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RESEARCH ARTICLE

Primary School Teachers Knowledge towards Coronavirus Disease

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ABSTRACT

Background: There has been a rapid rise in cases of COVID-19 infection and its mortality rate since the first case reported in February 2020. This led to a global health threat, causing an ongoing pandemic in many countries and territories and consequence of school closures and reopening is the widening of inequalities in children's health and education outcomes.

Aim: To assess the teachers' knowledge of primary schools about coronavirus disease in Baghdad City, Iraq.

Methods: This study is a complementary section of a larger study, where a quasi-experimental design using test-retest approach for study group and control group participants employed in Al- Rusafa Directorate in Baghdad city being, evaluated in several periods, in this pare the focus is only upon the pre-test period. Data collection is done by self-administrated questionnaire form, and it was given for teachers to answer after taking their agreement. A non - probability purposive sample selected from Primary School's Teachers. The sample was seventy teachers, (35) teachers enrolled as a control group and (35) teachers enrolled as a study group. The study group participants were exposed to an educational program. The selection criteria included Only Teachers who did not enter coronavirus disease training courses.

Results: The finding of this study revealed that teachers have low level of knowledge regarding Coronavirus Disease at the pre-test.

Conclusion: This study concluded teachers' knowledge of Coronavirus Disease is suboptimal Thus, teachers need to be well informed and encouraged to sustain current levels of preventive measures. Government needs to provide schools with adequate preventive commodities to ensure compliance.

Keywords: Primary School Teachers , Knowledge, Coronavirus Disease

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INTRODUCTION

Coronavirus disease, formally designated as COVID-19 by the World Health Organization (WHO),The COVID-19 was declared by WHO (2020) that is unknown disease was discovered in December, 2019, in Wuhan, China, after the emergence of large number of patients showing pneumonia of undefined cause(Amer & Mohamed ,2020). the causative agent for this unknown disease was identified as a novel type of coronavirus, and on February 11, 2020, the International Committee on Taxonomy of Viruses (ICTV) named it as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (Subedi et al.,2020).

According to the WHO, clinical manifestations include elevated body temperature, cough, shortness of breath ,chest tightness, muscle weakness and breathing difficulties. In more severe cases, it can lead to pneumonia, multiple organ failure and even death. Current estimates of the incubation period - the time between infection and the onset of symptoms - range from one to 14 days. Most infected people show symptoms within five to six days. However, infected patients can also be asymptomatic, meaning they do not display any symptoms despite having the virus in their systems (Ogunode,2020). Thus, the CDC (2020a) summarized the recommended everyday preventive actions to help prevent the spread of respiratory viruses, which includes the following:(1) Use of face masks; (2) Covering coughs and sneezes using tissue then safely disposed (or, use of flexed elbow); (3) Proper hand washing for at least 20 seconds; (4) Physical distancing from infected people;(5) Refrain from touching the face, especially the mouth and nose, with unwashed hands; and(6) Frequently touched objects and surfaces should be cleaned and regularly disinfected since the virus may survive for several hours and days in these areas (Dhama et al., 2020).

Global school re-opening is premised on current scientific evidence which demonstrates that children do not transmit the COVID-19 virus as efficiently as adults do, and that school-based virus transmission may not be the main driver of community transmission .Requirements for schools in developing countries to establish safer school environments might however differ from those in more developed countries as the former have a comparatively greater deficit in infrastructure and their school health programs(Sanni et al., 2021).

Schools are public places where teachers and students meet their daily educational needs. Thus, as public places where large numbers of people gather, schools pose a risk of COVID-19 transmission. Community groups that are at risk in the school environment include teachers, students, and canteen managers. One effort to prevent and control COVID-19 in schools has been to implement new health protocols. The school environment's community is obliged to make lifestyle changes by adapting to new habits, a situation described as the new normal; such protocols enable the community to live productively and avoid COVID-19 transmission. Thus, the public-especially those in the school environment-has been asked to apply the principles of a cleaner and healthier lifestyle to suppress COVID-19 community transmission and quickly end the COVID-19 pandemic. The research team's observations have indicated that there are still many people who do not implement the protocols in a disciplined manner, potentially due to a lack of information and awareness within the community and especially the school environment (Setyowati et al .,2021).

