

Impact Of Educational Program On Elementary Schools Teachers' Knowledge About Preventive Measures Regarding Coronavirus Disease 2019 In Baghdad City

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Abstract

Background: Coronavirus diseases, officially identified as COVID-19 per the WHO was reported in December of 2019 in Wuhan, China, after the appearance of a high number of patients with pneumonia of unknown origin. Several patients were referred to intensive care units suffering of respiratory distress, resulting in death.

Methods: The study was designed as a quasi-experimental design approach for study group and control group participants employed in Al-Rusafa Second Education Directorate in Baghdad city being, to evaluate the effectiveness of educational program on elementary schools teachers' knowledge about preventive measures regarding coronavirus disease. A non-probability "purposive" sample was selected from Al Rusafa Second Education Directorate schools in Baghdad City had been consisted of (70) teachers have been selected to obtained represent and accurate data. The size of sample is (70) subjects divided into two groups each one consists of (35) teachers as study group and (35) teachers as control group. The SPSS version 20.0 software application was used to conduct statistical analysis.

Results: The teachers in study group became knowledgeable and aware toward COVID-19. Where highly significant differences between study and control group about teacher's knowledge.

Conclusions: This study concluded that the responses toward the educational program is very good and can be applied to all teachers who working in others elementary schools.

Keywords: Impact, Educational Program, knowledge, preventive measures, Coronavirus Disease, Elementary Schools.

Introduction:

The popular method to avoid contracting the illness is prevention. Consequently, the (CDC) had supplied summary of suggested daily preventative measures to assist preventing a transmission of viral pathogens, such as: i) Wearing a facial mask: ii) Going to cover cough or sneeze with a tissue and throwing it away safely or using a flexed elbow: iii) Appropriate washing hands for at least 20 seconds: iv) Keeping a safe distance from

infected people: v) Don't touch entire face, including your nose and mouth, with unclean hands, and: vi) Recurrently equipment and places that are often touched should be sanitized and disinfected, since the virus can live there for hours (Dhama et al., 2020).

The CDC of the United States reports that, children under the age of two should not be put to masks, those with respiratory difficulties or who are unconscious, and those who are

disabled and thus unable to adjust the masks on their own without assistance. The event of kids whose usage of masks may be problematic, such as younger pupils, patients experiencing serious asthmatic and perhaps other respiratory issues, as well as individuals with unique educational or medical requirements, It depends on the educators to determine whether masks should be worn. The usage of masks in children aged 6 to 11 must be determined based on the local epidemiological circumstances, the child's features, his capacity to wear the mask, and the influence on learning. This can result in various guidelines from institution to institution or even group to group, leading to concerns more about majority of proper behavior among every single pupil as well as the school personnel and a decrease in usage of mask, among whose use is well described (Esposito et al., 2021).

Recent findings show that the pattern of childhood sickness is comparable globally, even in low- and middle-income nations. Given the frequency of malnutrition, lower respiratory tract infections, and other infectious illnesses such as malaria and cholera, it is believed that children in LMICs are at a higher risk. In terms of accessible health services and necessary materials for COVID-19 treatment and prevention, LMIC are also under-resourced. In addition, sanitary and socioeconomic circumstances associated with poverty, such as overcrowding and poor housing, impede children and their families' ability to receive services and assistance throughout the outbreak (Betz, 2020).

Due to the enormous number of misunderstandings or misleading information spreading on virtual communities about illness transmission and acquisition mechanisms, evaluation of such pandemics' strategies and performance is essential. (Mohamad et al., 2020). The administration of such outbreak relies heavily upon the implementation of prescribed steps. In preventive health strategies to be effective, a comprehensive strategy must provide good educational. Well understanding

for infection with the coronavirus connected with optimistic thoughts and constructive behaviors; hence, comprehensive awareness of an illness influences the attitudes and practices of people. In order to establish the sort of intervention that may be needed to alter misperceptions about the virus, it is necessary to have a baseline knowledge of the amount of COVID-19 awareness (Zhong et al., 2020).

Methods:

The study was designed as a quasi-experimental design approach for study group and control group participants employed in Al-Rusafa Second Education Directorate in Baghdad city being, to evaluate the effectiveness of educational program on elementary schools teachers' knowledge about preventive measures regarding coronavirus disease. The period of the study was initiated from 7th of February /2022 till 20th of April /2022, tested in three periods pre-test, post-test-I, and post-test-II. 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 was selected from Al Rusafa Second Education Directorate schools in Baghdad City had been consisted of (70) teachers have been selected to obtained represent and accurate data. The size of sample is (70) subjects divided into two groups each one consists of (35) teachers as study group and (35) teachers as control group. The study group was exposed to an educational program, while the control group was not exposed to the program. A committee of 18 arbitrators was given the authority, and they were asked to submit their opinions and suggestions on each component of the study questionnaire in terms of the appropriateness of the language, relevance to the dimensions of the study variables to which they were assigned, and suitability to the study population. The SPSS version 20.0 software application was used to conduct statistical analysis.

