



Original Article

Early Childhood School Leaders Knowledge, Attitude, Practices Schools Reopening Amidst Covid-19

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ABSTRACT

The COVID-19 pandemic has seriously disrupted the educational process in every educational institution worldwide. Like many other countries, Pakistan has had to close schools and educational facilities twice over the past year to stop the spread of the COVID-19 pandemic.

Objective: To determine early childhood school leader's knowledge, attitude, practices schools reopening amidst Covid-19. **Methods:** This cross-sectional survey was conducted to examine Early Childhood School leaders' knowledge and practices related to COVID-19. The data were collected as part of an online survey of 154 school leaders from Karachi's Early Childhood Education (ECE) sector. **Results:** The knowledge constructs' overall mean score (right answers) was 6.8 with 1.3 standard deviations. Many respondents had misconceptions regarding the covid-19 virus's characteristics; only 70% of them are aware that the virus is not airborne. According to about 65% of the answers, the covid19 virus is not surface carried. On the other hand, more than 90% of the respondents stated that the covid-19 virus spreads through respiratory droplets; consequently, an overwhelming majority (95%) expressed their concern about the transmission of covid19 in school. Nearly 3 out of 4 responders thought the school should continue to be closed. **Conclusions:** The study concludes that some proper training for school leaders regarding knowledge and practices of Covid-19 would help prepare them for safe school reopening. In addition, the majority of the school leaders showed a positive attitude towards school reopening amidst Covid-19.

INTRODUCTION

The Covid-19 pandemic has severely impacted the world [1], and Pakistan has been no exception. The pandemic has affected just about every industry globally, from health care to education and has shaken global economies. Educational institutes were considered a potential hub for the spread of Covid-19. Therefore, at the beginning of the pandemic, all educational institutes were considered forced into sudden closure for many months [2]. Since March onwards Pakistan has seen several waves of COVID and there have been complete or partial school closures until 2022. Government has been constantly guiding schools on safe schools reopening [2-5]. Children have been impacted in many ways. The most significant impact has been on their school routine and learning methods

which could further affect their psychosocial and emotional well-being [3]. Along with physical distancing measures in school rooms and during travel, good ventilation, education and awareness, and support to children and families, schools can help create new routines to help students adjust [6,7]. The aim is not to return to normal but acquire some normalcy in face of adversities [8]. However, not all schools and communities can manage such arrangements due to limited resources. Furthermore, many countries have reported a rise in cases coinciding with school reopening [4,8]. School leaders' confidence in the safe reopening of schools is also an important aspect [7]. Considering the above context, the investigators explored the knowledge, attitude and practices of ECE

leaders in Pakistan, with an aim to understand their readiness and fears regarding schools reopening during COVID-19. The students responded to the following questions: What are the fears of early childhood educational leaders pertinent to schools reopening amidst COVID-19 pandemic? What is the knowledge, attitude, and practices of early childhood educational leaders regarding COVID-19?

METHODS

This quantitative study was carried out to explore and describe school leaders' knowledge, attitude, practices and fears towards school reopening in Covid-19. A cross-sectional online survey was used to collect data from the ECE school leaders in Karachi – a metropolitan city of Pakistan. The data collection was undertaken from May 2020 to August 2020, where an online survey link was shared with schools in Karachi and globally to participate in this study. The participants of this webinar were also invited to this study, and 154 respondents completed the online survey questionnaire. As presented in table 1, altogether 154 ECE leaders based in Karachi participated in this study and their demographic details are provided. This survey questionnaire was adapted from a customized Knowledge, Attitude and Practices (KAP) developed by researchers from Wuhan, China [9]. The questionnaire was in English and included questions that were relevant to the purpose of the study. The questionnaire was comprised of four sections. 1) Study information along with the consent of participation; 2) demographic variables; 3) items related to knowledge of Covid-19 (9 items), practices as per covid-19 SOPs (5 items) and, attitude, fear, and confidence towards school reopening (9 items); 4) open-ended questions to capture the in-depth picture of respondents' attitudes and fears towards school reopening. The survey required approximately 20 minutes to be completed. Cronbach's alpha value was calculated and found in the acceptable range (Alpha=0.702). The data were analyzed through SPSS version 23 by employing descriptive and inferential statistics. The items were coded (No = 0, Yes=1), whereas negative items were re-coded by giving a 1 value to each correct response. Similarly, the overall scores for each construct were computed by adding all the correct responses. On the other hand, items related to fear, confidence and resources were coded (none=0, low=1, moderate=2, high=3).

RESULTS

Descriptive statistics were employed to compute frequencies and percentages for demographics, whereas mean and standard deviations were calculated for other constructs.

