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Research Article

A Pre-Experimental Study to Assess the Effectiveness of the Structured Teaching Program on Knowledge Regarding Swine Flu Among Adolescents in Selected Government Higher Secondary School at Lucknow

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Abstract

Background: The aim has identified that the new influenza A (H1N1) influenza (swine influenza or swine flu) is a respiratory disease of pigs caused by type a influenza virus that regularly causes outbreaks of influenza in pigs. H1N1 virus causes high levels of illness and low death rates in pigs (centers for disease control and prevention. The centers of disease control has identified that influenza viruses from different species infect pigs. The World Health Oranization H1N1 appears to be as contagious as seasonal influenza. India is ranked 3rd among the most affected countries for cases and deaths of swine flu globally.

Methods: In this study, the research approach was quantitative research approach quasi-experimental one group pre-test post-test design which was applied. Total 30 samples selected by convenient sampling techniques. The intervention Structured Teaching Program was introduced to the group after the pre-test. Knowledge was assessed by self-structured questionnaire tool before and after the intervention. This study was conducted in selected Government Higher Secondary School At Lucknow.

Results: The result revealed that reveals that the pre-test knowledge mean was 7.3 ± 2.07 (SD) which is 36.5% of the total score, whereas in post-test, the mean score (16.1 ± 1.64 [SD]) which is 80.5% of the total score which means that this score reveals that the adolescents under the study had gained knowledge regarding swine flu among adolescents in selected government higher secondary school.

Conclusion: The study concluded that the structured teaching program regarding knowledge on swine flu among government higher secondary school students was effective to improve the knowledge among adolescents in selected government higher secondary school.

Keywords: Effectiveness, structured teaching program, swine flu, knowledge, adolescents

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Introduction

H1N1 influenza (swine influenza or swine flu) is a respiratory disease of pigs caused by type a influenza virus that regularly causes outbreaks of influenza in pigs. H1N1 virus causes high levels of illness and low death rates in pigs (centers for disease control and prevention). The classical swine flu virus (influenza type A H1N1 virus) was first isolated from a pig in 1930 like all influenza viruses. H1N1 viruses change constantly. Pigs can

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be infected by avian influenza and human influenza viruses as well as H1N1 viruses.[1]

The WHO has identified that the new influenza A (H1N1) appears to be as contagious as seasonal influenza and is spreading fast.Particularly among young people (ages 10 to 45 years). The severity of the disease ranges from very mild symptoms to severe illnesses that can result in death. Most people who contact the virus experience the milder disease and recover without antiviral treatment or medical care of the more serious cases. More than half of hospitalized people had underlying health conditions or weak immune systems.[2]

India is ranked 3rd among the most affected countries for cases and deaths of swine flu globally. The highest number of cases were reported in 2009 (27,236), followed by 2010 (20,604) and 2012 (5054 cases). The highest number of swine flu deaths took place in 2011 (1,763), followed by 2009 (981) and 2012 (405). Sheer volume of cases could easilyoverstretch already fragile and overburdened heath services, especially in the developing countries and cause considerable suffering in human populations around the world.[3]

Data collected by the union health ministry said that as an 24 march peoples have perished to the swine flu. The number of swine flu cases in Chhattisgarh has reached 232, with the state recording 50 deaths due to H1N1influenza, in this year. According statistics released by the health department on Wednesday, more than swine flu 900 samples of patients suspected with theH1N1 influenza have been sent to delhi for confirmation.[4]

Most of the recently isolated influenza viruses from pigs, however, have been H1N1 viruses which do not normally infects humans. Butsporadic human infections with swine flu have occurred. Initially, these cases occur in person with direct exposure to pigs (e.g., children near pigs at a fair or workers in the swine industry). The symptoms of H1N1 flu virus in people include fever, cough, sore throat, stuffy nose, body aches, headache, chills, fatigue, and some people may have vomiting and diarrhea (WHO). People may be infected with the flu, including H1N1 respiratory symptoms without fever.[5] Severe illness and death has occurred a result of illness associate with this virus.[6]

Seasonal influenza occurs every year and the viruses change each year. Many people have some immunity to the circulating virus that helps limit infections.[7] Some countries also use seasonal influenza vaccines to reduce illness and deaths. However, influenza A (H1N1) is a new virus and one to which most people have no or little immunity. Therefore, this virus could cause that more infections than are seen with seasonal flu.[8]

Methodology

In this study, the research approach was quantitative research approach quasi-experimental one group pre-test post-test design was applied. Total 30 samples selected by convenient sampling techniques. The intervention Structured Teaching Program was introduced to the group after the pre test. Knowledge was assessed by self-structured questionnaire tool before and after the intervention. This study was conducted in selected Government Higher Secondary School At Lucknow.

