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A Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge Regarding Swine Flu (H1N1) among Navodaya High School Children, Raichur, Karnataka

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Abstract

Background- Swine flu (H1N1) 2009 influenza is a global pandemic affecting 168 countries and overseas territories/communities including India. The aim of this study was to assess the effectiveness of planned teaching programme on knowledge regarding Swine Flu (H 1N 1) among high school children. **Methods.** A total of 60 students were recruited from selected high school. The knowledge of the sample was assessed by using a structured self-administered questionnaire with the help of questionnaire of 34 items on swine flu.

Results- The overall knowledge mean score in pre test was increased from 15.13.99 to 22.354.15 in post test. The mean score of the post test was 7.3 (SE D=0.417) with paired 't' value of 17.5. **Conclusion-** The post test knowledge score of high school students was not significantly associated with selected demographic variables like Age, sex, Religion, family monthly income, type of family, educational background of parents, and source of information. It was observed that 21 participants (35.00%) had high knowledge followed by 31 respondents (51.67%) with average knowledge and 8 respondents (13.33%) obtained low knowledge.

Keywords: H 1N 1, Swine influenza virus, School Children, Nursing.

Introduction

The saying goes, health is wealth. Healthy living is not a difficult step; it is merely about making some changes in lifestyle. Disease or illness can really mean a downturn in our lives. Since the April 2009, an apparent new chapter has been added in modern medicine. From Mexico to USA, then via some European countries and ultimately 168 countries and overseas territories/ communities of the world including India are affected with a new virus causing a global pandemic. This is swine flu, more correctly known as pandemic (H1N1) 2009 influenza. India started

reporting swine flu has been compared to other similar types of influenza virus in terms of mortality. 1 Swine influenza (also called pig influenza, swine flu, hog flu and pig flu) is an infection by any one of several types of swine influenza virus. Swine influenza virus (SIV) or S-OIV (swine-origin influenza virus) is any strain of the influenza family of viruses that is endemic in pigs. As of 2009, the known SIV strains include influenza C and the subtypes of influenza A known as H1N1, H1N2, H3N1, H3N2, and H2N3.¹

Objectives of the Study

- To assess the level of knowledge regarding swine flu (H1N1) among high school children by conducting pretest.
- To develop and implement planned teaching programme on swine flu (H1N1) among high school children.

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- To assess the effectiveness of planned teaching programme on swine flu (H1N1) among high school children by conducting post test.
- To identify the association between post-test knowledge scores of high school children regarding swine flu (H1N1) with selected variables. Evaluative approach with one group pre test and post test pre- experimental design is selected to achieve the objectives of the study.

Purposive sampling technique is used to select the sample. Sample size is 60. Data was collected by using self administered questionnaire. Analysis of data is done by descriptive and inferential statistics.

HYPOTHESES

On the basis of the objectives of the study the following hypotheses have been formulated.

- H1. There will be significant difference between the pre-test and post-test knowledge regarding Swine flu among high school children
- H2. There will be significant association between the knowledge of Navodaya high school children and demographic variables regarding swine flu.

SAMPLE AND SAMPLING TECHNIQUE

- The sample consists of a subset of the units which comprise the population. Sampling is the process of selecting the portion of the population to represent the entire population. 52
- In this study simple random sampling technique was used to select the high school and lottery sampling technique was used to select the sample.

SAMPLE SIZE

- The sample size of this study comprises of 60 students, who are studying in class 8 th, 9 th, and 10 th standards in selected high school, Raichur.

Criteria for Sample Selection

INCLUSION CRITERIA

The study includes high school students who are:

- Studying in class 8 th, 9 th, and 10 th standards at selected high school, Raichur.
- Willing to participate in the study
- Studying in class 8 th, 9 th, and 10 th standards in English medium.

Exclusion Criteria

The study excludes students who are not: studying in class 8 th, 9 th, and 10 th standards at selected high school in English medium

- Available at the time of data collection.

