EFFECTIVENESS OF INFORMATION, EDUCATION, COMMUNICATION (IEC) PACKAGE REGARDING KNOWLEDGE ON SWINE FLU AMONG SCHOOL CHILDREN

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Abstract:
Title of the Study: Effectiveness of Information, Education and Communication (IEC) package regarding knowledge on Swine flu among School Children.

Objectives: To assess and compare the pre and post test level of knowledge among school children regarding swine flu between study and control group To determine the effectiveness of IEC package on knowledge among school children regarding swine flu in study group. To associate the post test level of knowledge among school children regarding swine flu with their selected demographic variables in study and control group.

Methodology: The quantitative research approach was used for this study. The study was conducted with 120 samples of school children using simple random technique. The study was conducted in selected schools at Maraimalai Nagar, Kanchipuram District. The data analyzed and interpreted based on the objectives using descriptive and inferential statistics.

Major Findings: The findings revealed that comparison of pre and post test level of knowledge regarding swine flu among school children was found statistically significant at p=0.000 level indicating that IEC package regarding swine flu among school children was found to be effective in improving the knowledge. Statistically there is significant association of the post test of knowledge with one demographic variable (previous knowledge). In pre test 45% inadequate knowledge, 55% moderate knowledge and no one had adequate knowledge. In post test 6.7% had inadequate knowledge, 63.3% had moderate knowledge and 30% had adequate knowledge. The study concluded that the IEC package regarding swine flu was effective in improving knowledge on swine flu among school children.

Key Words: Swine Flu, IEC Package & School Children

Introduction:

The type A influenza virus causes the swine flu, that usually affects the respiratory system, its regularly causes the outbreak in pigs. In 2009 Mexico there was outbreak in the novel swine origin influenza A. And therefore, continued need for sub typing and laboratory of the novel influenza, because the clinical symptoms are not differing from the seasonal influenza [1]. The respiratory diseases are developed due to the infection with pandemic 2009 H1N1 influenza a virus. It is no evidence that systemic disease of pork from pigs infected with influenza contains infections virus to cause the disease [2]. The pandemic is proved that, it is a new strain could pass the infection to human to human. Let the WHO is alert to know and finalize, communication and implementation of the preplanned preventive measures is short for the occurrence of the disease. They provided vaccine for the public for the mitigation measures to focused for the peoples and educating them about the measures to reduce the risk of developing or the spreading of the diseases. So the measures include use of tissue papers while sneezing and coughing, washing the hands with soap and water after the sneeze. So, it is necessary in the flu season, the health care professionals have to be ready for the treatment of clients who are suffering from the seasonal flu and also for the people those are contracted with a novel swine flu of H1N1 [3].

The signs and symptoms of the H1N1 includes increased body temperature, chillness, cough, nausea, fatigue, sore throat and vomiting which usually rapid in onset. Pregnant, Children and certain medical conditions are high risk for developing this disease condition. Other non pulmonary complications are involving central nervous system includes encephalitis, aseptic meningitis and transverse myelitis. All the patients admitted with noval swine flu infection must monitored carefully and treated with specific antiviral drugs, including patient with those are sick > 48 hours after the rapid onset of the illness [4]. Adequate amounts of the

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vaccines, antiviral or early available of the pandemic later it become resistance due to the ineffective of the vaccine. These are the factors which are focused more attentively on the use of non pharmacological health services to reduce the spreading of disease from person to person and therefore very interest in answering for the questions. The aim is to prevent or to limit the transmission of H1N1 infection among the health care workers and the patients. In globally, most of the affected cases and deaths of swine flu are reported in India and had third rank, serious preventive measures are taken by the Indian government [5]. According to the WHO guidelines, the preventive measures and awareness among the public about the swine flu was conducted. It is therefore important to assess the knowledge on swine flu to the school children [6].

