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RESEARCH ARTICLE

“A STUDY TO ASSESS THE EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE ON SWINE FLU VACCINE AMONG THE PARENTS OF UNDER 3 YEAR CHILDREN IN PEDIATRIC WARD OF SELECTED HOSPITAL DEHRADUN”

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Manuscript Info

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Key words:-

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Effectiveness, Swine Origin Influenza

Abstract

Back ground:-The new human H1N1 flu strain of avian origin kept transmitting among human populations. Then, a small outbreak of swine H1N1 occurred in humans. Swine flu spread very rapidly world wide due to its high human to human transmission rate and due to the frequency of air travel. Swine flu is a communicable disease that is caused due to H1N1 virus. This virus enters the body through the mouth and nose and if a healthy person comes in contact with an infected individual. It attacks the immune system and causes a myriad of diseases, mainly respiratory disorders. The people who are easily susceptible to this disease are pregnant women, young children, Individuals who have a history of respiratory or lung diseases, etc. During influenza outbreak, it is critical for monitoring the spread of disease, for knowing the potential of the virus to cause a pandemic and for creating the life saving vaccines. The global approach ensures WHO system to monitor and develop critical benefits such as vaccines, antiviral drugs and scientific information. The best treatment for swine influenza infections in humans is prevention by vaccination.

Methodology:-A pre experimental one group pre test post test was adopted in the present study to accomplish the objectives. Purposive sampling technique was used to select samples. The sample consisted of 60 Parents of under 3 year children. The pre test assessment of knowledge of the parents was carried out using a knowledge questionnaire followed by self instructional module session regarding vaccination for swine flu. After 7 days the post test was conducted using the same knowledge questionnaire. The collected data was analyzed by using descriptive and inferential statistics.

Conclusion:-The study revealed that there was deficient knowledge regarding vaccination of swine flu. The teaching was found to be effective in improving the knowledge of the parents. It was concluded that there was a need to plan and implement educational programmes by the nurses for all parents particularly parents of under 3 year children regarding vaccination of swine flu.

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Introduction:-

The outbreak of human infection due to the novel swine-origin influenza A (H1N1) virus began in Mexico in March 2009. Because clinical symptoms of infection with the novel influenza virus do not differ from those of seasonal human influenza, there is a continued need for subtyping and laboratory confirmation. Pigs experimentally infected with pandemic 2009 H1N1 influenza A virus developed respiratory disease; however, there was no evidence for systemic disease to suggest that pork from pigs infected with H1N1 influenza would contain infectious virus.

H1N1 flu is sometimes incorrectly called “swine flu,” the virus is transmitted from person to person. Symptoms of the H1N1 flu include fever, chills, nausea, vomiting, body aches, lethargy and fatigue, which usually appear in rapid succession. People at high risk include children, pregnant women and those with certain medical conditions. The most common cause of death from the virus is respiratory failure, but other causes of mortality include sepsis, dehydration and electrolyte imbalance. The first line of defense against H1N1 flu is vaccination. Treatment includes use of antiemetics, antipyretics and respiratory support. Although the majority of hospitalized persons infected with novel influenza A (H1N1) recovered without complications, certain patients had severe and prolonged disease. All hospitalized patients with novel influenza A (H1N1) infection should be monitored carefully and treated with antiviral therapy, including patients who seek care >48 h after the onset of illness.

Om PrakashRajoura, Rupali Roy, ParasAgarwal, and AnjurTupilKannan

On Dec. 22, 2014, the FDA approved the first new anti-influenza drug (for H1N1 and other influenza virus types) in 15 years, peramivir injection (Rapivab). It is approved for use in the following settings:
Pediatric patients for whom an intravenous medication is clinically appropriate because:

1. The patient is not responding to either oral or inhaled antiviral therapy, or
2. drug delivery by a route other than IV is not expected to be dependable or is not feasible.

Medical Author:

Charles Patrick Davis, MD, PhD

Children in developing countries are the worst victims of all sorts of diseases, especially the disease of the respiratory tract. The majority of Indians live in overcrowded, poorly ventilated and less cleaned environment which encourages spread of infection. Viral infection is one of the contagious infections, especially influenza A H1N1 called swine flu is the most prevalent disease in children. Respiratory illness is responsible for a significant proportion of both acute and chronic illness in childhood. Approximately 25% to 50% of children affected with swine flu in summer and so called seasonal flu, for every year the virus was circulating among public, hence children below 3 years have low immunity, they are considered to be the vulnerable group.

World Health Organisation, Influenza A H1N1, Update 18.2008

Objective:-

1. To assess the level of knowledge of parents of under 3 year children regarding swine flu vaccine.
2. To determine the effectiveness of self instructional module on knowledge regarding swine flu vaccine among the parents of under 3 year children.
3. To find out the association between knowledge score of parents regarding swine flu vaccine with selected demographic variables.

Hypothesis:

1. **H1**-The pretest level of knowledge score of parents of children with swine flu vaccine will be lower than the posttest level of knowledge.
2. **H2**-There will be a significant association between the knowledge score of parents regarding swine flu with selected demographic variables.

Review of Literature:-

Literature related to teaching as an effective interventional strategy:

A study was conducted to assess the effectiveness of education programme on vaccination for swine flu among mothers of school children. A pre-test questionnaire on knowledge of vaccination for swine flu was administered to mothers. The study is conducted on 60 mothers of school children. The random sampling technique was used. The

result shows 48(80%) mothers had inadequate knowledge in pre-test, 12(20%) mothers had moderate inadequate knowledge in pre-test, and 56 (93.3%) mothers had adequate knowledge in post-test, 4 (6.7%) mothers had moderate adequate knowledge in post-test. The study showed that 55(91.5%) mothers gain adequate knowledge. This study concludes and clearly highlighted that the educational programme was effective in improving knowledge of mothers in vaccination for flu and thus improving the children survival.

BloomfieldS,AielloA,CooksonB,OboyleC,LarsonE.at 2007:

A comparative study was conducted among government and private school children to assess the knowledge of physical and environmental hygiene towards prevention of swine flu infection. The sample size was 200 children aged between 8 to 10 years. A pre-test questionnaire was used to assess knowledge. The structured teaching programme was conducted in order to improve the knowledge of the children, followed by post-test was given using same questionnaire. Results revealed that low baseline knowledge was reported in 75-94% government and 48-78% in private school children. A significantly higher improvement was observed in children in private school than in government school.

Kim SY, Chang YJ, Cho HM, Hwang YW, at 2009

Literature related to parental knowledge about vaccination of swine flu:

An experimental study was conducted to evaluate a structured treatment and teaching programme for the parents of children with moderate to severe influenza like illness. The design was prospective before and after the trial; the same consecutive children were studied a year before and after the intervention. Around 100 children were referred for inpatient treatment and teaching programme by specialized nurse educators for three days and on whom 80 children participated in the follow-up examination. The main outcome measures were the frequency of respiratory illness and hospitalization. The frequency of respiratory illness during the year before and after is 71% and 36% respectively. The percentage of children admitted who are hospitalized because of respiratory illness decreased from 39% to 22%. Thus the study revealed that participation of parents of children with moderate to severe influenza like illness in a structured treatment and teaching programme resulted in a substantial reduction in swine flu morbidity in the year following the intervention.