Description of Tool

Part I: Sociodemographic variables

It deals with demographic data includes age, gender, religion, family monthly income, area of residence, educational status of parents, previous knowledge gain, and family member belong to medical profession.

Part II: Structured teaching program

It includes 20 question regarding swine flu. This section consists of questions which deal with definition of swine flu, incubation of swine flu, causes of swine flu, clinical manifestation of swine flu, diagnostic evaluation, and management and prevention of swine flu.

Data collection procedure

The study conducted after obtaining permission from the the Principal Goverrnent Inter College, Lucknow. Informed consent was taken from the samples with self-introduction and purpose of the study was explained to the participants.

Day 1

A pre-test administered to caregivers to assess their knowledge using a self-structured questionnaire regarding knowledge swine flu among adolescents

Day 1

Structured teaching program package on reducing swine flu amonggiven for 15 min through power point.

Day 7

Students were gathered in 7 days interval the post-test level of knowledge was assessed by administering same questionnaire on 8th day on each participant. Thereafter, the collected raw data coded and entered master sheet of the analysis.

Plan for data analysis

Statistical analysis is the organization and analysis of quantities data using statistical procedures including both descriptive and inferential statistics.

Results

Section I: Distribution of the study subjects according to socio demographic variables [Table 1]

Section II: Frequency and percentage distribution of the pre-test and post-test level of knowledge regarding swine flu among adolescents in selected government higher secondary school.

Table 2 pre-test knowledge shows the 90% inadequate knowledge of adolescents and 10% moderately adequate knowledge of adolescents and 0% adequate knowledge of adolescents.

Section III; Categories wise comparison of knowledge score of adolescents.

Table 1: Frequency and percentage distribution of subject in term of sociodemographic characteristic (n=30)

Demographic variables	Frequency (*n*)	Percentage
Age		
14–16 years	39	78
17–19 years	11	22
20–22 years	0	0
23 above	0	0
Gender		
Male	0	0
Female	50	100
Family monthly income		
Rs Below 5000	31	62
Rs 6000–10000	16	32
Rs 11000–15000	1	2
Rs Above15000	2	4
Religion		
Hindu	50	100
Musli	0	0
Christian	0	0
Other	0	0
Food habits		
Vegetarian	34	68
Non-vegetarian	1	2
Eggetarian	15	30
Area of residence		
Urban	26	52
Rural	24	48
Education of parents		
Primary	18	36
Secondary	24	48
Graduate	2	4
Post graduate	3	6
Uneducated	3	6
Any family member belong to medical profession		
Yes	6	12
No	44	88
Types of family		
Nuclear	33	66
Joint	17	34
Previous knowledge of swine flu		
Yes	13	26
No	37	74

Table 2: Frequency and percentage distribution of the pre-test level of knowledge swine flu among adolescents in selected government higher secondary school

S. No.	Level of knowledge	Frequency	Percentage
1.	Inadequate	45	90
2.	Moderately adequate	5	10
3.	Adequate	0	0

Table 3; Post-test knowledge shows the 0% inadequate knowledge, 12% moderately adequate knowledge, and 88% adequate knowledge of adolescents.

Section IV:- Comparison of mean, SD, and mean percentage of pre-test and post-test knowledge scores about swine flu among government higher secondary school students.

Table 4 shows the comparison of overall mean, SD, and mean percentage of pre-test and post-test knowledge scores reveals that during pre-test, the mean score 7.3 ± 2.07 (SD) which is 36.5% of the total mean score, whereas in post-test, the mean score was 16.1 ± 1.64 (SD) which is 80.5% of the total mean score depicting difference of 44% increase in mean percentage of score. It reveals that the structured teaching program was effective among government higher secondary school students.

