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Knowledge regarding School Health Programs among Teachers of Selected Government Schools, Tanahun

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ABSTRACT

Background: Schools play a vital role in promoting the health of children, families, and communities. Teachers are essential for the success of school health programs (SHP), which aim to ensure children's physical, mental, and social well-being, along with academic success throughout their schooling. This study investigates teachers' knowledge of SHP to promote health and improve the lives of students, teachers, and schools.

Methods: A descriptive cross-sectional design was used, selecting three government schools from 58 through purposive sampling. The study included 155 teachers, teaching classes from nursery to grade 10, chosen through total enumerative sampling. Data were collected using a self-developed questionnaire and analyzed using SPSS version 16, applying both descriptive and inferential statistics.

Results: Among 155 respondents, most were aged 20–29, predominantly female (65.8%), and nearly half had a bachelor's degree. The majority had 1–5 years of teaching experience, with 87.7% lacking SHP training. Nearly all understood that SHP focuses on health protection, education, and services like emergency care, cleanliness, disease control, and deworming. Teachers recognized the value of clean water and other resources. Health personnel were the main information source, followed by social media and the internet.

Conclusions: While teachers showed good knowledge of SHP, most lacked formal training. The study emphasizes the need for continuous training and support to enhance SHP implementation.

Keywords: *School Health Program, Teachers*

INTRODUCTION

School health program is defined as health care services in the school and community that as a result ensure the children in a state of complete, physical, mental, and social well-being throughout the years of schooling and also provide the overall healthy development of the learners and as well as improving the optimum performance of the teaching staff[1]. SHP primarily addresses many health and nutrition problems such as malnutrition, short-term hunger, helminths infection, poor sanitation, and food safety, lack of immunizations, poor oral health, infectious and endemic diseases, problems associated with lack of physical activity, use of alcohol, tobacco, and drugs, psychological problems issues, and HIV/AIDS and sexually transmitted infections[2].

Modern theories hold that school health services are a cost-effective and effective way to improve community health, making them more significant for future generations[3]. Schoolchildren are a nation's future productive group. Good health is an important factor in learning and cognitive ability. Schools are a dynamic setting for health promotion and an entry point for children to grow into healthy adults. The primary implementers of health-promoting school policies in the education sector are School teachers [2].

Evidence suggests that implementing the SHP program was associated with an increase in school enrollment, retention, and attendance of students resulting in a positive impact on their school performance[5]. Furthermore, a study conducted in Hmawbi township revealed that 47.2% of respondents had a high knowledge level, and 52.8% had low knowledge regarding school health programs[4]. Most of the developed countries have institutionalized school health programs as an integral part of their education systems. Several national and international agencies have decades of experience in the area. The Government of Nepal's Ministries of Health and Population and

Education also jointly created and approved the National School Health and Nutrition Strategy in June 2006[1].

As an initiative to SHP a pilot initiative with a motto of one school and one nurse program began in 20 schools of Bagmati Province in fiscal 2019-20. Following the success of the pilot program, the province expanded the 'one school, one nurse' program to 119 municipal levels[6]. The education levels of the teachers have a direct impact on students' learning behavior, as well as community people and the surroundings. This also concludes teachers and school health programs are directly proportional to each other[6].

The purpose of this study was to find out school teachers' knowledge of health-promoting school activities to improve health knowledge and better the healthy life of school teachers as well as students.

METHODS

A Descriptive cross-sectional study design was used to assess the level of knowledge regarding school health programs among school teachers in the Tanahun district of Gandaki province, Nepal. A sampling frame was developed from 58 government schools and three schools were selected using the non-probability, purposive method. The study focused on teachers in the government school teaching from class nursery to class 10. A total of 155 teachers were teaching in selected schools during the data collection period. Samples were selected using the total enumerative sampling method. All the teachers present during data collection were enrolled in the research.

Self-developed structured questionnaires were used to collect data. To ensure validity, the survey instrument was developed based on a literature review and refined through feedback from health professionals, senior colleagues, and peers. It underwent pretesting with a small participant group for final adjustments. This process ensured clarity and alignment with established knowledge. The instruments consist of two parts: Part I consists of socio-demographic data, which consists of 10 items. Part II was related to general information of knowledge regarding the school health program, which consisted of 46 questions. Pretesting was done on a total of 16 teachers of Shree Sahid Krishna Secondary School, Dulegauda, Tanahun. The permission was taken from the research management cell of the Birgunj Nursing Campus. Administrative permission was obtained from a selected government school in the Tanahun district after explaining the objectives of the study. Informed written consent was taken from the respondent. The collected data was used for study purposes only. The confidentiality and anonymity of the respondents were maintained throughout the study.

