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Research Article

Efficacy of the Structured Teaching Programme on COVID-19 among the Paramedical Students in Varanasi - A Quasi-experimental Study

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I N F O

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A B S T R A C T

The researcher conducted a quasi-experimental study to evaluate the effectiveness of the structured teaching programme on COVID-19 among 110 randomly selected paramedical students of Popular Institute of Medical Foundation, Varanasi, India with the study objectives to assess the knowledge on COVID-19, associate the demographic variable with the knowledge on COVID-19, and compare the pre-test and post-test values. The level of knowledge about COVID-19 was gathered using a standardised Da-In Park tool. After arranging and analysing the data, the results of the pre-test showed that 43.63% of the samples did not have sufficient knowledge, 56.36% had moderate knowledge and no sample had good knowledge. The researchers examined the values after the COVID-19 structured curriculum test, which showed that the structured curriculum had a positive effect on improving participants' knowledge of COVID-19 (t value was 14.07 with a p value of 0.001) and the result was significant at $p < 0.5$. The study deduces that though the country has been through a lot of changes and methods in imparting health educational knowledge on COVID-19 from the first hit of COVID infection in India, still there is a great amount of lag among the people, even healthcare professional students, on knowledge related to COVID-19. The study clearly shows us that improvement in education through all media and social media might have a great impact on improving knowledge.

Keywords: COVID-19, Structured Teaching Programme, Knowledge Level

Introduction

Coronavirus disease or COVID-19 has been the talk of all national, international, and social media which shook the world as it took the version of a pandemic hitting the health status of countries, crumbling the economic power of countries, creating terror in the hearts of people as their lives were at stake. COVID-19 is an infectious disease caused by the SARS-CoV-2 virus.[1] Most people infected with the virus have mild to moderate respiratory symptoms and recover without the need for medical attention. Others, on

the other hand, may not feel well and may need medical attention. Serious illnesses are likely to affect the elderly and people with underlying medical conditions, such as cardiovascular disease, diabetes, chronic respiratory disease, or cancer. COVID-19 can harm anyone and cause sickness and/ or death at any age.[1]

The volume of coronavirus cases has overloaded health systems all around the world, including in the richest and best-prepared countries. Millions of people in the world's poorest countries do not have access to life-saving items, including test kits, masks, and respirators. However, there is hope in the end: many vaccines are now licensed for use, and since September 27, 2021, more than 6.13 billion doses of vaccines have been administered worldwide.

COVID-19 was designated a Public Health Emergency of International Concern (PHEIC) on January 30, 2020, with a death toll of 171. By the end of 2020, this amount would have risen to 1,813,188. However, preliminary projections implied that the overall number of deaths worldwide due to the COVID-19 pandemic in 2020 would be at least 3 million, which is 1.2 million higher than the official figure.[2]

Methodology

The researcher(s) conducted a quasi-experimental study to assess the efficacy of the structured teaching programme on COVID-19 among the paramedical students in Varanasi with the objective to understand their level of knowledge on COVID-19, to find the association of knowledge and the demographic variables, and also to find the effectiveness of the structured teaching programme. Out of the 300 paramedical students of two institutes studying under the banner of the Popular Institute of Medical Foundation, the study was conducted among randomly selected 110 first-year and second-year paramedical students. The level of knowledge about COVID-19 was gathered using a standardised tool developed by Park DI[3] along with basic demographic data. Knowledge values serve as pre-test data for evaluation. After a preliminary test, the researcher used the WHO COVID-19 toolkit[4] to teach participants about COVID-19 using a structured teaching method and then performed a post-test to assess its validity. - Effectively structured tutorial. . Descriptive and inferential statistics were used with SPSS (version 20.0) to evaluate the effectiveness of the structured curriculum and to link demographic variables to students' knowledge.

Result

Data were collected, organised and analysed according to the researchers' objective. 9 basic demographic data were collected from 110 samples as shown in Table 1. 76.36% of the samples belonged to the age group of 18-20 years, 87.27% of the samples belonged to the Hindu religion, 65.45% of the samples came from rural areas, 36.36% of the sample's fathers had secondary education, 54.54% of the participants' fathers had a private job, 65.45% of the participants' mothers had primary education, 81.18% of them were homemakers, monthly income of 45.45% of the subjects was more than 15000 rupees, and 69.09% of the study sample said that the sources of information on COVID-19 were all the given means.

When evaluating participants' pre-test knowledge of COVID -19, the researchers understood that 43.63% of the samples had poor knowledge, 56.36% had moderate knowledge, and no respondent had good knowledge (Table 2).

