EFFECT OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING MANAGEMENT OF COVID-19 IN PREGNANT WOMEN AMONG NURSING STAFF

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ABSTRACT

Pregnancy generates a series of endocrine, anatomical and physiological changes in the female body. With the hormonal changes, immunological activities can be reduced, increasing the susceptibility to infectious processes. Coronavirus infection can lead to respiratory, cardiac and renal complications, making pregnant women more susceptible to secondary infections. More than 200 million pregnant women around the world are potentially at risk of infection. The study aim to evaluate the effect of structured teaching programme on knowledge regarding management of covid-19 in pregnant women among nursing staff. Quantitative approach and pre-experimental one group pre-test post-test design was used. Data was collected from 100 nursing staffs by using non probability purposive sampling technique. The pre-test knowledge score was 11.96 ± 2.30, while the post-test knowledge score was 22.84 ± 4.04. The difference was found to be statistically significant (Z value = -23.12, df=99, p value= 0.05, Significant). It was concluded that structured teaching programme was effective in improving the knowledge of nursing staff.

Keywords: H: Hypothesis, df: degree of freedom, M.P.: Madhyapradesh

INTRODUCTION

The Coronavirus disease (COVID-19) is highly infectious, confirming a global public health emergency. The current pneumonia outbreak of coronavirus disease 2019 (COVID-19), caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was declared a pandemic by the World Health Organization (WHO) on March 11, 2020. The outcomes related to maternal and fetal health among pregnant women infected with the virus are still poorly understood.

Pregnancy generates a series of endocrine, anatomical and physiological changes in the female body. Among the physiological changes in cardiovascular, respiratory, gastrointestinal and renal activity are observed one of the most influential physiological changes in pregnancy is hormonal change, in which the concentrations of estrogen, progesterone, chorionic gonadotropin and chorionic somatotropin are the most involved in this process. As a result of these hormonal changes, immunological activities can be reduced, increasing the susceptibility to infectious processes. Likewise, in the first three months of pregnancy, the fetus is more likely to suffer changes due to pathogens, which can result in malformations, neurological sequelae or even fetal death.

Coronavirus infection can lead to respiratory, cardiac and renal complications, making pregnant women more susceptible to secondary infections, due to physiological, nutritional and immunological changes. Previous studies encompassing the Severe Acute Respiratory Coronavirus Syndrome and the Middle East Respiratory Syndrome observed numerous serious complications during pregnancy which led to the need for endotracheal intubation, hospitalization in a unit intensive care (ICU), renal failure, pneumonia, low fetal oxygenation, intrauterine abortion, fetal growth restriction and maternal death.

At global level, a US study is done to track impact of COVID-19 among pregnant women in India and 6 other countries (2020), A top American scientific body has launched study to track the prevalence and impact of COVID-19 infection among approximately 16,000 pregnant women in seven countries.

As of January 23, 2021, India has reported about 10,639,684 cases and nearly 119,014 deaths attributed to the novel COVID-19 pandemic. This current pandemic has resulted in the major allocation of health-care infrastructure and human resources, including emergency services and intensive care unit beds, for the care of patients infected with this virus.

The Times of India 7 May 2020, Mumbai, A study of 441 pregnant women with Covid-19 from 16 countries has shown that 96% had pneumonia. One of its key findings is that the rate of preterm birth in mothers with coivid-19 is 26%, nearly double than the usual premature birth rate of 13.6%.

Institutional deliveries have fallen from around 75% to less than 25% in the districts. Since Integrated Child Development Services were suspended on March 15, nutrition and immunization services have taken a huge hit and community health workers stopped visiting homes to immunize children because they are doing corona virus-related services. District -level surveys show 50% children and 75% pregnant women being deprived of essential nutrition in the state," said Sachin Jain, state coordinator of the Bhopal-based non-profit, Vikas Sansad Samiti, which works on issues related to hunger and maternal and child health in the state's most underserved and largely tribal districts, such as Rewa, Shivpuri, Rewari, Panna, and Shivpuri.(Hindustan Times 16 June, 2020)

PROBLEM STATEMENT

"A pre- experimental study to evaluate the effect of structured teaching programme on knowledge regarding management of covid-19 in pregnant women among nursing staff in selected hospitals at Indore (M.P.)."

