Original Article

Community and Public Health Nursing
Vol. 7 No. 2, May-August 2022
DOI: http://dx.doi.org/10.21088/cphn.2455.8621.7222.8

A Study to Assess Effectiveness of STP on Knoweldge Regarding Revised National Immunization Schedule among Third Year Basic BSc Nursing Students in selected Nursing College

Nayana Kalane

How to cite this article:

Nayana Kalane/A Study to Assess Effectiveness of STP on knoweldge Regarding Revised National Immunization Schedule among Third Year Basic BSc Nursing Students in selected Nursing College/Community and Public Health Nursing. 2022;7(2):67–73.

Abstract

Immunization is one of the most cost-effective intervention to prevent the disease and improve life expectancy. Objectives of the study was to assess the post-test knowledge score regarding revised national immunization schedule among selected student. Data was collected using structured questionnaire. Research Approach was usedas qualitative research approach and Research Designnon experimental design. The conceptual framework used for the present study is "Modified general system model". Total sample size was 30 and selected by purposive sampling technique.

Inclusion criteria: (1) Third year basic BSC nursing students in selected nursing college. (2) Third year basic BSC nursing students who are willing to participate in the study. (3) Student who knows English. Based on the objectives and the hypothesis the data were analyzed and by using various statistical tests i.e. frequencies, percentage, mean, chi square and standard deviations't' test. Data analysis was done by using descriptive and inferential statistics. The't'value obtained was 8.04 which accepted the research hypothesis suggesting that the structured teaching was effective in increasing the knowledge of nursing students on national immunization schedule. The finding of the study showed that, the mean pretest score was 13.6 with the standard deviation 7.91, whereas in posttest the mean score was 20.46, with the standard deviation 3.329, The calculated "t" value was 8.04 found to be significant at the level of $p<0.05$. It showed that calculated "t" value much higher than the tabulated "t" value and there was significant improvement in the knowledge regarding national immunization schedule among the nursing students. Hence the H1 is accepted.

Keyword: Assess; Effectiveness; Structured teaching program; National immunization schedule; Nursing students.

Author's Affiliations: Lecturer, Department of Community Health Nursing, Sumantai Wasnik Institute of Nursing, Dabha, Nagpur 440023 Maharashtra, India.

Corresponding Author: Nayana Kalane, Lecturer, Department of Community Health Nursing, Sumantai Wasnik Institute of Nursing, Dabha, Nagpur 440023 Maharashtra, India.

E-mail: Kalanenayana@gmail.com

Received on: 19.01.2022

Accepted on: 01.02.2022

INTRODUCTION

Immunization is one of the most cost effective intervention to prevent the disease andimprove life expectancy. Immunization Program is one of the key intervention for protectionof children from life threatening condition which are preventable and it is a major publichealth intervention in the country.[1] Immunization program in India was introduced in 1985, as Expanded program ofimmunization (EPI).

The program gained momentum in 1985 and was Expanded as Universal immunization program (UIP).[2] According to UNICEF Immunization is currently preventing an estimated two million deathsamong children under five every year. In India one of the highest under five mortality rate inthe world with an estimate of 64/1000 live births in 2010.

NEED OF STUDY

Immunization is the way of protecting the human body against the infectious diseases through vaccination. Immunization prepare our bodies to fight against diseases in case one can come into contact with them in the future.[3] In 2018, 116 million children were immunized against diphtheria, tetanus and Pertussis (DTP) yet millions of children are still not reached by potentially life-saving vaccines.[15] Immunization is one of the most cost-effective public health interventions to date, averting an estimated 2 to 3 million deaths every year. As a direct result of immunization, the world is closer than ever to eradicating polio, with only three remaining polio endemic countries-Afghanistan, Nigeria and Pakistan, deaths from measles, a major child killer, declined by 80% world wide between 2000 and 2017 preventing an estimated 21.1 million deaths. And as of march 2019, all but 13 countries have eliminated maternal and neonatal tetanus, a disease with a fatality rate of 70 to 100% among newborns. To improve the student awareness, good knowledge regarding vaccine is required good student practice regarding immunization will be able to reduce the incidence of infectious diseases.

BACKGROUND OF STUDY

Each year since 1990, immunization with routing vaccines reached more than 70% of children world wide. At the UN general Assembly special session in 2007 The international community adopted the specific target of immunizing by 2010 at least 90% ofchildren in each country.[10]

World wide approximately 130 million children are born every year in which 91 million arefrom developing countries. America and Europe maintain over 90% of immunization andwestern pacific maintain 92% of immunization while eastern Mediterranean maintains 86%of immunization. 114 countries has reached 90% of immunization where 150% countries has reached 80% of immunization.[11]

The child mortality rate or under five mortality rate is the number of children who dieby the age of five, per thousand live birth. In 2007, the world average was 68(6.8%) in 2006, the average in developing countries was 79 (down from 103 in 1990). The worlds childmortality rate has dropped by over 60% since 1960.

