EFFECT OF PLANNED TEACHING ON THE KNOWLEDGE AND PRACTICE OF STRATEGIES TO PROMOTE RESPIRATORY HYGIENE AMONG THE INDIVIDUALS RESIDING IN A SELECTED URBAN AREA IN THANE DISTRICT

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Abstract:

Background: Health education plays an important role in the community hygiene. To prevent illness and have positive health attitude, correct and complete knowledge of health is necessary. Individual's practices on health depends on knowledge. Knowledge enhances cognitive processes, like problem solving. The researcher felt to study this topic to improve knowledge about respiratory hygiene etiquettes, according to world-wide scenario about covid-19 pandemic. This information is to be given at local area, in communal area individual will get information by practice teaching in the form of lecture come discussion, and demonstration. With demonstration individuals can practice habitually.

Aim: The knowledge and practice on strategies to promote respiratory hygiene among the individuals should improve after planned teaching.

Objective: To assess pre and post-test knowledge and practice score of individuals regarding strategies to promote respiratory hygiene before and after planned teaching.

Material and Methods: One group pre-test post-test design. 60 individuals selected from urban area in Thane district. Non probability convenience sampling method was used. Data collection included use of planned teaching, self-reporting questionnaire and observation checklist.

Analysis: At the conclusion of post-test knowledge scores of individuals before and after planned teaching was improved. Practice scores of individual before and after planned teaching was improved. Comparison between pre-test and post-test knowledge scores t(24. 03) was greater than tabulated value therefore, there was a significant difference in the knowledge of individuals. Comparison between pre-test and post-test practice scores t (17. 769) was significantly higher than mean score of practice before planned teaching. Correlation between knowledge and practice scores before planned teaching was r (0.408) therefore there was a significant positive relationship between knowledge and practices of individuals before planned teaching. Correlation between knowledge and practice scores after planned teaching was r (-0.117) therefore there was no significant positive relationship between knowledge and practice after planned teaching. Association of post-test knowledge scores of samples with their selected demographic variables age was t (2.4614) therefore, there was a strong association between the mean scores of knowledge with the selected demographic variable age. Association of post-test practice scores of samples with their selected demographic variable age was t (0.51) therefore, there was no significant difference between the mean scores of practice with the selected demographic variable age.

Conclusion: knowledge scores and practices scores depicted marked improvement after planned teaching.

Implications: planned teaching on the knowledge and practice of strategies to promote respiratory hygiene among the individuals can be taken in nursing service can improve knowledge of college student, can be used for preventive and promotive purposes, can be used in school and community to spread awareness. In nursing education serve as a guideline to use planned teaching as an effective method to disseminate information, can impart knowledge to others. In nursing research tool and technique can be used for further reference, other researchers may use the suggestion and recommendation for conducting further study and findings can be added to the literature.

Key words: planned teaching, knowledge, practice strategies, respiratory hygiene.

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Introduction:

The first case of COVID-19 was identified in Wuhan, China; In December 2019, it has since spread worldwide, leading to become pandemic. Human to human transmission was confirmed by the WHO and Chinese authorities by 20 January 2020. COVID-19 also called as Severe Acute Respiratory Syndrome (SARS). The most common symptoms of SARS are fever, tiredness, and dry cough, also aches and pains, sore throat and diarrhoea. The can spread from human to human by respiratory droplets. But with simple precautions spread of disease can stop the disease.

In India first case of COVID-19 (Severe acute respiratory syndrome coronavirus SARS- CoV or SARS-CoV-1) reported on January 27, 2020 from that day the disease is spread and pandemic declared on 23 March 2020. The current information available, it is suggested that the route of human-to human transmission of 2019 COVID-19 is either via respiratory droplets or contact.

Respiratory infections are a leading cause of illness, morbidity, and mortality around the world. Respiratory infections are virulent and easily transmitted through individual to individual. While some respiratory infections are rather self-limiting, some require specific treatments to cure. Although vaccines are not available for all respiratory infections, there are several infections that do have vaccines that are very effective at preventing or minimizing disease. All respiratory diseases ranges from mild signs and symptoms and self -limiting, such as the common cold, influenza and pharyngitis to life - threatening diseases such as bacterial pneumonia, pulmonary embolism, tuberculosis, acute asthma, lung cancer, severe acute respiratory syndrome and COVID -19.

