Table 2). Table 3 Shows that most of the respondents (98.1%) correctly answered the suitable location of the school, 80.6% respondents answered that there should be Provision of safe drinking water, meaning of cross ventilation (83.5%),

82.5% of the respondents answered that composting is a method of waste disposal. However, less than one-fourth (18.4%) of the respondents correctly answered the recommended number of students for one toilet. Regarding the mid-day meal program, 75.5% of the respondents correctly answered that the mid-day meal programme comprises in-school health and nutrition services, 81.65% of the respondents answered open space with quality of food. The majority of respondents (82.5%) reported that abdominal pain and headache are common children's health problems. The majority (88.3%) of respondents correctly answered the meaning of first aid; 72.8% answered that health assessment activities are conducted by a school health nurse. Findings showed that most of the respondents had an adequate level of knowledge, while only 14.6% had an inadequate level of knowledge regarding SHP.Most of the respondents received the information regarding SHP through a health worker (71.8%), followed by books (54.4%), newspapers (46.1%), friends (40.8%) and the government website (25.2%). More than two-thirds (62.1 %) of the respondents agreed that school teachers are responsible for giving health education. Similarly, half (50.5%) of the respondents agreed on the statement that mental health awareness should be a priority in school. Likewise, two-thirds (60.0 %) of the respondents disagreed that teachers' duties are *to* focus on academic subjects, not mental health aspects, while (19.4 %) strongly disagreed with the same statement. Less than half (42.7 %) of the respondents agreed that promoting physical activity is essential for students' overall development, while (39.8 %) strongly agreed with the same statement. Similarly, (46.6 %) of the respondents disagreed that the school health programme is a burden for school teachers, while 42.7 % strongly disagreed with the same statement (Table 5). This study shows that there was a significant association between knowledge levels and level of education (p-value- 0.025)

Table 1: Demographic Characteristics of Respondents **n=103**

Variables	Frequency (f)	Percentage (%)
Age (in completed years)		
Young adulthood (20-40)	61	59.2 %
Middle adulthood (41-60)	42	40.8 %
Mean ± SD=38.50 ± 9.899		
Sex		
Male	49	47.6 %
Female	54	52.4 %
Religion		
Hinduism	102	99.0 %
Buddhism	1	1.0 %
Ethnicity		
Dalit	3	2.9%
Janajati	10	9.7%
Madhesi	17	16.5 %
Brahmin/ Chhetri	73	70.9%
Marital Status		
Married	85	82.6 %
Unmarried	18	17.5 %
Level of Education		
Secondary	13	12.6 %
Bachelor	44	42.7 %
Master and above	46	44.7 %
Teaching Experience		
1-5	31	30.1 %
6-10	13	12.6 %
11-15	20	19.4 %
>15	39	37.9 %
Training received		

Yes	16	15.5 %
No	87	84.5 %
Level of teacher		
Primary	40	38.8 %
Lower secondary	31	30.1 %
Secondary	32	31.1 %
Teaching subject		
Math	18	17.5 %
English	18	17.5 %
Nepali	19	18.2 %
Science	13	12.6%
Social	14	13.6 %
Health/Education	21	20.6%

Table 2: Respondents' Knowledge on School Health Program **n=103**

Variables	Frequency (f)	Percentage (%)
Meaning of School Health Program (SHP)		
Programs which include health service, health education and healthful school environment	92	89.3 %
Primary goals of SHP		
Improve the physical, mental, emotional and educational well-being of students	93	90.3 %
Components of School Health Program *		
School health services & health education	81	78.7 %
Healthful school environment	75	72.8 %
Physical education and recreation	37	35.9 %
Nutrition and food safety	56	54.4 %
School community participation	36	35.0 %
Aim of health education		
To bring desirable change in health, knowledge, attitude and practice	97	94.2 %

*Note. *: Multiple responses and each response is considered as 100%*

Table 3: Respondents' Knowledge on Component of School Health Environment **n=103**

Variables	Frequency(f)	Percentage (%)
Suitable Location of the School		
Quiet and peaceful area	101	98.1 %
Essential facilities to ensure a safe and conducive learning environment for students *		
Provision of safe drinking water	83	80.6 %
Separate toilet for girls and boys	80	77.7 %
Adequate light and cross ventilation	79	76.7 %
Soap and water for hand washing	67	65.0%
Meaning of cross ventilation		
Windows in opposite site	86	83.5 %
Color recommended in classroom		
White	46	44.7%
Students number in a classroom		
40	85	82.5 %
Methods of waste disposal *		