Substantial efforts have been made by researchers all over the world to develop a drug that can cure this disease, but, unfortunately, there has not been any success yet, and infected patients continue to receive symptomatic treatment only. The virus has no curing antiviral treatment and applying the measures to reduce the transmission remains the mainstay of prevention (Ogunode, 2020).

METHOD

A quasi-experimental design is carried out using test-re test approach for study group and control group participants employed in Al- Rusafa Directorate in Baghdad city being, to evaluate in three periods pre-test, post-test-1, and post-test-2. A non-probability "purposive" sample had been consisted of (70) school teachers have been selected to obtained represent and accurate data. The size of sample is (70) subjects divided into two groups reach one consists of (35) teachers as study group and (35) teachers as control group. The study group participants were exposed to an educational program after the assessment stage. The selection criteria included Only Teachers who did not enter coronavirus disease training courses. The data analysis approaches were used in order to analyze and assess the results of the study under the application of the statistical package (SPSS) ver. (22.0).

RESULTS

Table (1) shows that 77.1% of teachers in the study group and 71.4% in the control group are females.

Regarding age, 68.6% of teachers in the study group are with age group 31-less than 41 year while 45.7% of teachers in the control group are with age group 20 – less than 31 year.

The level of education refers to bachelor degree among teachers in both groups (74.3%).

The highest percentages regarding year of experience refers to 3-less than 6 years among 42.9% of teachers in the study group and 34% in the control group.

The teachers who are inflicted with COVID-19 disease were 51.4% in the study group and 62.9% in the control group.

Regarding inflicted family members, 54.3% of teachers in the study group and 74.3% in the control group reported they have inflicted family members.

Concerning vaccination, 34.3% of teachers in the study group and 42.9% in the control group reported they have vaccinated.

Regarding social media, 82.8% of teachers in the study group and 97.1% in the control group got their information from social media.

Table (2) reveals that 71.4% of teachers in the study group are showing poor level of knowledge during the pre-test (15.89±3.288) while all of them (100%) are showing good level of knowledge during the post-test 1 and 2 (post-test 1= 48.09±2.049, post-test2= 47.03±2.885).

The teachers in the control group are showing fair level of knowledge over the three times of test: pre-test, post-test1, and post-test 2 (100%).

Table 1. Distribution of the Sample according to their Socio-demographic Characteristics

No.	Characteristics		Study group		Control group	
			f	%	F	%
1	Gender	Male	8	22.9	10	28.6
		Female	27	77.1	25	71.4
		Total	*35*	*100*	*35*	*100*
2	Age (year)	20 – less than 31	9	25.7	16	45.7
		31 – less than 41	24	68.6	13	37.2
		41 – less than 51	2	5.7	6	17.1
		51 ≥	0	0	0	0
		Total	*35*	*100*	*35*	*100*
3	Level of education	Diploma	5	14.3	5	14.3
		Bachelor	26	74.3	26	74.3
		Postgraduate	4	11.4	4	11.4
		Total	*35*	*100*	*35*	*100*
4	Years of experience (year)	Less than 3	7	20	8	23
		3 – less than 6	15	42.9	12	34
		6 – less than 11	8	22.9	7	20
		11 ≥	5	14.2	8	23
		Total	*35*	*100*	*35*	*100*
5	Inflicted with COVID-19	No	17	48.6	13	37.1
		Yes	18	51.4	22	62.9
		Total	*35*	*100*	*35*	*100*
6	Inflicted family member	No	16	45.7	9	25.7
		Yes	19	54.3	26	74.3
		Total	*35*	*100*	*35*	*100*
7	Vaccinated	No	23	65.7	20	57.1
		Yes	12	34.3	15	42.9
		Total	*35*	*100*	*35*	*100*
8	Sources of information	Hard Media	5	14.3	1	2.9
		Social Media	29	82.8	34	97.1
		Relative/friends	1	2.9	0	0
		Total	*35*	*100*	*35*	*100*

No: Number, f: Frequency, %: Percentage, M: Mean, SD: Standard deviation

Table 2. Overall Assessment of Teachers' Knowledge about COVID-19 among Study and Control Group.

