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The effectiveness of pamphlet on knowledge regarding pneumonia vaccination among eligible couples

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Abstract

Introduction: Vaccines are known as active immunizing agents. An ideal vaccine should be easy to produce in a well standardized preparation, be easy to administer, not produce disease in the recipient, induce permanent immunity, be free of toxic substances, and have minimal adverse effects.

Method: The research approach used for the study was one group pre-test post-test design. The subjects selected for the study were eligible couple in rural community areas of Sahranpur U.P. The sample consisted of 100 eligible couple. The study participants were selected by non-probability convenient sampling technique. With a sample of 10 eligible couple, pilot study was conducted. The reliability co-efficient were calculated to be 0.87. The findings revealed that knowledge scores of the eligible couple were in adequate before the administration of Pamphlet on pneumococcal vaccination. The Pamphlet helped them to update their knowledge on pneumococcal vaccination. The mean post-test knowledge of sample significantly increased after administration of Pamphlet. The data was analyzed by applying Descriptive and Inferential statistics. The results of the study indicated that the eligible couple do not have adequate knowledge on pneumococcal vaccination. This assessment project has helped the investigator to develop a Pamphlet to improve the knowledge on pneumococcal vaccination. The results have also shown that various demographic variable have significant association with respect to the knowledge of eligible couple regarding pneumococcal vaccination.

Keywords: Pneumococcal vaccination, knowledge, eligible couple, rural areas

Introduction

Vaccination is an effective means of prevention and contributes to reducing childhood mortality, particularly infant mortality due to vaccine preventable diseases. Most of the vaccines are the discoveries of this century. The expanded program of immunization was launched globally by the world health organization.

Pneumonia is the leading cause of mortality and a common cause of morbidity in children below five years of age. In the developing countries pneumonia one kills 3 million children every year. It is responsible for 19% of all deaths in children below five years of age.

Need for the study

Pneumococcal infections are a burning and challenging issues for nursing professionals to tackle with the problems. It is very essential that the eligible couple of under-five children must be taught regarding the benefits of vaccination that can help children to be protected from such infections as they are prone to get pneumonia from community or possibly after a cold or flu. Health care provider can teach parents about the color and labeling of the vaccine vial to protect the child from getting vaccines beyond the expiry date and wrong vaccine. Parents of under- five children should be informed that if the child has a community acquired pneumonia, pneumococcal vaccination can be taken to prevent development of serious life threatening complications. Eligible couple should be informed that the Pneumococcal vaccination is only a help to reduce the disease burden but still it's the individual responsibility to take care of children by providing right food and better management of indoor pollution etc.

Statement of the problem

“A study to assess the effectiveness of Pamphlet regarding the knowledge on pneumococcal vaccination among eligible couple of selected rural community areas of Sahranpur U.P. M.P.

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Objectives of the study

- To assess the pre-test knowledge score regarding the pneumococcal vaccination among eligible couple of selected rural community areas of Sahranpur U.P. M.P.
- To assess the posttest knowledge score regarding pneumococcal vaccination among eligible couple of selected rural community areas of Sahranpur U.P. M.P.
- To compare the pre-test and posttest knowledge score regarding pneumococcal vaccination among eligible couple of selected rural community areas of Sahranpur U.P. M.P.
- To find out association between pre-test knowledge score with selected demographic variables regarding knowledge on pneumococcal vaccination among eligible couple of under-five children.

Research hypothesis

H₁: There will be a significant difference between the mean pre-test score and post test score on knowledge regarding the pneumococcal vaccination among eligible couple at the level of $p \leq 0.05$.

H₂: There will be a significant association between the pretest score on knowledge regarding the pneumococcal vaccination among eligible couple with the selected demographic variables

Research methodology

Research approach

An Evaluative approach was used in the study and was considered more appropriate for this study.

Research Design

In the present study “one group pre-test, post–test design” was selected which is a pre experimental design to measure the effectiveness of structured teaching programme regarding pneumococcal vaccination among eligible couple of under five children.

Variables under study

1. Dependent variable: In this study, knowledge of eligible couple regarding pneumococcal vaccination is the dependent variable.

2. Independent variable: In this study independent variable is Pamphlet regarding pneumococcal vaccination.

3. Demographic variables: Age, religion, Educational status of mother, occupation of mother, monthly family income, type of family and previous knowledge regarding pneumococcal vaccination.

Setting of the study

Based on the investigator’s familiarity with the setting sand availability of the samples, present study was conducted at selected rural areas of Sahranpur U.P.

Sample

In this study, the sample size consists of 100 eligible couple from selected rural areas of Sahranpur U.P., who satisfied the inclusion criteria.

