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Awareness levels of school teachers about school health services in urban and rural settings of Maharashtra- A field based cross sectional study

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***Abstract*---**Background: Schools are crucial platforms for comprehensive health protection and promotion. It is important for the health authorities to assess the importance of schools in establishing school health policies and its successful implementation. The existing study was carried out to assess the knowledge, attitudes, and practices about school health services in school teachers from urban and rural areas. Material and Methods: A Cross sectional study was executed on 700 secondary school teachers in urban and rural areas of Sangali District of Maharashtra. A self-administered, pilot-tested questionnaire was formulated including KAP related questions about health services. It was distributed to teachers and responses were gathered. The data analysis was done by using SPSS Version 22 Software. Results: The mean percentage knowledge score of the rural school participants was 60.42% which was nearly similar to that of the urban school teachers (60.64%). P <0.05delineates that; there was a significant difference in the median knowledge score of these two groups. Conclusions: The majority of the school teachers had satisfactory knowledge, attitudes and practices about health services. However, there is need for frequent training of teachers in similar aspects to promote positive health of students, families and communities.

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Introduction

Optimum health and appropriate education assist people to lead productive and satisfying lives. Quality education, regular physical activity, balanced nutrition are accountable for development of child's ability to accomplish his or her maximum potential.[1] Optimal health, Academic achievements, and well-being of young population reflect national development.[2] Schools are essential platforms for holistic health protection and promotion. It employs significant influence on the lives of children can play a crucial role in promoting students' health and subsequently the health of families and communities. [3,4]

Children utilize their maximum time with their teachers in school and it is imperative to acquire the knowledge as well as skills to fulfil their future predetermined goals and foster hidden potential during schooling period.[5] Teachers are known as role models to transmit life values and can influence a huge bulk of students with their teaching capacities. They can be a part of planning and execution of preventive and promotive health services programmes st school level, and it reiterates the need to train teachers regarding health education and its various aspects. [6-9]

Being one of the integral associates of school, teacher has responsibility to educate children about healthy habits. Numerous guidelines have been formulated by World health Organization WHO and other well-known health authorities which encourage children to inculcate healthy habits during school environment.[4] Therefore, it is vital for the health authorities to understand the importance of schools in setting up school health policies and its appropriate implementation. [10-13]

The current study was undertaken to assess the knowledge, attitudes, and practices about school health services in school teachers. The study also attempted to compare the differences pertaining to knowledge and practices between rural and urban teachers about school health services.

Material and Methods

Study Design

Cross Sectional study.

Study Area and Period

The study was conducted at selected secondary schools in Sangli district of Western Maharashtra between March 2015 to March 2016.

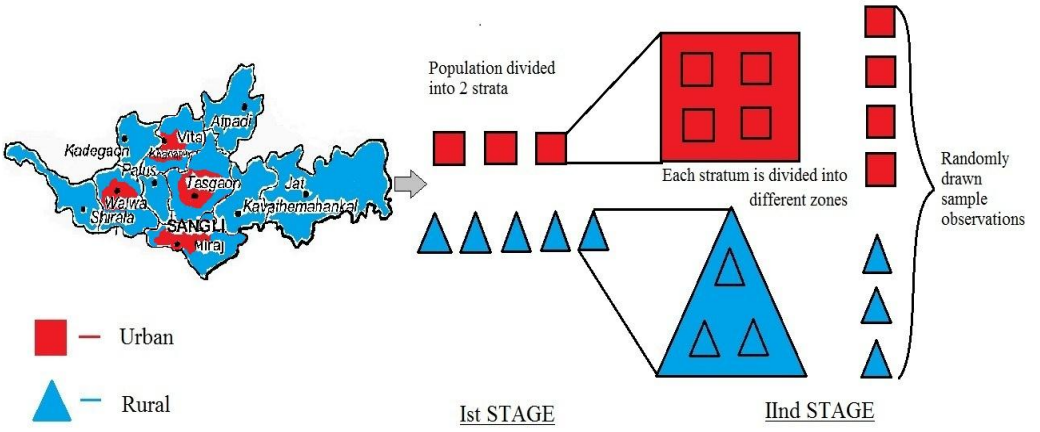
Ethics Procedures

The study proposal was scrutinized and approved by IEC (reference no. BVDUMC&H/Sangli/IEC/Dissertation 2014-15/95). All the guidelines and instructions of the IEC were meticulously followed while conducting the study. Permission from respective principal of schools was taken accordingly. Informed consent was acquired from every participant of the study.

Study Population and Sampling Procedures

A total of 10% of secondary school teachers from Sangli district were taken. Total secondary school teachers from Sangli district = 7298. Only teachers who were well versed with local language (Marathi) were considered; hence the sample size became 630. (Rural = 474 + Urban = 156). Sampling was done by using two stage stratified random sampling. First stage was of Urban and Rural setting and second stage was of different zones from urban and rural area. Teachers were selected by simple random sampling methods from each zone.