OBJECTIVES

- To assess the pre-test knowledge score regarding Revised national immunization schedule among selected student.
- To assess the post-test knowledge score regarding revised national immunization
- schedule among selected student.
- To determine pre-test knowledge score and post -test knowledge score.
- To find out the association between post-test knowledge score with selected demographic.

OPRATIONAL DEFINATION

Assess

According to oxford dictionary "assess" means

- Estimate the size or quality.
- Decide the amount or value of, In this study, 'assess' means "estimating the amountof knowledge regarding national immunization among the selected student's".

Effectiveness

According to oxford dictionary "effectiveness" means checking for desired effect, intended result or an outcome.

In this study, "effectiveness" means determine the extent to which structured teaching has achieved the desired effect as expressed by gaining knowledge score regarding nationalimmunization.

KNOWLEDGE

According to oxford dictionary "knowledge" means the information, the understanding that you gain through experience and education.

STRUCTURE TEACHING PROGRAM

According to Collins, "structure teaching program" means systematically developed instructional program using instructional aids, designed to provide information on national immunization. In this study, "structure teaching program" means by using instructional aids and designed to provide information to selected student.

IMMUNIZATION

According to medical science "immunization" means "is the process whereby a parson is made immune or resistant to an infectious disease, typically by the administration of vaccine. Vaccines stimulate the body's own immune system to protect the parson against subsequent infection or disease."

In this study, immunization means providing a protection to the parson from infectious

disease.

ASSUMPTION

- The selected students may have some knowledge about national immunization schedule.
- The students knowledge may enhance.

LIMITATIONS

- The study is limited to selected third year basic BSC nursing students.
- Male and female is included.
- Sample size is 30.
- Who knows about English reading and writing.

DELIMITATION

- The study is delimitated is not more than 30 student.
- Transgender group is not included.
- Students who are not present during data collection.

HYPOTHESIS

H1: There is significance difference between pre-test knowledge and post-test knowledge.

H2: There is significant difference between post-test knowledge with demographic variable.

H0: There is no difference between pre-test score knowledge and post-test score knowledge.

Conceptual Framework: According to 'Modified general system model' a system consist of a set of interacting components that is, input, throughout and output within a boundary that filter the type and rate of exchange with the environment.

Review of Literature: A systematic review is a literature review focused on a research question, trying to identify, appraise, select and synthesize all high quality research evidence and arguments relevant tothat question. A meta-analysis is typically a systematic review using statistical method to effectively combine the data used on all selected studies to produce a more reliable result. The review of literature is organized and presented under the following section.

Section A: Review of literature on immunization.

METHODOLOGY

Research Approach

The research approach for the present study is the experimental research approach

Research Design

In the present study the non experimental design was adapted.

Setting of the Study: Selected nursing college

Sampling Technique: Purposive sampling.

Sample Size: 30

Sample: Basic B.Sc. nursing third year.

Variables

INDEPENDENTE VARIABLE

According to polite and beck 2008 independent variable is the variable that is believe to cause or influence the independents variable in this study independents variable is knowledge.

Dependent Variable

According to polite and beck 2008 dependent variable is the variable hypothesized to dependent on or because by another variable; the outcome variable of interested, in this study dependent variable is revise national immunization schedule.

INCLUSION CRITERIA

- Third year basic BSC nursing students in selected nursing college.
- Third year basic BSC nursing students who are willing to participate in the study.
- Student who knows English.

EXCLUSION CRITERIA

- Students who are not studying in third year basic BSC nursing class.

- Students who are not willing to participate.
- Student who don't know English.

TOOL PREPARATION

The researcher prepared a structured questionnaire as the tool for the study. The structured questionnaire includes two section:

Section A: This selection includes five questions on information regarding demographic profile of sample.

Section B: This section includes 30 question to assess the knowledge on third year basic BSC nursing students in selected nursing college.

SELECTION AND DEVELOPMET OF TOOL

Development of tool according to Basawanthappa (2007) the tool of the data collection translated the research objective into specific question the response to which will provide the data required to achieved the research objectives. The order to achieve this purpose, each question must convey to response the idea or group of idea required by the researcher objectives. An instrument in a research refer to the tool of equipment used for the data collection or may take the form of questioning. Questionnaire is means of electing the dealing, believes, experiences, knowledge of some samples students. A data collecting instrument it could be structured. The present study aim at assessing the knowledge regarding revise national immunization schedule among third year basic BSC nursing students in selected nursing college. A data collection and look are constructed according to objective of study.