Composting	85	82.5 %
Dumping	66	64.1%
Recycling	58	56.3 %
Burning	57	55.3 %
Placing waste on one side	28	27.2%
One toilet is recommended for how many students		
50	19	18.4%

Note: Multiple responses and each response considered as 100%*

Table 4: Respondent's Knowledge on School Health Services **n=103**

Variables	Frequency(f)	Percentage (%)
Program comprises in School Health and Nutrition Service *		
Mid-day Meal plan	77	75.5 %
Iron folic acid supplementation	69	67.0%
Periodic medical examination & Immunization	54	52.4%
Conducting Extra curriculum activities	54	52.4%
Deworming & vitamin A supplementation	48	46.6 %
Considerations of meal facility in school		
Open space with quality of food	84	81.6 %
Abnormality in health of children *		
Abdominal pain and headache	85	82.5%
Increased body temperature	77	74.8 %
Sneezing and Coughing	60	58.3 %
Red eye & flushed Face	54	52.4%
Presence of dandruff in hair	35	34.0 %
Frequency of outdoor program in school		
At least once a week	74	71.8%
Meaning of first aid		
Immediate and initial care for an injury or illness	91	88.3 %
Current ratio between school health nurse and school		
1:1	62	60.2 %
Activities carried out by school health nurse *		
Health Assessment	75	72.8 %
Administering first aid	75	72.8%
Counselling and reproductive health education	72	69.9%
Immunization	52	50.5 %
Recording and reporting	34	33.0 %
The date of mid-day meal plan start		
2015AD	32	31.1 %

Note: Multiple responses and each response considered as 100%*

Table 5: Respondents' Attitude on School Health Programme **n=103**

Variables	Strongly Agree Number (%)	Agree Number (%)	Disagree Number (%)	Strongly disagree Number (%)
School teachers are responsible to give health education.	21(20.4 %)	64(62.1 %)	18(17.5 %)	-
Mental health awareness should be a priority in schools.	45(43.7 %)	52(50.5 %)	6(5.8 %)	-
Teacher's duties are to focus on academic subjects not mental health aspects.	8(7.8 %)	7(6.8 %)	68(66.0 %)	20(19.4 %)
Promoting physical activity is essential for student's overall development.	41(39.8 %)	44(42.7 %)	15(14.6 %)	3(2.9 %)
SHP is burden for school teachers.	4(3.9 %)	7(6.8 %)	48(46.6 %)	44(42.7 %)
Active participation is not necessary in health- related workshop or training sessions.	4(3.9%)	2(1.9%)	63(61.2 %)	34(33.0%)
Sex education spoils the children.	5(4.9 %)	8(7.8 %)	43(41.7 %)	47(45.6 %)
Collaboration with other teachers and health professionals will enhance SHP.	45(43.7 %)	53(51.5 %)	3(2.9 %)	2(1.9 %)
Health teachers and school health nurse are only responsible for promoting hygiene practices among students.	8(7.8 %)	24(23.3 %)	65(63.1 %)	6(5.8 %)
A healthy school environment contributes to better academic performance.	67(65.0 %)	35(34.0 %)	0(0 %)	1(1.0 %)

Table 6: Association between Knowledge Levels with Selected Variables

Variables	Knowledge Level		P- value
	Inadequate N (%)	Adequate N (%)	
Age (Completed years)			
20 - 40	9 (14.8%)	52 (85.2%)	.947
41 – 60	6 (14.3%)	36(85.7%)	
Sex			
Male	6 (12.2%)	43(87.8%)	.525
Female	9(16.7%)	45(83.3%)	
Level of Education			
Secondary	0(0%)	13(100%)	.025*
Bachelor	11(25.0%)	33(75.0%)	
Master and above	4(8.7%)	42(91.3%)	
Teaching experiences			
1-10 year	9(20.5%)	35(79.5%)	.143
10- 15 year	6(10.2%)	53(89.8%)	
Subject Teaching			
Major subject **	10(13.7%)	63(86.3%)	.761#
Other subject ##	5(16.7%)	25(83.3%)	
Level of teacher			
Primary	6(15.0%)	34(85.0%)	.089
Lower Secondary	3(9.7%)	28(90.3%)	
Secondary	5(16.1%)	26(83.9%)	
Training Received			
Yes	3(18.8%)	13(81.2%)	.699#
No	12(13.8%)	75(86.2%)	

*significant at < 0.05, # - Fisher's exact test **- Math, English, Nepali, & science##- Social & health/ Education*

DISCUSSION

The present study revealed that most respondents (89.3%) correctly answered the meaning of SHP. This finding is similar to a study conducted in Sudan, which found that 92% of respondents correctly understood the meaning of SHP.[8] Two-thirds (66%) of the respondents correctly answered the goals of SHP, which is comparable with the study conducted by Shrestha, showing that the majority (82.2 %) of the respondents identified the goals of SHP.[9] This might be due to the study setting and sample size. Nearly half (49.5%) of respondents were unaware of the recommended classroom color, while 82.5% correctly identified the maximum number of students per classroom. These study findings were not aligned with the study carried out in India, which reported the awareness 22% and 28%, respectively.[10] This difference may be due to variations in study settings and teaching experience.

