

## Effect of education program on H1N1 Influenza on knowledge among school students in selected school, Thrissur

\*Ms. Zaina Elizabeth Jose

Senior Lecturer, Westfort College Of Nursing, Thrissur

**Abstract:** A Pre experimental study was conducted in St.Thomas High School, Thrissur to assess the effect of education program on knowledge on H1N1 Influenza among school students. Objectives of the study were Assess the knowledge of school children regarding H1N1 influenza before the education program. Assess the knowledge of school children regarding H1N1 influenza after the education program. Compare the pre and posttest knowledge level among school children Determine association of pretest knowledge of children with selected demographic variables.Ludwig von Bertalanffy General System Theory was utilized to prepare the theoretical framework. A pre-experimental approach with pretest-posttest one group design was used in the present study. Sample consisted of 100 subjects selected using cluster sampling technique. Education program with help of informational booklet was administered to the subjects. The tools used were questionnaire to assess demographic variable and knowledge on H1N1 Influenza. The reliability of knowledge questionnaire using split half method was 0.9. The study findings revealed that mean posttest knowledge score were significantly higher than mean pretest knowledge score on H1N1Influenza among school children at 0.001. The education program was found to be effective in enhancing knowledge of school students regarding H1N1 Influenza.

### I. Introduction

H1N1 Influenza is a novel disease that occurs in man transmitted through infected pigs. It is otherwise known as swine flu. Swine Influenza (Swine Flu) is a respiratory disease of pigs caused by type A influenza viruses (H1N1 subtype) that cause regular outbreaks in pigs. Swine flu viruses have been reported to spread from person-to-person. In 20<sup>th</sup> century, there have been three influenza pandemics in 1918, 1957, and 1968 in Spain, Russia, and Hongkong respectively. H1N1 Influenza was first detected in US in April 2009. Cases of human infection with H1N1 Influenza viruses were first confirmed in US in Southern California and Texas. On 5<sup>th</sup> November 2009; about 2618 confirmed cases in 44 states of US and 3 deaths were reported. (WHO Statistics, 2009) Center for Disease Control and Prevention (CDC), US estimates that between 43 million and 89 million cases of H1N1 occurred between April 2009 and April 2010. The mid-level in this range is about 61 million people infected with H1N1 in 2009. CDC, United States estimates that between about 195,000 and 403,000 H1N1-related hospitalizations occurred between April 2009 and April 10, 2010. The mid-level in this range is about 274,000 H1N1-related hospitalizations during the year 2009-2010. CDC, United States, estimates that between about 8,870 and 18,300 H1N1 Influenza related deaths occurred between April 2009 and April 2010. The mid-level in this range is about 12,470 H1N1-related deaths.

About 20 millions of children affected with H1N1 Influenza were of age group 0-17 years, 87000 children of age group 0-17 years were hospitalized and 1280 deaths have occurred among children of age group 0-17 years. (CDC estimates in United States, April 2009-2010) Globally total 1483520 cases of swine flu and 25174 deaths were reported since the influenza broke out in 2009 (National Influenza Centre (NIC)'s of global influenza surveillance network, 2011)

In India 29303 cases were reported and 1302 deaths were reported by 2011. On March 23<sup>rd</sup> 2011 one death was reported in Punjab and 11 cases were reported of which eight cases were from Punjab, two cases were from Delhi and one was from Rajasthan. Many young children were victims of H1N1 Influenza especially in Pune. In Kerala 266 cases of swine flu and about 45 deaths were reported in June 2010 and 23 cases were reported in Thrissur District. 14 cases of H1N1 influenza were confirmed on 6<sup>th</sup> July 2011 and this included four children aged below two years, two children aged between two and four years, one pregnant woman and seven adults in Alapuzha and Pathanamthitta respectively. 5 cases of H1N1 influenza were reported in Thrissur by July 19 2011 as per Deepika Malayalam daily newspaper

In India when the death toll has increased to 703 and crossed a mark of 11,000 cases, Kerala has just 17 cases and three deaths by February 2015.

### II. Objectives

1. Assess the knowledge of school children regarding H1N1 influenza before the education program.
2. Assess the knowledge of school children regarding H1N1 influenza after the education program.
3. Compare the pre and post test knowledge level among school children.