Heinen PP at 2009

A comparative study was conducted to test the effectiveness of teaching programme for mothers on prevention and control of swine flu in children. The stratified random sampling technique was used, 100 samples were selected from 3 hospitals, I group contains 35 mothers, II group contains 30 mothers, III group contains 35 mothers. A structured questionnaire was given, the knowledge of mothers on prevention and control of swine flu was observed by pre-test knowledge scores, after teaching programme was conducted the post-test had been given to the same groups. The overall pre-test mean knowledge found to be 54.8% with SD of 13.1% among the respondents, the overall post-test knowledge found to be 84.77% with SD of 8.3% among the respondents. The overall mean knowledge scores of pre-test and post-test reveals that post-test knowledge score was higher when compared to pre-test knowledge score. The statistical paired t test implies that the difference in the pre-test and post-test knowledge score found statistically significant at 5% level ($p < 0.01$) (The mean knowledge enhancement score was 29.97%) with a paired t value of 24.17%. These exists a statistical significant in the enhancement scores indicating the impact of intervention programme.

Kimura H, Abiko C, Peng G at 2009

Literature related to vaccination of swine flu:

An experimental study was conducted to test the effectiveness of vaccination for swine flu among school children. This study contains 100 vaccinated children and similar number of non vaccinated control group also. Children are vaccinated live attenuated vaccine for influenza A H1N1; moreover children are the most important cause of the spread of influenza in the community, so the author wants to prove that vaccination protects the younger children against influenza A H1N1. The study result shows mean performance for vaccination in group I was higher (87.27%), than that of group II (21.81%) the t value was significant at $p < 0.05$ level indicating better. It reveals that in vaccinated children influenza like illness is prevented and those not vaccinated shows particular influenza like illness. This study concludes that vaccination brings wide protection against overall Influenza like illness.

Ma W, Vincent AL at 2007

A evidence based study enumerates that vaccination coverage against swine flu protects the public than the isolation of infected ones. 25 Canadian students who were infected are taken as the samples. Investigation done on 10

students to confirm the diagnosis, they were shifted to northeast of china and isolated. The 15 students was administered swine flu vaccine. The result shows unpredictable challenge, those who were vaccinated and left in the swine exposure shows no sickness and the isolated ones unfortunately spread the infection to 5 persons who cares for them. This study concluded that vaccination is the best remedy to protect the public than the isolation.

Centres for Disease Control at 2009

Literature related to prevalence of swine flu:

In developing countries the study findings have revealed t n swine flu infection in children between 3 to 6 years increased from 12.2% to 25.6% between 2009 and 2010. Medical practices and clinics that want to offer the H1N1 swine flu vaccine have already registered with their state health departments. They can check with their doctor to see if she or he is offering the vaccine. Because children are especially vulnerable to H1N1 swine flu -- and are especially likely to spread the disease to others -- many states will be offering H1N1 swine flu vaccinations in schools.

OlsenCWAT 2009

A comparative study was conducted to determine the prevalence of swine flu and there by vaccinating for swine flu in preschool children aged between 3 to 5 years and schooler aged between 6 to 12 years. Health check-up was done for 50 children. Both the groups were noticed for frequent common sickness. Vaccination was provided to them after the prevalence result. The result revealed that overall prevalence of swine flu in preschooler was 21.1%, respectively, in schooler it was 11%, the prevalence of infection was higher in preschooler compared to schooler. It was found that the prevalence of infection decreased significantly with age from 18.5% at 3 years to 7.6% at 5 years. Significantly more preschoolers were prone to infection than the schoolers.

Towards achieving accessibility afford ability and safety of medicines. Health Action, 2009

Research Methodology:-

Research Approach:

Research approach indicates the basic procedure for conducting the study. The selection approach depends upon the purpose of the study. The present study aimed at determining the effectiveness of self instructional module on parents of under 3 year children regarding vaccination of swine flu. In view of nature of the problem selected for the study an quantitative research approach was found appropriate.

An quantitative research approach in research is commonly conducted to rate the extent to which a programme has attained its goal. Its goal is to assess or evaluate the success of a programme. A quantitative research approach was used for in this study.

Research Design:

Research design spells out the basic strategies that the researcher adopts to develop information that is accurate and interpretable.

One group pre-test post-test design is the most appropriate design for measuring the impacts or effectiveness of a programme. The design is described as two sets of cross sectional observations on the same population to find out the change in the phenomenon between two points in time. The change is measured by comparing the difference in the phenomenon at the pre-test and post-test observation.

In view of the nature of the problem and to accomplish the objectives of the study, with a one group pre-test post-test design was used to evaluate the effectiveness of the self instructional module on parents knowledge regarding vaccination of swine flu.

Schematic representation of research design is given in Figure 2.

