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Impact of Planned Teaching Program on COVID- 19 Vaccination in Terms of Knowledge and Attitude among the People in Selected Rural Area of Nadiad Taluka

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Original Research Article

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ABSTRACT

Introduction: Vaccination is intended to prevent diseases. Vaccines saves 2-3 million lives every year. A COVID-19 vaccine is one of the best way to provide acquired immunity against COVID -19. The study aims to assess the effectiveness of planned teaching program in terms of knowledge and attitude [1].
Objective: To assess the impact of planned teaching program on COVID- 19 vaccination in terms of knowledge and attitude among the rural people.
Method: A quantitative study with one group pre test post test design was conducted at various rural places of Nadiad Taluka. A total 60 people were enrolled in to the study. A structured knowledge questionnaire and likert attitude scale was built that contained information regarding COVID 19 vaccination. The effect of teaching program was analyzed by statically
Results: T-test and chi square test was used to find the association with selected demographic variables. In the knowledge regarding COVID-19 vaccination range was 8, mean was 0.849

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standard deviation was 0.357, standard error mean was 0.0595. In the attitude range was 33, mean was 4.345, standard deviation was 0.797, standard error mean was 0.132. A knowledge paired t-test value was 5.30 and the attitude paired t-test value was 6.57 was.
Conclusion: The planned teaching program was effective in increasing knowledge and attitude regarding COVID-19 vaccination among the rural people of Nadiad Taluka.

Keywords: Planned teaching program; COVID-19 Vaccine; knowledge; attitude; Rural people.

1. INTRODUCTION

Vaccines bring new hope for fighting against global pandemic [1]. Vaccination is intended to prevent disease. A COVID-19 vaccine is one of the best way to provide acquired immunity against COVID-19.A COVID-19 vaccine is one of the best way to provide acquired immunity against severe acute respiratory syndrome corona virus 2 [2]. The virus that causes corona virus disease 2019.Before COVID -19 pandemic knowledge was existed about the structure of corona virus and function of corona virus which causes SARS (severe acute respiratory syndrome)and MERS(middle east respiratory syndrome) [3].

This knowledge helps to develop various vaccines platform in 2020.The main focus of vaccine was on preventing symptoms [4]. In January 2020, the SARS(severe acute respiratory syndrome) COV-2 genetic data was shared by GISAID and in march 2020 global pharmaceutical industry gave commitment to address COVID-19. The COVID-19 vaccines are highly credited for help in reducing deaths causes by COVID-19 [5].

1.1 Objectives

1. To assess the knowledge and attitude of the people before & after administration of planned teaching program on COVID-19 vaccination in selected area of Nadiad Taluka.
2. To find association between selected demographic variable & posttest knowledge score and attitude sore among people in selected area of Nadiad Taluka.

2. MATERIALS AND METHODS

2.1 Research Approach

A Quantitative approach – experimental

2.2 Research Design

Quasi experimental

2.3 Variables

1. **Independent variables:** planned teaching program
2. **Dependent variable:** In this study the independent variable is Knowledge and attitude.
3. **Socio demographic variable:** In this study the independent variable is Age, COVID positive or not, Education, Medical history, Gender, family income, Religion.

2.4 Sampling Method

Non-Probable convenient sampling process. The rural people cluster has been prepared after meeting inclusion criteria. Prior to the distribution of questionnaires people were made clear about the objectives of this study and inform consent form. It is to be notes that participation was voluntarily and they could opted not to fill up the survey.

2.5 Instrument for Data Collection

For the data collection tool has been prepared in three categories. 1. Questionnaire related to socio-demographic information, 2. Questionnaire related to COVID-19 knowledge 3. Attitude scale related to COVID-19 vaccination.

2.6 Study Population and Setting

Rural people of Nadiad Taluka at Salun village

2.7 Sample Size

Sample size for the study comprised of 60 community people at selected rural area of Nadiad Taluka at Salun Village.

2.8 Criteria for Sample Selection

2.8.1 Inclusive criteria

- Those who will get ready willingly

- People above 18 years.
- All Gender people.