OBJECTIVES OF THE STUDY

1. Assess pre-test knowledge score regarding management of covid-19 in pregnant women among nursing staff.
2. Compare the pre test and post test knowledge score regarding management of covid-19 in pregnant women among nursing staff.
3. Find out the association between pre-test knowledge score with their selected demographic variables.

HYPOTHESES

H_1: There will be significant difference between pre-test and post-test knowledge score of nursing staff on knowledge regarding management of Covid 19 in pregnant women.

H_2: There will be significant association of pre-test knowledge score of nursing staff with selected demographic variables.

METHODOLOGY

RESEARCH APPROACH

Quantitative approach was used to assess the effect of structured teaching programme on knowledge regarding management of covid-19 in pregnant women.

RESEARCH DESIGN

The research design selected for the study was pre-experimental one group pre-test post-test design.

VARIABLES

Independent Variable: -Structured Teaching Programme regarding   management of covid-19 in pregnant women.

Dependent Variable: - The knowledge score of nursing staff regarding management of covid-19 in pregnant women is in the selected hospitals.

SETTING

The study was conducted at Index hospital and research Center.

POPULATION

The nursing staffs in selected hospital of Indore city.

THE SAMPLE

Nursing staffs at Index hospital and research Center.

SAMPLING TECHNIQUE AND SIZE

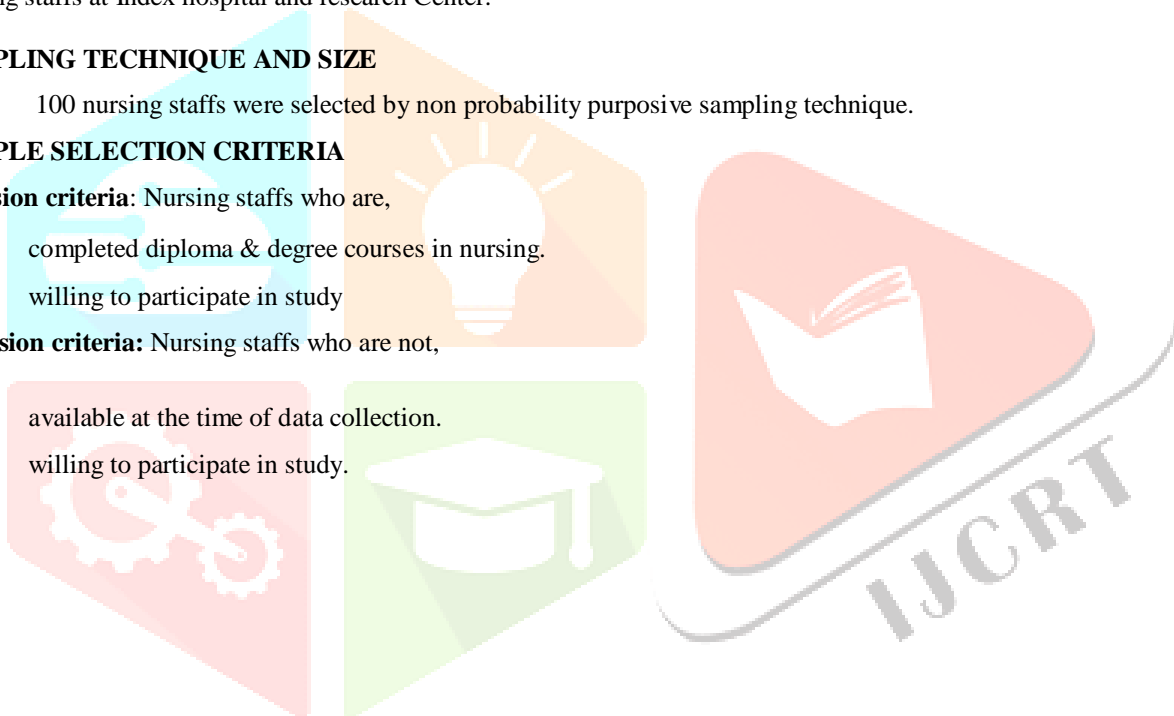   100 nursing staffs were selected by non probability purposive sampling technique.