In March 2009, the first case of H1N1 influenza was detected in Mexico, Then pandemic ongoing assessment were done before it was finalized in 2009. Worldwide the WHO stated that there were 174 countries have officially reported cases over 399,232 cases of the influenza confirmed by the laboratory, and also 4,735 deaths are recorded. The 70 percentage of the people are admitted and get treated for the infection. The high risk category for occurrence of seasonal flu is people with one or more medical conditions. The medical conditions include pregnancy, kidney disease, diabetes, heart disease and asthma. To avoid the seasonal flu WHO suggest some preventive personal measures to the population. The initial occurrence of swine flu was reported from India in May 2009 and from Gujarat in July 2009. Thereafter, the country and the state of Gujarat was under the grief of this disease condition in the year 2013. The disease had affected the country again, especially the state of Gujarat in the year 2015; the pattern the outbreak being almost similar in years 2013 and 2015. In India, there is fastest speed of occurrence of swine case had increased in the month of August. The first death toll swine flu outbreaks occur with the total of 1193 confirmed swine flu cases in India. In the same month, later the total of 20 deaths was recorded. In India, its mainly affecting the cities like Maharashtra with the 3590 confirmed cases and 195 deaths of the people, New Delhi with the total of 3364 cases of swine flu and 46 deaths, Tamil Nadu with the total 1526 cases and 6 deaths of the population, Karnataka with the total 1392 cases and 112 deaths and in Kerala with the total 797 cases of swine flu in India [7].

All India institute of medical science, was conducted the study for the recently circulating strain of the swine flu origin influenza and about the strain contains genes, swine and human virus. Common clinical symptoms are fever, cough, throat pain, myalgia [8]. Since swine flu emerged in April 2009. It has sparked panic. It took the H1N1 virus only 9 weeks spread across continents from Mexico. The WHO 2009 figures of H1N1 across the world have brought out that young adult is more affected by it and 45.6% of the people tested positive for H1N1 flu in India are from urban area. It is observed that young adults are a risk of getting the swine flu because that Travel and socialize more than other age group [9]. There are many outbreaks of swine flu in recent days and all over the India there are many cases of swine flu are recorded. So it is very importance for assessing the knowledge on swine flu in school children .Because school children will tell this information to the parents and to prevent, promote the knowledge of swine flu [10]. So the researcher wants to educate the selected school children must be adequately educated about the swine flu. Nurses play a major role rendering health related information to the school children. So it is indeed necessary to conduct, research regarding knowledge on swine flu among school children [11]

Materials and Methods:
First formal authorization was taken from the dean, SRM College of nursing and head master of selected schools for conducting research study. Institutional ethical clearance was obtained. The study was engaged within the one week period, Government higher secondary school Maraimalai nagar and Sivananda higher secondary School Potheri. The data collection was started from, 23.01.2019 to 31.01.2019.The samples were selected by using of non- probability convenient sampling technique. The purpose of conducting study was explained by the investigator and reassurance was given to the children that collected data will be kept confidential. 120 school children (60- control group and 60- interventional group), the age of 13 to 15 years school students who are all studying 7th ,8th and 9th class were taken as samples .The objective and data collection was explained to the children by the investigator. For collecting the data structured questionnaires were used, it include knowledge on swine flu and demographic variable. General instruction was given about the study and tool. It took 20 minutes for each participant to complete the questionnaire. Inferential and descriptive statistics are used for the analyzing the data

Findings:
Table 1: Percentage and frequency distribution of demographic variables to knowledge among school children regarding swine flu between study and control group

Demographic Variables		Control Group (60)		Study Group (60)	
		Frequency	Percent	Frequency	Percent
Age	12	4	6.7	5	8.3
	13	5	8.3	15	25.0
	14	40	66.7	34	56.7
	15	11	18.3	6	10.0
Gender	Male	27	45.0	0	0

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	Female	33	55.0	60	100
Religion	Hindu	46	76.7	53	88.3
	Christian	9	15.0	7	11.7
	Muslim	5	8.3	0	0
Educational Status	7th standard	0	0	0	0
	8th standard	12	20.0	19	31.7
	9th standard	48	80.0	41	68.3
Father's Occupation	Government employee	7	11.7	4	6.7
	Private employee	24	40.0	24	40.0
	Business men	6	10.0	8	13.3
	Coolie	13	21.7	9	15.0
	Others	10	16.7	15	25.0
Mother's Occupation	Government employee	5	8.3	3	5.0
	Private employee	19	31.7	16	26.7
	Business men	6	10.0	2	3.3
	Coolie	13	21.7	2	3.3
	Others	17	28.3	37	61.7
Place of Residence	Village	10	16.7	13	21.7
	Town	34	56.7	25	41.7

