

ASSESSMENT OF KNOWLEDGE LEVELS AMONG SCHOOL TEACHERS  
REGARDING SELECTED COMPONENTS OF THE SCHOOL HEALTH PROGRAM IN  
JODHPUR, INDIA

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ABSTRACT

**Introduction:** School health programs are essential for promoting student well-being and creating a conducive learning environment. The knowledge of school teachers regarding these programs in India is often inadequate, posing challenges to effective implementation. This study aims to assess the knowledge levels of school teachers in Jodhpur regarding selected components of the school health program. **Methods:** A descriptive survey design was adopted, targeting school teachers in selected schools of Jodhpur. A sample of 100 teachers was selected using a convenient sampling technique. Data were collected using a structured questionnaire. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize demographic characteristics and knowledge levels. Chi-square tests were employed to examine associations between knowledge levels and socio-demographic variables. Ethical approval was obtained from the institutional ethical committee of S.N. Medical College, Jodhpur. **Results:** The knowledge levels were categorized as inadequate (38%), moderate (34%), and adequate (28%). Significant associations were found between knowledge levels and age group ( $p=0.017$ ), educational qualification ( $p=0.024$ ), and teaching experience ( $p=0.018$ ), but not with gender ( $p=0.719$ ) or location ( $p=0.429$ ). **Conclusion:** The study highlights significant knowledge gaps among school teachers in Jodhpur regarding selected components of the school health program. Older teachers, those with higher educational qualifications, and more teaching experience tend to have better knowledge. There is an urgent need for targeted educational interventions and continuous professional development programs to enhance teachers' knowledge, which can improve the implementation and effectiveness of school health initiatives.

**KEYWORDS:** School health program, teacher knowledge, Jodhpur, India, educational intervention, socio-demographic factors.

INTRODUCTION

School health programs are critical in promoting the well-being of students and fostering a conducive learning environment. Despite their importance, the knowledge of school teachers regarding these programs is often inadequate, posing a significant challenge to their effective implementation. In India, the prevalence of health issues among school-aged children remains a concern, with studies indicating that a substantial proportion of students suffer from malnutrition, anemia, and other health conditions. According to a report by the Ministry of Health and Family Welfare (2019),

approximately 29% of school-aged children in India are anemic, and 38% are underweight.<sup>[1]</sup> These statistics underscore the pressing need for comprehensive school health programs and informed teachers to address these health challenges effectively.

School health programs in India encompass a wide range of services, including health education, medical check-ups, vaccinations, hygiene promotion, and nutrition supplementation. These initiatives are designed to address the multifaceted health needs of students and ensure their holistic development.<sup>[2]</sup> Teachers are pivotal

in implementing health initiatives, educating students, and identifying early signs of health issues. Previous research has highlighted that teachers' understanding of health programs significantly influences their ability to promote healthy behaviors and practices among students. For instance, a study by Raj *et al.* (2017) in Karnataka revealed that while some teachers were knowledgeable about specific health components, significant gaps existed in their overall understanding of school health services.<sup>[3]</sup> The current data on the knowledge levels of school teachers regarding health programs is concerning. A survey conducted in Rajasthan reported that only 28% of teachers had adequate knowledge about the school health program, while 34% had moderate knowledge, and 38% had inadequate knowledge (Thomas & Thomas, 2018). Furthermore, the study found significant disparities in knowledge levels based on socio-demographic factors such as age, educational qualification, and teaching experience.<sup>[4]</sup>

Addressing the knowledge gaps among school teachers regarding health programs is crucial for effectively implement health initiatives, thereby improving students' health outcomes. The study aims to identify gaps in teachers' knowledge and explore the associations between their knowledge levels and socio-demographic variables such as age, gender, educational qualification, and teaching experience.

## METHODOLOGY

### Research design

This study adopts a descriptive survey design to assess the knowledge levels of school teachers regarding selected components of the school health program run by the Government of India. The descriptive design is appropriate for this research as it allows for the systematic collection and analysis of quantitative data from a defined population.

### Sample and Sampling technique

The sample population for this study comprises school teachers from selected schools in the district of Jodhpur. The sample includes 100 teachers, with relevant demographic information such as age, gender,

educational qualifications, teaching experience, and geographic location. A convenient sampling technique was employed to select participants, ensuring that a diverse representation of teachers from both urban and rural areas was included.