SAMPLE SELECTION CRITERIA

Inclusion criteria: Nursing staffs who are,

- completed diploma & degree courses in nursing.
- willing to participate in study

Exclusion criteria: Nursing staffs who are not,

- available at the time of data collection.
- willing to participate in study.

DATA ANALYSIS AND INTERPRETATION

Frequency and percentage distribution of selected samples according to demographic variables.

Frequency and percentage distribution of nursing staff according to demographic variables

N=100

S. No.	Demographic Variable	No.	Percentage
1.	**Age**		
	a. 18-22 years	28	28.0
	b. 23-27 years	44	44.0
	c. Above 27 years	28	28.0
2.	**Sex**		
	a. Male	28	28.0
	b. Female	72	72.0
3.	**Professional qualifications**		
	a. M.Sc. Nursing	17	17.0
	b. B.Sc. Nursing	27	27.0
	c. Post B.Sc. Nursing	25	25.0
	d. GNM	31	31.0
4.	**Types of family**		
	a. Nuclear family	40	40.0
	b. Joint family	46	46.0
	c. Extended family	14	14.0
5.	**Previous knowledge**		
	a. Yes	68	68
	b. No	32	32
6.	**Any history of covid-19 in family**		
	a. Yes	40	40.0
	b. No	60	60.0
7.	**Sources of previous knowledge**		
	a. News Paper	25	25.0
	b. Social media	22	22.0
	c. Television	51	51.0
	d. Conference	2	2.0

According to the age 28 (28.0%) nursing staffs are in the age group 18-22 years, 44 (44.0%) nursing staffs were in the age group 23-27 years, while 28 (28.0%) nursing staffs were in the age group above 27 years. Regarding gender it was found that 28 (28.0%) nursing staffs were male, while 72 (72.0%) nursing staffs were found female.

Regarding the professional qualifications 17 (17.0%) nursing staffs have completed M.Sc. nursing, 27 (27.0%) have completed B.Sc. nursing, 25 (25.0%) have completed post B.Sc. nursing, while 31 (31.0%) nursing staffs have completed GNM. In aspect of the type of the family, 40 (40.0%) nursing staffs were belong to nuclear family, 46 (46.0%) were belong to joint family and 14 (14.0%) nursing staffs were belong to extended family.

Concerning the previous knowledge of Covid-19, among samples 68 (68.0%) nursing staffs were having previous knowledge regarding covid-19, while 32 (32.0%) nursing staffs were not having previous knowledge regarding covid-19. According to the sources of previous knowledge 25 (25.0%) nursing staffs were having knowledge from newspapers, 22 (22.0%) nursing staffs were having knowledge from social media, 51 (51.0%) were having knowledge from television, while only 2 (2.0%) were having previous knowledge from conference. Regarding history of Covid-19 in family more than half of the samples 60 (60.0%) were not having history of covid-19 in their family whereas 40 (40.0%) nursing staff were having history of covid-19 in their family.

