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REOPENING OF PRIMARY SCHOOLS WILL DEMAND MORE TRAINING

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Abstract: Because of the yearlong lockdown and closure of educational institutes, COVID-19 has impacted the school sector in a variety of ways. When educational institutes reopen following the lockdown, educational personnel could be one of the most useful sources of Coronavirus disease (COVID-19) related health information for their young adult pupils. However, it is critical that they have sufficient and accurate understanding about COVID-19 prevention. Before educational institutes reopen, knowledge of preventive strategies is critical to success. The goal of this study was to examine awareness among educators by evaluating their degree of knowledge, attitude, and behavior, as well as their link with chosen sociodemographic characteristics. The participants in this study were education professionals from Madhya Pradesh state, India, who worked in primary schools. A pre-tested, self-structured questionnaire about COVID-19 preventive measures and readiness to see a rollback was shared as a Google Form. Participants and selected sociodemographic characteristics were subjected to a detailed descriptive analysis to determine their knowledge, attitude, and practice. To determine the level of knowledge, attitude, and practice, an item-by-item analysis was performed. At a 95% confidence the average knowledge value was calculated to be 10.42+0.08. (10.40-10.070). In all 820 participants, the average attitude score was 1.216+0.385 at 95 % confidence interval (2.064-2.367), while the average practice score was 1.67+0.472 at 95 %confidence interval (1.0712-1.627). Participants' knowledge of COVID-19 prevention was found to be linked to their age, gender, personal history of COVID-19, and attendance at webinars. Attendance at webinars has also been linked to practice. This study found that participants' knowledge of symptoms in COVID -19 wave -1 was adequate, but that knowledge of symptoms in COVID -19 wave -2 was inadequate. Social distancing was unsatisfactory, but the attitude toward COVID-19 prevention was positive. There is a link between

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webinars and knowledge and practice, implying that additional webinars, workshops, and training sessions will increase awareness at all levels in these participants.

Keywords: COVID-19 wave -2, primary school Education professionals, Knowledge, Attitude, Practice,

摘要：由于教育机构长达一年的封锁和关闭，COVID-19 以多种方式影响了学校部门。当教育机构在封锁后重新开放时，教育人员可能是其年轻成年学生获得与冠状病毒病 (COVID-19) 相关的健康信息最有用的来源之一。但是，至关重要的是他们对 COVID-19 的预防有足够而准确的了解。在教育机构重新开放之前，了解预防策略对成功至关重要。本研究的目的是通过评估教育者的知识程度、态度和行为，以及他们与选定的社会人口特征的联系来检查教育者的意识。本研究的参与者是来自印度中央邦的教育专业人士，他们在小学工作。有关 COVID-19 预防措施和回滚准备情况的预先测试、自行构建的问卷已作为 Google 表单共享。对参与者和选定的社会人口特征进行详细的描述性分析，以确定他们的知识、态度和实践。为了确定知识、态度和实践的水平，进行了逐项分析。在 95% 的置信度下，平均知识值计算为 10.42+0.08。 (10.40-10.070)。在所有 820 名参与者中，95% 置信区间 (2.064-2.367) 的平均态度得分为 1.216+0.385，而 95% 置信区间 (1.0712-1.627) 的平均实践得分为 1.67+0.472。参与者对 COVID-19 预防的了解与他们的年龄、性别、COVID-19 的个人病史以及参加网络研讨会有关。参加网络研讨会也与实践有关。该研究发现，参与者对 COVID -19 波 -1 中症状的了解是足够的，但对 COVID -19 波 -2 中症状的了解是不够的。社交距离并不令人满意，但人们对 COVID-19 预防的态度是积极的。网络研讨会与知识和实践之间存在联系，这意味着额外的网络研讨会、研讨会和培训课程将提高这些参与者在各个层面的意识。