The data was collected from the date 2079/09/7 to 2079/09/21. Data was edited, revised, categorized, coded, and organized. It was entered into the Excel sheet and transformed into a statistical package for social science (SPSS) version 16. Data were analyzed using descriptive statistics for demographic information (frequency, median, standard deviation, and percentage)

RESULTS

Table 1: Socio-demographic characteristics of respondents **n= 155**

Variable	Number	Percent
Age (In years)		
20-29	60	38.7
30-39	41	26.5
40-49	29	18.7
50 above	25	16.1
Mean ± SD (35.36±10.768)		
Sex		
Male	53	34.2
Female	102	65.8
Religion		
Hindu	144	92.9
Non-Hindu	11	7.1
Ethnicity		
Brahmin /Chhetri	104	67.1
Janajati	32	20.6
Dalit	19	12.3
Marital status		
Married	122	78.7
Unmarried	33	21.3
Education status		
Diploma	34	21.9
Bachelor	77	49.7
Master and above	44	28.4
Level of teaching		
Lower basic (1-5)	68	43.9
Upper basic (6-8)	43	27.7
lower secondary (9-10)	26	16.8
Higher Secondary (11-12)	18	11.6
Teaching experience in years		
Less than 10	97	62.6
10 to 20	42	27.1
20 and more	16	10.3
Training related to SHP		
Yes	19	12.3
No	136	87.7

Table 1 shows that among 155 respondents, most (38.7%) were aged 20–29, while 16.1% were over 50. The majority (65.8%) were female, and nearly half (49.7%) held a bachelor's degree. Most respondents (43.9%) had 1–5 years of teaching experience, while only 10.3% had over 20 years. Additionally, 87.7% had no training in school health programs (SHP).

Table 2: Respondent's knowledge of the definition and objectives of school health programs **n=155**

Variable	Number	Percent
Meaning		
Organized activities to protect and improve the health of students, staff, and the community.	154	99.4
Objective		
To provide health teaching to the school children.	152	98.1
Provide emergency care for illness or injury	152	98.1
To make the school environment healthy	148	95.5
Promote the health of the family through children.	148	95.5
Carry out joint activities with the school and community.	141	91.0
Early diagnosis and prompt treatment of illness	129	83.2
Increase health awareness in children, families, community, and national asset	122	78.7

Table 2 highlights respondents' knowledge of school health programs. Nearly all (99.4%) understand these programs aim to protect and improve health, with 98.1% correctly responding to objectives like health education and emergency care. Most recognize goals such as creating a healthy school environment, promoting family health, early diagnosis, and raising health awareness.

Table 3: Respondent's knowledge on importance and components of school health program **n=155**

Variable	Number	Percent
Importance		
School health education is a part of SHP	148	95.5
Controls disease and improves overall health conditions in the society at large.	142	91.6
Improvement in health conditions of young population.	132	85.2
Enhancement of learning outcomes and quality of education	114	73.3
Reduction in the dropout rate of school students.		
Component		
School environmental sanitation	154	99.4
School-based disease control	142	91.6
Sports and physical activity	114	73.5
Community Outreach	110	71.0
Medical examination	106	68.4
Counseling and social support	97	62.6
Training and research	96	61.9
Nutrition promotion and food safety	94	60.6

Table 3 shows that most respondents understand the importance and key parts of the School Health Program (SHP). Nearly all (95.5%) said health education is essential, while 91.6% believe it helps control diseases and improve community health. Key components like school cleanliness (99.4%), disease control (91.6%), sports (73.5%), and medical exams (68.4%) are widely recognized.

Table 4: Respondent's knowledge on health services and availability of resources for a safe environment of school health programs **n=155**

Variable		Percent
Health services		
De-worming campaigns	146	94.2
Health screening	143	92.3
Referral of students with health problems to medical centers	137	88.4
Availability resources		
Provision of safe water	155	100
Safe clean drinking water	152	98.1
Gender and culturally appropriate sanitation/toilet	150	96.8
Playgrounds	150	96.8
Proper sewage disposal	148	95.5
Comfortable seating arrangements	145	93.5
Spacious classrooms	143	92.3
Referral of students with health problems to medical centers	137	88.4

Table 4 shows respondents' knowledge about health services and resources for a safe school environment. Most are aware of key services like deworming campaigns (94.2%), health screenings (92.3%), and referrals for medical care (88.4%). All respondents (100%) emphasize safe water, with most recognizing resources like clean drinking water (98.1%), proper sanitation (96.8%), playgrounds (96.8%), and sewage disposal (95.5%).

