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Original Research Article

A Study to Assess the Effectiveness of Pamphlet on Knowledge and Attitude Regarding Prevention of H1N1 Influenza among Nursing Staff Working at Tertiary Care Hospital, Karad

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ABSTRACT

Introduction*:** In 2018, India has confirmed 5,651 cases and 464 deaths from H1N1, the predominant flu strain across states. The medical and nursing staffs are the one who is always with the patients contact. The Nursing staff must be aware of risk factors, sign and symptoms and preventive measures pertaining to H1N1 influenza. ***Objectives: To assess the effectiveness of Pamphlet on prevention of Swine Flu among nursing staff by comparing the pre-test and post-test knowledge and attitude scores. ***Methodology***: One group pre test-post test design was adopted in this study. Participants were nurses working in tertiary care Hospital, Karad. 400 samples were selected the pre test assessment of knowledge and attitude was carried out using the structured knowledge questionnaires followed by the pamphlet was distributed among the participants on the 7th day; the post test was conducted using the same structured knowledge and attitude questionnaire. The collected data was analyzed by using descriptive and inferential statistics ***Result:*** in Pretest, majority of participants 388 (97 %) have average range of knowledge, followed by 8(02 %) have poor range and minority 4 (1%) have good knowledge. In Post test, majority of participants 289 (72%) scored in the range of average , followed by 110 (27 %) scored in the range of good and minority only one have poor range of knowledge Iin pre test majority of participants 291 (72.7 %) have average range of attitude , followed by 109 (27,2 %) have good range and none of participants had scored in poor attitude on prevention of H1N1 influenza and Post test, majority of participants 389 (97%) scored in the range of good, followed by minority 11 (02.7%) scored in the range of average attitude on prevention of H1N1 Influenza ***Conclusion:*** The study findings revealed that Pamphlet was highly effective in improving knowledge and attitude of nursing staff regarding prevention of H1N1 influenza There is a need for routine refreshing education program of the awareness in the Nursing staffs.

Keywords: knowledge, attitude, H1N1 Influenza, pamphlet, effectiveness

INTRODUCTION

Swine flu: another pandemic knocking at the door?

The swine flu viruses that usually spread among pigs aren't the same as human flu viruses. Swine flu doesn't often infect people, and the rare human cases that have occurred in the past have mainly affected people who had direct contact with pigs. But the current "swine flu" outbreak is different. It's caused by a new swine flu virus that has changed in ways that allow it to spread from

person to person - among people who haven't had any contact with pigs.[1]

India experienced a severe swine flu wave two years ago, when health officials scrambled to contain an outbreak which killed more than 1,900 people. While 2016 saw a dip in recorded deaths (265) and affected cases (1,786), the numbers for this year indicate a resurgence of the disease. The country saw its most crippling outbreak in the pandemic years of 2009-2010, when the virus affected around 50,000 people and claimed the lives of more than 2,700 across the country. A total of 22,186 cases have been reported across the country. The number of deaths in 2017 year is four times more than fatalities recorded over the equivalent period in 2016, which itself saw a dip in occurrences of the disease. The western state of Maharashtra is the worst affected, where the death toll stands at 437, according to data revealed by the Union Health Ministry. Neighbouring Gujarat follows closely with 297 deaths, reported news agency PTI.[2]

In 2018, India has confirmed 5,651 cases and 464 deaths from H1N1, the predominant flu strain across states. The influenza virus has a quicksilver ability to mutate to evade the body's immune systems and infect more easily. If the mutation creates a brand new virus that can spread infection from people to people and against which humans have no immunity, pandemics occur, like the H1N1 pandemic in 2009-10 that spread across continents within weeks. Unlike in the temperate zones where the flu virus circulates and infects in the coldest season twice a year (once each in the winters of the northern and southern hemispheres), infection continues year-round in the tropics and subtropics after peaking in the winter months.[3]

The medical and nursing staffs are the one who is always with the patients contact. The Nursing staff must be aware of risk factors, sign and symptoms and preventive measures pertaining to H1N1 influenza and if they are update in their knowledge and practices will able to provide education to community and will take care of self too. The researcher assumes that the nurses would provide significant information on the level of preparedness among the patient caregivers and public, which will help in improving the Influenza prevention programmes. So researcher felt need to find out the knowledge and attitude regarding the prevention of H1N1 Influenza and implement necessary information through pamphlet to get a good change among nurses. Keeping all this thing in mind, the study was designed to assess the knowledge, attitude and to observe practices regarding prevention of H1N1 among nursing staff, who are directly exposed to the infected individuals during the clinical practices.