关键词：COVID-19 wave -2，小学教育专业人员，知识，态度，实践，

1. **Introduction:** Coronavirus illness (COVID-19) induced by SARS-COV-2 has had a wide-ranging impact on people's life [1][2]. In December 2020, 8.5 percent of cases [3] were detected among people under the age of 18, a figure that is expected to rise in 2021. With a population of over 1.3 billion people, India has emerged as the new COVID-19 hotspot [4]. To halt the spread of this disease, public locations such as educational institutions, workplaces, shopping malls, amusement plazas, tourist attractions, and public transportation were temporarily closed. However, when the recovery rate improved approaching June 2020, governments began to lift the lockdown and chose to reopen various public areas and activities in stages. With the emergence of COVID-19 mutants in early 2021, rapid transmission of the virus has been reported again, with new symptoms such as fatigue, chills, diarrhea, and vomiting, as well as Post COVID-19 syndrome, which includes cardiac, renal, gastro-intestinal, endocrine, and neuropsychiatric sequelae [5,6]. This time, the virus is affecting not just middle-aged and older folks, but also younger people. During the initial phase of wave -2, the majority of

infected cases were observed in a cohort of students and teachers following the reopening of schools and colleges in India [7]. Since early 2020, educational institutions have been shuttered to guarantee the safety of children and youngsters from basic school through college and university. However, recognizing the ongoing threat of COVID-19 for more than a year and comprehending the importance of education as a continuous process, the Education Departments of several state governments are considering the reopening of many educational institutions.

2. **Significance of the study**

Schools, colleges, and universities can all contribute to the spread of the virus in the community if proper knowledge and practices are not followed [9]. Considering the current scenario to achieve the goal of safe classroom teaching, all educational personnel must be aware of and follow the safety standards for preventing viral spread. When education professionals are adequately prepared with adequate knowledge about preventive strategies, they will not only be able to reduce the spread of virus while reopening, but they will also be able to transfer the same to their young students, which will help flatten the curve of rapidly in the community [8][9]. Because there have been very few studies on awareness among education professionals, this study was planned among education professionals to understand the gap of knowledge and practice.

3. **Review of related studies**

Admaja K Nair, Philips Mathew, LS Sreela, Twinkle S Prasad, Merrin Jose conducted a study to evaluate the awareness regarding prevention of COVID-19 among adults of Bangalore city they found that a few adults faced dental problems during lockdown and many were aware about risk of infection .they recommend virtual treatment should be think of to prevent infection. **Pranav D. Modi , Girija Nair, Abhay Uppe, Janhavi Modi, Balaji Tuppekar, Amit S. Gharpure, Deepak Langade** conducted a study among health care students regarding COVID-19 awareness among health care professional students in Mumbai and found that there is high need of training among this group.

4. **Objective**

1. To assess awareness among education professionals by assessing the level of their knowledge, attitude, and practice 2. To find the relationship of knowledge, attitude, and practice with selected sociodemographic variables.

5. **Population and sample**

It was a cross sectional descriptive study. Written consent was obtained from participants before starting the survey. The period of survey was planned from July 26th to august 23rd ,2021.The response rate of the survey was 82.8%. **Tool:** A self-structured pretested google form was shared as a questionnaire among education professionals. The reliability of the tool was assessed by Cronbach's alpha which is found to be 0.7. A self-structured expert validated tool was designed consisting of 16 items based on knowledge and 5 items of attitude and 5 items of practice related to prevention of COVID -19 in educational institutes and among students. The questionnaire was prepared on the basis of WHO, CDC guidelines for COVID -19 prevention among school students, guidelines given by