Two stage stratified random sampling of secondary school teachers of Sangli district



Teachers working on temporary basis, engaged in full time administrative working were excluded from the study.

Study Tool

A self-administered, pilot-tested questionnaire was formulated with the help of subject experts. Questionnaire for participants was to assess their knowledge, attitudes and practices regarding school health services.First section encompassed of baseline information including age, sex, educational qualification, designation, and years of work experience. Second part of questionnaire included practice based 10 questions regarding school health services.Third section involved 24 knowledge related questions about school health services and last section comprised of 10 attitudes related questions.

Pilot Study

After the preparation of questionnaire, pilot study was implemented on 60 participants. Their views about the study were recorded in the form of feedback. Correspondingly, few of them were interviewed by trained persons and suggestions were considered and necessary modifications in the questionnaire were incorporated accordingly. The collected data from the pilot study was not utilized in the statistical analysis.

Study Procedure

Permission was gained from the concerned authorities of the schools;likewise they were also requested to dedicate time to retrieve data. The participants were informed about the study and its importance. The anonymity of participants was guaranteed. Also, they were also conversant about voluntary nature of the participation.All the participants were given the questionnaire. Whole privacy and required time were warranted during completion of the questionnaire. The participants were asked to put completed questionnaires in the drop box.

Statistical Analysis

Statistical analysis was completed by using Microsoft Office Excel Sheet and SPSS version 22. Chi square test and Z-test were applied to evaluate the association between two attributes. Unpaired T test was administered to evaluate mean differences between rural and urban parameters and Mann-Whitney test was also utilized in case of ordinal data was to be analysed.Fisher's exact test and Spearman's correlation coefficient method were also used to assess further differences. P value less than 0.05 was considered as statistically significant.

Results

A total of 54 schools were involved of which, 42 schools were from rural areas and 12 schools were from urban areas. Mean age of participants in rural and urban schools were 40.66 ± 8.76 and 42.31 ± 8.63 respectively. Out of the 518participants, in rural schools, 320 were males and 198 were females, while out of the 182 participants in urban schools, 88 were males as compared to 94 females. The study specified that rural schools had significantly more proportion of male participants comparing to female participants.

Out of the 518 participants in rural areas, 8 (1.54%) had 10^{th} class education, 35 (6.75%) were educated up to 12^{th} standard. Five (0.96%) were diploma holders, 303 (58.49%) were graduates and 167(32.23%) were having postgraduate qualification. Out of the 182 participants in urban areas, 4 (2.19%) had 10^{th} class education, 16 (8.79%) had 12^{th} class qualification, 2 (1.09%) were diploma holders, 86 (47.25%) were graduates and 77 (42.30%) were having postgraduate qualification. In this study, nearly all participants had minimum primary level of education and the difference between urban and rural settings was insignificant.
Figure 2 indicates the proportion of participants who received school health training. There was no statistically significant difference in the proportion of participants who had received school health training between the two groups.In

rural schools, the mean duration of school health training received was 4.42 ± 5.84 days while that in urban schools, it was 3.42 ± 2.19 days. The median duration for the same was 1.6 days in rural schools (range: 1-19 days) as compared to 4.5 days in urban schools (range: 1-10 days).

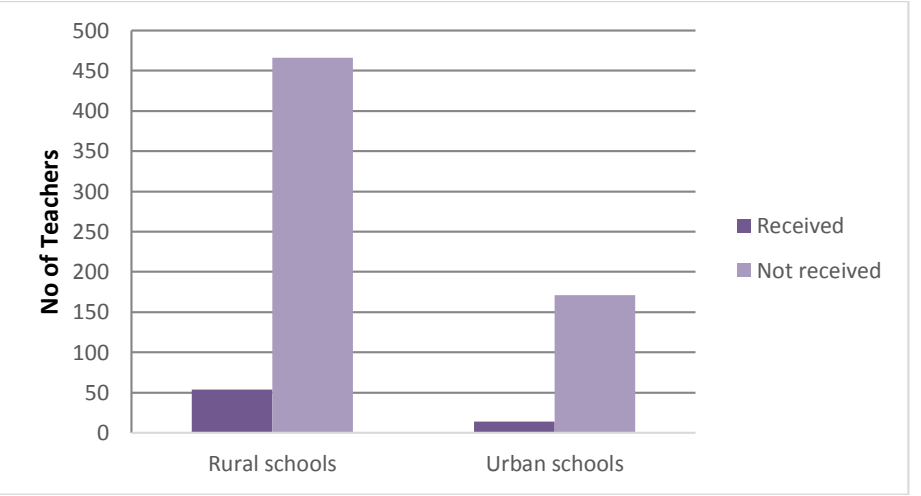


Figure 2: School Health Training Received By the Participants

Table 1 show that the mean percentage knowledge score of the rural school participants was 60.42% which was nearly similar to that of the urban school teachers (60.64%). P <0.05delineates that; there was a significant difference in the median knowledge score of these two groups.