Results:

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
	<i>Total</i>	35	100	35	100

Table (2): Assessment of Teachers' Knowledge about Prevention of COVID-19 among Study and Control Group

List	Knowledge about prevention	Study Group (N=35)						Control Group (N=35)					
		Pre-test		Post-test 1		Post-test 2		Pre-test		Post-test 1		Post-test 2	
		M	Ass.	M	Ass.	M	Ass.	M	Ass.	M	Ass.	M	Ass.
1	A person who recovered from COVID-19 does not need to follow prevention protocols	.39	Fair	1.00	Good	.97	Good	.54	Fair	.54	Fair	.56	Fair
2	Masks are used as an alternative method of social distancing	.34	Fair	.91	Good	.91	Good	.23	Poor	.23	Poor	.26	Poor
3	People should only wear a mask if they are infected with the virus, or if they are caring for someone with suspected COVID-19 infection	.30	Poor	.97	Good	.91	Good	.59	Fair	.66	Fair	.66	Fair
4	Social distance means stay more than 1 m (3 feet) away from a person who is sick	.34	Fair	1.00	Good	.94	Good	.64	Fair	.64	Fair	.54	Fair
5	Washing hands with water and soap can eliminate the disease cause	.31	Poor	.97	Good	.91	Good	.54	Fair	.54	Fair	.54	Fair
6	It is not necessary for children to take measures to prevent the infection by the COVID-19 virus	.30	Poor	1.00	Good	.94	Good	.54	Fair	.63	Fair	.60	Fair
7	you should to wash your hands for 20sec -1minute to kill the virus	.31	Poor	1.00	Good	1.00	Good	.60	Fair	.63	Fair	.60	Fair
8	Hand rubbing with alcohol-based solutions is more effective than handwashing with soap	.14	Poor	.94	Good	.91	Good	.23	Poor	.23	Poor	.23	Poor
9	Regularly rinsing nostrils with saline has a protective effect against COVID-19	.11	Poor	.91	Good	.83	Good	.03	Poor	.11	Poor	.03	Poor
10	Mouth washing has protective effect against COVID-19	.53	Fair	.89	Good	.89	Good	.29	Poor	.29	Poor	.29	Poor
11	Young has good immunity and does not need to take precautions to protect against coronavirus	.33	Poor	1.00	Good	.94	Good	.66	Fair	.66	Fair	.66	Fair

12	Taking a shower with hot water can kill the agent inside the body	.03	Poor	1.00	Good	.86	Good	.06	Poor	.06	Poor	.06	Poor
13	self-isolate, if you have accidentally come in contact with a person with COVID-19	.31	Poor	1.00	Good	.97	Good	.66	Fair	.66	Fair	.66	Fair
14	Quarantine separates infected patients from healthy people and restricts their movement to stay in health facilities and receive treatment	.06	Poor	.86	Good	.80	Good	.14	Poor	.14	Poor	.14	Poor
15	Exposure to the sun and heat is recommended because it is useful in preventing the transmission of the disease	.14	Poor	.94	Good	.91	Good	.23	Poor	.26	Poor	.23	Poor
16	Vaccination against pneumonia or influenza has no protection against COVID-19	.11	Poor	.91	Good	.89	Good	.17	Poor	.17	Poor	.17	Poor
17	COVID-19 vaccine can transmit coronavirus to you	.20	Poor	.83	Good	.83	Good	.09	Poor	.09	Poor	.09	Poor
18	Side effects of the coronavirus vaccine include pain, redness and swelling at the injection site, or fever and fatigue	.30	Poor	1.00	Good	.94	Good	.37	Fair	.37	Fair	.37	Fair
19	Currently, there is no vaccine for corona virus available for ages under 12 years	.26	Poor	1.00	Good	.91	Good	.09	Poor	.17	Poor	.09	Poor
<i>Total</i>		<i>.25</i>	<i>Poor</i>	<i>.95</i>	<i>Good</i>	<i>.91</i>	<i>Good</i>	<i>.35</i>	<i>Fair</i>	<i>.37</i>	<i>Fair</i>	<i>.36</i>	<i>Fair</i>

Discussion:

The findings indicates that there is no significant difference in teachers' knowledge with regard to their gender, age, year of experience, their inflicted with COVID-19, taking vaccine, and their sources of information in the study and control groups. Studies in the literature agree with this results, with respect to the gender, a study by Hussein & Khalil (2020). demonstrated that there is non-significant association between teachers' general knowledge and their gender characteristics in the study. This table 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. The teachers in the control group show fair level of knowledge about cause and concept of COVID-19; signs and symptoms; transmission methods; diagnosis and treatment; risks and complications; and prevention of COVID-19 during the three test times: pre, post 1, and post 2 (Table 2). The majority of teachers had previous information and knowledge about coronavirus, but this information are inadequate. Therefore, a greater emphasis need preserve and applications it in the daily life, to improve their information and knowledge regarding all above mentioned domains. The findings of the presents study come very close to that of Sundaram et al. (2021), as most of the participants accurately responded the most prevalent clinical symptoms of COVID-19, such as fever, exhaustion, and dry cough, at the time the survey was performed. According to previous surveys, both Syrian and South Korean citizens and the great majority of the general Chinese people correctly answered questions on COVID-19's principal symptoms (Sundaram et al., 2021). Our findings disagree with that of Chen et al. (2021), who declared that wearing a mask and exercising are considered sufficient protection by the vast majority of participants in prior polls in China, according to the results of those studies. A quarter of participants in India and half of the poorest families in the Philippines acknowledged wearing masks as an effective strategy against COVID-19. Depending on the country, these differences in knowledge levels may be due to the varied safeguards adopted. N95 and medical–surgical masks were the most commonly used types of masks to avoid COVID-19, according to the participants in this study. But we saw that several participants were unsure about the proper masks since they erroneously replied dust masks, activated carbon masks, and cotton masks (Chen et al., 2021).

Conclusion:

This study concluded that the responses toward the educational program is very good and can be applied to all teachers who working in others elementary

schools.

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