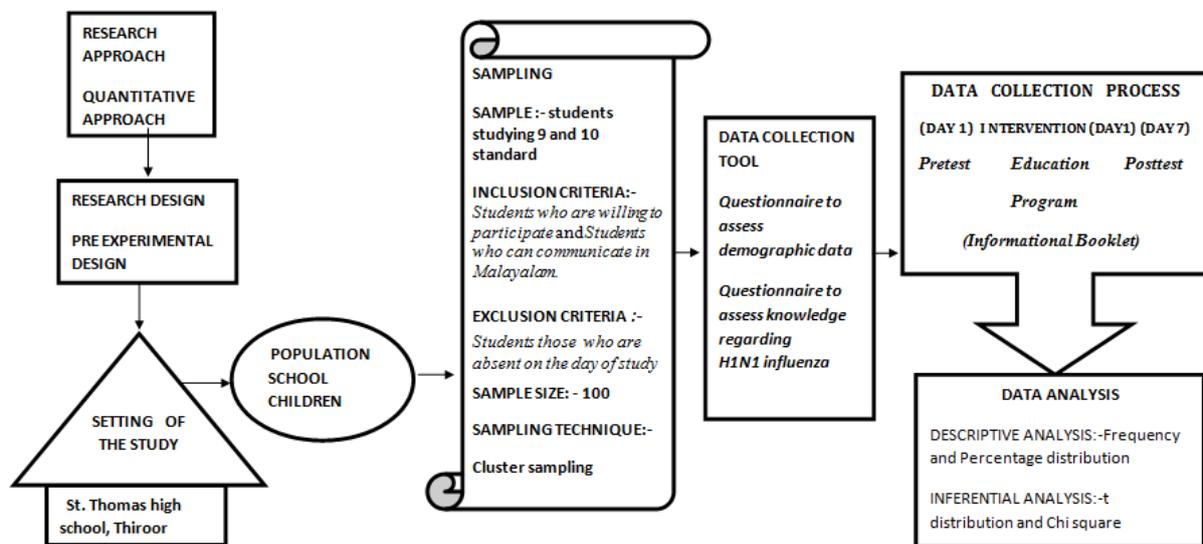
4. Determine association of pretest knowledge of children with selected demographic variable

**Theoretical Framework**

The theoretical framework of the present study was developed by the investigator based on Bertalanffy's general system theory.

**III. Methodology**

Pre experimental one group pretest posttest design is used in this study. This design involves the assessment of the dependent variable (knowledge) at two points in time; before and after the education program with the help of informational booklet on H1N1 influenza.



**IV. Results**

Assessment of pretest knowledge on H1N1Influenza among school children revealed that majority 68 (68%) of them have fair knowledge, 30 (30%) had poor knowledge and only 2 (2%) had good knowledge.

Assessment of posttest knowledge on H1N1Influenza among school children revealed that majority 76 (76%) of them have good knowledge, while 24 (24%) had fair knowledge and none of them 0 (0%) had poor knowledge The mean posttest knowledge score were significantly higher than mean pretest knowledge score on H1N1Influenza among school children at a 0.001 level of significance. This comparison was done by using paired t test. The education program with help of informational booklet was found to be effective in enhancing knowledge of school children regarding H1N1Influenza.

The study findings analyzed by means of chi-square test (table-1) revealed that there was a statistically significant association of pretest knowledge on H1N1Influenza with the demographic variables gender, place of residence and occupation of father at 0.05 level of significance and there were no significant association of pretest knowledge with other demographic variables such as age, class, religion of school children, educational status of parent , occupation of mother, monthly income and source of information regarding H1N1 Influenza at 0.05level of significance.

**V. Discussion**

The first objective was to assess the knowledge of school children regarding H1N1influenza before the education program The assessment of pretest knowledge on H1N1Influenza revealed that majority 68 (68%) of them have fair knowledge, 30 (30%) had poor knowledge and only 2 (2%) had good knowledge.

The second objective was to assess the knowledge of school children regarding H1N1influenza after the education program. The assessment of posttest knowledge on H1N1Influenza revealed that majority 76 (76%) of them have good knowledge, 24 (24%) had fair knowledge and none of them 0 (0%) had poor knowledge The third objective was to compare the pre and posttest knowledge level among school children

The results revealed that the mean posttest knowledge score were significantly higher than mean pretest knowledge score on H1N1Influenza among school children at 0.001 level of significance. Hence the null hypothesis is rejected and hypothesis H<sub>1</sub> stated earlier as there is significant difference in pre and posttest level of knowledge on H1N1 influenza among school children at 0.05level of significance is accepted.