REVIEW OF LITERATURE

1. Fariha Hasan et al (2018)[4]: A descriptive, cross-sectional study was conducted to evaluate the swine flu-related knowledge, attitudes and practices of the medical and dental students at various institutions in Karachi, Pakistan. All students from first to final year comprised of the study population, and no internists or medical personnel were included. The questionnaire was divided into three sections, namely knowledge, attitudes and, practices. The majority of the students were aware that the swine flu is a transmittable disease (n=485, 80.8%). Most students identified the signs and symptoms correctly; however, diarrhea (15.5%) and vomiting (32.2%) were the least correct answers (n=93, n=193 respectively). Most of the preventative measures were reported accurately by the participants. Despite this, only 15.5% students (n=93) reported the use of a facemask when suffering from fever, cough and a runny nose. Study concluded there is a dire need for the routine integration of the awareness and management programs in the medical and dental schools. There exists a gap between the policy and practice, and it is

high time we bridge the divide. The students should also be vaccinated annually for influenza**.**

2. K Shilpa et al (2014): This study was conducted in an urban community of Belgaum, Karnataka during 2009. A total of 250 households were interviewed using a pretested questionnaire by systematic random sampling. One person from each household preferably head of the family was asked regarding knowledge, attitude and practice during swine flu pandemic. Among the study population, 73.6% had previously heard of swine flu. More than half of the participants said mass media communication was found to be the major source of information. Around 82.6% of the participants said fever was the most common symptom and using facemask was accepted as the important mode of prevention by 81.5% participants. Only 19.0% were willing to leave their locality temporarily if any cases were seen around. Majority of the participants selected government hospital for treatment facilities if they get any symptoms of swine flu. Hand washing, as a mode of prevention was known to 92.4% of the respondents. Around 33.4% of the populations were ready to share knowledge to others if they were given health education regarding swine flu. Study concluded Knowledge regarding swine flu pandemic was low among study participants. Strategies to create more awareness about pandemic through effective mass media are vital for containing the pandemic

MATERIALS AND METHODS

One group pre test-post test design was adopted in this study. Participants were nurses working in tertiary care Hospital, Karad. 400 samples were selected

Nurses who have completed ANM, GNM, PBSC, BSC Nursing courses and nurses working at tertiary care Hospital, Karad and those who are willing to participate in the study. Those were included in the study and those were absent during data collection time were excluded from this study.

DEVELOPMENT OF TOOL

The study used socio-demographic data, structured knowledge and attitude questionnaire that were developed by researcher. The socio demographic data consist of a 6 items which were regarding participant age, gender, educational qualification, year of experience and source of information. A questionnaire will be prepared according to the objectives.

The structured knowledge questionnaire had 17 objective items that covered the content areas on general information and meaning of H1N1, risk factors and causes, signs and symptoms, preventive measures, screening and treatment. The attitude questionnaire has 15 items in which questions measures attitude toward vaccine, caring of patients and preventive measures were included Each item was awarded score “1” for the correct response and “0’’ for the wrong response and also practices will be observed and noted down.

DATA COLLECTION

The Institution ethical committee of Krishna institute of medical sciences deemed to be university granted the ethical approval for conducting this study. The methods and aim of the study were explained to subjects and ensured them that the individual information will be kept confidential after they signed consent forms. A pilot study of 20 samples was conducted to modify the questionnaire. These participants were not involved in the original survey. After taking informed consent from the participants, the demographic questionnaire and the structured questionnaire were administered to them. On completion of the questionnaire the pamphlet was distributed among the each participant and on the 7^{th} day, the post test was conducted using the same structured knowledge questionnaire. All the nurses who those were participated in the

pretest were participated in the post test also practices were observed.