One group pre-test post-test

O₁ X O₂

O₁ = Pre-test

X = Treatment

O₂ = Post-test

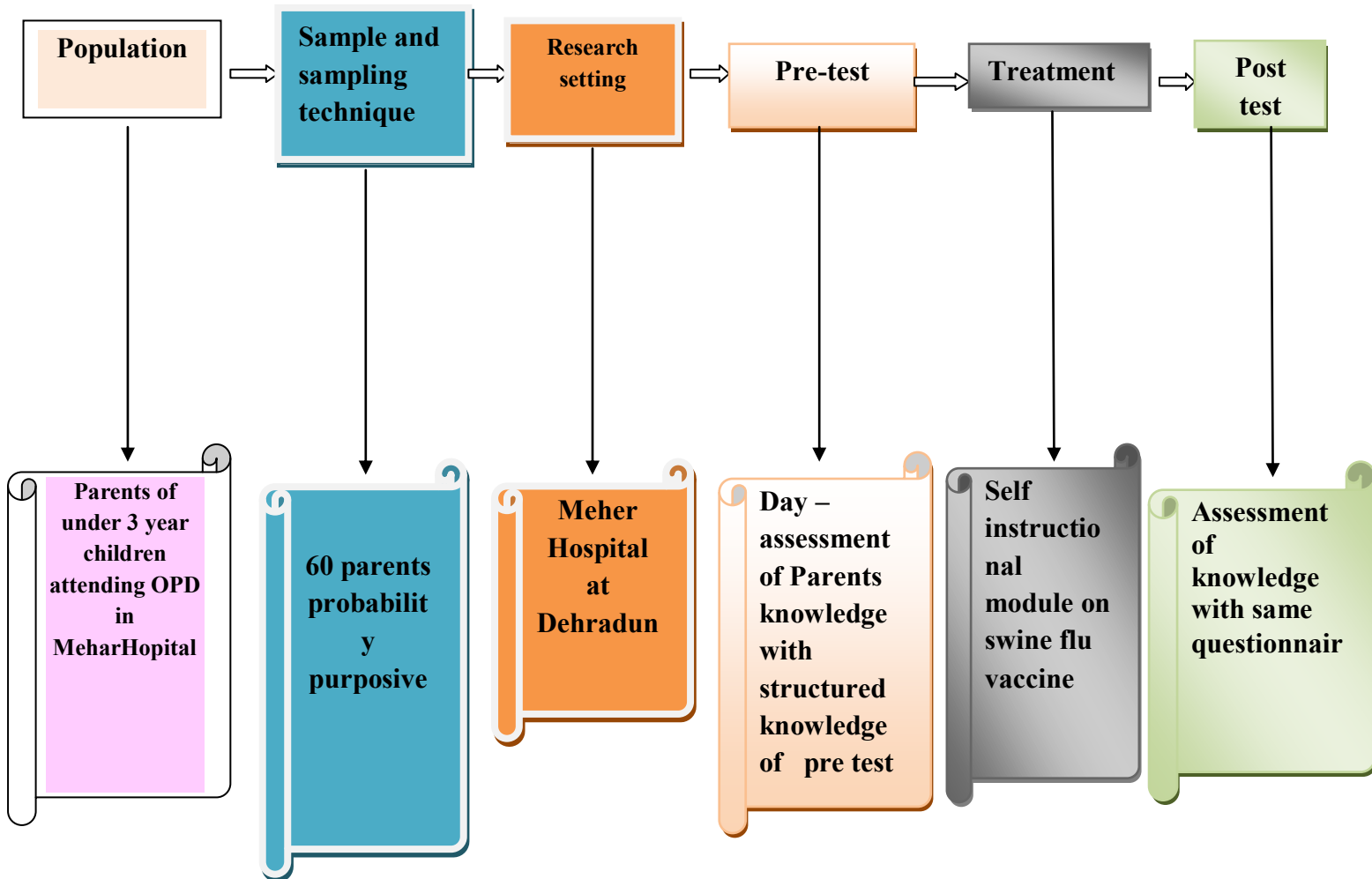


Figure 2. Schematic representation of the research design

Variables:

Variables are qualities, properties or characteristics of person, things or situation that change or vary.

Independent variable:

The independent variable is the variable that stands alone and not dependent on any other. It is the cause of action. In this study, self instructional module on swine flu vaccine.

Dependent variable:

Dependent variable is the effect of the action of the independent variable and can't exist by itself. In this study knowledge of parents were dependent variable.

Extraneous variable:

An uncontrolled variable that greatly influences the result of the study is called an extraneous variable. In this study extraneous variables are of parents, education status, occupation, work experiences, type of family, family background, area of living, effect of mass media, source of information.

Setting:

The location for conducting the research is referred to as the setting. The present study was conducted in Maher Hospital, pediatric centre at Dehradun (U.K)

Population:

In the present study, the population was parents of under 3 year children.

Sample:

In the parent study the sample the parents of under 3 year children attending OPD, Meher Hospital at Dehradun, who met the sampling criteris.

Sample size:

In this study, the sample size was 60 the parents of under 3 year children in selected hospital in Dehradun

Sampling Technique:

Convenient sampling technique was used to select 60 parents.

Sampling criteria:

Inclusion criteria:

1. Parents who are willing to participate in the study
2. Parents who have under 3 year children.
3. Parents whose children were admitted in pediatric ward.

Exclusion criteria:

1. parents who are not willing to participate in the study
2. parents who have received any formal teaching about vaccination for swine flu
3. parents having children with chronic illness.

Data collection instruments:

1. **Section A:** Demographic data
2. **Section B:** knowledge questionnaire
3. **Section C:** self report checklist

Description of Tool:

Section A:

Demographic data:

1. It contains 06 items for obtaining information regarding age of parents, educational status, area of living, effect of mass media, source of information, previous experience.

**Section B:
knowledge questionnaire:**

1. It consist of 30 items related to knowledge related to meaning and definition, mode of transmission, Clinical manifestation, management and prevention, side effects of vaccination of swine flu.

Scoring procedure:

1. For the convenience, the level of knowledge of the parents of under 3 year children regarding swine flu vaccine was divided into adequate, moderate, and inadequate.
2. Maximum score: 30
3. Minimum score: 0

Level of knowledge	Score
Adequate	Above 23
Moderate	15-22
Inadequate	Up to 14

Criterion measure:

All item of the tools were analyses by using descriptive statistics (frequency distribution, parentage distribution and graphs) and inferential (chi-squares and t test)

Content Validity Of Research Instrument:

Validity refers to a complex concept which broadly concerns the soundness of the studies evidence that is whether the findings are convincing and well ground.

Content validity was done from 3 experts including one master of medicine in pediatric in Meher hospital and 2 pediatric nurse specialists. necessary correction were made in the tools based on the suggestions obtained.

Pilot Study:

Objective of pilot study

1. To assess the level of knowledge of parents of under 3 year children regarding swine flu vaccine.
2. To determine the effectiveness of self instructional module on knowledge regarding swine flu vaccine among the parents of under 3 year children.
3. To find out the association between knowledge score of parents regarding swine flu vaccine with selected demographic variables.

Pilot study was conducted in Meher hospital, Dehradun from 14-08-2020 to 20-08-2020 in order to check the reliability, validity, feasibility and practicability.

The investigator obtained written permission from the concerned authority prior to the study. The permission was taken from principal of S.G.R.R Nursing college and director of Maher hospital, Dehradun. The topic was explained to the sample and permission was taken from the sample. Confidentiality was assured to the sample.

Tool was administered to six parents of under three year children who fulfilled the criteria of selection self instruction module teaching program was given to the parents on the same day after conducting the pre-test. On the seventh day post-test was conducted with the same tool to assess the gain in knowledge score. The analyzed data showed a significant differences in pre-test and post-test score. The study was found feasible and practicable.

Reliability Of The Tool:

Reliability of the tool is the degree of consistency with which measure the attributes is suppose to measure. It refer to the extent to which the same result is obtained repeated administration of instrument. The tool was administered on ten subject and the reliability of the tool was found by using karl pearsons co-relation co-efficient method. The reliability of the structured questionnaire was found $r = 0.92$. hence the tools was found to be highly reliable.

Data Collection Procedure:

Prior permission was obtained from the Director of Meher hospital for the study. Researcher herself collected the data from the sample after obtaining their consent. Pre test was conducted and self instructional module on the same date in the Meher hospital. The duration of each session was 30 minutes. After the session different questions were

raised by the group and explanations were given. After seven day post-test was conducted, using the same knowledge questionnaire to evaluate the effectiveness of information booklet.

Ethical Consideration:

To conduct research study in Meher hospital, written permission was obtained from Director of Meher hospital for data collection. They gave the permission to conduct the study in Meher hospital confidentiality was assured to all the subject to get, formal their co-operation. An informed consent was taken the subject before giving intervention

Plan for Data Analysis:

Data will be analyzed using both descriptive and inferential statistics, distribution of subjects with respect to demographic variables will be represented using frequencies and percentages. Mean standard deviation and mean percentage will be used to describe the knowledge of the parents having toddlers, regarding vaccination of swine flu. Level of knowledge will be grouped into inadequate (0- 40%), moderately adequate (41-70%), and adequate (70-100%).

Descriptive Statistics:

1. Frequency, percentage and mean were used for the analysis of pre-test and post-test assessments.

Inferential statistics:

1. **t” test** was used to determine the difference between pre-test and post test in terms of increase the knowledge of swine flu vaccine among the parents of 3 year children.
2. **“Chi square” test** was used to find out association between pre-test scores of parents with their selected demographic variables.

The demographic data are represented in the form of tables and will be represented by using graphs and pie diagrams. The related knowledge would be analyzed by knowledge scores. Each correct knowledge score get 1 mark.