	City	16	26.7	22	36.7
Familial History	Yes	14	23.3	6	10.0
	No	46	76.7	54	90.0
Previous Knowledge	Yes	21	35.0	35	58.3
	No	39	65.0	25	41.7
Monthly Income	< 12,360	25	41.7	30	50.0
	63,182- 1,26,356	7	11.7	2	3.3
	47,266- 63178	2	3.3	7	11.7
	31,591 – 31589	2	3.3	3	5.0
	6327-18949	3	5.0	4	6.7
	>6323	21	35.0	14	23.3

In study group regarding with the age most of them 34(56.7%) are in the age group of 14 and minimum 5(8.3%) are belongs to the age group of 12. With respect to gender most of them 60(100%) are females. In religion most of them 53(88.3%) are Hindu and minimum 7(11.7%) are in Christian .Regarding with the educational status most of them 41(68.3%) are belongs to 9th standard and minimum 19 (31.7%) belongs to the 8th standard. With respect to the father occupation most of them 24(40%) are in private employee and minimum 4(6.7%) are in government employee. In mother's occupation most of them 37(61.7%) are in others and minority 2(3.3%) are in coolie. Regarding place of residency most of them 25(41.7%) are in town and minimum 13(21.7%) are in village. With respect to the familial history most of them 54(90%) are no family history of swine flu and minimum 6(10%) were known history of swine flu. Regarding with the previous history of swine flu most of them35 (58.3%) have previous history of swine flu and most of them 25(41.7%) having no history of swine flu.

In control group regarding with the age most of them 40(66.7%) belongs to the age group of 14 and minimum 4 (6.7%) are in age group of 12.In gender most of them 33(55%) are in female and minimum of them 27(45%) are in male. Regarding religion most of them 46(76.7%) are Hindu and most of them 5(8.3%) are Muslim. Regarding educational status most of them 48(80%) are in 9th standard and minimum 12(20%) are in 8th standard. Regarding father's occupation most of them 24(40%) are in private employee and minimum 6(10%) are business men. In mother's occupation most of them 19(31.7%) are in private employee and minimum 5(8.3%) are in government employee. With respect of the place of residency most of them 34(567%) are town and minimum 10(16.7%) were in village. In familial history most of them 46(76.7%) have no family history of swine flu and minimum of them 14(23.3%) have family history of swine flu. Based on previous knowledge most of them 39(65%) have no previous knowledge of swine flu and minimum 21(35%) are having previous knowledge of swine flu.

Table 2(a): Frequency and percentage distribution of pre test level of knowledge of control group among school Children

Pre Test wise Level of Knowledge	Knowledge	
	Frequency	Percentage
Inadequate Knowledge	39	65.0
Moderate Knowledge	21	35.0

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(www.rdmodernresearch.com) Volume 5, Issue 2, 2020

| Adequate Knowledge | 0 | 0.0 |
| Total | 60 | 100 |

This table shown the 39(65.0%) children's had Inadequate Knowledge whereas 21 (35.0%) of children's having Moderate Knowledge and none of them having Adequate Knowledge

Post Test wise Level of Knowledge	Knowledge	
	Frequency	Percentage
Inadequate Knowledge	47	78.3
Moderate Knowledge	13	21.7
Adequate Knowledge	0	0.0
Total	60	100

From above the table shows that 47 (78.3%) of Children's possess Inadequate Knowledge whereas 13 (21.7%) of children's possess Moderate Knowledge and none of them had Adequate Knowledge

Table 2(c): Frequency and percentage distribution of pre test level of knowledge of Study group among high school students

N=60

Pre Test Wise Level of Knowledge	Knowledge	
	Frequency	Percentage
Inadequate Knowledge	27	45.0
Moderately adequate Knowledge	33	55.0
Adequate Knowledge	0	0.0
Total	60	100

From above the table shows that 33 (55.0%) of children's had Moderate Knowledge whereas 27 (45.0%) of children's having Inadequate Knowledge and none of them had Adequate Knowledge

Table 2(d): Frequency and percentage distribution of post test level of knowledge of Study group among high school students

N=60

Post Test Wise Level of Knowledge	Knowledge	
	Frequency	Percentage
Inadequate Knowledge	4	6.7
Moderate Knowledge	38	63.3
Adequate Knowledge	18	30.0
Total	60	100

The above table shown, 38 (63.3%) of children's had Moderate adequate Knowledge whereas 18 (30.0%) of children's had Adequate Knowledge and 4 (6.7%) of them had Inadequate Knowledge.