2.8.2 Tool for data collection:

1. Part- I : Socio-demographic information
2. Part-II: Knowledge questions related to COVID-19 disease and vaccination
3. Part-III: Likert's Attitude rating scale

2.9 Procedure for Data Collection

Researcher has taken formal authorization from concern medical officer of salun PHC center, Nadiad. The investigator collected from the selected urban area of Nadiad Taluka. The investigator prepared the master data collection schedule for the entire data collection plan. The data collection procedure was started on 1st September 2021.

A. Informed consent was taken from the eligible participate in the study.
B. 60 selected urban area people using non-probability convenient sampling technique were selected.
C. Baseline data was collected from group.
D. The investigator administered pretest on a 1st day than administered plan teaching program on 7th day post-test was done by researcher. The entire samples gave cooperation data collection procedure and no major problem was faced during data collection.

3. RESULTS

3.1 Section I: Distribution of Sample Characteristics according to Socio Demographic Variable of Participants

That in the study group, 28 (46.00%) of above 40-60 year of age group, 24 (40.00%) of them in age group 18-40, 4 (7.00%) were in 60-80 year of age, 4 (7.00%) were in the >80 year of age. With regard to gender 35 (58.00%) are female and 25 (42.00%) are male. Education status of the study group reveal that 22 (37.00%) had a primary level of education respectively, 15 (25.00%) had a non-formal education, 13 (21.00%) had a secondary level of education, 6 (10.00%) had up to graduate or above and 4 (7.00%) had a education up to higher secondary. Occupation status of the study group reveal that 22 (37.00%) were non- government, 11 (18.00%) were labor, 10 (17.00%) were unemployed, 9 (15.00%) were studying, 8 (13.00%) were government. The family monthly income of the study group reveal that 27 (45.00%) of the family income Rs. 5001-15000, 17 (28.00%) of the family income Rs. <5000, 12 (20.00%) of the family income Rs. 15001-25000, 4 (7.00%) of the family income Rs. 25001-35000.Marital status of the study group 34 (57.00%) of married, 21 (35.00%) were unmarried, 5 (8.00%) were widow/widower. Most of the subject were family type 39 (65.00%) were joint family, 11 (18.00%) were nuclear, 6 (10.00%) were single parent family, 4 (7.00%) were extended. Regarding habit the study group of 21 (35.00%) were smoking, 17 (28.00%) were no any habit, 13 (22.00%) were tobacco chewing, 5 (8.00%) were alcohol consuming, 4 (7.00%) were other habit.The data regarding the religion of the study group reveal that 44 (73.00%) were belongs to Hindu 7 (12.00%) were belongs to Muslim, 4 (7.00%) were belongs to other. Along with about the COVID-19 vaccination is they taken vaccine or not, among them 23 (38.00%) taken 1st dose of COVID-19 vaccine, 19 (32.00) taken 2nd dose , 18 (30.00%) were not the vaccine.

3.2 Section II: Assessment of Knowledge Regarding COVID-19 Vaccination among the Rural People Before and After Administration of Planned Teaching Programme

In that pretest level of knowledge the study of 50 (83%) of patient had poor knowledge and 10 (17%) had average knowledge. post test level of knowledge in the study of 52 (87%) had good knowledge and 8 (13%) had average knowledge.

In that pretest knowledge range was 15 , mean was 0.424, standard deviation was 0.494, standard error mean was 0.0823. Posttest knowledge range was 8, mean was 0.8849, standard deviation was 0.357, standard error mean was 0.0595.

3.3 Section III: Assessment of Attitude Regarding COVID-19 Vaccination Among The Rural People Before And After Administration Of Planned Teaching Program

In that pretest level of attitude in the study of 60 (100%) were unfavorable and no any favorable. posttest level of attitude in the study of 55 (92%) were favourable,5 (8%) were un favorable.