MoHFW, India, UGC guidelines[11][12][13]. The distribution of responses was presented by age classification, gender, education level. Other variables were also created on the basis of COVID -19 positive status in past, webinars attended for preventive measures of COVID -19. Ethical clearance was taken from the institutional ethical committee before starting the study. Consent was taken by all the participants before the survey tool precede. **Sample**: Sample size was calculated using Cochrane formula (Z^2x pq/e^2) of 800 education professionals at 95% confidence interval. A snowball sampling method was preferred to reach all participants. The google form survey-based questionnaire was sent to 1500 education professionals through e-mails. Before conducting the main study, a pilot study was done on 80 School teachers. Participants were informed about the study, its purpose, and how they will participate. Finally, electronic responses were collected from 1820 educational professionals' teachers at primary schools. The educational level of participants was of graduate, postgraduate, doctoral. The inclusion criteria were educational professionals who are working in different positions in affiliated institutes. Participants related to the medical education field were excluded.

6. **Statistical technique used in the present study**

Data were tabulated in an excel spreadsheet and descriptive statistics were performed using statistical software SPSS 16. to analyze the data mean, standard deviation, percentage were calculated. Mean was analyzed at 95% confidence interval. A Chi-square test was performed to find the association of knowledge, attitude, and practice with socio-demographic variable groups and other groups of variables. Regression analysis was also done on SPSS to see the relationship between variables and knowledge, attitude, and practice of the participants.

5.1 Data analysis and Interpretation:

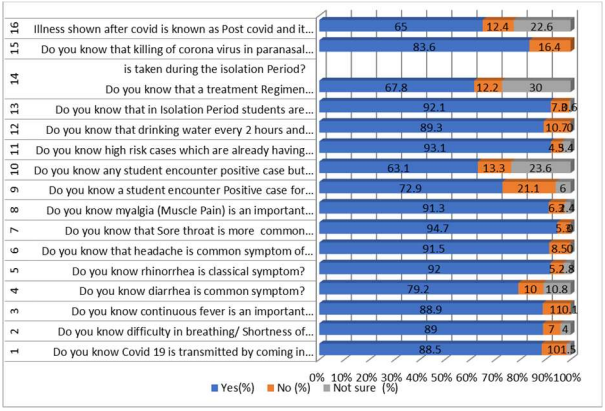
Table1:

Demographic group	Subgroup	Frequency	Percentage (%)
Age group	**21-30**	405	49.39
	31-40	379	46.21
	41-50	26	3.17
	51-60	10	1.21
Gender	**Male**	248	30.3
	female	572	69.7
Education	**Graduate**	253	30.8
	Postgraduate	464	56.5
	Doctorate	103	12.5
History of COVID -19	**Yes**	317	38.6
	no	503	61.3
Attended webinar	**Yes**	554	67.5
	no	266	32.4

Percentage frequency of Demographic characteristics of participants

Interpretation of table 1: it is inferred from the Table 1 that a total of 820 participants the majority (49.39%) of the participants were in the age group 21-30 years (n=405), followed by 46.2% in the age group 31-40 years (n=379). Approximately 69.7% were females (n=572). Among participants majority, 56.5% were postgraduates (n=464). The majority of the participants 67.5% (n=554) attended webinars related to the prevention of COVID -19. Most of the participants 61.3% were not diagnosed with COVID- 19 in past or recently (n=503).

Knowledge Assessment: Figure 1: item-wise response for knowledge questionnaire



Interpretation of figure 1: Average knowledge value score was found to be 12.42±0.08 at 95% CI (12.40-12.070) in all 820 participants. When we assessed the Mean Knowledge score related to different items it was higher in fever, dyspnea etc. but was low for treatment guidelines at home, diarrhea, post-acute COVID-19 symptoms, myalgia, body ache, headache and chills which were common symptoms in wave-2 of COVID-19**.** This pattern of knowledge level is consistent with other studies related to KAP in India [14][15] whereas the percentage of less correct answers range of 60-66% were mostly observed with body ache, fatigue symptoms, dry cough, diarrhea, vomiting which is observed in wave 2 of COVID-19. The maximum correct knowledge level is related to areas of symptoms such as fever, breathing difficulty. Knowledge was also deficit related to treatment guidelines given for home management of covid19 cases. 63% of participants were knowing that if less than 15 min. contact with more than 1meter distance with positive case occur urgent requirement of testing is not required which reflect other participants lack factual knowledge. Only 65% of participants were having knowledge about post-COVID-19 syndrome which indicates they may not practice adequate care guidelines after being negative for COVID-19 and again morbidity, mortality burden related to post COVID-19 problems may increase(Figure 1) .67% of participants were aware of the line of treatment followed during the illness which helps in being confident about the right of patient as malpractices are also observed among various areas where wrong treatment line is followed and giving risk for lives especially in remote rural areas.