Comparison of Pre and Post Test Level of Knowledge on Swine FLU:

Table 3(a): Comparison of pre and post level of knowledge among school children regarding swine flu between control groups

Paired Samples Statistics							
Control		Mean	N	Std. Deviation	Std. Error Mean	t - Value	P - Value
Swine flu Knowledge	Pre	7.82	60	1.827	0.236	2.477	0.016
	Post	6.68	60	2.48	0.32		S

The above table compares the mean and standard deviation scores of pre and post test level on swine flu knowledge regarding school children's among control group. The analysis states that mean and SD value is 7.82 and 1.827 in pre test and the mean and SD value is 6.68 and 2.480 in post test with respect to knowledge projects is '**t**' value of 2.477 which is a statistically significant at P value is 0.016 level

Table 3 (b): Comparison of pre and post level of knowledge among school children regarding swine flu between Study group

Paired Samples Statistics							
Study		Mean	N	Std. Deviation	Std. Error Mean	t - Value	P - Value
Swine flu Knowledge	Pre	8.78	60	2.719	0.351	-8.778	0
	Post	14.08	60	3.59	0.464		S

This table compare pre and post test standard deviation and mean scores of swine flu knowledge regarding school children's among study group. The analysis depicted SD value and mean is 8.78 and 2.719 in pre test and the mean and SD value is 14.08 and 3.590 in post test with respect to knowledge projects '**t**' value is -8.778 which is statistically significant at P value is 0.000 level

Level of Knowledge Regarding School Children among Control Group:
N = 60

Demographic Variables		Post intervention Level of Knowledge			Chi-Square Value	P - Value
		Inadequate Knowledge	Moderate Knowledge	Adequate Knowledge		
Age	12	3	1	0	1.321	0.724 NS
	13	4	1	0		
	14	30	10	0		
	15	10	1	0		
Sex	Male	21	6	0	0.009	0.925 NS
	Female	26	7	0		
Religion	Hindu	36	10	0	2.105	0.349 NS
	Christian	6	3	0		
	Muslim	5	0	0		
Educational Status	7th Standard	0	0	0	1.203	0.273 NS
	8th Standard	8	4	0		
	9th Standard	39	9	0		
Father's Occupation	Govt. Employee	5	2	0	1.505	0.826 NS
	Private Employee	19	5	0		
	Business men	4	2	0		
	Coolie	10	3	0		
	Others	9	1	0		
Mother's Occupation	Govt. Employee	5	0	0	4.658	0.324 NS
	Private Employee	16	3	0		
	Business Men	3	3	0		
	Coolie	10	3	0		
	Others	13	4	0		
Place of Residence	Village	7	3	0	1.271	0.530 NS
	Town	26	8	0		
	City	14	2	0		
Familial History	Yes	10	4	0	0.513	0.474 NS
	No	37	9	0		
Previous Knowledge	Yes	19	2	0	2.807	0.049 S
	No	28	11	0		
Monthly Income of Family	< 12,360	19	6	0	3.935	0.556 NS
	63,182- 1,26,356	4	3	0		
	47,266- 63178	2	0	0		
	31,591 - 31589	2	0	0		
	6327 - 18949	3	0	0		
	>6323	17	4	0		

Table 4 (a): shown that, association of demographic variables with post test level of swine flu knowledge

Out of 10 Demographical variables, 1 variable (Previous Knowledge) were found there is significant difference between the post test level of swine flu knowledge on control group among school children's, with χ^2 = 2.807 at P = 0.049 level.

Table 4 (b): Association of post test level of knowledge regarding school children among Study group
N = 60

Demographic Variables		Post intervention Level of Knowledge			Chi-Square Value	P - Value
		Inadequate Knowledge	Moderate Knowledge	Adequate Knowledge		
Age	12	0	2	3	4.224	0.646 NS
	13	1	9	5		
	14	2	24	8		
	15	1	3	2		

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(www.rdmodernresearch.com) Volume 5, Issue 2, 2020