The (H1N1) pandemic 2009 virus was very different from H1N1 viruses that were circulating at the time of the pandemic. Few young people had any existing immunity (as detected by antibody response) to the (H1N1) pandemic 2009 virus, but nearly one-third of people over 60 years old had antibodies against this virus, likely from exposure to an older H1N1 virus earlier in their lives. This disease also transmit to another human The influenza A (H1N1) strain of virus was first recognized in 1919 but was declared as a global pandemic by the World Health Organization in 2009, lasting until August 2010 across the world.

Tuberculosis bacteria are spread through the air from one person to another. The Tuberculosis bacteria are put into the air when a person with TB disease of the lungs or throat coughs, speaks, or sings. People nearby may breathe in these bacteria and become infected.[7]

Streptococcus Pneumonia occurs through direct person-to-person contact via respiratory, Children at increased risk for pneumococcal disease droplets, autoinoculation in persons carrying the bacteria in their upper respiratory tract, Children at increased risk for pneumococcal disease.

CDC Centres for Disease Control and Prevention works 24/7 protecting America's health, safety and security. Whether, disease start at home or abroad, are curable or preventable, chronic or acute, or from human activity or deliberate attack, CDC responds to America's most pressing health threats. CDC is headquartered in Atlanta and has experts located throughout the United States and the world. CDC has given certain strategies to promote respiratory hygiene. It is key element of normal person to promote respiratory hygiene. "Stop the spread of germs that can make you and others sick". Discusses, covering mouth, hand washing, and facemasks.

Raise awareness to help prevent the spread of cold and flu like, this and many more.

Health education plays an important role in the community hygiene. To prevent illness and have positive health attitude, correct and complete knowledge of health is necessary. "PREVENTION IS BETTER THAN CURE." This information is to be given at local area, in communal area individual will get information by practice teaching in the form of lecture come discussion, and demonstration. With demonstration individuals can practice habitually.

Research Question?

How much improvement in knowledge and practices on strategies to promote respiratory hygiene among the individuals?

Objectives:

To assess pre and post-test knowledge and practice score of individuals regarding strategies to promote respiratory hygiene before and after planned teaching.

Materials and Methods:

One group pre-test post-test design; 60 individuals was selected urban area in Thane district. Non probability convenience sampling method was used. Knowledge about strategies to promote respiratory hygiene was assessed by self-reporting questionnaire. Practices about strategies to promote respiratory hygiene were assessed by observation checklist. Planned teaching on strategies to promote respiratory hygiene was given to individual group. Post-test on knowledge taken by self-questionnaire and practice observed by observation checklist.

Participants: Target population comprised of the individuals belonging to the age group of above 18 to 59 years of age. Individuals who can understand and speak Hindi or Marathi and individuals who are willing to participate were included in the study. Children below age group 18 years of age and individuals who are severely ill were excluded from study.

The researcher selected individuals according to inclusion criteria knowledge assessed by self-questionnaire. Practices assessed by observation checklist. Planned teaching involved; lecture cum discussion using point presentation, puppet role play, demonstration. On 7th day post test administered, for knowledge self-questionnaire and for practices observation checklist was used.

Ethical considerations:

The study was part of a larger research project approved by the members of Ethical Committee for Research of Leelabai Thakersey College of Nursing S.N.D.T. Women's University. Participant's consent and information sheet was obtained prior by making them aware the steps of the data collection.

Quantitative Data analysis:

Data was analysed by section I demographic variable included age, gender, language spoken, educational qualification, occupation, income, food habits, vaccination status related to respiratory system, any history of respiratory illness and prior information about strategies to promote respiratory illness.

Section II data about knowledge was analysed under 9 subheadings:

1. Knowledge about concept of strategies to promote respiratory hygiene.
2. Knowledge about hand hygiene: hand washing
3. Knowledge about hand hygiene: Hand sanitization.
4. Knowledge about use of mask.
5. Knowledge about cleaning of mask.
6. Knowledge about storage of mask.
7. Knowledge about social distancing.
8. Knowledge about practise of good habits.
9. Knowledge about vaccination.

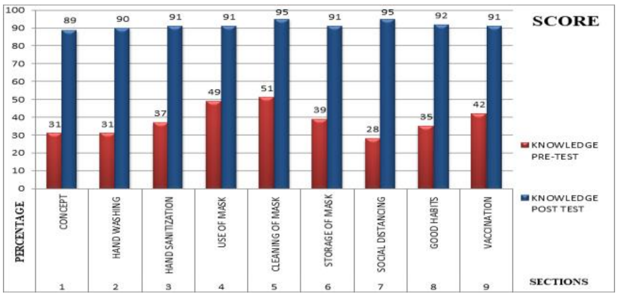
The questionnaire consisted of 33 questions which were multiple choice questions. Each question had four options and one correct option. A score of one was awarded to the correct answer.