### Data collection tool

A structured questionnaire was used as the data collection tool to gather information from the participants. The questionnaire was designed to assess the knowledge of school teachers regarding selected components of the school health program, including immunization, mid-day meals, dental and oral health, anemia control, deworming campaigns, and menstrual health programs. The questionnaire was validated through a pilot study conducted with a small sample of teachers to ensure its clarity, relevance, and comprehensiveness. The reliability of the questionnaire was established using Cronbach's alpha, which yielded a reliability coefficient of 0.85, indicating high internal consistency.

### Data analysis

The collected data were analyzed using descriptive and inferential statistical methods. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the demographic characteristics of the sample and the levels of knowledge among teachers. Inferential statistics, such as Chi-square tests, were employed to examine the associations between knowledge levels and socio-demographic variables.

### Ethical considerations

Ethical considerations were carefully addressed throughout the study. Informed consent was obtained from all participants prior to data collection, ensuring that they were fully aware of the study's purpose, procedures, and their rights as participants. Confidentiality was maintained by anonymizing the data and ensuring that individual responses could not be traced back to specific participants. Ethical approval was obtained from the institutional ethical committee of S.N. Medical College, Jodhpur.

## RESULTS

**Table 1: Demographic Characteristics of the Sample (N=100).**

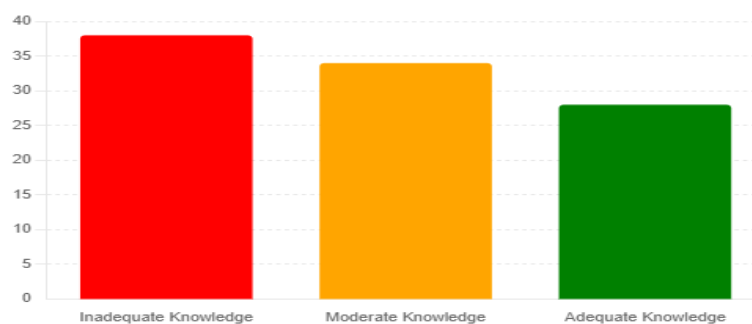
Demographic variable	Category	Frequency (n)	Percentage (%)
Gender	Male	23	23.00
	Female	77	77.00
Age Group	20-30	28	28.00
	31-40	35	35.00
	41-50	28	28.00
	Above 50	9	9.00
Educational Qualification	BSTC	55	55.00
	B.Ed.	35	35.00
	M.Ed.	10	10.00
Teaching Experience	Less than 1 Year	7	7.00
	1-5 Years	25	25.00
	6-10 Years	36	36.00

	More than 10 Years	32	32.00
Location	Urban	40	40.00
	Rural	60	60.00

**Table 2: Chi-Square test for association between knowledge Levels and Socio-demographic variables.**

S.N.	Demographical variable	Level of Knowledge			Calculated Chi square	Df	P Value	Result
		Inadeq.	Moderate	Adeq.				
<b>1</b>	<b>Gender</b>				0.663	2	0.794	NS
	a) Male	10	8	5				
	b) Female	28	26	23				
<b>2</b>	<b>Age Group</b>				13.704	6	0.027	S
	a) 20-30	15	7	6				
	b) 31-40	10	18	7				
	c) 41-50	12	7	9				
	d) Above 50	1	2	6				
<b>3</b>	<b>Educational Qualification</b>				11.517	4	0.017	S
	a) BSTC	25	21	9				
	b) B.Ed.	8	12	15				
	c) M.Ed.	5	1	4				
<b>4</b>	<b>Teaching Experience</b>				14.074	6	0.022	S
	a) Less than 1 Year	4	2	1				
	b) 1-5 Years	13	7	5				
	c) 6-10 Years	10	19	7				
	d) More than 10 Years	11	6	15				
<b>5</b>	<b>Location</b>				1.686	2	0.439	NS
	a) Urban	18	11	11				
	b) Rural	20	23	17				

Note: S = Significant at 0.05 level, NS = Not Significant



**Figure 1: Bar graph showing knowledge levels of school teachers regarding selected school health services.**

**Knowledge Categories, Mean, Mode, and Standard Deviation**

The knowledge of school teachers regarding selected components of the school health program was categorized into three levels: inadequate, moderate, and adequate. The mean knowledge score for the overall sample was 17.15 with a standard deviation of 6.183, indicating a moderate level of dispersion around the mean. The mode of the knowledge scores was 10, suggesting that the most frequently occurring score was at the lower end of the scale.