Sex	Male	0	0	0	-	-
	Female	4	38	18		
Religion	Hindu	3	33	17	1.424	0.491 NS
	Christian	1	5	1		
	Muslim	0	0	0		
Educational Status	7th Standard	0	0	0	0.774	0.679 NS
	8th Standard	2	11	6		
	9th Standard	2	27	12		
Father's Occupation	Government employee	1	2	1	4.966	0.761 NS
	Private employee	1	17	6		
	Business men	0	5	3		
	Coolie	1	4	4		
	Others	1	10	4		
Mother's Occupation	Government employee	1	2	0	7.841	0.449 NS
	Private employee	1	12	3		
	Business men	0	2	0		
	Coolie	0	1	1		
	Others	2	21	14		
Place of Residence	Village	0	8	5	1.534	0.821 NS
	Town	2	16	7		
	City	2	14	6		
Familial History	Yes	0	4	2	0.481	0.786 NS
	No	4	34	16		
Previous Knowledge	Yes	1	21	13	3.405	0.018 S
	No	3	17	5		
Monthly Income of Family	< 12,360	0	20	10	14.180	0.165 NS
	63,182- 1,26,356	1	1	0		
	47,266- 63178	0	4	3		
	31,591 - 31589	0	2	1		
	6327 - 18949	1	3	0		
	>6323	2	8	4		

Table 4 (a): Shows the association between post test level of swine flu knowledge regarding school children's with respect to their selected demographic variables.

Out of 10 Demographical variables, 1 variable (Previous Knowledge) were discovered there is a significant association between the post test level of knowledge on swine flu in study group among school children's, with χ^2 = 3.405 at P = 0.018 level. The other demographic variables (age, sex, religion, educational status, father's occupation, mother's occupation ,place of residence, familial history and monthly income of family) were not found to be associated with the post test level of knowledge among selected school students at p >0.05

Discussion:

Mrs. Anagha et al conducted a study. It reveals that in pre-test 2 (3.33%) adults are having poor knowledge, the majority 32(53.33%%) had average knowledge and 26 (43.33%) had good knowledge regarding the treatment of swine flu whereas in the post-test majority 33(55%) adult had average knowledge, 19(32 %) had good knowledge and 8(13%) student had poor knowledge regarding the treatment of swine flu. The table reveals that in pre-test 7(11.6 %) student are had poor knowledge, the majority 43(71.6%) had average knowledge and 10(17%) had good knowledge regarding prevention of swine flu Whereas in the post-test majority 30(50 %) adults had average knowledge, 23(38.3%) had good knowledge and 7(12%) adult had poor knowledge regarding prevention of swine flu

Nazia Bashir stated in her study that the overall mean knowledge score of 28.61 obtained by the subjects in the post-test was higher than mean knowledge scores 20.18 in the pre-test and with the improvement score as 8.42. There was a significant difference between pre-test and post-test knowledge scores at p≤ 0.05. The results of the study revealed that the planned teaching program was significantly effective in improving the

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knowledge of students regarding the prevention of swine flu. Hence the study concluded that improved knowledge regarding prevention of swine flu helps the students to take preventive measures against swine flu, which will, in turn, help the students to improve the quality of life by controlling the spread of swine flu, and thus the students can bring about the awareness among the public

Archana Kaleb Pardeshi and Mini Shibu in their study showed that most of the school students had inadequate knowledge regarding swine flu during the pre-test. But after the planned teaching, their knowledge score increased in the posttest. The planned health teaching significantly brought out an improvement in the knowledge regarding swine flu among school students. There was a significant association between knowledge and age of the students as p-value < 0.05 whereas the other variable like gender, educational status of parents, and information on swine flu was not significantly associated as p>0.05. Keywords: assess, effectiveness, Knowledge, planned health teaching, school students

Jeeva Jose conducted a study. The result revealed that in a pre-test, a majority of 26(86.6%) had inadequate knowledge, 4(13.3%) had moderately adequate knowledge, 0% had adequate knowledge. In the post-test majority of them, 23(76.7%) had adequate knowledge, 7(23.3%) had moderately adequate knowledge, 0% had inadequate knowledge. M. Raghavendran et al stated in their study that the overall major finding of the study reveals that the pre-test knowledge level of students is 38.3 % have poor knowledge, 70% have average knowledge and 6.7%have good knowledge regarding swine flu and its preventions and in post-test, the level of knowledge is increased. The Chi-square value and table value of students reveals that there is a significant

All these research findings revealed that information education communication package was very effective in improving the knowledge of the students

Conclusion:

Information education communication package is very important in enhancing the knowledge of the school children. So the repeated Campaigns to be conducted for the betterment the society.

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