

KNOWLEDGE AND ATTITUDE OF COVID 19 VACCINE AMONG ANTE NATAL AND POSTNATAL MOTHERS SELECTED AREAS OF PUNE.

Ms. Anjali Kumari;

PG Student;

Dr. Sonopant G Joshi

Professor & Director,

Symbiosis College of Nursing, Symbiosis International (Deemed University) Pune

ABSTRACT:

COVID-19 pandemic crisis has been devastating all over the world. Many countries including India has developed the vaccine against this dreaded infectious disease to gain the immunity against corona virus disease. However there is non-acceptance of this drive among the population. There are multiple reason for this non acceptance. The researcher explored the knowledge and practices among the ante-natal and post-natal mothers as this population was found more in number for non-acceptance. Objectives: to assess the knowledge and attitude of antenatal and post-natal mothers about COVID-19 vaccine and evaluate the progress after planned teaching programme and its association. Methodology: Researcher adopted the purposive sampling technique to select the sample and sample size was kept 60, and study conducted in community setup in urban area of Pune city and used Pre-experimental one group pretest and posttest design was used. Resultthe study shows marked improvement in the knowledge and attitude of the group after the teaching programme. Improvement in the knowledge level was showing good differences in the mean from 5.6 to 13.4. The effectiveness in attitude was showing 81.7% to 100% improvement. Conclusion: The study result show planned teaching programme has a positive effect on knowledge and Attitude of antenatal and postnatal mothers.

Key words : Planned teaching programme, Effectiveness, Knowledge, Attitude, COVID 19 vaccine.

INTRODUCTION

The first case of COVID -19 found in china and it was widely spread across the world. The millions of people died because of complications of COVID-19. Many statutory organizations made many rules, regulations and policies to combat this dreaded pandemic India is amongst top countries who has controlled the pandemic by exercising stringent measures. Many countries developed vaccines to mitigate the fatal effect of this pandemic including INDIA as Vaccine against COVID-19 has proved that it is one of the major remedy to reduce and mitigate the pandemic. India has developed multiple vaccines and distributed across the world. The population of India has many challenges for willingness to accept these vaccines, the reasons were multiple. However there were few studies found on knowledge, attitude and behaviour of the population regarding non-acceptance of the vaccine. The population most affected were antenatal and post natal mothers due to the physiological conditions of these mothers. Hence the researcher conducted a study to assess the knowledge and attitude of antenatal and postnatal mothers and effectiveness of planned teaching programme in Indian population.

OBJECTIVES

1. To assess the existing knowledge and attitude on COVID 19 vaccines among ante natal and postnatal mothers
2. To find out effectiveness of planned teaching programme on knowledge and attitude on COVID 19 vaccines among ante natal and postnatal mother population.
3. To find out the association of findings with demographic variables

METHODOLOGY:

Researcher adopted quantitative pre-experimental one group pretest post-test design. The study conducted in chosen areas of Pune city with 60 antenatal and postnatal mothers. Non probability purposeful sampling techniques used for selecting the sample based on inclusion criteria. A structured knowledge and attitude questionnaires prepared to evaluate planned teaching program regarding COVID 19 vaccine. Pre tested tool was prepared and administered among the pre-natal and post-natal mothers residing in the urban area of Pune city. Test retest method was to check reliability. Pilot study was conducted among 10 Antenatal and Post-natal mothers in Pune city to finalize the tool. The data collection was done in January 2022. The collected data was analyzed using SPSS software version 21.0

RESULT:

Description of samples

Table 1: Distribution of characteristics of the sample

n=60

Participants	Frequency	%
Age		
18 - 20 years	11	18.3%
21.1 - 30 years	36	60.0%
31.1 - 40 years	13	21.7%
Education		
Middle class degree	26	43.3%
High School Degree	21	35.0%
Graduation	13	21.7%
Family types		
Nuclear	25	41.7%
Joint	31	51.7%
Extended	4	6.7%
Residence		
Urban	50	83.3%
Rural	10	16.7%
Information about COVID -19		
Yes	60	100.0%
Source of information		
Mass media	26	43.3%

Health workers	17	28.3%
Internet	17	28.3%

Above table shows that majority of the samples were from age group of 21-30 years. Majority of the mothers had their education up to graduation, and 83% of the samples are residing in the urban setting. The majority of the participants belongs to joint Family. All of them had information about COVID-19. 43.3% of them had information from mass media, 28.3% of them had information from health workers and 28.3% of them had information from internet.

Analysis of data:

**Table 2: Knowledge regarding COVID-19 vaccines among the participants
n=60**

Knowledge	Pretest	
	Frequency	%
Poor (Score 0-5)	31	51.7%
Average (Score 6-10)	28	46.7%
Good (Score 11-15)	1	1.7%

The above table describes that maximum number of participants i.e 51.7% has poor knowledge, whereas only 1.7% of them had good score.