The data revealed that 38% of the teachers demonstrated inadequate knowledge, 34% had moderate knowledge, and 28% exhibited adequate knowledge regarding the selected school health services. These findings highlight

the need for targeted educational interventions to improve the knowledge levels of school teachers, particularly those with inadequate and moderate knowledge.

**DISCUSSION**

The findings of this study reveal that a significant portion of school teachers in Jodhpur have inadequate or moderate knowledge regarding selected components of the school health program. Specifically, 38% of the teachers demonstrated inadequate knowledge, 34% had moderate knowledge, and only 28% exhibited adequate knowledge. These results underscore the critical need for targeted educational interventions to improve the knowledge levels of school teachers, which is essential for the effective implementation of school health

programs. The results of this study align with findings from previous research conducted in different regions of India. For instance, Shrestha<sup>[5]</sup> conducted a study in Gulmi and found that only 49.3% of teachers had adequate knowledge regarding school health programs, with significant gaps in areas such as nutrition and health services. This is similar to the findings in Jodhpur, suggesting a nationwide issue regarding teacher knowledge of health programs. A study by Kvirtil<sup>[6]</sup> in Kolar revealed that the mean post-test knowledge score of primary school teachers on health appraisal activities was significantly higher than the pre-test score, indicating that structured teaching programs can effectively improve teachers' knowledge. This supports the need for similar interventions in Jodhpur to enhance teachers' understanding of school health components.

Abdulkadir and Abdulkadir<sup>[7]</sup> surveyed head teachers in Ilorin and found that only 47.5% had good knowledge of the school health program, and many schools lacked adequate health services. This is consistent with the current study's findings that highlight inadequate knowledge among teachers and the need for better training and resources. Sadaf and Huma<sup>[8]</sup> investigated teachers' knowledge in Punjab, Pakistan, and found that many teachers lacked sufficient understanding of major health issues among school children, such as anemia and malnutrition. Their study emphasizes the importance of improving teachers' knowledge to ensure effective health education and interventions, paralleling the results from Jodhpur.

The study also investigated the association between knowledge levels and socio-demographic variables. Significant associations were found between knowledge levels and age group ( $p=0.017$ ), educational qualification ( $p=0.024$ ), and teaching experience ( $p=0.018$ ). These findings suggest that older teachers, those with higher educational qualifications, and those with more teaching experience tend to have better knowledge of the school health program. Older teachers demonstrated higher knowledge levels, possibly due to their greater experience and exposure to health programs over time. This finding is consistent with previous research by Jain et al.<sup>[9]</sup> who found that more experienced teachers had better knowledge of oral health programs. Regarding educational teachers with higher qualifications, such as B.Ed. and M.Ed., had significantly better knowledge of school health services. This is similar to the findings of Pandey et al.<sup>[10]</sup> who reported that teachers with advanced degrees had better knowledge of first aid and health services.

#### Our study shows that

Teachers with more than 10 years of experience showed higher knowledge levels, likely due to their prolonged involvement in educational and health programs. This aligns with the study by Abubakar et al.<sup>[11]</sup> which found that experienced teachers had better implementation knowledge of school health programs.

The findings of this study have important implications for policy and practice in the realm of school health. There is a clear need for regular and comprehensive training programs for school teachers. Continuous professional development opportunities should be provided to in-service teachers. This can be achieved through workshops, seminars, and online courses that focus on the latest developments and best practices in school health programs.

#### CONCLUSION

In conclusion, this study highlights significant knowledge gaps among school teachers in Jodhpur regarding selected components of the school health program. These gaps can adversely affect the implementation and effectiveness of health initiatives in schools. Therefore, there is an urgent need for targeted educational interventions and continuous professional development programs to enhance teachers' knowledge. By addressing these knowledge gaps, we can improve the health outcomes of students and foster a healthier school environment.

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