Table 1. Demographic results

Sr no	Demographic Variables		Frequency	percentage
1	Age	18-40	24	40.00%
		40-60	28	46.00%
		60-80	4	7.00%
		>80	4	7.00%
2	Gender	Male	25	42.00%
		Female	35	58.00%
3	Education	Non formal education	15	25.00%
		Primary	22	37.00%
		Secondary	13	21.00%
		Higher secondary	4	7.00%
		Graduation or above	6	10.00%
4	occupation	Non-government	22	37.00%
		Government	8	13.00%
		Labor	11	18.00%
		Unemployment	10	17.00%
		Study	9	15.00%
5	Family (monthly) income	<5000	17	28.00%
		5001-15000	27	45.00%
		15001-25000	12	20.00%
		25001-35000	4	7.00%
6	Marital status	Married	34	57.00%
		Unmarried	21	35.00%
		Widow/widower	5	8.00%
7	Family type	Joint	39	65.00%
		Nuclear	11	18.00%
		Extended	4	7.00%
		Single parent family	6	10.00%
8	Habit	Smoking	21	35.00%
		Tobacco Chewing	13	22.00%
		Alcohol consuming	5	8.00%
		Other	4	7.00%
		No any	17	28.00%
9	Religion	Hindu	44	73.00%
		Muslim	5	8.00%
		Christian	7	12.00%
		Other	4	7.00%
10	Have you taken COVID-19 vaccine?	Yes		
		1st dose	23	38.00%
		2nd dose	19	32.00%
		No	18	30.00%

Table 2. Level of knowledge

	Level of knowledge	No.(60)	Percentage(%)
Pre test	Poor(<50%)	50	83%
	Average(50-75%)	10	17%
	Good(>75%)	0	00%
Post test	Poor(<50%)	0	00%
	Average(50-75%)	8	13%
	Good(>75%)	52	87%

Table 3. Data statistics

	Number of sample	Range	Mean	SD	SEm
Pre test	60	15	0.424	0.494	0.0823
Post test	60	8	0.849	0.357	0.0595

Table 4. Level of attitude

	Level of attitude	No.(60)	Percentage(%)
Pre test	Unfavourable (<70%)	60	100%
	Favorable (>70%)	0	00%
Post test	Unfavourable (<70%)	5	8%
	Favorable (>70%)	55	92%

Table 5. Statistical interpretation

	Number of sample	Range	Mean	SD	SEm
Pre test	60	27	3.701	1.290	0.215
Post test	60	33	4.345	0.797	0.132

Table 6. Results of paired t-test

Post test	No. of sample	Mean	SD	Paired t test	DF	Table value
Knowledge	60	0.849	0.357	5.30	59	2.00
Attitude	60	4.345	0.797	6.57	59	2.00

In that pretest level of attitude in the study of range was27, mean was 3.701, standard deviation was 1.290, standard error mean was 0.215. Posttest level of attitude in the study of range was 33, mean was 4.345, standard deviation was 0.797 and standard error mean was 0.132.

3.4 Section IV: Effectiveness of Planned Teaching Program on Knowledge and Attitude Regarding COVID-19 Vaccination among People

In that comparison between Posttest knowledge and attitude on regarding therapeutic intervention. The mean posttest knowledge score was 0.849 with a mean difference of 0.425 also the paired t-test was 5.30 and the tabulated 't' was (2.00) and the mean posttest attitude score was 4.435 with a mean difference of 0.644 also the paired t-test was 6.57 and the tabulated 't' was (2.00).

3.5 Section V: To Find Association between Selected Demographic Variable and Post Test Knowledge and Attitude Score among Rural People of Nadiadtaluka

The association of knowledge regarding COVID-19 vaccination among the rural people of Nadiadtaluka in reference to the association of knowledge regarding COVID-19 vaccination among the rural people of Nadiadtaluka with their demographic variable there was not significant association of knowledge score with variable.

The association of knowledge regarding COVID-19 vaccination among the rural people of Nadiadtaluka in reference to the association of attitude regarding COVID-19 vaccination among the rural people of Nadiadtaluka with their demographic variable there was not significant association of attitude score with variable.

4. DISCUSSION AND CONCLUSION

The purpose of present study is to assess the impact of planned teaching program in terms of knowledge and attitude regarding COVID-19 vaccination on rural people of Nadiad Taluka. After providing the planned teaching programme on COVID-19 vaccination the level of knowledge and attitude towards it was increased.