Demographic characteristics of Respondents	Variable	Frequency (%)
Gender	Male	22 (14%)
	Female	127 (82%)
Age in years	25-30	22 (14%)
	30-35	28 (18%)
	35-40	31 (20%)
	40-45	18 (12%)
	45 and above	10 (7%)
Academic qualification	Graduate	49 (32%)
	Post graduate	57 (37%)
Professional Qualification	B.Ed.	37 (23%)
	M.Ed.	33 (21%)
	No PQ/others	36 (23%)
School Type	Public	29 (19%)
	Private	101 (65%)
	Community	25 (16%)
School size based on enrolling students	Small (less than 500)	113 (72%)
	Medium (500 - 1000)	25 (16%)
	Large (above 1000)	14 (9%)
Available Teachers	Less than 20	81 (52%)
	20-50	44 (28%)
	Greater than 50	28 (18%)

Table 1: Shows demographics of respondents

*Total respondents were 154, frequencies based on exclusion of missing data

Results presented in Table 2 show the frequency and percentage of respondents' responses. The overall mean score of the knowledge constructs (correct responses) was 6.8, with 1.3 standard deviations. In other words, on average, the respondents responded to seven questions correctly out of nine questions, which shows that they have good knowledge of Covid-19. However, the minimum values reveal that a few respondents have limited knowledge about the Covid-19 infection. On the other side, almost 7% of the total respondents responded correctly to all the knowledge-based questions. Specifically, the item-wise analysis reveals that an overwhelming majority (i.e., 96%) of the total respondents know about 'clinical symptoms of Covid-19'. Further, 91% of the school leaders viewed that child can also be affected by covid-19, while 9% of the respondents think that children cannot be affected by covid-19. Moreover, a considerable percentage of the respondents (38%) reported availability of cure for covid-19; conversely, most (62%) respondents accepted the unavailability of treatment for Covid-19. Many respondents possess misconceptions about the nature of the covid-19 virus; for instance, 70% of them understand that covid19 is not airborne. Around 65% of the respondents considered that the covid19 virus is not surface borne. On the other hand, more than 90% of the respondents reported that the covid-19 virus spreads through respiratory droplets; therefore, mostly school leaders (90%) believed that all

children should wear a mask to be safe from covid-19 infection. It was quite encouraging that a vast majority (98%) of the respondents clearly understood the precautionary measures (i.e., hand washing and physical distancing) to keep safe from covid-19.

Knowledge about Covid-19	No	Yes
The main clinical symptoms of COVID-19 are fever, fatigue, dry cough, and shortness of breath	6 (4%)	148 (96%)
Children are not affected by COVID-19	141* (91%)	13 (9%)
There is currently no cure for COVID-19	59 (38%)	95* (62%)
Hand hygiene and physical distancing are the key preventions for COVID-19	3 (2%)	151* (98%)
COVID-19 is airborne	109 (70%)	45* (29%)
COVID-19 is surface borne	101 (65%)	53* (34%)
COVID-19 spreads via respiratory droplets	14 (9%)	140* (91%)
All children should wear masks	16 (10%)	138* (90%)
Isolation and quarantine is same	90* (58%)	64 (42%)

Table 2: Respondent's knowledge about covid-19
Overall score (M=6.8, S. D=1.3); Min score (2) – Max. score (9)

*Shows correct response

School leader's attitude towards school reopening amidst covid19: Results presented in table 3 revealed school leaders' attitude towards school reopening amidst the covid-19 pandemic and lockdown. Overall, the respondents showed a positive attitude towards school reopening, as the mean score for positive attitude was 4.5 with 0.79 standard deviations. The minimum and maximum scores lie between 2 and 6; around 60% of the respondents scored 4 and above for this construct. Further, an overwhelming majority (95%) exhibited their concern about the transmission of covid19 in school. Almost 3 out of 4 respondents reported that the school should remain closed. On the other hand, the school leaders felt confident about schools reopening, as 86% of the respondents viewed that they can confidently open their school with well-planned SOPs. Additionally, it was quite encouraging that a vast majority of the respondents (i.e., 97%) thought they would prepare their teachers for safe school reopening with covid-19 SOPs. Furthermore, 88% of the respondents were also confident to communicate and involve parents and community members for safe school reopening to help the school leaders effectively implement COVID-19 SOPs.

Attitude towards the school reopening	No	Yes
Schools can be a potential transmission zone for COVID-19	8 (5%)	146 (95%)
Do you agree that schools should remain closed?	47 (30%)	107 (70%)
Do you have confidence with well-planned SoPs you can open the schools?	22 (14%)	132 (86%)
Do you have assurance that you are ready as a school leader for school reopening?	32 (21%)	122 (79%)
Do you think you will be able to prepare teachers for school reopening?	5 (3%)	149 (97%)
Are you confident of communicating about parent community on school reopening and COVID-19 measures?	19 (12%)	135 (88%)
Overall score (M=4.5, S.D=0.79); Min score (2) – Max. score (6)		