Method of Data Collection

Data collection is a gathering of information relevant to a research Problem. A questionnaire refers to a device for securing answers to questions by using a form which the respondent fills by himself or herself. The instrument used for collecting the data in the present study was a structured self-administered questionnaire. Level of knowledge of High school Students on Swine Flu (H1N1) Level of Knowledge Percentage Range of score Low 0 to 50 0-17 Average 51 to 75 18-25 High Above 75 26-34

The knowledge of sample on Swine Flu (H1N1). The knowledge of sample was assessed by using a structured self administered questionnaire with the help questionnaire of 34 items on Swine Flu (H1N1). The tool score was 34. The high school students who score between 0-17 were considered to have low knowledge; the subjects with score 18-25 were considered to have average knowledge and who score 26-34 were considered to have high knowledge about Swine Flu (H1N1).

THE FINDINGS REVEALED THAT

- On the whole high school children responded inadequately, moderately adequate and adequately during pre test.
- Majority of high school children got adequate knowledge after planned teaching programme.
- Significant difference is found in pre test and post test knowledge scores of the high school children.
- The post test knowledge score of high school children regarding swine flu was not significantly associated with the selected demographic variables like

Age, sex, Religion, family monthly income, type of family, educational background of parents and significantly associated with source of information Frequency and Percentage Distribution of Level of Knowledge of High school Students in Pre Test and Post Test Regarding Swine Flu (H1N1).

N = 60

Level of knowledge

Pre Test Post Test

Frequency Percentage Frequency percentage

High knowledge -- -- 21 35.00%

Average knowledge 19 31.67% 31 51.67%

Low knowledge 41 68.33% 8 13.33%

The overall knowledge levels of high school students on Swine Flu (H1N1). In pre test surprisingly there was not even single respondent with high knowledge. 19 respondents (31.67%) had average knowledge and 41 respondents (68.33%) had low knowledge.

The scores of the post test indicated increase in knowledge levels of the high school students i.e. 21 participants (35.00%) had high knowledge followed by 31 respondents (51.67%) with average knowledge and 8 respondents (13.33%) obtained low knowledge.

THE MEAN DIFFERENCE IN THE SCORES RELATED TO OVERVIEW OF SWINE FLU WAS

5.1 (SE D=0.286) with paired't' value 17.8. Regarding prevention the Mean difference was 2.28 (SE D=0.181) with paired't' value 12.6.

The Overall Mean difference was 7.3 (SE D=0.417) with paired't' value of 17.5. Thus, it was revealed that the post test mean score was significantly higher than the pre test mean score. The table value of paired't' test at 59 degrees of freedom and at 0.05 level of significance was 2.0010. Since the calculated value was higher than the table value, the research hypothesis h 1 was accepted. Hence, there was a significant difference between the pre test and post test knowledge scores of the high school students on Swine Flu (H1N1). The Chi-square (χ^2) values computed for post-test knowledge scores on Swine Flu (H1N1) with Age ($\chi^2 = 2.72$), Gender ($\chi^2 = 0.6$), Religion ($\chi^2 = 1.15$), family monthly income ($\chi^2 = 3.26$), Type of family ($\chi^2 = 3.27$),

Educational qualification of parents: Father ($\chi^2 = 1.68$), Mother ($\chi^2 = 0.69$) are found to be less than the table values at 5% level of significance which implies that there is no significant relationship between these demographic variables.²

POST-TEST KNOWLEDGE SCORES OF HIGH SCHOOL STUDENTS WITH REGARD TO

Swine Flu (H1N1) were in case of Sources of Information ($\chi^2 = 13.3$) found to be not less than the table values at 5% level of significance which implies that there is significant relationship with this demographic variable. Hence the research hypothesis h 2 was accepted in case of sources of information.