Summary:

This chapter described the general pattern of organizing the procedure of gathering valid and reliable data for the problem under investigation. Pre experimental approach was used to evaluate the effectiveness of information booklet. The study was conducted on 60 parents of under 3 year of children in selected hospital at Dehradun. Validity and reliability of the questionnaire and self instructional module were tested. Pilot study was conducted to find out the feasibility of the study. Data were collected from the sample after obtaining permission from the concerned authority. Collected data were analyzed using descriptive and inferential statistics and presented in the form of tables, graph and diagrams.

Chapter 4:

Analysis and Interpretation of Data:

Analysis as the categorizing, ordering, manipulating and summarizing of the data, to obtain answers to the research questions. The purpose of analysis is to reduce data to an intelligible and interpretable form so that, the relations of research problems can be studied and tested. Interpretation is the most challenging and structured step in the process of research. Interpreting the research findings requires the investigator to be creative.

One group pre-test post-test design with quantitative research approach was used in the present study to assess the effectiveness of self instructional module on vaccination of swine flu among the parents of under 3 year children.

Problem Statement:

“A study to assess the effectiveness of self instructional module on swine flu vaccine among the parents of under 3 year children in pediatric ward, Meher hospital Dehradun.”

Objective:-

1. To assess the level of knowledge of parents of under 3 year children regarding swine flu vaccine.
2. To determine the effectiveness of self instructional module on knowledge regarding swine flu vaccine among the parents of under 3 year children.

3. To find out the association between knowledge score of parents regarding swine flu vaccine with selected demographic variables.

Organization of findings:

The data and findings organized and presented under the following headings:-.

Part I: Sample characteristics

Part II: Analysis of pre-test knowledge score of parents.

Section A: Level of knowledge among parents of under 3 year children regarding vaccination of swine flu.

Part III: Evaluation of effectiveness of self instructional module regarding vaccination of swine flu

Section A: Assessment of post-test knowledge score of parents of under 3 year children regarding vaccination of swine flu.

Section B: Area wise effectiveness of information booklet.

Section C: Item-wise effectiveness of self instructional module on vaccination of swine flu.

Part IV: Association of pre-test knowledge scores and selected demographic variables.

Section:-Description of Sample Characteristics.

The subjects were selected through purposive sampling technique from pediatric units in selected hospital, Dehradun, Uttarakhand.

NO.	DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE (%)
1.	Parents age		
	20-25	12	20
	26-30	6	10
	31-35	18	30
	Above 35	24	40
2.	Education qualification of parents.		
	High school.	12	20
	Intermediate.	16	26.5
	Graduate	21	35
	Post-graduate	11	18.5
3.	Father Occupation	04	7
	Farmer	19	32
	Businessman	08	13
	Govt. employee	29	48
	Pvt. job		
4.	Living area	22	37
	Rural	38	63
	Urban		
5.	Mass media exposure		
	Mobile	50	83
	Television	04	7
	Newspaper	06	10
	Radio	00	00
7.	Previous experiences of swine flu vaccination?		
	Yes	12	20
	No	48	80

The table 1 shows that demographic data details according to their age group depict that highest percentage of parents 40% were in the age group of above 35 years. In the age group of 31-35 years of parents were 30%, 20-25 years of parents were 20% and 26-30 years of parents were 10%.

Percentage distribution of parents in relation to their education of parents shows that highest percentage of parents 35% were in the graduate. In the intermediate of parents were 25%, high school of parents were 20% , in the Post graduate of parents were 18.5%.

Percentage distribution of parents in relation to their occupation of parents shows that highest percentage of parents 48% were pvt Job. In the businessman were 32%, govt employee were 13%, in the farmer were 7%.

Percentage distribution of parents in relation to their living area of parents shows that highest percentage of parents 63% belongs to urban, 37% belongs to rural.

Percentage distribution of parents in relation to their source of information show that highest percentage 83% of parents were having information from mobile, 10% having information from news paper, 7% having information from television, 00% from radio.

Percentage wise distribution of parents in relation to their any previous experience on swine flu vaccination shows that 80% of No, 20% of Yes.

Age:

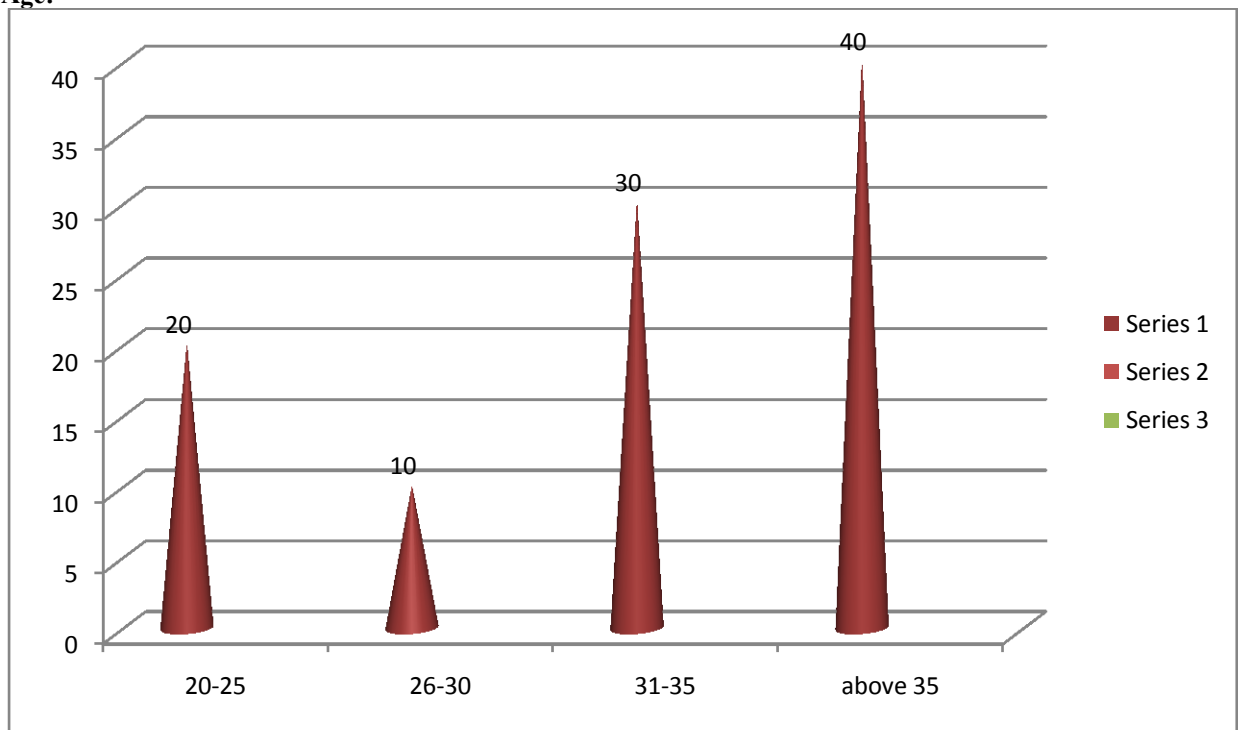


Fig1:- Cone Diagram showing the percentage distribution of parents according to their age

It shows that demographic data details according to their age group depict that highest percentage of parents 40% were in the age group of above 35 years. In the age group of 31-35 years of parents were 30%, 20-25 years of parents were 20% and 26-30 years of parents were 10%

Education of Parents:

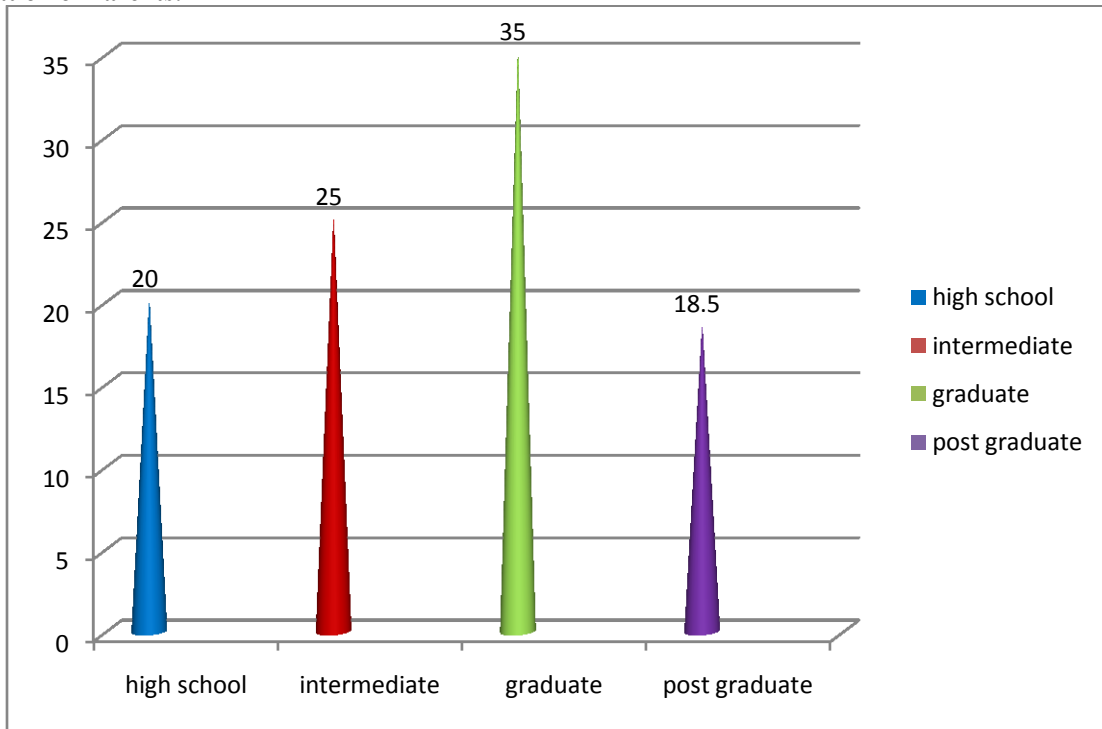


Fig.2:- cone Diagram showing the percentage distribution of parents according to the education.

The diagram indicate that parents in relation to their education of parents shows that highest percentage of parents 35% were in the graduate. In the intermediate of parents were 25%, high school of parents were 20% , in the Post graduate of parents were 18.5%.

Occupation:

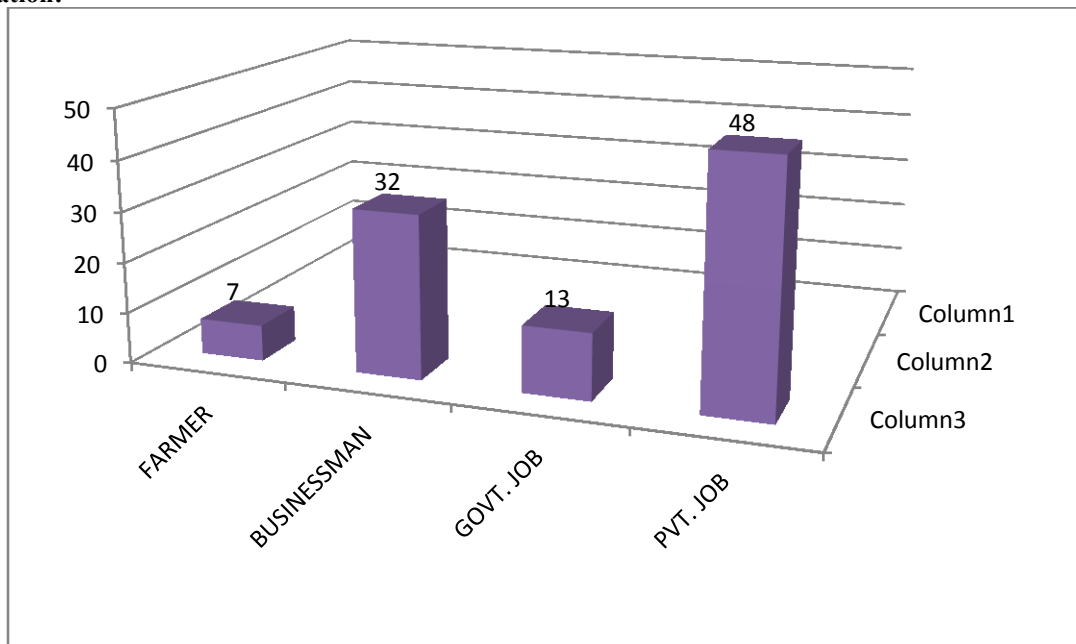


Fig:- Colum diagram showing the percentage distribution of parents according to their occupation.

Percentage distribution of parents in relation to their occupation of parents shows that highest percentage of parents 48% were pvt Job. In the businessman were 32%, govt employee were 13%, in the farmer were 7%.

Living Area:

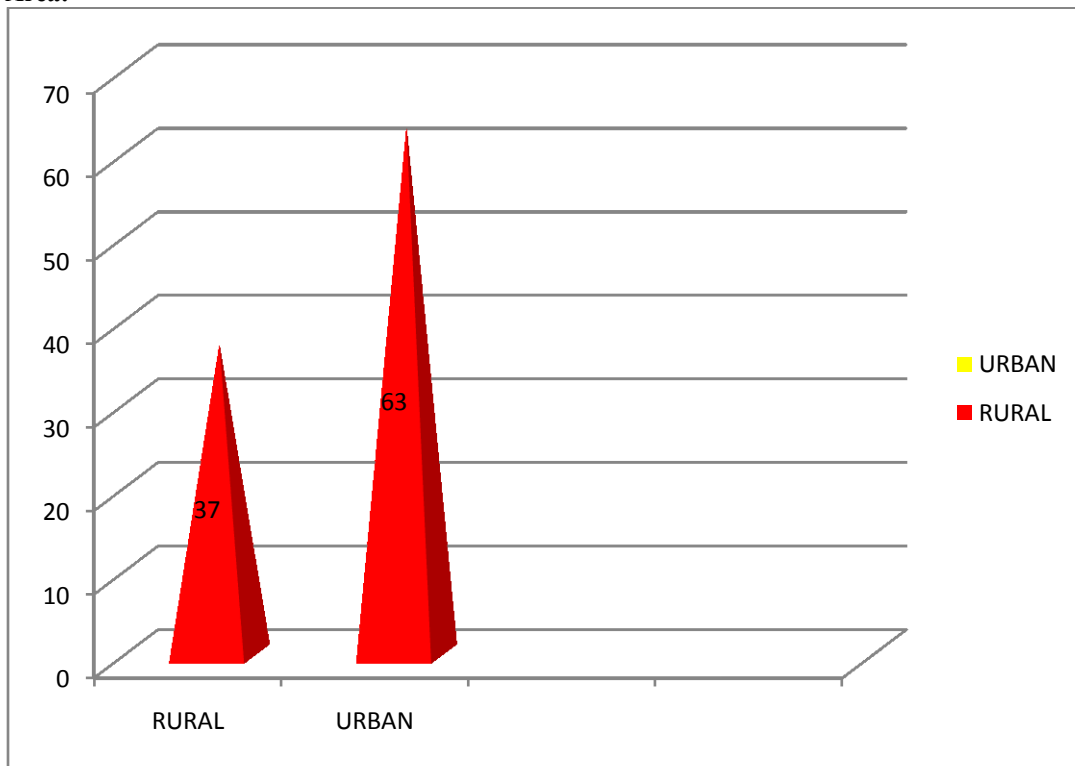


Fig 4:-Cone diagram showing the percentage distribution of parents according to their living of area.

