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Research Article

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Swine Flu and its Prevention Among Selected High School Students In Kuppam, Chittoor (District), A.P.

K. Evangeline Prathibha[1*], Dr. Shalini R Peter[2], Dr. Vishnu Dev Mishra[3]
[1*]Research Scholar, Rourkela Senior Nursing College, Sundargarh.
[2]Professor, Rourkela Senior Nursing College, Sundargarh.
[3]Principal, Rourkela Senior Nursing College, Sundargarh.
Corresponding Author: K. Evangeline Prathibha
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ABSTRACT
Introduction: Swine influenza is a highly contagious respiratory disease of pigs caused by one of several swine influenza A viruses. Outbreaks are common in pigs year round and infection in humans is a result of close contact with infected animals. The H_1N_1 virus outbreak had previously occurred India during the 2009 flu pandemic. The virus killed 981 people in 2009 and 1763 in 2010. The mortality decreased in 2011 to 75. It claimed 405 lives in 2012 and 699 lives in 2013. In 2014, a total of 218 people died from the H_1N_1 flu, India recorded 837 laboratory confirmed cases in the year. The main aim of the study was to assess the effectiveness of structured teaching programme on knowledge regarding swine flu and its prevention among selected high school students in kuppam, Chittoor (district), A.P.
Methodology: A true experimental research approach is adopted to assess the knowledge regarding swine flu and its prevention was used and true experimental pre test and post test with control group design was used. In this study knowledge of high school students on swine flu and its prevention. Was dependent variables. Questionnaire was used to determine the effectiveness of structured teaching programme on swine flu and its prevention among high school students.
Results: After analysis of responses In experimental group 19(63%) were inadequate knowledge level, 11(37%) were in moderate knowledge level and in control group 17(57%) were in inadequate, 13(43%) were in moderate knowledge level. In pre test 19(63%) were inadequate knowledge level, 11 (37%) were in moderate knowledge level and in post test 7(23%) were in moderate level, 23 (77%) were in adequate knowledge level in experimental group.
Conclusion: It is concluded that by using Mc Nemar chi square test was used to compare the pre and post test knowledge level of the high school students, the P value is was 0.001which was statistically significant. The results shows that the post test knowledge scores are higher than the pretest knowledge scores in experimental group is found to be significant, i.e. the structured teaching programme was effective regarding swine flu and its prevention among high school students.

Keywords: Assess, Structured Teaching Programme, Swine Flu, High School Students.

INTRODUCTION

Swine Flu-is a respiratory tract infection from the hogs. This kind of virus can kill the human race. This infection is a worldwide virus outbreak. Outbreaks are common in pigs year round and infection in humans is a result of close contact with infected animals. A flu deadly disease occurs when a new influenza virus emerges for which people have little or no immunity. Those whom their hospitals are more than 10 miles from their community can easily infected with the Swine Flu. The disease spreads easily person-to-person, and can be cause with serious illness, and can spread out across the country and even worldwide in a very short span of time [1]. Human-to-human transmission of Swine flu can also occur. This is thought to happen in the same way as seasonal flu occurs in people, which is mainly through coughing or sneezing of people infected with the influenza virus to an uninfected individual will be infected also. People may also become infected by touching something with flu viruses on it and then they touch their mouth [2]. 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 [CDC], 2009). The classical swine flu virus (influenza type A H1N1 virus) was first isolated from a pig in 1930 (CDC, 2009). Like all influenza viruses, H1N1 viruses change constantly. At this time, there are four main influenza type A virus subtypes that have been isolated in pigs: H1N1, H1N2, H3N2, and H3N1. Most of the recently isolated influenza viruses from pigs, however, have been H1N1 viruses (2009). Flu viruses are spread mainly from person to person through coughing or sneezing by people with influenza. The symptoms of 2009 H1N1 flu virus in people include fever, cough, sore throat, runny or stuffy nose, body aches, headache, chills and fatigue (WHO, 2009). Some people may have vomiting and diarrhea (WHO, 2009) [3]. 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. The distribution of proper information to the public on the status of the H1N1/09 virus pandemic will be important to achieve a broad awareness of the potential risks and the optimum code of behavior during the pandemic. Adequate amounts of vaccine or antivirals are unlikely to be available early on in a pandemic, and the latter could become ineffective because of resistance. These factors have focused attention on the use of nonpharmaceutical public health interventions to inhibit human to human transmission and fueled interest in answering important questions about influenza epidemiology and transmission. Here, the objective of the study was to study the knowledge and practices of health care providers toward the prevention of the swine flu epidemic [4].