The fourth objective was to determine association of pretest knowledge of children with selected demographic variables The study revealed that there was a statistically significant association of pretest

knowledge on H1N1Influenza with the demographic variables gender, place of residence and occupation of father at a 0.05 level of significance. Hence the null hypothesis is rejected and hypothesis H<sub>2</sub> stated above as there was significant association of pretest knowledge score of H1N1 influenza among school children with their selected demographic variables at a 0.05 level of significance is accepted. And the study is also revealed that demographic variables such as age , class, religion of school children, educational status of parent , occupation of mother, monthly income and source of information regarding H1N1 Influenza has no association with pretest knowledge score . Hence the null hypothesis is accepted and hypothesis H<sub>2</sub> stated earlier as there was significant association of pretest knowledge score of H1N1 influenza among school children with their selected demographic variables at 0.05 level of significance is rejected.

This suggests that there was no significant association of pretest knowledge with selected demographic variables.

## **VI. Conclusion**

Based on the study findings the following conclusions were made; The education program was found to be effective in enhancing knowledge of school children regarding H1N1Influenza.

## **Acknowledgement**

At the outset I am deeply indebted to God almighty for his blessings throughout the study. I am deeply indebted to my beloved parents, brothers, well-wishers and all dear ones. The investigator has inclination to express deep sense of gratitude and special thanks to **Dr. (Mrs.) A.V.Raman**, Director of Nursing Education and Research, Westfort College of Nursing , for her expert guidance and suggestions throughout the period of study. The investigator owes genuine gratitude and heartfelt thanks to **Prof. (Mrs.) Shirley Prakash**, Principal, Westfort College of Nursing for her constructive suggestions, constant support and inspiration throughout this endeavor. The investigator is highly indebted to **Prof. (Mrs.) Ushanandini Rajesh**, Vice Principal, West fort College Of Nursing for her timely advice, expert guidance, valuable suggestions and moral support throughout this endeavor. The investigator express sincere thanks to **Dr.G.Nandini**, Department of Community Medicine Deputy DMO, Thrissur for her kind support, advice and suggestions throughout the period of the study.

## **Reference**

### **Books**

- [1]. Alligood, M.R.(2010). Nursing Theory Utilization and Application.(4<sup>th</sup> ed).Missouri: Mosby Publishers
- [2]. Burns, N.,& Groove, S.K.(2009).The Practice of Nursing Research- Appraisal, Synthesis and Generation of Evidence .(6<sup>th</sup> ed).Missouri : Saunders Publishers
- [3]. Ewen, Melanie. Mc.,& Wills, M.E .(2007).Theoretical basis for Nursing.(2<sup>nd</sup> ed) Philadelphia: Lippincott Williams and Wilkins Publishers
- [4]. Polit, D.F.,& Beck, T.C.(2010).Essentials of Nursing Research.(7<sup>th</sup> ed). Philadelphia: Lippincott Williams and Wilkins Publishers
- [5]. Park, K.(2010).Preventive And Social Medicine .(20<sup>th</sup> ed).Madhya Pradesh : Bhanot Publishers
- [6]. Schmidt, Nola. A., & Brown, M.J.(2010). Evidenced- Based Practice for Nurses. (1<sup>st</sup> ed). New Delhi : Jones and Bartlett Publishers

### **Journals**

- [7]. Yogesh. K. Gurav., et al. (2010). Pandemic influenza A(H1N1) 2009 outbreak in a residential school Panchgani, Maharashtra, India. Indian Journal of Medical Research. 132: 67-71
- [8]. Nabihah Sachedina., et al. (2010) Paediatric mortality related to pandemic influenza A H1N1 infection in England: an observational population-based study .The Lancet Journal. 376(9755) :1808- 1810
- [9]. Lessler,J., et al. (2009).Outbreak of 2009 Pandemic Influenza A (H1N1) at a New York City School.The New England Journal of Medicine.361(10): 2628-2636
- [10]. Cornelia Feiterna Sperling.,et al. (2010).Pandemic Influenza A (H1N1) Outbreak among 15School-Aged HIV-1-Infected Children. Clinical Infectious Disease Journal. 51(11): 90-94
- [11]. Manomani, (2011).K. Effectiveness of structured teaching programme on road trafficaccidents among school students. Nightingale Nursing Times Journal. 7(4):33- 36
- [12]. Shekhawat,J.S. (2009).Swine flu,A New Threat. Nightingale Nursing Times Journal. 5(3) 9-11