Percentage distribution of parents in relation to their living area of parents shows that highest percentage of parents 63% belongs to urban, 37% belongs to rural.

Mass Media

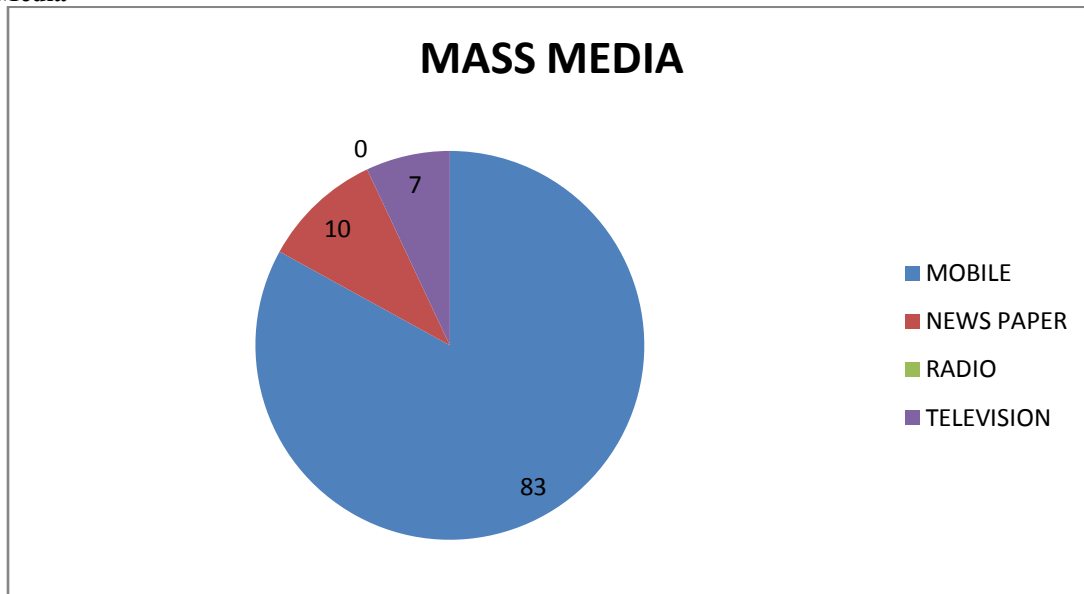


Fig 6:- Pie diagram showing the percentage distribution of parents according their source of information.

Percentage distribution of parents in relation to their source of information show that highest percentage 83% of parents were having information from mobile, 10% having information from news paper, 7% having information from television,00% from radio.

Any Previous Experience:

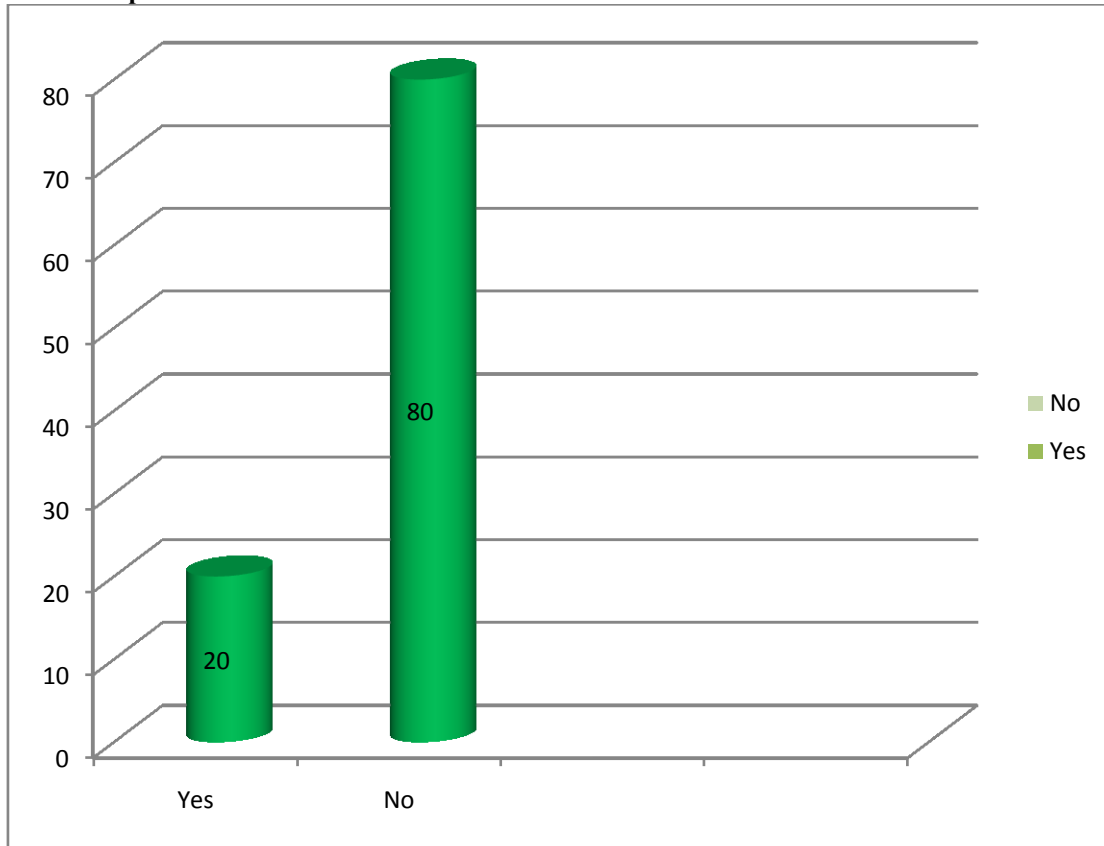


Fig4:- Column diagram showing the percentage distribution of parents according to any previous experience.

Percentage wise distribution of parents in relation to their any previous experience on swine flu vaccination shows that 80% of No, 20% of Yes.

Part II: analysis of pre- test knowledge score of parents regarding vaccination of swine flu.

Section A: Level of knowledge of parents regarding vaccination of swine flu.

Parents knowledge was categorized on the basis of percentage level of knowledge score between 0-14, 15-22 and 23-30.the score were interpreted as inadequate, moderately adequate and adequate knowledge respectively.