Need of the Study

The H_1N_1 virus outbreak had previously occurred India during the 2009 flu pandemic. The virus killed 981 people in 2009 and 1763 in 2010. The mortality decreased in 2011 to 75. It claimed 405 lives in 2012 and 699 lives in 2013. In 2014, a total of 218 people died from the H_1N_1 flu, India recorded 837 laboratory confirmed cases in the year [5]. Every year, there was a rise in number of cases and deaths during winter as temperature affects virus. During 2014–15 winter, there was a spurt in cases at the end 2014. In 2015, the outbreak became widespread through India. On 12 February 2015, Rajasthan declared an epidemic [6]. By 20 March, according to the data released by the Health Ministry, 31,974 cases had been reported and 1,895 person had died to the disease [7].

Objectives of the Study

- To assess the pre-test knowledge score regarding swine flu and its prevention among high school students at selected school of kuppam in experimental group and in control group.
- To administer the structured teaching programme regarding swine flu and its prevention at selected high school of kuppam in experimental group.
- To assess the post-test knowledge score regarding swine flu and its prevention among high school students in experimental group and in control group.
- To compare the pre-test and post-test knowledge scores regarding swine flu and its prevention among high school students in experimental group and control group.
- To associate the pre test knowledge levels on swine flu and its prevention with the selected demographic variables in both groups.

Hypotheses

- Ho_1: There will be no significant difference between pre test and post test knowledge scores on swine flu and its prevention among high school students in experimental group.
- Ho_2: There will be no significant association of the knowledge scores of high school students with their selected socio demographic variables in both groups.

METHODOLOGY

A true experimental research approach is adopted to assess the knowledge regarding swine flu and its prevention among selected high school students, Chittoor District, Andhra Pradesh. The research design selected for the present study was true experimental pre test and post test with control group design. The Independent variable in the

present study is structured teaching programme on swine flu and its prevention. Dependent variable in the present study is knowledge of high school students on swine flu and its prevention. In this study the 30 samples in experimental group and 30 samples in control group studying 8th and 9th standards V. Kota and Kuppam through Probability Simple random sampling technique. The reliability was established by test retest method and the obtain r-value was 0.7 hence the tool was considered as reliable.

RESULTS

Table No. 1: Frequency and Percentage Distribution of Demographic Variables

Sl.no	Demographic variables	Control		Experimental	
		Frequency	percentage	frequency	Percentage
1.	Age of the student				
	a. 10-11years	0	0%	0	0%
	b. 12-13 years	17	57%	20	67%
	c. 14-15 years	10	33%	10	33%
	d. 15-16years	3	10%	0	0%
2.	Gender of the student				
	a. Male	15	50%	15	50%
	b. Female	15	50%	15	50%
3.	Education of the student				
	a. 8th class	15	50%	15	50%
	b. 9th class	15	50%	15	50%
4.	Food habits				
	a. Non vegetarian (if eating pork)	8	26%	2	7%
	b. Vegetarian	2	7%	10	33%
	c. Mixed	20	67%	18	60%
5.	Occupation of father				
	a. Professional	6	20%	5	17%
	b. Semi professional	5	17%	7	27%
	c. Clerical	8	27%	8	23%
	d. Skilled	8	23%	6	20%
	e. Unskilled	2	7%	4	13%
	f. Unemployed	2	6%	0	0
6.	Type of family				
	a. Nuclear family	20	67%	23	77%
	b. Joint family	10	33%	7	23%
7.	Weight of the baby				
	a. Hindu	25	84%	17	57%
	b. Christian	0	0%	4	13%
	c. Muslim	3	10%	5	17%
	d. Others	2	6%	4	13%
8.	Any affected person in family				
	a. No	28	97%	0	0%
	b. Yes	2	3%	30	100%
9.	Family income				
	a. <2300	0	0%	0	0%
	b. 2301-11,450	23	77%	2	3%
	c. 11,451-22,850	7	23%	21	70%
	d. 22,851-45,750 and above	0	0%	8	27%

The above table 1 represents that majority 17(57%) students age were between 12-13

years, 15(50%) were male and 15(50%) were females, 15(50%) were 8th class and 15(50%) were 9th class, majority 20(67%) students were mixed diet, majority 8(27%) were clerical and skilled, majority 20(67%) were nuclear family, majority 25(84%) were Hindus, majority 28(97%) were not affected, majority 23(77%) were between the income of 2301-11,450rs in experimental group where as majority 20(67%) students age were between 12-13 years, 15(50%) were male and 15(50%) were females, 15(50%) were 8th class and 15(50%) were 9th class, majority 18(60%) students were mixed diet, majority 7(27%) were semiprofessional, majority 23(77%) were nuclear family, majority 17(57%) were Hindus, majority 30(100%) were not affected, majority 21(70%) were between 11,450-22,850 rs in control group.