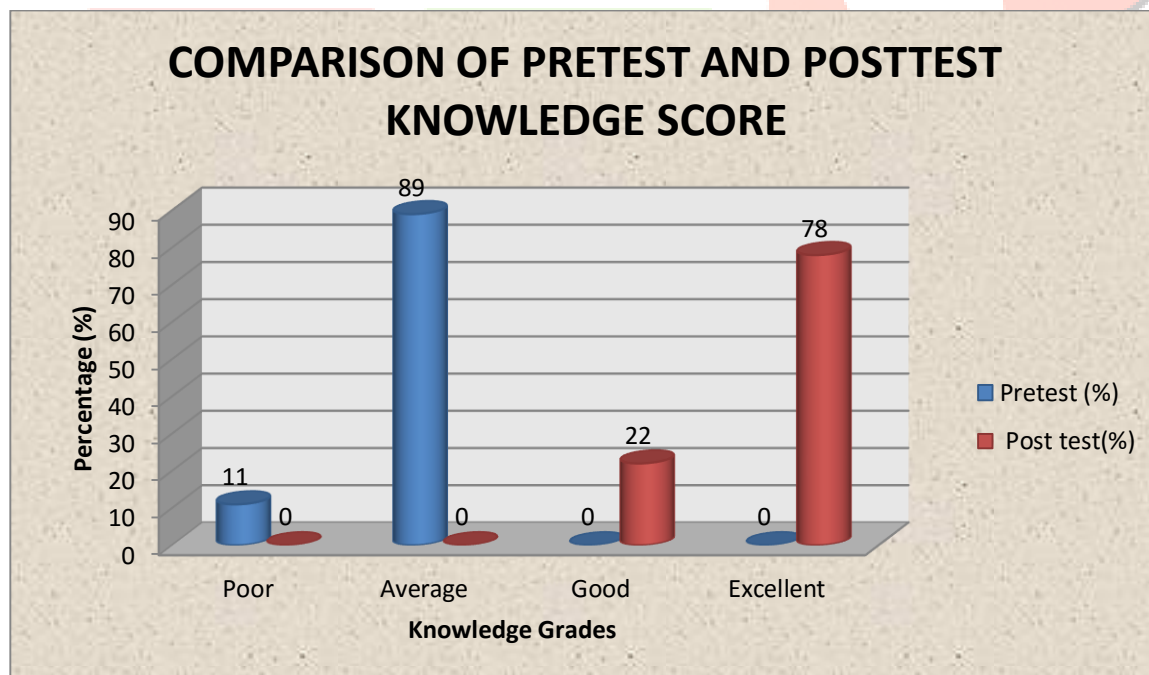Comparison of pre-test and post-test knowledge score among nursing staffs.

Comparison of the pre-test and post-test knowledge score

N=100

S. No.	Knowledge score	Pertest		Post-test	
		No.	%	No.	%
1.	Poor (0-5)	11	11.0	0	0.0
2.	Average (6-10)	89	89.0	0	0.0
3.	Good (11-15)	0	0.0	22	22.0
4.	Excellent (16-20)	0	0.0	78	78.0
	Total	100	100.0	100	100.0

In the pre-test, 11 (11.0%) nursing staffs have poor knowledge score, 89 (89.0%) got average knowledge score, none of the nursing staffs obtained good knowledge score and excellent score category.

In the post-test, 22 (22.0%) nursing staffs acquired good knowledge score, 78 (78.0%) got excellent knowledge score, none of the nursing staffs attained poor knowledge score and average score.