Table 2:- Level of knowledge of parents of under 3 year children in pre-test regarding vaccination of swine flu. N=60

S. No	Demographic variables	frequency	Df	Chi-Square value	Table value	Level of association
1.	1.Parents age					
	a. 20-25	12	6	11.4	12.59	#
	b. 26-30	6				
	c. 31-35	18				
d. Above 35	24					
2.	2.Education qualification of parents.					
	a. High school.					

	b. Intermediate. c. Graduate d. Post-graduate	12 16 21 11	3	6.77	7.82	#
3.	3.Father Occupation a. Farmer b. Businessman c. Govt. employee d. Pvt. job	04 19 08 29	6	11.46	12.59	#
4.	1. Living area a. Rural b. Urban	22 38	1	12.97	3.84	*
5.	2. Mass media exposure a. Mobile b. Television c. Newspaper d. Radio	50 04 06 00	3	3.51	7.82	#
7.	3. Previous experiences of swine flu vaccination? a. Yes b. No	12 48	1	6.14	3.84	*

1. # Not significant at $p > 0.05$ level
2. * significant at $p < 0.05$ level

The obtained chi square value of the age, education, occupation, mass media, were lower than table value indicating that there was no significant relationship between the above variables and pre-test knowledge scores. Hence the research failed to reject the null hypotheses with regard to the above variables.

However the computed chi square value of the variable living area and previous experiences of swine flu vaccination show was higher than the table value, indicating significant relationship between variable living area and previous experiences of swine flu vaccination with pre-test knowledge scores, hence the research hypotheses was accepted.

Section 3:- level of knowledge of parents of under 3 year children regarding vaccination of swine flu.

Frequency and percentage distribution of sample Pre-test and post-test response to self instructional module on vaccination of swine flu for knowledge.

	ADEQUATE		MODERATE		INADEQUATE	
	frequency(f)	percentage (%)	frequency(f)	percentage (%)	frequency(f)	Percentage (%)
P R E T E S T	01					
	01	1.6%	15	25%	44	73.3%
P O	45	75%	15	25%	00	0%

S						
T						
T						
E						
S						
T						

Data presented in table 3 show that in Pre-test 01% of subject’s adequate knowledge and in post test that was increased to 75%. Moderate knowledge score in pre test 25% and in post test that was increased to 25%.inadequate knowledge score in pre test 73.3% that was reduced to 0% in post test.

Table 5:- Mean, standard deviation and ‘t’ value between the pre-test knowledge regarding vaccination of swine flu.

LEVEL OF KNOWLEDG	MEAN	S.D	DF	CALCULATED ‘t’ VALUE	TABLE VALUE	LEVEL OF SIGNIFICANCE
Pre test	13.75	3.43	59	22.19	2.00	Significant
Post test	24.2	5.02				

‘t’ (0.05) = 2.00 p<0.05

Data show in table 3 revealed that the mean post-test knowledge score of parents was significantly higher than the mean pre-test score. The calculated ‘t’ value (22.19) was more than the table value at 0.05 level of significance. Therefore, it can be said that the awareness program was found to be effective self instructional module on swine flu vaccine self instructional module regarding the knowledge of swine flu vaccine among the parents of 3 year children in selected hospital, Dehradun, Uttarakhand.

Mean & S.D:

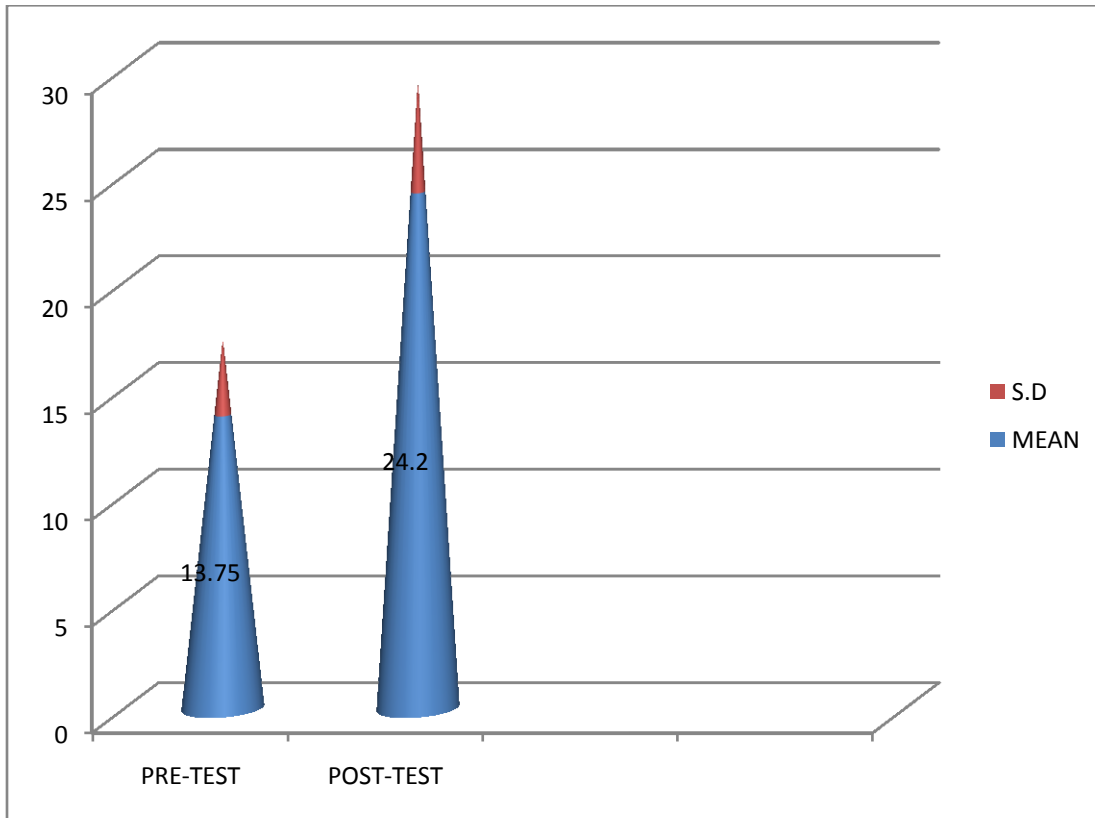


Fig 13:- Cone diagram showing the association between mean and S.D between pre-test and post test knowledge score.

Hence in this the hypothesis H2 is accepted so there is significant association between the knowledge score of parents regarding swine flu. Cone diagram showing the association between mean and S.D between pre-test and post test knowledge score among parents of under 3 year children.

Chapter 5:

Discussion:-

This chapter deals with the discussion in accordance with the objective of the study and hypothesis. The statement of problem was "A study to assess the effectiveness of self instructional module on swine flu vaccine among the parents of under 3 year children in pediatric ward, Meher hospital Dehradun."

Objective:-

1. To assess the level of knowledge of parents of under 3 year children regarding swine flu vaccine.
2. To determine the effectiveness of self instructional module on knowledge regarding swine flu vaccine among the parents of under 3 year children.
3. To find out the association between knowledge score of parents regarding swine flu vaccine with selected demographic variables.
4. To assess the level of knowledge of parents of under 3 year children regarding swine flu vaccine.

The table (1) shows that demographic data details according to their age group depict that highest percentage of parents 40% were in the age group of above 35 years. In the age group of 31-35 years of parents were 30%, 20-25 years of parents were 20%, in this age group of 26-30 years it was 10%.

The result of this study contradicted by a similar study done by Lynch J. P. (2009), on parental knowledge regarding prevention of swine flu reveal at increased knowledge was associated with higher parental education and occupational status.