Levels of knowledge	Study Group (N= 35)												Control Group (N=35)											
	Pre-test				Post-test 1				Post-test 2				Pre-test				Post-test 1				Post-test 2			
	9	%	M	S.D	f	%	M	S.D	f	%	M	S.D	f	%	M	S.D	f	%	M	S.D	f	%	M	S.D
Poor	25	71.4	15.89	3.288	0	0	48.09	2.049	0	0	47.03	2.885	0	0	24.06	2.274	0	0	24.26	2.477	0	0	24.29	2.420
Fair	10	28.6			0	0			0	0			35	100			35	100			35	100		
Good	0	0			35	100			35	100			0	0			0	0			0	0		
Total	*35*	*100*			*35*	*100*			*35*	*100*			*35*	*100*			*35*	*100*			*35*	*100*		

f: Frequency, %: Percentage, M: Mean of total score, SD Standard deviation of total score
Poor= 0 – 16.66, Fair= 16.67 – 33.33, Good= 33.34 – 50

DISCUSSION

The findings of the present study indicates that two thirds of teachers in the study group are showing poor level of knowledge during the pre-test while all of them are showing good level of knowledge during the post-test 1 and 2.

In the same line with the studies presented in the literature, several investigations undertaken in various Asian nations have demonstrated significant levels of COVID-19 awareness among the general public and healthcare practitioners. Differences in measuring and scoring procedures do not make it feasible for accurate comparisons of knowledge levels across different investigations (Azlan et al., 2020).

In contrast, there was an overall correct response rate of fifty percent among the participants in a survey conducted by Al-Rubaye et al. (2020), showing a significant amount of disinformation transmitted in the community, A study conducted to evaluate knowledge in the Middle East regarding COVID-19 also found that the participants possessed relatively poor knowledge of the disease, while another study on Chinese citizens discovered an overall accuracy rate of around ninety percent, indicating that most respondents were knowledgeable about COVID-19. The serious nature of the pandemic and numerous news reports may have also been a factor in the spread of misinformation, as people often try to help others by sharing information, they receive even before it is verified by health experts (Al-Rubaye et al., 2020).

Although the number of participants admitting doubt regarding success in fighting against COVID-19 was low, this was substantially related with worse knowledge scores. These results confirm conclusions from prior research linking higher levels of knowledge with better confidence and positive attitudes in health emergencies (Azlan et al., 2020).

CONCLUSIONS

This study concluded teachers' knowledge of Coronavirus Disease is suboptimal Thus, teachers need to be well informed and encouraged to sustain current levels of preventive measures. Government needs to provide schools with adequate preventive commodities to ensure compliance .

RECOMMENDATIONS

Give a special attention to teachers' knowledge especially those who are recently employed (lecturer), Government needs to provide schools with adequate preventive commodities to ensure compliance and optimising COVID-19 mitigations such as ventilation and mask-wearing in schools ahead of winter 2022 with presence variants of virus and vaccines remain the most effective public health measure to curb severe COVID-19. Finally, making regular educational programs to widening teachers' base of knowledge. Keep important resources such as booklets, label,journal articles, and videos under the hand of each teacher working in primary schools.

ETHICAL CONSIDERATIONS COMPLIANCE WITH ETHICAL GUIDELINES

The protocol of the study was accepted by the council of the College of Nursing and approved by the ethical committee of the College of nursing/ University of Baghdad . An official letter has been submitted from the College of Nursing to Al-Rusafa Second Education Directorate in Baghdad City in order to obtain facilitation and cooperation, consequently, an agreement letter has been submitted from Al-Rusafa Second Education Directorate.The Consent form facilitated access to the primary schools to complete the study.

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AUTHOR'S CONTRIBUTIONS

Study concept; original draft writing; data collection; data analysis; and final edition review by all authors.

DISCLOSURE STATEMENT:

The authors report no conflict of interest.

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