Table 5: Respondent's knowledge on nutrition programs and infection control measures of school health programs **n=155**

Variable	Number	Percent
Nutrition program		
Good supplement food for malnourished children	150	96.8
School feeding or school lunch	147	94.8
Promotion of the use of iodized salt	143	92.3
Infection control measures		
Screening of food and water sanitation.	147	94.8
Closure of schools during the epidemic.	143	92.3
Proper handwashing.	142	91.6
Periodic medical exam.	134	86.5
Remove sick students for a certain period.	130	83.9

Table 5 highlights respondents' knowledge of nutrition programs and infection control in school health programs. Most (96.8%) understand the importance of providing supplements for malnourished children, school feeding programs (94.8%), and promoting iodized salt (92.3%). For infection control, respondents recognize measures like food and water sanitation (94.8%), closing schools during epidemics (92.3%), proper handwashing (91.6%), and medical exams (86.5%).

Table 6: Respondent's level of knowledge of school health programs n=155

Level of knowledge	Number	Percent
Good knowledge	155	100
Maximum score	56	100
Minimum score	31	55.4
Mean ± SD (48.97 ± 5.153)		

Table 6 shows that all respondents (100%) have a good level of knowledge about school health programs. The scores range from a minimum of 31 (55.4%) to a maximum of 56 (100%), with the average score being 48.97, and a standard deviation of 5.153. This indicates that while everyone's knowledge is good, there are some variations in how much each person knows.

Table 7: Respondent's source of information regarding SHP n=155

Variable	Number	Percent
Health Personnel	86	55.5
Social Media	37	23.9
Internet	26	16.7
Friend	4	2.6
TV/radio	2	1.3

Table 7 shows the sources of information about school health programs among respondents. Most (55.5%) rely on health personnel, followed by social media (23.9%) and the internet (16.7%). Few use friends (2.6%) or TV/radio (1.3%). This highlights the key role of health professionals and digital platforms in spreading knowledge.

DISCUSSION

The School Health Program (SHP) in Nepal, initiated in 1972, was one of the pioneering efforts to integrate health services into the education sector. Recognizing the role of student health in enhancing educational outcomes, the program aimed to provide basic health services and health education in schools. Over the years, the SHP evolved into the School Health and Nutrition Program (SHNP) in 2006, with a stronger focus on addressing malnutrition and hygiene while fostering collaboration among the Ministry of Education, Ministry of Health and Population, and local government bodies[1].

The School Health Nursing Program (SHNP), a vital part of SHP, began as a strategy to address the gap in health services in schools. It has been instrumental in providing preventive, curative, and promotive health care to students while training teachers and engaging communities in health promotion activities. This program is closely aligned with the National School Health and Nutrition Strategy 2006, which advocates for a holistic approach to improving school environments and addressing health disparities[10].

This study evaluated the knowledge of School Health Programs (SHP) among 155 school teachers in Tanahun, Nepal. The majority of respondents (38.7%) were aged between 20 and 30 years, with an average age of 35.-36 years, which contrasts with a study conducted in Southwestern Nigeria where most teachers were in their 40s[11]. The higher number of younger teachers in Nepal could reflect a more recent focus on youth employment in education or the evolving dynamics of the education workforce in the country. Approximately half of the teachers (49.7%) held a bachelor's degree, and 62.6% had less than ten years of teaching experience, suggesting that a relatively new cohort of educators may be guiding the implementation of SHP.

A significant portion of teachers (59.4%) believed that SHP helps reduce school dropout rates, while 73.3% agreed that it improves learning outcomes and education quality. This reflects the positive impact that health interventions can have on education in Nepal, as health-related barriers often contribute to absenteeism and reduced academic performance. Moreover, 85.2% of teachers indicated that SHP helps improve the health of young people, while 91.6% acknowledged its broader benefits for community health. This widespread recognition of the impact of SHP is consistent with the goals of Nepal's School Health and Nutrition (SHN) Strategy, which has emphasized the health-education link to improve both individual and community health[1].

In terms of specific SHP components, 99.4% of respondents emphasized the importance of school cleanliness, and 91.6% highlighted the role of school-based illness control. These findings align with school health nursing activities in Nepal, where maintaining a clean and hygienic school environment is a fundamental aspect of health promotion. The majority of teachers also acknowledged the importance of medical examinations (68.4%) and community outreach (71%), which are integral to school health nursing programs aimed at early detection and intervention for common health issues in schools[10].