For practice of strategies to promote respiratory hygiene observation checklist prepared which was categorised under 4 subheadings:

A. Hand washing: 15 observation
B. Hand sanitization: 15 observation
C. Wearing mask: 5 observation
D. Take off mask: 6 observation

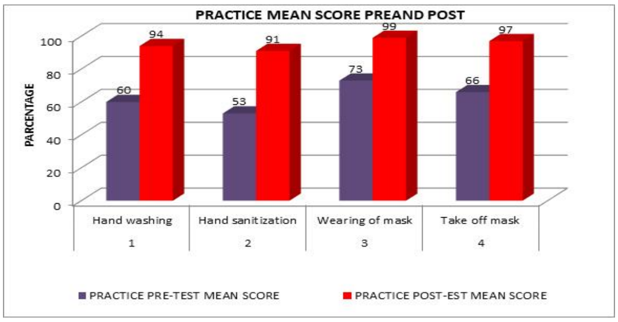
RESULTS:

FIGURE NO: 1 DISTRIBUTION OF INDIVIDUAL WITH REGARD TO THEIR PRE AND POST KNOWLEDGE MEAN SCORE



The above graph highlights the mean knowledge scores regarding strategies to promote respiratory hygiene pre and post-test after planned teaching. The individual scored 31% in pre- test of concept of strategies to promote respiratory hygiene, which improved to 89% in post-test. Similarly the mean knowledge scores regarding hand washing in pre-test was 31% and in the post test the score increased to 90%. The knowledge regarding use of hand sanitizer was increased to 91% in post-test from 37% in pre-test. Similarly the knowledge regarding use of mask in the pre-test score was 49% and in post-test the score increased to 91%. The knowledge regarding cleaning of mask was increased to 95% in post-test from 51%. Similarly the knowledge regarding storage of mask in the pre-test score was 39% and in post-test the score increase to 91%. The pre-test mean knowledge score regarding social distancing was 28% and post-test mean score was 95%. Similarly the knowledge regarding good habits pre-test score was 35% and in post-test the score increase to 92%. The knowledge regarding vaccination was increased to 91% in post-test from 42% in pre-test.

FIGURE NO: 2 DISTRIBUTION OF INDIVIDUAL WITH REGARD TO THEIR PRE AND POST PRACTICE MEAN SCORE



The above graph highlights the mean practice score for the individuals with regard to the practice of strategies to promote respiratory hygiene i.e. hand washing was improved from 60% to 94%, hand sanitization from 53% to 91%, wearing mask from 73% to 99% and taking off the mask improved from 66% to 97% in the post-test.

TABLE NO: 1 COMPARISION BETWEEN MEAN KNOWLEDGE SCORES OF INDIVIDUAL REGARDING STRATEGIES TO PROMOTE RESPIRATORY HYGIENE BEFORE AND AFTER PLANNED TEACHING.

SR NO	KNOWLEDGE	M	SD	r	SED	t value		SIGNI
						Calculated	Critical	
1	Pre-test	13.38	5.31	0.18	0.698	24.03	At 0.01= 2.6618 At 0.05= 2.001	Sig
2	Post-test	30.18	2.45					

The obtained value of t (24.03) is greater than tabulated value at 0.05 level (2.001) thus the mean of knowledge score after planned teaching is significantly higher than mean score of knowledge before planned teaching. Therefore, there is a significant difference in the knowledge of individuals regarding strategies to promote respiratory hygiene before and after planned teaching. This may suggest that the intervention of planned teaching was effective in improving knowledge of individuals.

TABLE NO: 2 COMPARISION BETWEEN MEAN PRACTICE SCORES OF INDIVIDUAL REGARDING STRATEGIES TO PROMOTE RESPIRATORY HYGIENE BEFORE AND AFTER PLANNED TEACHING (n=60)

SRNO	PRACTICE	M	SD	r	SED	t value		SIGNIFICANCE
						Calculated	Critical	
1	Pre-test	24.75	5.893	0.2155	0.7897	17.769	At 0.01- 2.6618 At 0.05- 2.001	Significant
2	Post-test	38.78	3.345					

The obtained value of t (17.769) is greater than tabulated value at0.01 level of significance. Thus the mean of practice score after planned teaching is significantly higher than mean score of practice before planned teaching. Therefore, there is a significant difference in the practice of individuals regarding strategies to promote respiratory hygiene before and after planned teaching. This may suggest that the intervention of planned teaching was effective in improving the practice of the individuals.