Sample Size

A sample of 100 eligible couple in selected rural areas of Sahranpur U.P.

Sampling Technique

In the present study non-probability convenient sampling technique was adopted to select the sample.

Sampling Criteria

Inclusion Criteria

- The eligible couple of present during the data collection period.
- Eligible couple of who are willing to participate.
- Eligible couple who can understand Hindi & English.

Exclusion Criteria

- Eligible couple who are not present at the time of study.
- Eligible couple of who are not willing to participate.

Results

Section I: Description of sample characteristics

Section II: Assessment of knowledge

Section III: Evaluating effectiveness of Pamphlet

Section IV: Association of Pre-test knowledge score with selected demographic variables.

Section– I: Demographic profile of eligible Couple

Table 1: Distribution of samples by their age N=100

Age in years	Frequency	Percentage
a.20-25years	18	18
b.26-30 years	60	60
c.Above30years	22	22
Total	100	100

Table 2: Distribution of samples by their Religion N=100

Religion	Frequency	Percentage
a. Hindu	66	66
b. Muslim	22	22
c. Christian	12	12
d. Others	00	00
Total	100	100

Table 3: Distribution of samples according to their Education N=100

Education of Mother	Frequency	Percentage
a. Primary School	12	12
b. Secondary School	50	50
c. Pre-university education	26	26
d. Graduation & above	12	12
Total	100	100

Table 4: Distribution of samples according to mother’s occupation N=100

Occupation of Mother	Frequency	Percentage
a. Housewife	34	34
b. Employee (Govt/Private)	26	26
c. Business	22	22
d. Daily wages	18	18
Total	100	100

Table 5: Distribution of samples according to family monthly income N=100

Family Monthly Income	Frequency	Percentage
a. Less than Rs.10,000	38	38
b. Rs.10,001-20000	26	26
c. Rs. 20,001-30,000	20	20
d. Rs. 30,001 and above	16	16
Total	100	100

Table 6: Distribution of subjects by type of family N=100

Type of Family	Frequency	Percentage
a. Nuclear	44	44
b. Joint	56	56
Total	100	100

Table 7: Distribution of subjects by their previous knowledge regarding pneumococcal vaccination N=100

Previous Knowledge	Frequency	Percentage
a. Yes	06	06
b. No	94	94
Total	100	100

Table 8: Distribution of samples according to source of information N=100

Source of information	Frequency	Percentage
a. Family members	06	06
b. Friends	26	26
c. Television	36	36
d. Newspaper	32	32
Total	100	100

Section-II: Assessment of knowledge on pneumococcal vaccination among eligible couple of under five children before pamphlet

SL. No	Knowledge	Max possible Score	Mean	SD	Mean Score %
1.	Pneumococcal vaccination	25	11.5	1.47	46%

The summary of statistical outcomes of analysis, the mean knowledge regarding pneumococcal vaccination among eligible couple of under five children was 11.5 and SD 1.47 before Pamphlet. The mean score percentage was computed and it was found to be 46%. From the results it was found that the sample subjects were having inadequate knowledge regarding pneumococcal vaccination.

Table 9: Overall knowledge of eligible couple regarding pneumococcal vaccination before the administration of pamphlet

SL. No	Overall level of knowledge	Frequency	%
1	Inadequate	84	84%
2	Moderately adequate	16	16%
3	Adequate	-	-

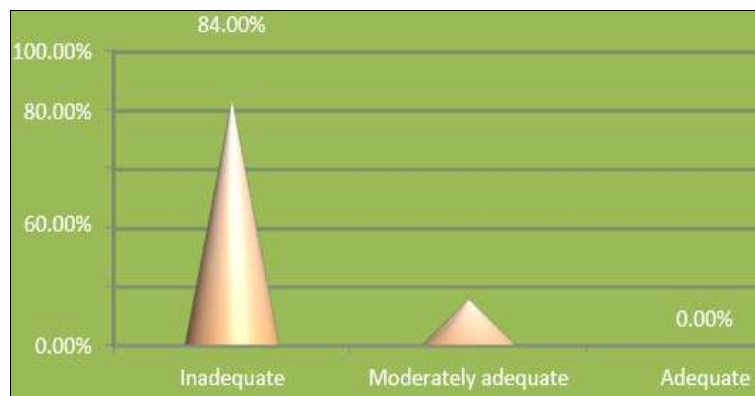


Fig 1: Overall knowledge before pamphlet

Table 10: Assessment of knowledge regarding pneumococcal vaccination eligible couple after pamphlet