The results suggest that while teachers in Tanahun exhibit a solid understanding of the core elements of SHP, there is still room for improvement in their knowledge of certain components. This aligns with findings from a 2019 study in Hmawbi Township, where most teachers demonstrated a good understanding of SHP components, but some areas were identified for further improvement[12]. The study also identified the need for better teacher training on recognizing and referring students with health problems, with 88.4% of Tanahun respondents acknowledging the importance of medical referrals, and 94.2% recognizing deworming campaigns as a part of SHP.

When evaluating resources for a safe and healthy school environment, the majority of teachers in the Tanahun study recognized the importance of key infrastructure elements. These included playgrounds (96.8%), comfortable seating (93.5%), and spacious classrooms (92.3%). Such resources are essential not only for a positive educational experience but also for fostering

a healthy environment in which school health nursing programs can thrive[10]. Gender- and culturally-appropriate sanitation facilities, as noted by 92.3% of respondents, are particularly important in Nepal's diverse school populations to ensure equitable access to health services.

Nutrition, a vital component of SHP, was another focal point in the study. Many teachers (94.8%) believed that good supplementation for malnourished children is essential, and 92.3% agreed that school feeding programs encourage student enrollment and attendance. This finding echoes the priorities outlined in the National School Health and Nutrition (SHN) Strategy, which advocates for the integration of nutrition programs in schools to combat the widespread issue of malnutrition among Nepalese children[1].

In terms of infection control, a majority of teachers (83.9%) believed that keeping sick students at home for a period of time is an effective strategy, while 92.3% supported closing schools during epidemics. This reflects the standard practices promoted by school health nursing programs in Nepal, where routine medical exams and effective hygiene practices are emphasized to prevent the spread of infectious diseases, such as diarrhea, which 91.6% of teachers believed could be controlled through proper handwashing[10].

While the study found that all teachers scored more than 50% on the knowledge assessment, indicating generally good knowledge, this contrasts with findings from Sokoto Metropolis in Nigeria, where only 51.8% of teachers had a good understanding of SHP [9]. This difference in knowledge levels may be attributed to the robust implementation of health, hygiene, and nutrition programs in Nepal's schools, particularly those established under the SHN strategy, which has effectively integrated health education into the school curriculum across the country[1].

The National School Health and Nutrition (SHN) Strategy 2006 has played a critical role in shaping the current landscape of school health programs in Nepal. The strategy focuses on enhancing the skills of teachers, school management committees, and health professionals, ensuring the sustainability of SHP, and creating a supportive framework for the school health nursing program[1,10]. The widespread awareness of SHP among teachers in Tanahun can be attributed to the successful implementation of this strategy, which has been instrumental in improving the overall health and educational outcomes of schoolchildren in Nepal.

Despite these positive findings, the study did have some limitations. Challenges in gathering data, such as the lack of free time for teachers and difficulty assembling all teachers at once, may have influenced the study's results. Moreover, the limited scope of the study, which only included teachers from three schools in Tanahun, may limit the generalizability of the findings to other regions of Nepal.

Nevertheless, the findings of this study provide valuable insights into the current state of school health nursing programs in Nepal and the broader School Health Program. These insights can be utilized by schools, teachers, local authorities, public health personnel, and the community to enhance the effectiveness of SHP and ensure its continued success in improving student health and educational outcomes.

To promote the overall welfare of school health, the School Health Nursing program along with the School Health Nutrition program should be strengthened in all the schools of Nepal, which has proven to be a vital initiative for improving student health and educational outcomes in Nepal. By addressing nutritional deficits, promoting health education, and fostering community engagement, the program has laid the groundwork for healthier and more equitable learning environments. However, overcoming challenges related to resources, infrastructure, and coordination is crucial for sustaining and scaling its impact. With a focus on expansion, integration, and continuous improvement, the SHNP holds promise for shaping a healthier future for Nepal's schoolchildren.

CONCLUSIONS

The study highlights that most respondents have a good level of knowledge of school health programs (SHP) and their importance in promoting health and safety in schools. Despite the lack of training in SHP for many teachers, they recognize key objectives such as health education, emergency care, and the need for a clean school environment. The findings suggest that health personnel play a crucial role in providing information about SHP, while social media and the internet also contribute to awareness. Overall, this research emphasizes the need for ongoing support and training for teachers to enhance their knowledge and effectiveness in implementing school health programs.

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CONFLICT OF INTEREST

The study has no conflict of interest.

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