**Table 3: Attitude regarding COVID 19 vaccines among the participants
n=60**

Attitude	Pretest	
	Frequency	%
Negative	49	81.7%
Positive	11	18.3%

This table shows that, 81.7% of the antenatal and postnatal mothers had negative attitude and 18.3% of them had positive attitude towards COVID 19 vaccines among ante natal and postnatal mothers.

Analysis of data:

**Table 4: Comparison of knowledge score in pre and post test
n=60**

Knowledge	Pretest		Posttest	
	Frequency	%	Frequency	%
Poor (Score 0-5)	31	51.7%	0	0.0%
Average (Score 6-10)	28	46.7%	1	1.7%

Good (Score 11-15)	1	1.7%	59	98.3%
--------------------	---	------	----	-------

This table shows that, in pretest, 51.7% of the antenatal and postnatal mothers had inadequate knowledge (score 0-5), 46.7% had average score (score 6-10) and 1.7% had Good score (score 11-15) regarding COVID 19 vaccines among ante natal and postnatal mothers. In posttest, 1.7% of them had average knowledge (score 6-10) and 98.3% of them had good knowledge (score 11-15) regarding COVID 19 vaccines among ante natal and postnatal mothers. This indicates that the knowledge regarding COVID 19 vaccines among antenatal and postnatal mothers improved remarkably after planned teaching program.

Table 5: Comparison of pretest posttest using statistical test (Knowledge)
n=60

	Mean	SD	t	df	p-value
Pre-test	5.6	2.3	22.0	59	0.000
Post-test	13.4	1.1			

The above table shows that there is substantial increase in posttest knowledge score. Researcher has compared the mean of the pre and posttest by using paired t Test. When the means of the two groups were compared and found that there is substantial increase in the score. Hence the planned teaching programme was found effective.

Table 6: Comparison of pretest posttest of the participants regarding Attitude
n=60

Attitude	Pretest		Posttest	
	Frequency	%	Frequency	%
Negative	49	81.7%	0	0.0%
Positive	11	18.3%	60	100.0%

This table shows that, in pretest, 81.7% of the antenatal and postnatal mothers had negative attitude and 18.3% of them had positive attitude. In posttest, it was found that there attitude was changed in the favorable direction and samples were ready to take the vaccine

Table 7: Comparison of pretest posttest using statistical test (Attitude)

n=60

	Mean	SD	t	df	p-value
Pretest	27.9	3.0	22.6	59	0.000
Posttest	41.0	3.1			

Researcher applied T test for comparison of the means of the attitude of the participants and the hypothesis was rejected. Hence it is showed that the planned teaching programme was effective in changing the attitude of the participants.

Analysis of data

Table 8: Fisher’s exact test for the association between selected demographic variable and knowledge regarding COVID 19 vaccines among antenatal and postnatal mothers n=60

Demographic variable		Knowledge			p-value
		Average	Good	Poor	
Age	18 - 20 years	5	0	6	0.621
	21.1 - 30 years	19	1	16	
	31.1 - 40 years	4	0	9	
Education	Middle class degree	9	0	17	0.134
	High School Degree	13	1	7	
	Graduation	6	0	7	
Family types	Nuclear	10	1	14	0.954
	Joint	17	0	14	
	Extended	1	0	3	
Residence	Urban	26	1	23	0.149
	Rural	2	0	8	
Source of information	Mass media	14	0	12	0.094
	Health workers	4	1	12	
	Internet	10	0	7	

The demographic characteristics shows that positive associations towards gain in the knowledge and change in the attitude

Table 9: Fisher’s exact test for the association between selected demographic variable and attitude towards COVID 19 vaccines among antenatal and postnatal mothers n=60

Demographic variable		Attitude		p-value
		Negative	Positive	
Age	18 - 20 years	2	9	0.908
	21.1 - 30 years	9	27	

	31.1 - 40 years	2	11	
Education	Middle class degree	4	22	0.337
	High School Degree	7	14	
	Graduation	2	11	
Family types	Nuclear	6	19	0.791
	Joint	7	24	
	Extended	0	4	
Residence	Urban	13	37	0.099
	Rural	0	10	
Source of information	Mass media	6	20	1.000
	Health workers	3	14	
	Internet	4	13	

The above table shows that all demographic variable are associated with the findings related to the attitude towards COVID 19 vaccines.

DISCUSSION:

The study revealed that knowledge and attitude among population was very important in willingness of acceptance among the selected population. Researcher found that the knowledge regarding COVID-19 vaccine was increased upto 98.3% and attitude was changed among 100% population. The finding of study conducted Maxwell Tii Kumbeni, he conducted the prevalence study. Structured questionnaire used in Nabdam area which was in Ghana district. Researcher mentioned that, the knowledge and attitude of the samples was not favorable unless they are motivated and convinced to take the vaccines. In this study also the researcher used planned teaching programmed to increase the knowledge regarding vaccine and change their attitude in a favorable direction.