SL. No.	Knowledge	Max. possible Score	Mean	SD	Mean Score
1	Pneumococcal Vaccination	25	21.5	1.23	86%

Table 11: Overall knowledge regarding pneumococcal vaccination among eligible couple after pamphlet

SL. No	Overall level of knowledge	Frequency	%
1	Inadequate	-	-
2	Moderately adequate.	66	66%
3	Adequate	34	34%

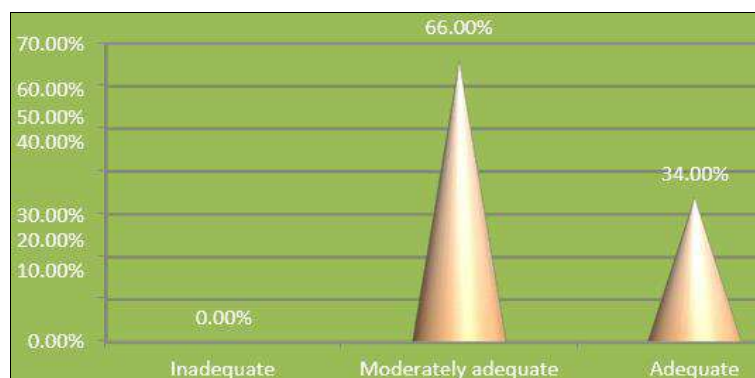


Fig 1: Overall knowledge after pamphlet

Section-III

Evaluating the effectiveness of pamphlet by comparing the pre-test and post-test knowledge score

The mean score is increased in the post test. The mean in the posttest is 21.5 whereas the mean in the pre-test is 11.5. The variation is decreased in post-test when compared to pre-test. SD in the post-test is 1.23 and in the pre-test is 1.47. The mean improvement is 10.00. Though it was seen that the post-test knowledge score was more than the pre-test knowledge score, it is essential to put it under statistical significance. So suitably the paired 't'-test was chosen and worked out. The calculated t-value is 21.56 which are highly significant.

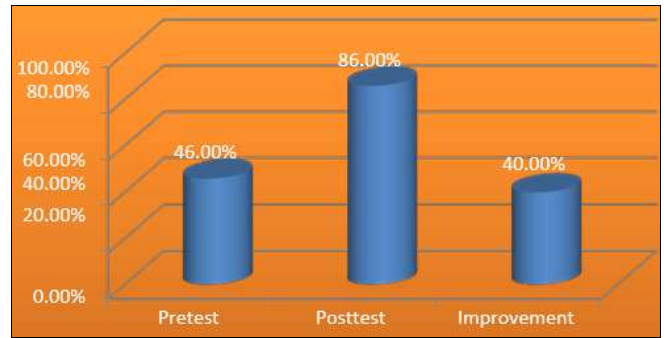


Fig 3: Effectiveness of PAMPHLET

Section-IV: Association between the demographic variables and pre-test knowledge among eligible couple regarding pneumococcal vaccination

Variables	Below Median	Median and above	Total Frequency (100)	Chi-square	DF	P Value (0.05)	Inference
1. Age							
a. 20-25 years	02	00	02	8.799	2	5.99	S
b. 26-30 years	58	16	74				
c. Above 30 years	10	14	24				
2. Religion							
a. Hindu	36	30	66	3.921	3	7.82	NS
b. Muslim	12	10	22				
c. Christian	08	04	12				
d. Others	00	00	00				
3. Education of Mother							
a. Primary education	08	04	12	8.799	3	7.82	S
b. Secondary education	18	22	40				
c. PUC	16	20	36				
d. Graduation and above	04	08	12				
4. Occupation of mother							
a. House wife	08	06	14	4.315	3	7.82	NS
b. Employee (Govt/Private)	18	02	20				
c. Business	14	18	46				
d. Daily wagger	20	00	20				
5. Family Monthly Income							
a. Less than Rs.10,000	12	10	22	6.159	3	7.82	NS
b. Rs. 10,001-20,000	14	16	30				
c. Rs. 20,001-30,000	12	14	26				
d. Rs. 30,001 and above	14	08	22				
6. Type of Family							
a. Nuclear	24	22	46	4.159	1	3.84	S
b. Joint	26	28	54				
7. Previous knowledge							
a. Yes	18	28	46	8.63	1	3.84	S
b. No	16	38	54				
8. Source of information							
a. Family members	08	14	22	9.31	3	7.82	S
b. Friends	16	14	30				
c. Television	12	14	26				

Summary

According to the hypothesis of the study, the investigator found that there is significant association between pre-test knowledge score and selected demographic variables hence hypothesis is accepted.

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