An Evaluative Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Care of COVID-19 Patients Among Staff Nurses at Selected Hospitals

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Abstract: **The finding of the study reveals that in the pre-test 25 (41.67%) staff nurses had average knowledge regarding care of COVID-19. Where as in post-test 60 (100%) were having good knowledge regarding care of COVID-19. The finding of effectiveness of self-structured awareness programme on knowledge reveals that there was significant difference in pre-test and post-test knowledge scores among staff nurses regarding care of COVID-19 patient as calculated "t" value (17.7) was greater than table value (3.47) at p < 0.01 level of significance. The above findings indicate that school based educational programme was effective in improving the knowledge of staff nurses regarding care of COVID-19 patients. The finding of association of knowledge regarding care of COVID-19 patients among staff nurses with socio-demographic variable related to age as the chi-square value (8.79) was greater than table value 7.82 at 0.05 level of significance. Hence hypothesis (H2) was accepted. Whereas hypothesis (H2) was rejected regarding socio-demographic variables i.e., marital status, religion, occupation source of information, work experience as the chi square values i.e., 1.47, 1.09, 6.03 was less than table values 3.84, 5.99, 7.82 at 0.05 level of significance respectively.**

Keywords: **knowledge, care of COVID-19 patients.**

1. Introduction

Since late 2019, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes COVID-19, has spread throughout the world. Although the pandemic began in China, most reported cases and deaths occurred in high-income countries (HICs) in early months of the pandemic. While it is uncertain how low- and middle-income countries (LMICs) will fare, confirmed cases in these countries continue to increase and could soon overtake confirmed cases in HICs. We propose three broad research questions to inform public health and policy responses to COVID-19 in LMICs: (1) how do the patterns of SARS-CoV-2 transmission differ in resource-poor settings? (2) how does disease severity in LMICs, particularly among vulnerable populations, differ from observations elsewhere? (3) what will be the impact of pandemic prevention and response measures on the health and wellbeing of the diverse individuals and communities found in LMICs.

2. Objectives

1. To assess the socio-demographic variables of staff nurses at selected hospitals in Durg, (C.G.).
2. To assess the pre-test knowledge scores regarding care of COVID-19 patients among staff nurses at selected hospitals in Durg, (C.G.).
3. To assess the post-test knowledge scores regarding care of COVID-19 patients among staff nurses at selected hospitals in Durg (C.G.).
4. To evaluate the effectiveness of a structured teaching programme on knowledge regarding care of COVID-19 patients among staff nurses at selected hospitals Durg (C. G.).
5. To find out association between pre-test knowledge scores regarding care of COVID-19 patients with selected socio demographic variables among staff nurses at selected hospitals Durg (C.G.).

3. Hypothesis

H1 – There will be significant difference between pre-test and post-test knowledge scores regarding care of COVID-19 patients among staff nurses at selected hospitals in Durg.

H2 – There will be a significant association between pre-test knowledge scores regarding care of COVID-19 patients with socio demographic variables among staff nurses at selected hospitals in Durg.

4. Methodology

The selection of research approach is the basic procedure for the conduction of research enquiry. A research approach tells us so as to what data to collect and how to analyze it. It also

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Table 1
Area wise analysis of knowledge scores regarding care of COVID-19 patient among staff nurses

Area	PRE-TEST					POST –TEST			
	Max score	Mean	Mean %	SD	CV	Mean	Mean %	SD	CV
Virology and transmission of covid-19	7	4.78	68.29	1.12	23.43	6.55	93.57	0.53	8.09
Clinical presentation, risk factor and diagnostic evaluation of COVID-19	6	4.78	79.67	0.9	18.83	5.82	97	0.39	6.7
Management, prevention & complication	10	6.2	62	1.81	29.19	9.58	95.8	0.93	9.71
Covid-19 vaccine	4	3.58	89.5	0.53	14.8	3.73	93.25	0.45	12.6
Total	27	19.35	71.67	2.8	14.47	25.68	95.11	1.16	4.52

Table 2
Overall analysis of pre-test and post-test knowledge scores regarding care of COVID-19 patient among staff nurses