To determine the effectiveness of self instructional module on knowledge regarding swine flu vaccine among the parents of under 3 year children.

Data show in table 3 revealed that the mean post-test knowledge score of parents was significantly higher than the mean pre-test score. The calculated 't' value (22.19) was more than the table value at 0.05 level of significance.

Therefore, it can be said that the awareness program was found to be effective self instructional module on swine flu vaccine self instructional module regarding the knowledge of parents in selected hospital, Dehradun, Uttarakhand

Finding of supportive study: An evaluative study was conducted to determine effectiveness of a self instructional module on knowledge about swine flu prevention among parents of school going children. The instruments used for the study were demographic questionnaire and knowledge questionnaire. A self instructional module on swine flu prevention was developed by the reseacher. The study result shows that the mean pre-test score was 43.75% and post-test score was 79.15%. Therefore the study concludes that the self instructional module was effective in increasing the knowlegde of the parents of school children. The t' was computed to determine effectiveness of self instructional module (98) = 23.14, $p < 0.05$. it was found that gain in knowledge was significant at 0.05 level.

To find out the association between knowledge score of parents regarding swine flu vaccine with selected demographic variables.

Data presented in table 3 show that in Pre-test 1.6% of subject's adequate knowledge and in post test that was increased to 75%. Moderate knowledge score in pre test 25% and in post test that was increased to 25%. inadequate knowledge score in pre test 73.3% that was reduced to 0% in post test.

The result of this study contradicted by a similar study done by Lynch J. P. (2009), on parental knowledge regarding prevention of swine flu reveal that increased knowledge was associated with higher parental education and occupational status.

The pretest level of knowledge score of Parents swine flu vaccine will be lower than the post test level of knowledge.

Hence in this the hypothesis H₂ is accepted so there is significant association between the knowledge score of parents regarding swine flu. Cone diagram showing the association between mean and S.D between pre-test and post test knowledge score among parents of under 3 year children.

Finding the supportive study:

These findings were supported with the findings of a similar study conducted among parents (n=60) regarding their knowledge on prevention of swine flu. About half of parents indicated that they would like to receive more information about causes and prevention of swine flu. The result showed that parental education may help to reduce or eliminate the swine flu occurrence.

The overall findings reveal that the percentage of post-test knowledge score was more; hence self instructional module was effective in enhancing the knowledge of parents on vaccination of swine flu.

Summary:

This chapter dealt with the analysis and interpretations of the findings of the study.

Chapter 6:

Summary, Conclusion, Nursing Implication & Recommendations:-

Summary

A study to assess the effectiveness of self instructional module on swine flu vaccine among the parents of under 3 year children in pediatric ward, Meher hospital Dehradun.”

Objective were to assess the level of knowledge of parents of under 3 year children regarding swine flu vaccine. to determine the effectiveness of self instructional module on knowledge regarding swine flu vaccine among the parents of under 3 year children. to find out the association between knowledge score of parents regarding swine flu vaccine with selected demographic variables. The pretest level of knowledge score of parents swine flu vaccine will be lower than the post test level of knowledge. There will be a significant association between the knowledge score of parents regarding swine flu with selected demographic variables.

The findings are summarized to as follows:

1. Highest percentage of parents 40% was in the age group of above 35 years.
2. Highest percentage of parents 35% was in the education.
3. Highest percentage of parents 32% was in the businessman.
4. Highest percentage of parents 63% belongs to urban area.
5. Highest percentage of parents 83% was having information from mobile.
6. Highest percentage of parents 20% was having previous experiences of swine flu vaccination.

Conclusion:-

On the basis of findings of the study the below said conclusion were drawn. It also brings out the limitations of the study in picture.

Highest percentage of parents 40% was in the age group of above 35 years. Highest percentage of parents 35% was in the education. Highest percentage of parents 32% was in the businessman. Highest percentage of parents 63% belongs to urban area.

Highest percentage of parents 83% was having information from mobile. Highest percentage of parents 20% was having previous experiences of swine flu vaccination.

A study to assess the effectiveness of self instructional module on swine flu vaccine among the parents of under 3 year children in pediatric ward, Meher hospital Dehradun.” Data show in table 3 revealed that the mean post-test knowledge score of parents was significantly higher than the mean pre-test score. The calculated ‘t’ value (22.19) was more than the table value at 0.05 level of non significance. Therefore, it can be said that the awareness program

was found to be effective self instructional module on swine flu vaccine self instructional module regarding the knowledge of parents in selected hospital, Dehradun, Uttarakhand.

The obtained chi square value of the age, education, occupation, mass media, were lower than table value indicating that there was no significant relationship between the above variables and pre-test knowledge scores. Hence the research failed to reject the null hypotheses with regard to the above variables.

However the computed chi square value of the variable living area and previous experiences of swine flu vaccination show was higher than the table value, indicating significant relationship between variable living area and previous experiences of swine flu vaccination with pre-test knowledge scores, hence the research hypotheses was accepted.

Nursing Implication:

Nursing service:

1. "Prevention is better than cure" goes the saying. Large number of diseases that occur in children could be prevented if their parents have adequate knowledge about identifying and preventing by vaccinations. For this they require education regarding various aspects of the prevention of diseases.
2. The present study enable the parents to gain more knowledge regarding vaccination of swine flu, which would in turn help the parents to follow healthy practical and thus reduce the mortality and morbidity related to swine flu in Children.

Nursing education:

1. The curriculum is responsible for preparing the future nurses. To provide effective nursing care in contemporary practice setting, nurse requires broad knowledge base or understanding. This knowledge base for nurses can be developed through nursing education. Nurse should have thorough knowledge about health promotion and disease prevention. The learning experience of the students should give more emphasis on teaching the population who are at risk.
2. They should be made aware of their role in health promotion and disease prevention. The curriculum of the teacher's preparation course should provide the trainees with opportunities in designing the instructional material for patient teaching. The nurse should conduct health education programme for parents regarding vaccination of swine flu, which will help the parents to develop or enhance their potentials in taking care of their children and thereby reduce immense admissions to hospital.

Nursing administration:

1. Nursing administration plays a pivotal role in the supervision and management of nursing profession. Nursing administration can plan various in-service education programmes to raise awareness regarding vaccination of swine flu in children.
2. Nursing administration should take interest in organizing in-service education programme for the nurses working in various settings. They should be motivated to participate in such a activities. Adequate support should be given to nurse in terms of man, money and material for health education. In service process at its management, education will help in updating their knowledge and ability. This will enhance their ability in identifying the learning needs of the clients, planning and conducting educational programme for theparents.

Nursing Research:

There is a need for extended and intensive nursing research in the importance of involving parents, family members in the child care services. In this era the morbidity related to respiratory diseases like swine flu is on rise. There is an increased need to find innovative methods of teaching which are more acceptable, accessible and cost effective to the public.

Research can also be conducted to make the vaccination of swine flu programme more cost effective which may stress a better way of modifying the healthy practices of the victims who are prevalent to swine flu.

Recommendations:-

Based on the findings of the present study the following recommendations were made:

1. A similar study can be under taken with a larger sample to generalize the findings.

2. An exploratory study can be conducted to identify the knowledge of parents regarding vaccination of swine flu.
3. A comparative study can be conducted on knowledge and practice of urban and rural mothers regarding vaccination of swine flu.
4. A similar study can be replicated with a control group using a larger population

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