Additionally, the present study revealed that three fourth (75.5%) of the respondents identified mid-day meal plan and 67% identified iron folate supplementation as part of the school health and nutrition service which is supported by the study conducted in Gulmi showed that 64.4% distinguished mid-day meal plan and 49.3% knew iron folic acid as part of the school health and nutrition service.[11] Majority of the respondents (82.5%) answered the common health problem of children. However, this finding is supported by the study performed in Sudan, which showed that 74.1% of the respondents known about abnormality in health of children that should be noted during daily inspection.[8] Regarding the activities to be performed by a school health nurse, the majority of respondents (72.8%) identified health assessment, followed by counselling and reproductive health education (69.9%). These results are consistent with a study, where 76.4% of respondents also identified health assessment. However, only 48.6% reported counselling and reproductive health education, showing a discrepancy.[11] This variation may be attributed to differences in study setting and sample size, as Shrestha's study included only 73 teachers.

This study found that the majority of respondents (82.5%) identified composting as a method of waste disposal; these findings differed from a study conducted in both urban and rural areas of Ogun State, where 93.9% of respondents cited burning as a method of waste disposal, 56.4% of urban and 29.0% of rural respondents.[12] This variation may be attributed to differences in study settings (urban vs. rural) and sample sizes: 231 participants from rural areas and 228 from urban areas. The study found that more than 2/3rd (62.1%) of the respondents agreed that school teachers are responsible for providing health education. Additionally, nearly half (45.6%) strongly disagreed with the notion that sex education spoils children. These findings are in contrast with a study in Sangli District, where most (96.5%) of the respondents agreed on the teachers' role for health education, and the majority (86.8%) of the respondents strongly disagreed with the negative view of sex education.[13] The variation may be attributed to differences in sample size, as the Sangli study involved a larger sample size (520 rural and 185 urban).

The findings of this study show that the majority (85.4 %) of the respondents had adequate knowledge, and a few (14.6 %) had inadequate knowledge, which is supported by the study conducted in India, which showed that the majority 87% of the respondents had good knowledge and 5% had poor knowledge regarding SHP.[13] The study findings are consistent with the study conducted in Patiala, Panjab, which showed that more than 2/3rd (77%) of respondents had good knowledge among 100 government school teachers.[15] Likewise, this study is incoherent with the study conducted in Nigeria by Onyemachi et al., 2024 which showed that 64 % of the teachers had good knowledge and 36% poor knowledge about SHP. This study is also inconsistent with another study conducted in Nepal, which showed that 49.3% of the respondents had sufficient knowledge and 50.7% had inadequate knowledge regarding SHP.[11] This might be a difference due to the study setting, which is conducted in the rural VDC of Gulmi. Moreover, the present study findings are inconsistent with the study of Nigeria on knowledge regarding SHP, which showed that (51.8%) of the respondents had good knowledge and (49.2%) of the respondents had poor knowledge regarding SHP.[16] This difference might be due to a larger sample size, i.e. 382 in the later study.

This study demonstrates that all (100 %) of the respondents had a positive attitude regarding SHP,

which is supported by the study conducted in Sangli district, which showed that most (90%) of the respondents had a positive attitude among 520 rural and 185 urban secondary school teachers.[13] The study findings coherent with the study conducted in Ogun State, Nigeria, showed that the majority (Urban-98.7% & Rural- 98.3%) of the respondents had a positive attitude among 228 public primary schools.[8] Likewise, present study inconsistent with the study conducted in India which showed that more than 2/3rd (78%) of the respondents had favorable attitude towards SHP.[17] The discrepancy in the findings of the study might be due to difference in study population where, present study completed in teachers who teach primary and secondary level teachers and later study performed in primary level school teachers only. Moreover, the present study findings are inconsistent with a study conducted in Sangali, Maharashtra, which showed that the majority (88%) of the respondents had a positive attitude.[13] It might be different due to larger sample size, i.e. 700 in the later study.