The Findings Led to Following Conclusions

- In pre test, it was observed that 27 (45.00%) respondents had average knowledge related to overview of swine flu, followed by low knowledge (33 i.e. 55.00%) and no single respondent had high knowledge. In post test, 19 participants (31.67%) had high knowledge and 40 (66.67%) participants had average knowledge and one participant i.e. (1.66%) had low knowledge.
- The obtained paired't' test at 59 degrees of freedom and at 0.05 level of significance was 2.0010. Since the calculated value was higher than the table value, there was a significant difference between the pre test and post test knowledge scores of the high school students on Swine Flu (H1N1).
- The post test knowledge score of high school children regarding swine flu was not significantly associated with the selected demographic variables like Age, sex, Religion, family monthly income, type of family, educational background of parents and significantly associated with source of information.

The Major Findings of the Study Were

1. Majority (35 i.e. 58.34%) of the High school Students were from the Age group of 13-14 years followed by 20 students i.e. 33.33 per cent High school Students from age group 15-16 years and 5 students i.e. 8.33% High school students from the age group of above 16 years.
2. Majority (33 i.e. 55.00%) of High school Students are girls, followed by the boys 2 (7 i.e. 45.00%).
3. Majority (26 i.e. 43.33%) of the High school Students were Hindu, followed by Muslim 19 i.e. (31.67%). Christian were 11 i.e. (18.33%) and 4 i.e. (6.67%) were belongs to other religions found in the sample.
4. Family monthly income of 7 (i.e. 11.67%) high school students are less than Rs.1000/-, followed by 17 i.e. (28.33%) were from Rs.1001/- to Rs.2000/-, followed by 19 participants i.e. (31.67%) belongs to Rs.2001/- to 3000/- as their family monthly income and 17 i.e. (28.33%) were belongs to Rs.3001 and above respectively.
5. Majority of the High school students 37 (i.e. 55.00%) are from nuclear family and 23 students (45.00%) are from joint family.
6. Fathers of 31 students (51.67%) are graduates and above, father of 16 students (26.67%) have secondary education, fathers of 11 students (18.33%) have primary education and fathers of 2 students (3.33%)

was illiterate. Mothers of 20 students (33.34%) have graduates and above, mothers of 18 students (30.00%) were secondary education, mothers of 14 students (23.33%) have primary education and mothers of 8 students (13.33%) were illiterates.

7. Majority 21 (i.e. 35.00%) of the students had got information from mass media, followed by teachers 15 i.e. (25.00%), from health professionals 7 i.e. (11.67%), followed by relatives 6 i.e. (10.00%), from neighbors 6 i.e. (10.00%) and from friends 5 i.e. (8.33%).

Analysis on Knowledge Scores

In pre test, it was observed that 27 (45.00%) respondents had average knowledge related to overview of swine flu, followed by low knowledge (33 i.e. 55.00%) and no single respondent had high knowledge. Related to prevention, 50 respondents (83.33%) had low knowledge followed by 10 i.e. 16.67% had average knowledge and no single respondents had high knowledge. In post test, 19 participants (31.67%) had high knowledge and 40 (66.67%) participants had average knowledge and one participant i.e. (1.66%) had low knowledge. Related to prevention, 16 (i.e.26.67%) participants had high knowledge, 20 respondents (33.33%) had average knowledge and 24 participants (40.00%) had low knowledge. This clearly indicates that the planned teaching programme is effective in increasing the knowledge of high school students regarding swine flu. The overall knowledge mean score in pre test was increased from 15.1 ± 3.99 to 22.35 ± 4.15 in post test. This depicts that planned teaching programme on knowledge regarding Swine Flu (H1N1) was effective in improving the overall knowledge of high school students regarding Swine Flu (H1N1). The obtained paired 't' test at 59 degrees of freedom and at 0.05 level of significance was 2.0010. Since the calculated value was higher than the table value, there was a significant difference between the pre test and post test knowledge scores of the high school students on Swine Flu (H1N1). The Chi-square (χ^2) values computed for post-test knowledge scores on Swine Flu (H1N1) with Age ($\chi^2 = 2.72$), Gender ($\chi^2 = 0.6$), Religion ($\chi^2 = 1.15$), family monthly income ($\chi^2 = 3.26$), Type of family ($\chi^2 = 3.27$), Educational qualification of parents: Father ($\chi^2 = 1.68$), Mother ($\chi^2 = 0.69$) are found to be less than the table values at 5% level of significance which implies that there is no significant relationship between these demographic variables and post-test knowledge scores of high school students with regard to Swine Flu (H1N1) and were as in case of Sources of Information ($\chi^2 = 13.3$) found to be not less than the table values at 5% level of significance which implies that there is significant