Table No.: 2: Comparison of Pretest Knowledge Scores Of Experimental Group and Control Group among High School Students

Knowledge level	Experimental pretest					Control group pretest				
	F	%	Mean	Median	Std. deviation	F	%	Mean	Median	Std. Deviation
Inadequate	19	63%				17	57%			
Moderate	11	37%	15.56	15.5	3.081	13	43%	2.33	1.5	2.154
Adequate	0	0%				0	0%			

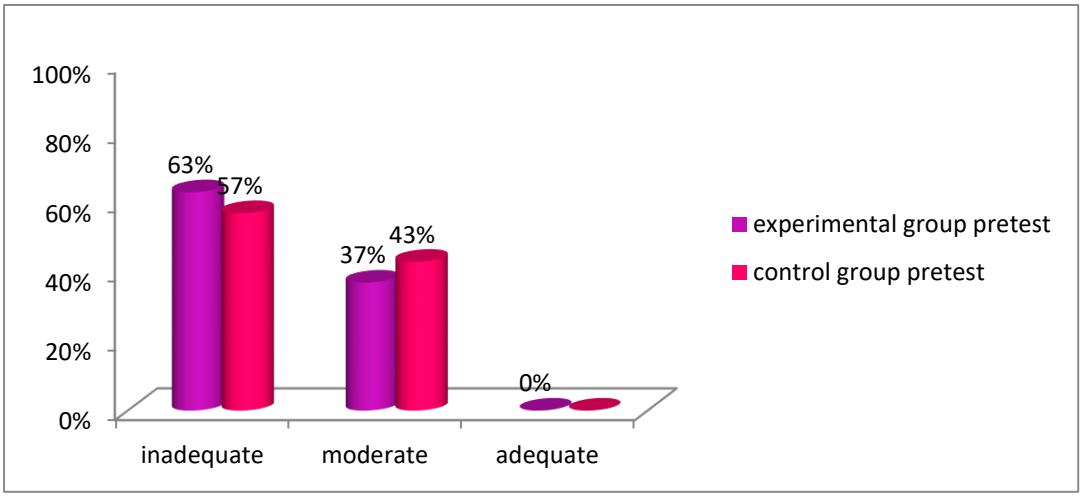


Figure No. 1: Comparison of Pretest Knowledge Scores of Experimental Group and Control Group among High School Students

The table 2 and figure No. 1 shows pretest knowledge scores of experimental and control group. In experimental group 19(63%) were in adequate knowledge level, 11(37%) were in moderate knowledge level and in control group 17(57%) were in inadequate, 13(43%) were in moderate knowledge level.

Table No. 3: Comparison of Pretest and Posttest Knowledge Scores Of Experimental Group and Control Group among High School Students

Knowledge Level	Experimental Group Pretest		Experimental Group Posttest		Control Group Pretest		Control Group Posttest	
	F	%	F	%	F	%	F	%
Inadequate(0-10)	19	63%	0	0%	17	57%	19	63%
Moderate (11-20)	11	37%	7	23%	13	43%	11	37%