CONCLUSION

The findings of this study showed that most of the respondents had an adequate level of knowledge of the School Health Program (SHP). Higher education levels were significantly associated with better knowledge. Although awareness of SHP concepts, goals, and practices was generally strong, gaps remained in specific areas such as sanitation standards and formal training exposure. Teachers largely recognized their role in health education and supported the integration of mental health and physical activity into schools. The findings highlight the need for increased training and targeted interventions to strengthen teachers' comprehensive understanding of SHP. Furthermore, no significant association between attitude level regarding SHP and socio-demographic variables

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REFERENCES

1. UNICEF. UNICEF Annual Report 2020. www.unicef.org. 2020. Available from: https://www.unicef.org/reports/unicef-annual-report-2020

2. Khatri RB, Dhital R, Tuladhar S, Mishra RK, Assefa Y. Increasing childhood illnesses (diarrhea and fever) and decreasing care-seeking practices in Nepal: Insights from three most recent Demographic and Health Surveys (2011, 2016 and 2022). Bagade T, editor. PLOS Global Public Health. 2025 Dec 11;5(12):e0005651.

3. Betschart S, Sandmeier A, Skedsmo G, Hascher T, Okan O, Dadaczynski K. The Importance of School Leaders' Attitudes and Health Literacy to the Implementation of a Health-Promoting Schools Approach. International Journal of Environmental Research and Public Health [Internet]. 2022 Jan 1;19(22):14829. Available from: https://www.mdpi.com/1660-4601/19/22/14829.

4. Abubakar AU, Oche OM, Awosan KJ, Raji IA, Abdullahi AM, Kaoje AU. Knowledge of School Health Programme among Public Primary School Teachers in Sokoto Metropolis, Northwestern Nigeria. Journal of Community Medicine and Primary Health Care. 2021 Mar 22;33(1):128–39.

5. WHO. WHO guideline on school health services [Internet]. www.who.int. 2021. Available from: https://www.who.int/publications/i/item/9789240029392

6. Pulimeno M, Piscitelli P, Colazzo S, Colao A, Miani A. School as Ideal Setting to Promote Health and Wellbeing Among Young People. Health Promotion Perspectives [Internet]. 2020 Nov 7;10(4):316–24. Available from:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7723000/

7. Poudel AP. Teachers' Perception on School Health Services. Journal of Health Promotion. 2018 Nov 25;6:5–10.

8. Odeyemi K, Chukwu E. Knowledge, Attitude and Practice of School Health among Primary School Teachers in Ogun State, Nigeria. Nigerian Journal of Paediatrics. 2015 Sep 18;42(4):340.

9. Shrestha RM, Ghimire M, Shakya P, Ayer R, Dhital R, Jimba M. School health and nutrition program implementation, impact, and challenges in schools of Nepal: stakeholders' perceptions. Tropical Medicine and Health. 2019 May 14;47(1).

10. Ranga A, Majra JP. Status of knowledge regarding school health services among school teachers: a cross sectional study from a northern Indian state. International Journal Of Community Medicine And Public Health. 2020 Dec 25;8(1):359.

11. Shrestha R. Knowledge Of School Health Programmes Among Teachers In Schools, Gulmi. Deleted Journal. 2023 Nov 6;8(2):138–50.

12. David A, David A, Odagbodo OO, Omobolaji Taofeek Opafola, Amusan GM, Badejo AA, et al. Assessment of solid waste management in Ota, Ogun State, Nigeria. Nigerian Journal of Technology. 2023 Aug 11;42(2):289–95.

13. Chavan VM, Chavan GM, Lahanubhau KA. Awareness levels of school teachers about school health services in urban and rural settings of Maharashtra. International journal of health sciences. 2022 May 17;10349–56.

14. Ravindra HN. Knowledge and attitude towards school health program among primary school teachers - GIJNR [Internet]. GIJNR. 2025 [cited 2026 Apr 4]. Available from: https://gloriousjournal.com/knowledge-and-attitude-towards-school-health-program-among-primary-school-teachers/

15. Khurshid, A., & Khurshid, M. A. A study to assess the knowledge and participation of school teachers in providing school health services and the problems faced by them in selected schools of District Patiala, Punjab. *Journal of Nursing and Health Science*, *7*(4), 1–10.2022 https://doi.org/10.13140/RG.2.2.26209.94563

16. Abubakar AU, Oche OM, Awosan KJ, Raji IA, Abdullahi AM, Kaoje AU. Knowledge of School Health Programme among Public Primary School Teachers in Sokoto Metropolis, Northwestern Nigeria. Journal of Community Medicine and Primary Health Care. 2021 Mar 22;33(1):128–39.

17. Patel, E. Knowledge and attitude towards school health program among primary school teachers. *Glorious International Journal of Nursing Research*.2022 https://doi-ds.org/doilink/11.2023-87836161/GIJNR