Table 1.Distribution of Demographic Variables (N = 110)

S. No.	Demographic Variables	Options	Number	Percentage
1.	Age (years)	18-20	84	76.36
		21-23	20	18.18
		24-27	2	1.8
		> 27	4	3.63
2.	Religion	Hindu	96	87.27
		Muslim	6	5.45
		Christian	4	3.63
		Other	4	3.63
3.	Residence	Urban	38	34.54
		Rural	72	65.45
4.	Father's education	Primary	38	34.54
		Secondary	40	36.36
		College	16	14.54
		Postgraduate	16	14.54

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5.	Father's occupation	Private	60	54.54
		Government	24	21.81
		Semi-private	2	1.8
		Others	24	21.81
6.	Mother's education	Primary	72	65.45
		Secondary	16	14.54
		Graduate	18	16.36
		Postgraduate	4	3.63
7.	Mother's occupation	Private	8	7.27
		Government	8	7.27
		Housemaker	90	81.81
		Other	4	3.63
8.	Family income per month (Rs)	< 7000	44	40
		7000-15000	16	14.54
		≥ 15000	50	45.45
9.	Sources of information on COVID-19	Mother and other family members	12	10.90
		Health worker	6	5.45
		Media and social media	16	14.54
		All of the above	76	69.09

Table 2.Pre-test Knowledge Distribution of Participants

S. No.	Knowledge Level	Number	Percentage
1.	Poor	48	43.63
2.	Moderate	62	56.36
3.	Good	0	0

On comparing pre-test and post-test knowledge scores after the administration of a structured teaching programme, 43.63% of the participants were found to have a lack of knowledge in the pre-test, but no one lacked knowledge in the post-test. Approximately 56.36% had sufficient knowledge in the pre-test, but after the post-test, only 30.09% had sufficient knowledge. There were no samples with sufficient knowledge in the pre-test, but after completing the structured curriculum, about 69.09% had sufficient knowledge (Figure 1).

Performing a combined t-test on pre-test and post-test values showed that the t value was 8.091 with a p value of 0.001 and the result was significant at $p < 0.5$, confirming that the structured learning programme had a positive effect on improving the knowledge of participants on COVID-19 (Table 3).

On associating the demographic variables and the knowledge level of the paramedical students on the COVID-19, no significant relationship was found between the knowledge level and age, residence, father's education, father's occupation, mother's education and mother's occupation (Table 4). On associating the family income per month and the knowledge level of research participants, it was seen that χ^2 value was 6.1288, p value was 0.0466, and there was a significant association between the family income and knowledge level.

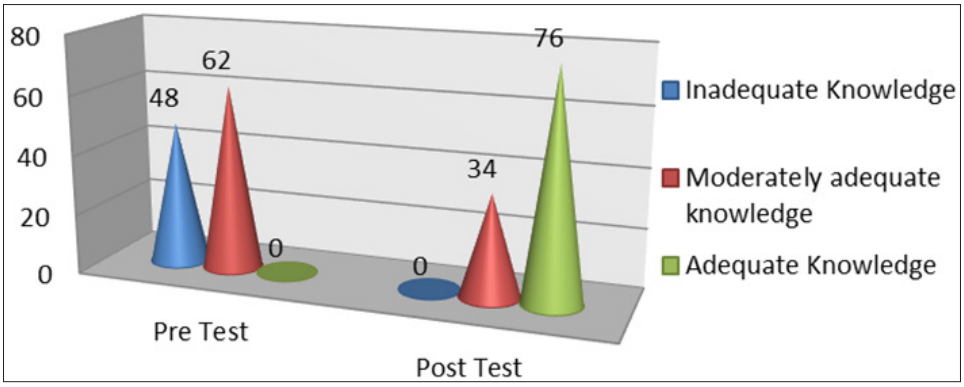

Figure 1.Comparison of Pre-test and Post-test Knowledge Scores

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Table 3.Comparison of Pre-test and Post-test Scores

Structured Teaching Programme	Group	N	Mean	Mean Diff	SD	t Value	p Value	The result is significant at p < 0.5.
	Pre-test	110	11.181	9.182	4.323	8.091	0.0001	
	Post-test	110	20.363		5.014			