VALIDITY

Validity refer to getting result that accurately reflect the concept been measured in practice, validity can also refer to the success of research in retrieving 'Valid' result. The content of data collection tool was sending for its validity in terms of relevance and accuracy to list of experts along with scoring sheet. The data collection tool was send to expert and received back and valuable suggestion.

RELIABILITY

Reliability of research instrument is define as the extend to which the instrument yields the same result on repeated measure. It is then concerned with consistency, accuracy, precision, stability, equivalence and homogeneity. The self-structure questionnaire schedule was tested for reliability.

PROCEDURE FOR DATA COLLECTION

A formal permission was obtain from the authority of the selected Nursing college. A sample are collected on the basis of criteria for the study. Sample are selected from the selected Nursing college. After selection of sample on the basis of inclusion criteria, the researcher has introduce self to third year Basic. B.Sc. Nursing students and explain the purpose of study and clarify their doubts and detail about the study and obtain a written consult from the sample. A structured questionnaire was given to the sample, and explain about the questionnaire, asses the knowledge about Immunization. It was filled by sample and the duration of 15-20 minutes was given to each sample. The response of each sample were recorded on the checklist, knowledge was given on the same day and post-test was conducted on Seventh day. The procedure was continue till researcher achieved the required sample. At the end of the study, researcher thank the sample and authority who help in the study.

PLAN FOR DATA ANALYSIS

The researcher planned to analysis data by using descriptive and inferential statistics.

- Frequency and percentage distribution where used to analysis to demographic data of the third year Basic. B.Sc. Nursing students in selected Nursing college.
- Knowledge score of third year Basic. B.Sc. Nursing students about Immunization was analyzed by frequency and percentage.
- Effectiveness of structured teaching program was assessed by 't' test.
- Association between demographic variable and knowledge score third year Basic. B.Sc. Nursing students.

RESULT

Organization and Presentation of Data

The data has been organized and presented in four section

Section A: Description of sample characteristics.

Section B: Knowledge of students.

Section C: Association of demographic variables with the level of knowledge students regarding Revised National Immunization schedule.

Section A: Percentage Distribution of the Demographic Variables.

Table 1: Frequency and percentage distribution of the subject according to their age.

n-30

Age	Frequency	Percentage (%)
17-18	–	–
19-20	20	66.67
21-22	9	30
23-24	01	3.33

Table 2: Frequency and percentage distribution of subject according to their gender.

n-30

Gender	Frequency	Percentage (%)
Male	05	16.67
Female	25	83.33

Table 3: Frequency and percentage distribution of subject according to their religion.

n-30

Religion	Frequency	Percentage (%)
Hindu	21	70
Buddhist	08	26.67
Muslim	01	3.33
Christian	–	–
Other	–	–

Table 4: Frequency and percentage distribution of subject according to their nutritional status.

n=30

Nutritional status	Frequency	Percentage (%)
Vegetarian	–	–
Non vegetarian	07	23.33
All	23	76.67

Table 5: Frequency and percentage distribution of subject according to their educational status.

Educational status	Frequency	Percentage (%)
10th	–	–
12th	–	–
Graduation	30	100
Post- graduation	–	–

- Percentage distribution of a sample according to their age shows that majority were 20 of them (66.67%) age 19-20 year, 09 of them (30%) were age 21-22 years and 01 of them (3.33%) were age 23-24 years, 0 of them (0%) were age 17-18 year.
- Percentage of sample according to their gender shows that in relation to gender majority of students 25 (83.33%) were females and 05 (16.67%) were male.
- Percentage distribution of sample according to their religion shows that majority were 21 of them Hindu (70%), 08 of them Buddhist (26.67%), 01 of them Muslim (3.33%), 0 of them Christian (0%) and other 0.
- Percentage distribution of a sample according to their nutritional status shows that 01 of them vegetarian (0%), 06 of them non-vegetarian (23.33%) and other all 23(76.67%).
- Percentage distribution of a sample according to their educational status shows that 0 of them 10th std (0%), 0 of them 12th std (0%), 30 of them graduation (100%), 0 of them post-graduated (0%).

Table 6: Frequency and percentage of level of knowledge of students regarding Revised National Immunization Schedule.

Level of knowledge	Pre test score		Post test score	
	Frequency	Percentage	Frequency	Percentage
Poor (0-10)	7	23.33%	0	00%
Good (11-20)	22	73.33%	12	40%
Excellence (21-30)	01	3.33%	18	60%

Table 7: Mean, median, mode and standard deviation of level of knowledge of students regarding Revised National Immunization Schedule.

n-30

Knowledge level	Mean	Sd	Md	T valve	Significance
Pre test	13.6	7.91	15.5	8.04	P<0.05
Post test	20.46	3.329	15.5		

Section C: Association between the socio Demographic variables and knowledge of students.