relationship with this demographic variable. Hence the research hypothesis h 2 was accepted in case of sources of information.

BASED ON THE RESULTS FOLLOWING IMPLICATIONS ARE MADE

- Nurse must educate the high school children about swine flu on health by mass educations and individual health education
- Nurses should participate in public awareness through mass media.
- The beginning researchers should conduct similar in a large scale.

THE STUDY DRAWN FOLLOWING RECOMMENDATIONS

- A similar study can be undertaken on the sample with different demographic variables
- A descriptive study can be taken up using large sample for assessing the knowledge regarding the effects of fast food on health.
- A similar study can be undertaken in other colleges of Raichur.
- A similar study can be replicated with experimental and control group.

Conflict of Interest: Nil

Ethical Clearance: Done

Funding: Self

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Bibliography

1. Kajal Krishna Banik, Editorial- stay alert, fight swine flu, journal of Indian medical association, vol-107,pp no 501-502, Aug-2009.
2. John TJ, Avian influenza; Expect the best but prepare for the worst; Indian J Med Res;119, 2004.
3. Virology Journal; on the epidemiology of influenza; oct 16,2009; <http://www.virologyj.com.content/5/1/29>
4. John TJ, Muliylil J; Public Health is infrastructure for Human development: Indian J Med Res 130: pp no 9-11, 2009
5. RK Shrivastav:DGHS; Ministry of Health and Family Welfare: Report on Swine Flu: PTI report, 21 july 2009

6. Caprotta G, González Crotti P, Primucci Y, Alesio H, Esen A, Influenza A H1N1 respiratory infection in an intensive care unit in Argentina- an article in Spanish, JAMA. 4;302(17):pp no1896-1902, Nov 2009
7. Louie JK, Factors associated with death or hospitalization due to pandemic influenza A(H1N1) infection in California, California Department of Public Health, 850 Marina Bay Pkwy, Richmond, CA 94804, USA,2009 Janice.Louie@cdph.ca.gov
8. Kumar A, Critically ill patients with influenza A(H1N1) infection in Canada, Section of Critical Care Medicine, Health Sciences Centre, JJ 399, 700 William Ave, Winnipeg, MB R3E-0Z3 Canada,2009
9. Domínguez-Cherit G, Critically Ill patients with influenza A(H1N1) in Mexico, Division of Pulmonary and Critical Care (Dr Domínguez-Cherit), Hospital Epidemiology Department, Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán, México City, México, JAMA. 2009 Nov 4;302(17):pp no 1905-1906.
10. Dr.Ruth, Lynfield, Mynnesota State Epidemiologist: County Public Health's H1N1 influenza, Nov 08, 2009
11. PTI Report, NewDehli: swine flu (H1N1) outbreaks in India : Deccan Herold Newspaper, dated 20 Nov, 2009
12. Centre for Disease Control and Prevention. Outbreaks of Swine-origin Influenza-A (H1N1) virus infection – Mexico – March-April. Morbid Mortal wkly Rep; 58: pp no 1167-1170, 2009
13. Dr.AP Mishra, Dr.Subodh K Sharma. Ministry of Health and Family Welfare: Swine Flu- High risk alerts for Pandemic Outbreaks; Journal of Ind Med Asso: pp no. 121-122; 2009
14. WHO – swine flu update 60. www.who.in#csr#swineflu#update#en#index.html