RESULTS

Section – I

This section deals with demographic details of subjects under study

Table No:-1 Distribution of Demographic Characters

Demographic Variable	Category	Frequency	Percentage
Age	<25	178	44.5
	25-35	183	45.75
	35-45	19	4.75
	45-55 years	20	5
Gender	Male	89	22.25
	Female	309	77.25
Qualification	RGNM	256	64
	B. B. Sc	129	32.25
	P.B. B. Sc	15	3.75
Year of Experience	less than one years	40	10
	1 to 5	304	76
	5 to10	5	1.25
	10 to 15	5	1.25
	15 to 20	15	3.75
	20 to 25	22	5.5
	25 and Above	9	2.25
Television	No	229	57.25
	Yes	171	42.75
Internet	No	228	57
	Yes	171	42.75
	Not responses	1	0.25
Mobile	No	205	51.25
	Yes	195	48.75
Books	Yes	83	20.75
	No	317	79.25
Newspaper	Yes	98	24.5
	No	302	75.5

In present observational study total 400 participants participated. Table:1 shows socio demographic characters such as Age, Gender, Educational qualification, no of years experiences in services, sources of the information about the H1N1Influenza.out of four hundred in which 309(77.25%)female and 89(22.25%) male participates participated .It is observed that, total 75%respondents received information from social media about the H1N1Influenza with maximum 44.5% staff of age group less than 25 years old with majority 256 (64%) having education qualification of RGNM and maximum participants 304 (76%) having working experience of 1-5 years respectively.

SECTION II -A

COMPARASION OF PRE-TEST AND POST-TEST LEVEL OF NURSES' KNOWLEDGE ON PREVENTION OF H1N1 INFLUENZA

Table 2: pretest posttest scores of staff nurses

Level of knowledge	Score	Pre Test		Post Test	
		No	%	No	%
Poor	1-6	8	02.00	1	0.25
Average	7-12	388	97.00	289	72.25
Good	13-17	4	01.00	110	27.50
Total		400	100	400	100

Chi-square test was used to check the knowledge of staff nurses on prevention of H1N1 Influenza. For the 400 staff nurses who answered the questionnaire, with the highest score being ≥13-17 and the lowest score being ≤1-6 From the table 2 it is observed that in Pretest, majority of participants 388 (97 %) have average range

of knowledge, followed by 8(02 %) have poor range and minority 4 (1%) have good knowledge respectively.

It is also revealed that, in Post test, majority of participants 289 (72%) scored in the range of average, followed by 110 (27 %) scored in the range of good and minority only one have poor range of knowledge regarding prevention of H1N1 Influenza and is significant at P=0.0001 level. The analysis revealed that, the post test level of knowledge is higher than the pretest level of knowledge. hence analysis shows effectiveness of Pamphlet on prevention of H1N1 Influenza among Nursing staff as per post-test knowledge seen improved in the statistical analysis

SECTION II -B

The effectiveness of pamphlet on prevention of H1N1 Influenza by comparing the pre-test and post-test score

Table 3: The effectiveness of pamphlet on prevention of H1 N1 Influenza by comparing the pre-test and post-test scores

Test	Mean±SD	T test	F value	P value
Pre test scores	9.495±1.3245	18.971 with 789 d. f.	1.676	0.0001
Post test scores	11.55±1.7145			

Since the value of t test was 18.971 with 789 degrees of freedom and corresponding p-value 0.0001 indicating there was significant difference between two mean scores of Pamphlet on prevention of H1N1 Influenza among nursing staff. we checked the scores difference between two standardizes deviation was significant corresponding F value 1.676, hence we conclude that, effectiveness of Pamphlet on prevention of H1 N1 Influenza among Nursing staff by comparing the pre-test.

SECTION II -C

COMPARASION OF PRE-TEST AND POST-TEST OF NURSES' ATTITUDE ON PREVENTION OF H1N1 INFLUENZA

Table 4: pretest posttest attitude scores of staff nurses

Attitude	Score	Pre Test		Post Test	
		No	%	No	%
Poor	1-4	-	-	-	-
Average	5-8	291	72.75	11	02.75
Good	9-11	109	27.25	389	97.25
Total		400	100	400	100

Table 2 describes attitude of staff nurses regarding prevention of H1N1 Influenza, from it table its is observed that among 400 participants with the highest score being ≥9-11 and the lowest score being ≤1 -4 , in pretest majority of participants 291 (72.7 %) have average range of attitude , followed by 109 (27,2 %) have good range and none of the participants had scored in poor attitude on prevention of H1N1 influenza .