4.1 Nursing Implication

4.1.1 Nursing practice

1. Nurses as key person working in community settings should provide proper knowledge to the community people regarding the COVID-19 and COVID-19 vaccination

2. The community health nurse can identify knowledge of the community people and attitude regarding the COVID-19 vaccination and she can provide the knowledge by health education [6-9].
3. Awareness regarding the COVID-19 vaccination can help in improving knowledge and attitude regarding the COVID-19 vaccination.

4.1.2 Nursing education

The nurse should equip themselves by reading more book, recent updates and current issues. The nursing curriculum is responsible for preparing future nurses with emphasis on providing curative, preventive and promotion health services [10,11]. The nursing students from school and colleges of nursing should be encouraged to improve and update their information regarding COVID-19 vaccination. The students, nurses and all health personnel should be given responsibility to teach the public regarding the COVID-19 and COVID-19 vaccination.

4.1.3 Nursing administration

The nurse administration can support the nurses for conducting a research on various aspect of COVID-19 vaccination. The nurse administrator can organize a conference, seminar, work shop on COVID-19 and COVID-19 vaccination and motivate the staff nurse to actively participate in such activities.The nurse administrator can arrange in service education and special training program regarding the COVID-19 vaccination.

4.1.4 Nursing research

The findings of the study can provide guideline to new nurse researcher to conduct similar studies in different settings. This study was served as an important orientation material for future investigator. The study can published in various national and international journals.

DISCLAIMER

The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

CONSENT

Informed consent form was acquired from the participants prior to data collection.

ETHICAL APPROVAL

The study was approved by the institutional ethical committee of Dinsha Patel College of nursing, research committee, there are total 15 members in the committee from various field. The ethical approval reference number is DPCN/2ndIEC/2020-21/15 and a formal written permission was gathered from the authority of or Principal of Institute prior to data collection.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Vaccines and immunization : vaccine safety[internet] Available:https://www.who.int/news-room/questions-and-answers/item/vaccines-and-immunization-vaccine-safety
2. Introduction of COVID-19 vaccine, wikipedia, [internet] Available:https://en.m.wikipedia.org/wiki/COVID-19_vaccine
3. Corona virus pandemic, WHO, [internet] available from Coronavirus disease (COVID-19) (who.int)
4. Md. Saiful Islam, Abu Bakkar Siddique Knowledge, attitudes and perceptions towards COVID-19 vaccinations: a cross-sectional community survey in Bangladesh, medrxiv, [Internet] Available from url: Knowledge, attitudes and perceptions towards COVID-19 vaccinations: a cross-sectional community survey in Bangladesh | medRxiv DOI: https://doi.org/10.1101/2021.02.16.21251802
5. Khan Sharun1 , C. K. Faslu Rahman et. All, covid-19 vaccine acceptance: beliefs and barriers associated with vaccination among the general population in India, Journal of Experimental Biology and Agricultural Sciences, December - 2020; Volume – 8(Spl-1- SARS-CoV-2) page S210 – S218, Available:439_pdf.pdf (jebas.org)

DOI:10.18006/2020.8(Spl-1-SARS-CoV-2).S210.S218
6. India's First Indigenous COVID-19 Vaccine, Bharat biotech available from url: COVAXIN - India's First Indigenous Covid-19 Vaccine | Bharat Biotech
7. Suresh K. Sharma nursing research & statistics. 1st edition, published by Elsevier a division of Reed Elsevier India Pvt.Page:71
8. Munshi Ruzdakhanam, Patel Moshmi, Christian Brinky, Panchal Shruti, Ninama Nidhi, Goyara Krishna; 2017.
9. BP, Beck CT, polit DF, Essential of nursing Research: methods appraisal and utilization. Lippincott-Raven;199
10. Dhama K, Sharun K, Tiwari R, Dadar M, Malik YS, Singh KP, Chaicumpa W. COVID-19, an emerging coronavirus infection: advances and prospects in designing and developing vaccines, immunotherapeutics, and therapeutics. Human Vaccines & Immunotherapeutics. 2020b;16(6):1232-1238. DOI: 10.1080/21645515.2020.1735227
11. Kailash Nagar, Assess The Attitude Regarding Online Lecture Among Nursing College Students After Impact of Covid-19, Medrxiv publication, [Internet] Available:https://doi.org/10.1101/2021.07.01.21259132

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