Measurement of change in the pre-test and post-test knowledge score

S. No.	Knowledge Score	Mean ± SD	'Z' value	p value
1.	Pre-test	11.96 ± 2.30	-23.12, df=99	0.05
2.	Post-test	22.84 ± 4.04		

The pre-test knowledge score was 11.96 ± 2.30, while the post-test knowledge score was 22.84 ± 4.04. The difference was found to be statistically significant (Z value = -23.12, df=99, p value= 0.05, Significant), showing a higher post-test knowledge score.
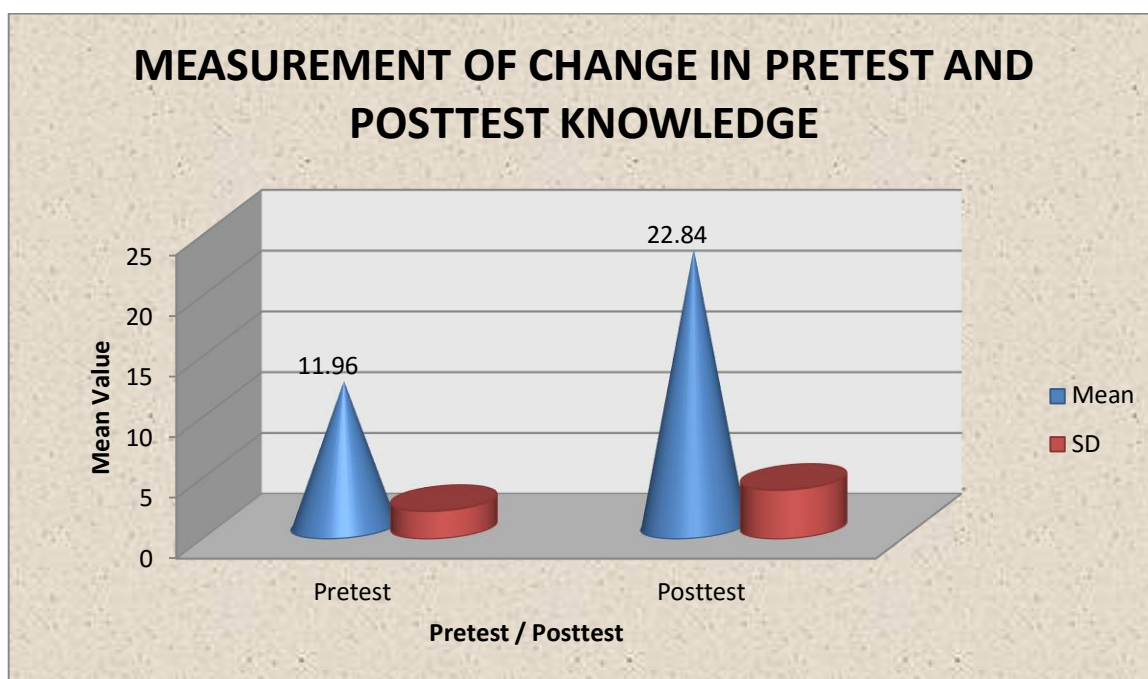
Section- C Association between pre-test knowledge score with selected demographic variables.

Association of pre-test knowledge score with demographic variables

S. No.	Age	Pre-test Knowledge score				χ2	P value
		Poor (0-7)	Average (8-14)	Good (15-21)	Excellent (22-28)		
1.	**Age**					2.66, df=2	>0.05, NS
	a. 18-22 years	3	25	0	0		
	b. 23-27 years	7	37	0	0		
	c. Above 27 years	1	27	0	0		
2.	**Sex**					0.59, df=1	>0.05, NS
	a. Male	2	26	0	0		
	b. Female	9	63	0	0		
3.	**Professional qualification**					2.37, df=3	>0.05, NS
	a. M.Sc. nursing	3	14	0	0		

	b. B.Sc. nursing	1	26	0	0		
	c. Post B.Sc. nursing	3	22	0	0		
	d. GNM	4	27	0	0		
4.	**Types of family**					10.45, df=2	<0.05, S
	a. Nuclear	2	38	0	0		
	b. Joint	4	42	0	0		
	c. Extended	5	2	0	0		
5.	**previous knowledge**					0.12, df=1	>0.05, NS
	a. Yes	3	29	0	0		
	b. No	8	60	0	0		
6.	**Sources of previous knowledge.**					2.91, df=3	>0.05, NS
	a. News paper	5	20	0	0		
	b. social media	2	20	0	0		
	c. TV	4	47	0	0		
	d. conference	0	2	0	0		
7.	**Any history of covid-19**					4.92, df=1	<0.05, S
	a. Yes	1	39	0	0		
	b. No	10	50	0	0		

CONCLUSION

There was statistically significant effectiveness seen in knowledge of nursing staff. Thus, the intervention Structured Teaching Programme was effective in improving the knowledge of nursing staff.

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