TABLE NO: 3 CORRELATION BETWEEN KNOWLEDGE AND PRACTICE OF INDIVIDUAL REGARDING STRATEGIES TO PROMOTE RESPIRATORY HYGIENE BEFORE PLANNED TEACHING (n=60)

SR NO	PRE-TEST	df	r	TABLE VALUE	SIGNIFICANCE
1	Knowledge	58	0.408	0.05=0.214 0.001=0.3	Significant
2	Practice				

The obtained value of r (0.4) which is greater than critical value at 0.01 level of significance (0.3). Therefore there is a significant positive relationship between knowledge and practices of individuals before planned teaching.

TABLE NO: 4 CORRELATION BETWEEN KNOWLEDGE AND PRACTICE OF INDIVIDUAL WITH REGARD TO STRATEGIES TO PROMOTE RESPIRATORY HYGIENE AFTER PLANNED TEACHING (n=60)

SR NO	POST TEST	df	r	Table value	Significance
1	Knowledge	58	-0.117	0.05=0.214	Not significant
2	Practice			0.01= 0.3	

The obtained value of r (-0.117) which is lower than critical value at 0.01 level of significance (0.3) therefore there is a no significant positive relationship between knowledge and practice after planned teaching.

TABLE NO: 5 ASSOCIATION OF POST TEST KNOWLEDGE SCORES OF INDIVIDUAL WITH REGARD TO SELECTED DEMOGRAPHIC VARIABLES: AGE (n=60)

SR. NO	VARIABLE	PARTICULARS	Mean	SD	SED	"t" value		SIGNIFICANCE
						Calculated value	Table value	
1	AGE	18-29	1.664	2.770	0.790	2.4614	2.00	Significant
		30-39	3.048	9.292				

The obtained value of “t” is (2.4614) is greater than tabulated value at 0.05 level of significance. Thus we may infer that there is association between knowledge of individual on strategies to promote respiratory hygiene and their age. Therefore, there is strong association between the mean scores of knowledge with the selected demographic variable i.e. age.

TABLE NO: 6 ASSOCIATION OF POST TEST PRACTICE SCORES OF INDIVIDUAL WITH REGARD TO SELECTED DEMOGRAPHIC VARIABLES: AGE (n=60)

SR.NO	VARIABLS	PARTICULARS	Mean	SD	SED	"t" value		SIGNIFICANCE
						Calculated value	Table value	
1.	AGE	18-29	39.3478	2.8541	0.9280	0.51	2.00	Not Significant
		30-39	38.8695	3.4152				

The obtained value of “t” is (0.51) is lesser than tabulated value at 0.05 level of significance. Thus we may infer that there is no association between practice of individual on strategies to promote respiratory hygiene and their age therefore, there is no significant difference between the mean scores of practice with the selected demographic variable age.

Testing of Hypothesis:

H1 The comparison of the knowledge score before and after planned teaching showed significantly higher. The obtained value of t (24.03) is greater than tabulated value at 0.05level the mean knowledge score after planned teaching is significantly higher than mean score of knowledge before planned teaching.

H2 The comparison of the practice score before and after planned teaching showed significantly higher. The obtained value of t (17.769) is greater than tabulated value at 0.01level of significance. Thus the mean of practice score after planned teaching is significantly higher than mean score of practice before planned teaching.

Discussion:

In the present study it was shown that there was improvement in knowledge and practice before at 0.01 level of significance planned teaching. In this study also shown that there was strong correlation between knowledge and practice before planned teaching but after planned teaching there was no correlation. The study shows there was no association of knowledge and practice with regard to demographic variable age.

According to Darshan B Suthar and Kailash Nagar (2021 May) to assess the knowledge and attitude of male adults before and after a planned teaching programme regarding prevention of selected life style disease in India, existed significant effectiveness.

According to Kiran Abbas (2020) A study to evaluate the efficacy of a brief web-based module on the practice of hand hygiene and respiratory etiquette among respective health-care workers. A comparative study of 500 participants belonging to different health-care setups, study shows a brief web-based health education is effective tool to educate the health care worker.

Conclusion:

The result of the study clearly shows that planned teaching on strategies to promote respiratory hygiene had a positive effect on knowledge and practice of the individuals. The planned teaching had markedly improved the knowledge and practice of individual on strategies to promote respiratory hygiene.

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