Table 8: Association between post-test knowledge score of Revised National Immunization Schedules among students with selected socio-demographic variables.

Socio Demographic	Total students	Level of Knowledge			DF	Chi square
		Poor	Good	Excellent		
Age						
17-18	0	0	0	00	06	**1.07 NS**
18-19	20	0	09	11		
20-21	9	0	03	06		
21-22	01	0	0	01		
Gender						
Male	05	0	02	03	02	00 NS
Female	25	0	10	15		
Religion						
Hindu	21	0	07	14	08	0.60 NS
Buddhist	08	0	03	05		
Muslim	01	0	0	01		
Christian	0	0	0	0		
Other	0	0	0	0		
Nutritional Status						
Vegetarian	0	0	0	01	4	0.89 NS
Non vegetarian	07	0	02	04		
All	23	0	10	13		
Educational Status						
10th	0	0	0	0	03	0 NS
12th	0	0	0	0		
Graduation	30	0	12	18		
Post- graduation	0	0	0	0		

*Significant-S

Non-significant:NS

DF: Degree of freedom.

H2: Hypothesis is rejected, there is no difference between post-test knowledge with selected demographic data.

The data presented in the table shows that the knowledge score among the 17-18 years of age is (0) having poor knowledge (0) having good knowledge and (0) having excellent knowledge, the knowledge score among 19-20 year of age is (0) having poor knowledge[9] having good knowledge,[11] having excellent knowledge. Then among 21-22 year of age none of them having poor knowledge (3) having good knowledge,[6] having excellent knowledge. The knowledge score among 23-24 year of age none of them having poor and good knowledge,[1] having excellent knowledge. Calculated chi-square value is 1.07, degree of freedom is 6 at p<0.05 So Knowledge was not significantly associated with age. Among the female gender[5,2] having good knowledge,[3] having excellent knowledge and none of them having poor knowledge. The male gender[25,10] having good knowledge and[15] having excellent knowledge and none of them having poor knowledge. Calculated chi-square value 0, degree of freedom is 2 at p<0.05 so knowledge was not significantly associated with gender. Among the Hindu religion[7] having good knowledge,[14] having excellent knowledge and none of them having poor knowledge. Buddhist religion[3] having good knowledge[5] having excellent knowledge and none of them having poor knowledge. Muslim religion 1 having excellent knowledge and none of them having good and poor knowledge. calculated chi square, value 0.60, degree of freedom is[8], at P< 0.05 so, knowledge was not significantly associated with religion.

Among the Nutritional status vegetarian 1 having excellent knowledge and none of themhaving poor and good knowledge Non-vegetarian 2 having good knowledge and 4 having excellent knowledge and none of them having poor knowledge. Chi-square value 0 Degree of freedom 3, at P<0.05 So, Knowledge was not significantly associated

with education status. The association between demographic data is non significant because the sample size is less.

CONCLUSION

The present study assess the knowledge regarding Revised National Immunization Schedule among the selected Nursing students. On the basis of finding of the study the following conclusion were made Majority of the students adequate knowledge regarding Revised National Immunization schedule. The study shows that there is no significance difference between pre-test and post-test knowledge.

REFERENCES

1. Universal Immunization Program Available from http://www.nhp.gov.in/universal Immunization program pg May 2017, Published 06 Apr 2015.
2. Vashishtha VM, Kumar P. 50 year of Immunization in India: progress and future Indian pediar 2013: 50: 111-118p.
3. "Dr. T.VasundharaTulsi, and Dr. G. GnandPrasund" Textbook of Community healthNursing–II, 2nd edition, Frontline publication Hyderabad, Page no. 350.
4. "Janice E. Hitchowck, Phytlis E, "Schubert" Textbook of community health nursing2nd edition Pegeno. 656.
5. "K. Park, Textbook of Community Health Nursing , 24th edition , M/S Babarsides Bharat Publishers, Page No. 131.
6. Immunization Handbook for Medical Outhors Department of Health and Family welfare, Government of India 2017 Available from http:// www. Nihfw.org/pdf/Nchrc-publication.
7. Geneva: WHO; 2009.World Health Organization (WHO), UNICEF, world bank, stateof the worlds vaccines and Immunization.
8. NHP Indradhanush Available From: https:/ www.nhp.gov.in/nhp-indradhanush page,April 2016, published on dated 01 Apr 20k.