Table 3: School leader's attitude towards school reopening amidst covid-19

School leaders' Practices towards Covid-19: Results presented in table 4 show descriptive statistics of the respondents' practices towards Covid-19. The majority reported positive practices towards COVID-19. The respondents mentioned that they are following almost four positive practices out of the five internationally agreed Covid-19 SOPs to keep them safe from the infection. The overall mean score of positive practices was 4.3, with a standard deviation of 0.96 revealed that the respondents were sensitive towards precautionary practices amidst Covid-19. Additionally, almost three out of the four respondents (77%) revealed that they had avoided crowded places during the covid-19 pandemic, while 23% of the respondents stated that they had visited a crowded place. That said, it was quite encouraging that all the respondents (98%) reported wearing a mask while going out. Furthermore, an overwhelming majority (91%) of the respondents washed their hands frequently for more than 20 seconds and practiced physical distancing in their routine activities (88%). Moreover, 76% of the respondents claimed that they are disinfecting key areas of contact, while 24% were not practicing this SOP to keep themselves safe from covid-19 infection.

Practices towards Covid19	No	Yes
In recent days have you gone to a crowded place?	118* (77%)	36 (23%)
Have you been wearing masks when going out?	3 (2%)	151* (98%)
Do you wash hands frequently for more than 20 seconds?	14 (9%)	140* (91%)
Are you practicing physical distancing of 2 meters or 6 feet?	18 (12%)	136* (88%)
Are you disinfecting your key areas of contact?	37 (24%)	117* (76%)
Overall score (M=4.3, S.D=0.96); Min score (1) – Max. score (5)		
*Represents positive practices towards covid19		

Table 4: Showing respondents' practices as per covid19 SOPs

DISCUSSION

The results from our study suggest that most of the school leaders have some preliminary knowledge related to the

COVID-19 virus and its spread. However, there were two things which showed that the school leaders need further understanding and information. As the finding suggested that the understanding about COVID-19 being an airborne, surface borne or a respiratory borne disease was This highlights a matter of concern as many of the school leaders perceived that COVID-19 is not transmitted through airborne and surface borne routes. Another contradictory view encountered in this research was that, at one point, the school leaders had mixed thoughts as to whether COVID-19 was a surface-borne virus. However, they did mention that they clean the surfaces as part of their SOPs practice [10]. This depicts that the school leaders follow the SOPs without enquiring about the rationale or knowing the reason for their actions. A similar study was conducted in the Jammu and Kashmir, India, which used the same KAP questionnaire to detect the knowledge, attitude, and practice of the general population [11]. Their questionnaire did not have this statement for "COVID-19 is an airborne virus"; thus, that study did not have any of the findings which might overlap to ours. While many of the school leaders believe that schools can be a potential source of the spread of COVID-19, the initiation of online learning was greatly encouraged and adopted by many schools in Pakistan. The initiation of Tele school has been a tremendous effort from the government in a concise period [12]. While the title school initiative is growing in popularity and viewership, it has its fair share of challenges such as, student engagement and retention, age-appropriateness of the content, and assessment for learning [13]. Distance learning is also a challenge for most families who may not have internet facilities and paraphernalia for online learning [14]. Managing children's routines at home is also a newfound challenge for most family's incapable of managing children's learning routines at home [15]. According to the government, school reopening is also not possible since the public has yet to understand the gravity of the situation and follow the standard operating procedures (SOPs) for their safety and that of others [16]. The responsible reopening of schools is deemed a Herculean task across Pakistan due to many reasons, primarily lack of professionalism, resources, commitment, and adherence of the law [14]. The government believes that schools could become nurseries for the contagion to spread quickly, weakening the mitigation strategies that are already not being followed effectively by the people [17]. Schools will be ineffective in implementing safety and prevention SOPs on their premises for children and staff. While many developed countries have reopened schools and are normalizing public life, Pakistan is not ready for a similar event [18]. The most critical question now is what could be done in this

scenario. The situation described above sums up the incapable and ineffective infrastructures in the country and the impact cannot miss the majority of schools [19]. School leaders may not be able to conjure safety protocols for their teachers and students, given the many restrictions. With collective responsibility, we may curb the spread of the virus and hope for the situation to make school reopening possible with the new variants appearing every now and then. The knowledge and implementation have not been standardized in our country; hence, opening schools and resuming academic activity would be difficult to monitor, and managing the consequences might be an additional burden [20].

CONCLUSIONS

The study concludes that some proper training for school leaders regarding knowledge and practices of Covid-19 would help prepare them for safe school reopening. In addition, the majority of the school leaders showed a positive attitude towards school reopening amidst Covid-19. The contradictory responses from participants regarding the spread of the virus and implementation of SOPs leave little room for resumption of in-person teaching/learning practices in the wake of the remitting pattern of Covid-19 cases. This offers an excellent opportunity to Pakistan to work on remote-learning programs and ensure the availability of equipment to remote regions of the country.

Conflicts of Interest

The authors declare no conflict of interest.

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