Table 1
Knowledge Regarding School Health amongst the Participants

Knowledge regarding school health	Rural schools (n=518)	Urban schools (n=182)	P value
Knowledge Score I, Median (Range)	8 (1-11)	8 (0-10)	<0.05
Knowledge Score II, Median (Range)	6 (1-12)	6 (1-10)	
Knowledge score (I + II), Median (Range)	14 (6-19)	14 (4-20)	
Mean percent knowledge score	60.42%	60.64%	

P<0.05 considered as statistically significant

Table 2
Attitude towards School Health amongst the Participants

Characteristics	Rural schools (n=518)	Urban schools (n=182)	P value
Attitude towards school health, Median (Range)	8 (1-20)	7 (4-9)	<0.05
Mean percent attitude score	88%	88%	

P<0.05 considered as statistically significant

Table 2 illustrates that the median score of attitude towards school health was significantly less in urban school teachers as compared to the rural school participants. In this study, the mean percentage practice score among rural school participants was 87.44% as compared to 78.31% among urban school participants. The calculated p value less than 0.0001 indicated that the median score of practice regarding school health was significantly less in urban school participants as compared to the rural school participants.

The 'teacher performance score' (sum of knowledge, attitude, and practices school health) among 518 participants in rural schools was 77.32%.Similarly, the estimated score for urban school participants was 73.22%.The mean teacher performance score was significantly low in urban school participants as compared to the rural school participants and the difference was statistically significant ($p<0.05$).Table 3 depicts various perceptions of participants about health education and related services.

Table 3
Perceptions of Participants about Health Education and Related Services (n=700)

Sr. No.	Characteristics	Out of 700	Percentage
1.	Teacher should provide health education.	679	96.1%
2.	Teacher should foster the progress of students.	698	98.4%
3.	Students must spread health awareness in communities.	651	94.1%
4.	Teacher must discuss health topics with students in interactive way.	692	97.8%
5.	Teacher doesn't have responsibility towards student's nutrition.	543	79.3%
6.	Health programme for students is additional burden on teachers.	591	85.2%
7.	Teachers mustundertake periodic health examination	690	97.9%
8.	Teacher should give information about puberty to students.	652	93.4%
9.	Female teachers should address queries about menstrual problems.	213	31.5%
10.	Sex education is harmful to students.	613	87.4%

Discussion

In present study, the mean age of the participants in rural areas was 40.66± 8.76 years, while that of the participants in urban areas was 42.31± 8.63 years, no statistically significant difference was observed in the mean age of these two groups. El-GamelenEbrahimEssa HA et al[14]in their study reported mean age of the teachers as 40.31± 7.58 years in rural area as well as 38.71± 7.71 years in urban area; however, the difference in the mean age of the teachers in the two groups was statistically insignificant. This might be attributed to the ethnic differences in the study population.[14]

From the 518 participants in rural areas, only 52(10.12%) of them got school health training and 462 (88.45%) participants could not receive any kind of training. From the 182 participants from urban areas, only 13(8.10%) of them received training comparing to 169(91.41%) participants who were deprived of training.Bhesania NH et al[15]stated that 14.9% of participants took training about epilepsy. The mentioned resultswere almost similar to current study.In rural schools, estimated mean duration of receiving school health training was 4.52 ± 5.45 days and in urban schools, it was 3.12 ± 2.12 days. It was also found that the median duration for the same was 1.45 days in rural schools comparing to 4 days in urban schools.

In the current study, it was noted that there were 679 (96.1%) participants with positive attitudes towards health education for students and remaining participants were with negative perceptions towards the same. A study conducted by San-San Htway[16], reported that 277 (69.59%) of the respondents showed positive perceptions for school health services. In another study carried out by Win Nainget al.[17] observed that 217 (56.36%) of the teachers were with positive attitudes for school health services. One of the major findings of the current study indicated that participants having satisfactory knowledge and positive perceptions on school health services seemed to be less essential than their school locality, age seniority as well as experience in assessing significant correlation with practice.

Considering the need to strengthen the knowledge of participants about health education services, regular training programmes must be organized for teachers and it can be ensured that health information generated during training should be disseminated to students and their families. First aid training which is an integral element of health service programme must be done for teachers in both settings. The study had few limitations. There was restricted sample size in the present study, so more multicentric studies with adequate sample population must be encouraged for better generalization of results.

Conclusions

Overall, the majority of the school teachers had satisfactory knowledge, attitudes and practices about health services. However, there is need for frequent training of teachers in similar aspects to promote positive health of students, families and communities. Adequate training can enhance their knowledge and also boost up their active involvement in school health services programmes.

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