Criterion	Pre-Test Knowledge Scores		Post-Test Knowledge Scores	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Good	35	58.33	60	100
Average	25	41.67	0	0
Poor	0	0	0	0
Total	60	100	60	100

Table 3
Effectiveness of school based educational programme on knowledge regarding care of COVID-19 patient among staff nurses

Knowledge	Max scores	Mean + SD	Gain %	Critical value	Paired t value (DF = 59)	Significance
Pre-test	27	19.35 +2.8	23.44	3.47	17.7	P<0.0001 HS
Post-test	27	20.17 + 2.32				

Table 4
Chi-square analysis to find out the association between pre-test knowledge scores with socio-demographic variables

Socio-demographic variables	Chi square Value	Df	Critical value	Significance
Age (in years)	8.79	3	7.82	P>0.05 S
Gender				
Marital status	1.47	1	3.84	P>0.05NS
Religion	1.09	2	5.99	P>0.05 NS
Source of information				
Work experience	6.03	3	7.82	P>0.05 NS

suggests possible conclusions to be drawn from the data.

In view of the nature of the problem selected for the study and the objectives to be accomplished, an evaluative research approach was considered to assess the knowledge regarding care of COVID-19 patients among staff nurses at selected hospitals Durg (C.G).

Table 1 represents that the maximum increase in knowledge scores was in area of clinical presentation, risk factors and diagnostic evaluation of covid-19 i.e., 79.67% (pre –test) to 97% (post-test), followed by management prevention & complication from 62% (pre-test) to 95.8% (post-test) and general information from 68.29% (pre-test) to 93.57% (post-test). Minimum increase was in the area of covid-19 vaccine from 89.5% (pre-test) to 93.25% (post-test).

Table 2 reveals that in the pre-test 25 (41.67%) staff nurses had average knowledge regarding care of COVID-19. Where as in post-test 60 (100%) were having good knowledge regarding care of COVID-19.

Table 3 reveals that there was significant difference in pre-test and post-test knowledge scores among staff nurses regarding care of COVID-19 patient as calculated "t" value (17.7) was greater than table value (3.47) at p < 0.01 level of significance. The above findings indicate that school based educational programme was effective in improving the knowledge of staff nurses regarding care of COVID-19 patients.

Table 4 reveals that there was significant association of knowledge regarding care of COVID-19 patients among staff nurses with socio-demographic variables i.e., age as the chi-square value (8.79) was greater than table value 7.82 at 0.05 level of significance. Hence hypothesis (H2) was accepted. Whereas hypothesis (H2) was rejected regarding socio-demographic variables i.e., marital status, religion, occupation source of information, work experience as the chi square values i.e., 1.47, 1.09, 6.03 was less than table values 3.84, 5.99, 7.82 at 0.05 level of significance respectively.

5. Discussion

The maximum increase in knowledge scores was in area of clinical presentation, risk factors and diagnostic evaluation of covid-19 i.e., 79.67% (pre –test) to 97% (post-test), followed by management prevention & complication from 62% (pre-test) to 95.8% (post-test) and general information from 68.29% (pre-test) to 93.57% (post-test). Minimum increase was in the area of covid-19 vaccine from 89.5% (pre-test) to 93.25% (post-test). the pre-test 25 (41.67%) staff nurses had average knowledge regarding care of COVID-19. Where as in post-test 60 (100%) were having good knowledge regarding care of COVID-19. there was significant difference in pre-test and post-test knowledge scores among staff nurses regarding care of COVID-19 patient as calculated "t" value (17.7) was greater than table value (3.47) at p < 0.01 level of significance. The above findings indicate that school based educational programme was effective in improving the knowledge of staff nurses regarding care of COVID-19 patients.

6. Recommendations and Conclusion

In the light of the study, the investigator proposes the following recommendations for future research

- A similar study can be undertaken with larger sample size to create awareness among staff nurses so that the results can be generalized.
- A study can be conducted to assess the coping strategies of staff nurses regarding care of COVID-19 patients.
- Comparative study can be done to assess the knowledge of staff nurses regarding care of COVID-19 patients in urban and rural areas.
- Comparative study can be done to assess the knowledge of staff nurses who are working in private and government hospitals regarding care of COVID-19 patients.
- A quasi-experimental study can be conducted with control group for the effective comparison.

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