Table 4.Association of the Demographic Data with the Knowledge Level

S. No.	Demographic Variables	Options	Inadequate	Moderately Adequate	Adequate	χ^2 Value	Result
1.	Age (years)	18-20	36	46	0	$\chi^2 = 0.165$ p = 0.983	Not significant
		21-23	8	12	0		
		24-27	0	2	0		
		> 27	2	4	0		
2.	Religion	Hindu	40	56	0	$\chi^2 = 0.871$ p = 0.832	Not significant
		Muslim	0	0	0		
		Christian	0	4	0		
		Others	4	0	0		
3.	Residence	Rural area	12	16	0	$\chi^2 = 0.021$ p = 0.882	Not significant
		Urban area	24	30	0		
4.	Father's education	Primary	16	20	0		
		Secondary	8	14	0	$\chi^2 = 1.939$ p = 0.585	Not significant
		Graduate	14	10	0		
		Postgraduate	4	10	0		
5.	Father's occupation	Private	28	22	0	$\chi^2 = 2.865$ p = 0.412	Not significant
		Government	6	18	0		
		Semi-private	0	2	0		
		Others	12	12	0		
6.	Mother's education	Primary	32	40	0	$\chi^2 = 1.476$ p = 0.477	Not significant
		Secondary	4	6	0		
		Graduate	0	8	0		
		Postgraduate	2	2	0		
7.	Mother's occupation	Private	32	10	0	$\chi^2 = 0.165$ p = 0.983	Not significant
		Government	8	10	0		
		Housemaker	6	44	0		
8.	Family income per month (Rs)	< 7000	12	26	0	$\chi^2 = 6.1288$ p = 0.0466	It is significant at p < 0.05.
		7000-15000	22	8	0		
		≥ 15000	18	24	0		

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9.	Source of information	Mothers and other family members	12	2	0	χ^2 = 10.0819 p = 0.017882	It is significant at p < 0.05.
		Health worker	8	4	0		
		Media and social media	8	6	0		
		All of the above	20	50	0		

On associating the source of information and the knowledge level of research participants, it was observed that χ^2 value was 10.081, p value was 0.017, and there was a significant association between the source of information and knowledge level of study subjects.

Discussion

On assessing the knowledge of participants on COVID-19, the researchers understood that 43.63% of the samples had inadequate knowledge, 56.36% had moderately adequate knowledge and no sample had adequate knowledge. Gohel KH et al.[5] conducted a study on the knowledge level regarding COVID-19 among healthcare students in India, the results of which were contrary to the present study since in that study, out of 715 study participants, majority had adequate knowledge. This change in the result of the current study might be because of the change in population size and the population itself (paramedical students).

On comparing the pre-test and the post-test values, it was seen that in the pre-test, 43.63% of the samples had inadequate knowledge, whereas, in the post-test, no participant had inadequate knowledge. About 56.36% of the respondents had moderately adequate knowledge in the pre-test, yet after the post-test, only 30.09% had moderately adequate knowledge. In the pre-test, no participant had adequate knowledge but after the administration of the structured teaching programme, the post-test values showed that about 69.09% had adequate knowledge. Prasanna V[6] conducted a study to assess the effectiveness of the structured teaching programme on COVID-19 among adults in a community area and the result of the study supports the current study since it too showed a significant increase in the post-test values.

On conducting a paired t-test on the pre-test values and the post-test values, it showed that the t value was -14.07 with a p value of 0.001 and the result was significant at p < 0.5 proving that the structured teaching programme had a positive impact in improving the knowledge of the paramedical students on COVID-19.

Conclusion

The study concludes that though the country has been through a lot of changes in the methods of imparting health educational knowledge on COVID-19 from the first hit of COVID infection in India, still there is a dearth of knowledge among people, even healthcare professional students, on COVID-19. The study clearly shows us that all media and social media might have a great impact on improving people's knowledge.

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Conflict of Interest: None

References

1. World Health Organization [Internet]. Coronavirus disease (COVID-19); 2022 [cited 2022 Feb 22]. Available from: https://www.who.int/health-topics/coronavirus#tab=tab_1
2. World Health Organization [Internet]. The true death toll of COVID-19: estimating global excess mortality; 2022 [cited 2022 Feb 22]. Available from: https://www.who.int/data/stories/the-true-death-toll-of-covid-19-estimating-global-excess-mortality
3. Park DI. Development and validation of a knowledge, attitudes and practices questionnaire on COVID-19 (KAP COVID-19). Int J Environ Res Public Health. 2021;18:7493. [PubMed] [Google Scholar]
4. World Health Organization [Internet]. Coronavirus disease (COVID-19); 2021 [cited 2021 Oct 21]. Available from: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19
5. Gohel KH, Patel PB, Shah PM, Patel JR, Pandit N, Raut A. Knowledge and perceptions about COVID-19 among the medical and allied health science students in India: an online cross-sectional survey. Clin Epidemiol Glob Health. 2021 Jan-Mar;9:104-9. [PubMed] [Google Scholar]
6. Prasanna V. A study to assess the effectiveness on structured teaching programme on knowledge and attitude regarding Covid-19 and its prevention among adults at selected urban area in Khammam, Telangana, India. Int J Biomed Investig. 2021;4:134. [Google Scholar