CONCLUSION:

The researcher has taken the initiative by looking into current pandemic and the need o the population. Many people are reluctant to take the vaccine due to many reasons, one of the reason was their gestational problems. there was confusion by this particular population regarding administration of vaccine. Hence the researcher has conducted the study and found that the planned teaching programme was useful in raising their knowledge and changing their attitude

ACKNOWLEDGEMENT:

I am thankful to Dr. S.G Joshi my research guide referees for their valuable suggestions and all the expert in Community Health Nursing Department who gave me the golden opportunity to do this brilliant research project, which also helped me supported researcher in conducting research and researcher came to know about something new . Researcher was grateful to

antenatal mother and postnatal mother to participate and for giving their valuable time to conduct my research study. Researcher was thankful to Ms.Vaishali Chirmade, Statistician Pune, for her expert guidance in shaping the tool, data analysis and interpretation procedures.

CONFLICT OF INTEREST: NIL

REFERENCES:

1. Atyeo, C., DeRiso, E. A., Davis, C., Bordt, E. A., DeGuzman, R. M., Shook, L. L. & Alter, G. (2021). COVID-19 mRNA vaccines drive differential Fc-functional profiles in pregnant, lactating, and non-pregnant women. *bioRxiv*.
2. Shook, L. L., Kishkovich, T. P., &Edlow, A. G. (2021). Countering COVID-19 vaccine hesitancy in pregnancy: the “4 Cs”. *American journal of perinatology*.
3. Shook, L. L., Bordt, E. A., Meinsohn, M. C., Pepin, D., De Guzman, R. M., Brigida, S., & Edlow, A. G. (2021). Placental Expression of ACE2 and TMPRSS2 in Maternal Severe Acute Respiratory Syndrome Coronavirus 2 Infection: Are Placental Defenses Mediated by Fetal Sex?. *The Journal of Infectious Diseases*, 224(Supplement_6), S647-S659.
4. Edlow, A. G., Li, J. Z., Ai-ris, Y. C., Atyeo, C., James, K. E., Boatman, A. A., ... & Alter, G. (2020). Assessment of maternal and neonatal SARS-CoV-2 viral load, transplacental antibody transfer, and placental pathology in pregnancies during the COVID-19 pandemic. *JAMA network open*, 3(12), e2030455-e2030455.
5. Taye, E. B., Taye, Z. W., Muche, H. A., Tsega, N. T., Haile, T. T., &Tiguh, A. E. (2022). COVID-19 vaccine acceptance and associated factors among women attending antenatal and postnatal cares in Central Gondar Zone public hospitals, Northwest Ethiopia. *Clinical Epidemiology and Global Health*, 14, 100993.
6. Mose, A., &Yeshaneh, A. (2021). COVID-19 vaccine acceptance and its associated factors among pregnant women attending antenatal care clinic in southwest ethiopia: institutional-based cross-sectional study. *International journal of general medicine*, 14, 2385.
7. Zeleke, A. M., &Bayeh, G. M. (2022). Knowledge, attitude and practice towards COVID-19 and associated factors among pregnant women at Debarq Town Northwest Ethiopia: An institutional-based cross-sectional study.
8. Bekele, S. B., Yirdaw, B. W., Abuhay, M., &Gebremichael, M. A. (2022). Immediate Postnatal Care Satisfaction and Associated Factors among Postnatal Women in Public Health Facilities at Debre Markos Town, Northwest Ethiopia, 2021. *Patient preference and adherence*, 16, 137.
9. Peristiwo, Hadi. "Impact of the covid-19 pandemic on Indonesia halal tourism transportation." *Journal of Digital Marketing and Halal Industry* 3.1 (2021): 19-36.
10. Nguyen, Dongthi Thao, and Thu Chung Kieuthi. "New trends in technology application in education and capacities of universities lecturers during the Covid-19 pandemic." *International Journal of Mechanical and Production Engineering*

Research and Development (IJMPERD) 10 (2020): 1709-1714.

11. Mahajan, Dr Sonal, and Dr Sunetra Gaitonde & Upendra Lele. "Employee Engagement Of Faculties In Management Institutes In Pune During Covid-19 Pandemic." *International Journal of Human Resource Management and Research (IJHRMR)* 11.2 (2021): 53-60.
12. Singh, Neha, et al. "Awareness Towards Covid-19 Pandemic among Farm Women and its Technological Strategies." *International Journal of Agricultural Science and Research (IJASR)* 10 (2020): 151-158.
13. Naganandini, R. "Effectiveness of Computer Assisted Teaching Programme on Knowledge Regarding Specific Developmental Disorders of Scholastic Skills in Children among Bachelor Degree in Education (B. Ed) Students." *TJPRC: International Journal of Nursing and Patient Safety & Care (TJPRC: IJNPSC)* 5 (2015): 1-8.
14. Naganandini, R. "Effectiveness of structured teaching programme on knowledge regarding selected adolescent behavioral Problems and its prevention among students." *Nursing (TJPRC: IJPN)* 2.1 (2016): 1-8.