Table 2: Relationship between knowledge and sociodemographic variables

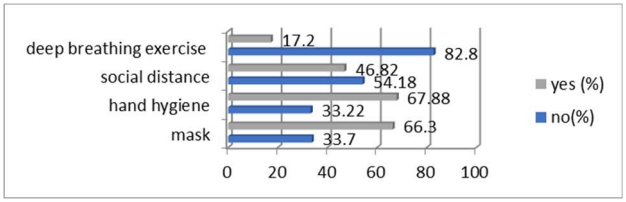
Relationship between sociodemographic variables and Knowledge level of the participants					
Age	**Poor**	**Fair**	**Good**	**Statistical Value**	**Significance**
21-30	8	30	367	17.977 df=8	Significant
31-40	2	33	344		
41-50	2	0	24		
51-60	1	0	9		
Gender					
Male	3	32	223	8.778 df=1	Significant
Female	12	39	521		
Education					
Graduate	4	23	228	7.306 df=6	Not significant
Postgraduate	6	37	419		
Doctorate	5	11	87		

COVID -19 history					
Yes	3	29	285	2.324 df=1	Not Significant
no	12	42	449		
Webinars attended					
Yes	12	54	488	3.784 df=1	Significant at 0.05
no	3	17	246		

Interpretation of table 2: Association between socio demographic variable with Knowledge level among participant is found to be related with age, gender, and webinars on COVID -19. Regression analysis was done to predict the relationship between knowledge as dependent variable and age, gender, education, COVID-19 history, webinar attended. Result shows that webinar has significant effect logically on knowledge which is 34.337 times at 95% level of confidence.

Practice assessment: Average practice was found to be low with a value 1.67±0.472 at 95% CI (1.0712-1.627) in all 820 participants.

Figure 2: participants' response for practice questionnaires



Interpretation of figure 2: Practices related to hand hygiene, regular wearing of double mask in workplace, maintaining social distancing and regular deep breathing exercise founds to be the maximum among 67.8% participants. only 67.8% of participants wash their hands regularly for 20 seconds after every 2 hours or after coming in contact with some infected surfaces. The double mask was not in much practice in crowded places. Practices of social distancing were followed inadequately by 58.2% of participants because of lack of markings at shopping places and workplace as written by participants in comments. Deep breathing exercise and yoga were least practiced by 17.2% of participants merely, awareness can be created for the importance of deep breathing exercise

Table 3: Association of practice with sociodemographic variables

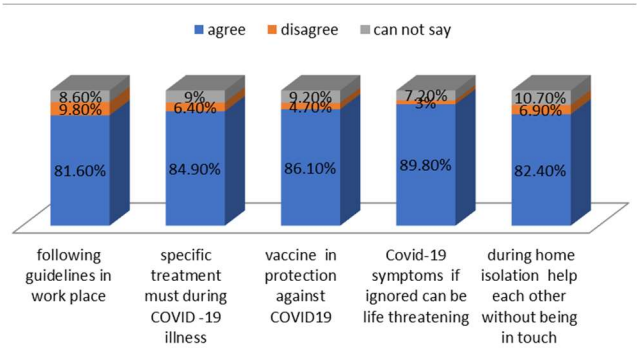
Relationship between socio-demographic variables and Practice				
Age	**poor**	**Good**	**Statistical Value**	**Significance**
21-30	136	269	3.636 df 4	Not Significant at 0.05
31-40	123	188		
41-50	12	14		
51-60	2	7		
Gender				
Male	3	32	0.181 df=1	Not Significant at 0.05
Female	12	39		
Education				
Graduate	92	158	3.278	Not Significant