Table 3: Post-test level of knowledge swine flu among adolescents in selected government higher secondary school

S. No.	Level of knowledge	Frequency	Percentage
1.	Inadequate	0	0
2.	Moderately adequate	6	12
3.	Adequate	44	88

Section V: Associatepost test knowledge regarding swine flu with selected sociodemographic variables in goverment higher secondary school students.

Table 5 shows that there was no significant association between post-test knowledge scores of government higher secondary school students when compared with demographic variables. Hence, null hypotheses related to association between post-test knowledge scores and demographic variables are accepted.

It can be interpreted that structured teaching program was effective for all government higher secondary students irrespective of their difference in demographic variables.

Discussion

The highest mean score (7.3 ± 2.07 [SD]) which is 36.5% of the total score obtained in the area of "Knowledge on swine flu and its definition, incidence,causes, types, clinical manifestation, diagnostic evaluation, management, and its prevention." It reveals that the governmen higher secondary school students had above average knowledge in all the area's after the implementation of structured teaching programs [Table 4].

The highest mean score (16.1 ± 1.64 [SD]) which is 80.5% of the total score obtained in the area of "Knowledge on swine flu and its definition, incidence, causes, types, clinical manifestation, diagnostic evaluation, management, and its prevention." It reveals that the government higher secondary school students had above more adequate knowledge in all the area's after the implementation of structured teaching programs.[9] Table 4 indicates the distribution of mean, SD, and mean percentage of pre-test and post-test knowledge scores about swine flu among government higher secondary school students.

A cross-sectional study was among people accompanying the patients of GKGH after the epidemics situations. They were interviewed personally through pre-designed and pre-tested questionnaire to elicit information regarding awareness of influenza A (H1N1). Of the 227 peoples included in the study, 105 (46.26%) knew that it was a viral disease. Of all the participants, 123 (54.19%) knew about the mode of transmission. About three-fourth (74.01%) participants told cough and cold as a major symptoms and 71.81% told fever as a major symptoms. Less commonly occurring symptoms such as vomiting (7.93%) and diarrhea (2.64%) were

Table 4: Comparison of overall mean, SD, and mean percentage of pre-test and post-test knowledge scores

Area	Max score	Pre-test scores			Post-test score			Difference in mean
		Mean	SD	Mean	Mean	SD	Mean	
Knowledge on swine flu	20	7.3	2.07	36.5	16.1	1.64	80.5	44
Overall	20	7.3	2.07	36.5	16.1	1.64	80.5	44

Table 5: Association between the level of knowledge regarding swine flu with selected sociodemographic variables

S.NO.	Demographic	DF	x^2value	*P*-value	Level of association
1.	Age	6	0.11	12.59	NS
2.	Gender	6	00	12.59	NS
3.	Family monthly income	6	3.39	12.59	NS
4.	Religion	6	00	12.59	NS
5.	Food habbits	6	5.56	12.59	NS
6	Area of residence	6	0.95	12.59	NS
7.	Education of parents	8	10.33	15.51	NS
8.	Any family members belong to medical profession	6	0.20	12.59	NS
9.	Types of family	6	3.24	12.59	NS
	Previous knowledge	6	0.30	12.59	NS

knowto few participants. The study concluded that knowledge regarding influenza A (H1N1) needs to be enhanced among people through appropriate awareness programs to prevent spread of disease on large scale.[10]

Further, comparison of overall mean, SD, and mean percentage of pre-test and post-test knowledge scores reveals that during pre-test, the mean score 7.3 ± 2.07 (SD) which is 36.5% of the total mean score, whereas in post-test, the mean score was 16.1 ± 1.64 (SD) which is 80.5% of the total mean score depicting difference of 44% increase in mean percentage of score. It reveals that the structured teaching program was effective among government higher secondary school students.

Conclusion

This study conclude that the structured teaching program regarding knowledge on swine flu among government higher secondary school students was effective to improve the know from the findings of the present study, it can be concluded ledge of government higher secondary school students.

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