Adequate (21-30	0	0%	23	77%	0	0%	0	0%

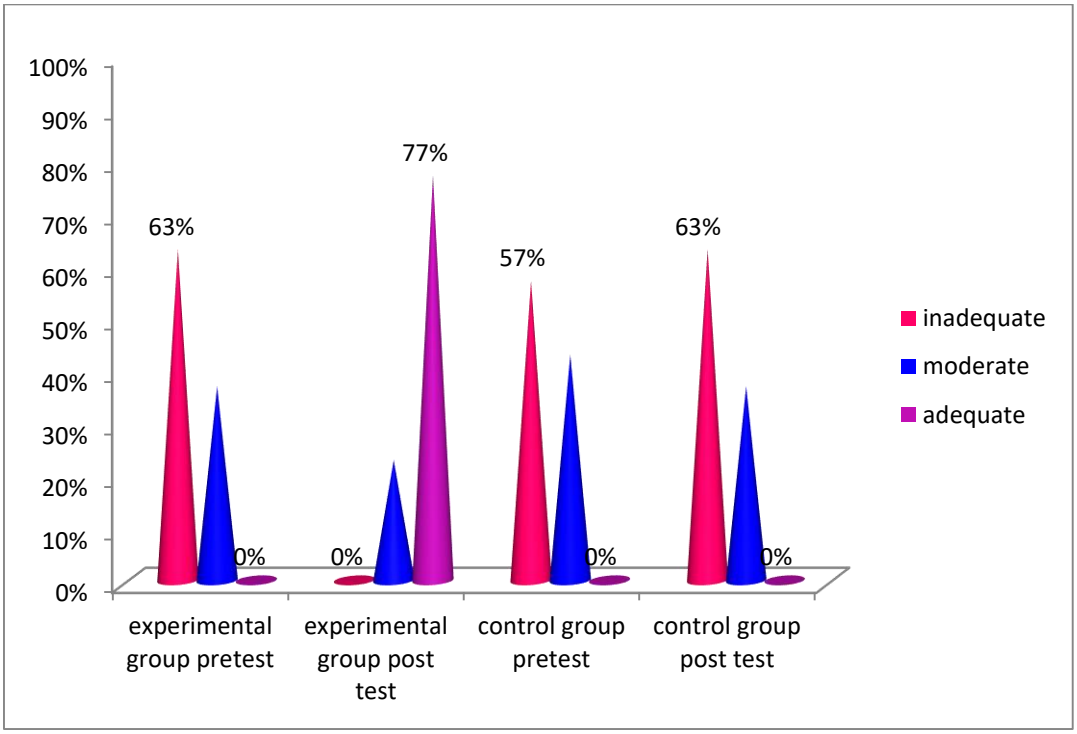


Fig. No. 2: Comparison of Pretest and Posttest Knowledge Scores of Experimental Group and Control Group Among High School Students

Table 3 and fig. No. 2 shows that the post test knowledge scores are higher than the pre test knowledge scores in experimental group. Mcnamer Chi-square analysis was used to compare the pre test and post test knowledge scores of experimental group and control group among mothers of under five children was found to be significant at P value is 0.001(0.5 level of significance) it shows to reject null hypothesis

Table No. 4: Association of Pretest Knowledge Scores On Swine Flu and its Prevention with Selected Demographic Variables in Both Groups

Sl. No	Variable	P Value	Results
1.	Age of the student	0.092	Significant
2.	Gender	0.430	Not significant
3.	Education of the student	1.000	Not significant
4.	Food habits	0.271	Not significant
5.	Occupation of the father	0.712	Not significant
6.	Type of family	0.573	Not significant
7.	Religion	0.019	Significant
8.	Any affected person in the family	0.001	Significant
9.	Family income	0.767	Not significant

The above table shows that the data represents association of demographic variable Age (0.092), religion (0.019), Any affected person in the family (0.001) shows that there is significant association between pre test knowledge.

The above table shows that the data represents association of demographic variable gender (0.430), educational qualification (1.000), food habits (0.271), occupation of the father (0.712), type of family (0.573) and family income (0.767) shows that there is not significant association between pre test knowledge.

DISCUSSION

The study found that almost 40.2% of adults

residing in the slum were illiterate, unable to read or write in any language. Within this population, female literacy was significantly lower than male literacy (42.6% vs. 54.7%; p = 0.009), highlighting gender disparities in access to education. These literacy gaps contribute to ongoing cycles of disadvantage, as illiterate parents are less able to access health information, support their children's education, or engage with formal healthcare systems.

The findings from these studies collectively indicate that while metropolitan cities are often seen as places of opportunity, slum-dwelling populations face persistent inequities that compromise child health and development. Poor literacy rates, malnutrition, and limited access to healthcare create a high-risk environment for children, particularly those with special needs or developmental vulnerabilities. The lack of early detection and intervention programs further exacerbates these challenges, making children more susceptible to long-term developmental deficits.

The findings from this study confirm that the GMCD screening tool is a reliable and valid instrument for the assessment of neurobehavioral developmental delays in children aged 1–42 months. By facilitating early detection and intervention at the primary healthcare level, GMCD has the potential to improve developmental trajectories, streamline referral pathways, and reduce the burden on tertiary care facilities.

These findings are supported by the study conducted by Aisha K. Yousafzai et al. (2023) "aimed to determine the prevalence of neurobehavioral developmental delay among children aged three years residing in rural communities of India using the Guide for Monitoring Child Development (GMCD)". The study involved a total of 530 children, all assessed at the age of three, to evaluate their developmental status. "The GMCD tool was administered to mothers by a trained interviewer", ensuring that the responses accurately reflected the child's developmental performance. The primary objectives of the study were twofold: first, to estimate the prevalence of neurobehavioral developmental delays in this population, and second, to evaluate the validity of the GMCD as a screening tool for identifying children at risk of developmental challenges in rural Indian settings.

CONCLUSION

It is concluded that by using Mc Nemar chi square test was used to compare the pre and post test knowledge level of the high school students, the P value is was 0.001which was statistically significant. The results shows that the post test knowledge scores are higher than the pre test knowledge scores in experimental group is found to be significant, i.e. the structured teaching programme was effective regarding swine flu and its prevention among high school students.

Recommendations

1. A similar study may be conducted on a large sample size.
2. A similar study may be done as a comparative study in rural and urban areas.
3. A similar study may be conducted by using experimental design.
4. Comparative study may be done for the selected hospitals.

Conflict of Interest: The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

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