			df=3	0.05
Postgraduate	45	319		
Doctorate	35	464		
COVID - 19 history				
Yes	94	219	2.196 df=1	Not Significant 0.05
no	177	328		
Webinars attended				
Yes	12	54	3.878 df=1	significant at 0.05
no	3	17		

Interpretation: It is inferred from Table 3 Association between socio demographic variable and Practice is found to be associated with webinars attended.

Attitude Assessment: Average score for attitude was 2.216±0.385 at 95% CI (2.064 -2.367) in all 820 participants.

Figure 3: item-wise attitude questionnaire response among participants.



Interpretation: it is inferred from figure 3, Attitude related to seriousness of disease, vaccine, following guidelines for prevention, taking specific treatment, helping others in isolation period was favorable among average of 82%participants for prevention and control of COVID-19.

Table 4: Association of attitude with selected sociodemographic variables

Relationship between socio-demographic variables and Attitude					
Age	**Disagree**	**agree**	**Can not say**		**Significance**
21-30	1	61	341	6.682 df=8	Not Significant
31-40	4	72	225		
41-50	1	5	77		
51-60	0	0	9		
Gender					
Male	1	46	201	0.999 df=1	Not Significant
Female	4	91	472		
Education					

Graduate	1	42	205	2.874 df=6	Not Significant
Postgraduate	3	81	378		
Doctorate	1	14	88		
COVID-19 history					
Yes	3	57	253	1.740 df=2	Not Significant
no	5	80	419		
Webinars attended					
Yes	3	90	460	0.654 df=1	Not Significant
no	2	48	213		

Association was analyzed between socio demographic variable and attitude at o.o5 level of significance

Interpretation of table 4: there is no association found between socio demographic variable with attitude of participants.

7. **Recommendation**

In the present scenario of COVID-19 knowledge related to wave -2 symptoms is inadequate which may result in a delay for consultation and will enhance seriousness.

1) appropriate knowledge must administer through all possible methods such as webinars, online training, symposium, videos, conferences, etc.
2) Practices of appropriate social distancing at workplaces need to improve by developing strict policy and engineering measures.
3) It is highly felt that online workshops for demonstration of basic skills for prevention of infection will prepare the whole population for the prevention of COVID-19. Workshops can be planned to demonstrate skills of handwashing, the role of the teacher in the institution, how to follow social distancing at workplaces, importance and techniques of wearing mask
4) More webinars can be conducted for developing awareness among this population addressing wave 2 symptoms, covid-19 prevention among school children what to do when anyone comes in contact with the positive case, COVID-19 management at Home, and identifying the need of referral to Hospital
5) yoga day can be planned regularly to develop the habit of practicing yoga for fighting against this deadly respiratory disease and achieving good mental health during this pandemic
6) There is a need for new policy development to monitor adherence to preventive practices.

8. **Conclusion**

Education professionals, if they will be aware of the preventive measure for COVID-19 they can transfer that knowledge to their students and a big population group can flatten the curve of rapidly rising cases. The average knowledge level among participants shows that adequate knowledge about symptoms is observed related to wave 1. Among socio-demographic variables age, gender, the webinar has shown a significant relationship with knowledge level. Practices were not much satisfactory. Attitude related

to the seriousness of the disease, immunization, following guidelines, helping isolated case at home without being in direct contact, was favorable which reflect community members has started thinking positively for prevention of COVID-19 rather than disobeying rules. No correlation was found between knowledge and practice of participants which demands hands-on skills or training, or workshop should be conducted.

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