It is also revealed that, in Post test, majority of participants 389 (97%) scored in the range of good, followed by minority 11 (02.7%) scored in the range of average attitude on prevention of H1N1 Influenza. The post test level of attitude is higher than the pretest level of attitude**.** The study findings has significant difference after imparting pamphlet , majority 97% of the nurses attitude have found on the range of good and practices observed were highly improved

SECTION III: ASSOCIATION OF PRE-TEST SCORE WITH DEMOGRAPHIC VARIABLES

Chi square test was used to compare categorical variables. the analysis revealed that in the present study ,significant association was found only with gender year of experience reading news papers, watching televisions such factors has significant association with value was p 0.0001 and no significant association

between other demographic variables such as age, qualification. Hence we concluded that their demographic variables affecting on knowledge and attitude score in nursing staff regarding prevention of H1N1 Influenza

Table 5: pre-test score with demographic variables

Demographic variable	Class	Pre Test			Chi square Value	p value
		Mild	Mode rate	Sevier		
Age	<25	41	8	8		0.9328
	25-35	40	7	7		
	35-45	9	1	1		
	45-55	5	2	2	1.852	
Gender	Male	89	113	12		0.0473*
	Female	79	105	2	6.102	
Qualification	RGNM	100	78	78		0.0778
	B. B. Sc	6	12	12		
	P.B. B. Sc	8	2	2	8.404	
No of years service Experience	> 1	15	3	3		0.0001*
	1 to 5	48	131	131		
	5 to10	4	0	0		
	10 to 15	2	1	1		
	15 to 20	2	2	2		
	20 to 25	18	2	2		
	25 and Above	6	1	1	97.05	
T.V.	No	28	3	3		0.9213
	Yes	37	5	5	0.1640	
Internet	No	49	9	9		0.7013
	Yes	35	9	9	0.7097	
Mobile	No	55	65	14		0.0032*
	Yes	10	05	08	11.479	
Books	No	14	180	180		0.0001*
	Yes	17	19	19	52.783	
Newspaper	No	35	30	30		0.9247
	Yes	31	30	30	0.1565	

DISCUSSION

Present study constituted more of 214 (53,5%) male participants which were similar to a study done in Niraj Bharadva[5] et al in 122(53.74%) and K Shilpa[5] et al in karnataka 132 (52.8%) while female participants were more 116 (51.6%) in a study done by Manisha R.[7] On asking about source of information majority of participant responded mobile and net (48.75%) was main source of information, followed by television (42.7%), which was similar to study by K Shilpa[5] et al in Karnataka were reported Tele media was the most common source of information and Television (60.5%) was main source of information, followed by newspaper (51.2%) in Niraj Bharadva[5] et al

In present study, in Post test, majority of participants 289 (72%) scored in the range of average , followed by 110 (27 %) scored in the range of good which is similar to the findings by Kiran Nesur[8] conducted study in among mothers of under five children in Karnataka were post test 16% mothers had inadequate knowledge, 44% had moderate knowledge and 40% had adequate knowledge and study by jeeva jose[9] conducted study in high school children in chennai majority of them 23 (76.7%) had adequate knowledge, 7 (23.3%) had moderately adequate knowledge While slightly lower than KS Patel[10] et al Secondary School Students Vadodara District were in post test (1%) had Excellence knowledge score and majority of the respondents (82%) had Good knowledge score.

It is also revealed that, in present study Post test, majority of participants 389 (97%) scored in the range of good, followed by minority 11 (02.7%) scored in the range of average attitude on prevention of H1N1 Influenza which is higher than findings from Kiran Nesur[8] conducted study in among mothers of under five children in Karnataka were In post 8% had moderately positive

attitude and 88% had highly positive attitude.

The Present study findings revealed significant difference after imparting pamphlet Thus, it was inferred that the pamphlet was effective to improve Nursing staff knowledge, attitude and practices regarding prevention of H1N1 Influenza this findings were similar with findings on study done by Nandkumar R[11] et al, Kiran Nesur[8] et al, Dr Krishnaleela G[12] et al and KS Patel[10] et al were structured teaching programme was effective to improve students' knowledge regarding swine flu. Both these findings by Manjeet Kaur[12] et al Conventional were Teaching Programme and Information Booklet both were effective with Information Booklet being more effective than Conventional Teaching Programme in enhancing the knowledge of rural population regarding prevention and management of H1N1 Influenza.

The findings of the present study found significant association of gender, year of experience, and source of information like book significant associated with value was p 0.0001 where Archana KP[14] et al found there is significant association in knowledge score with age as $p<0.05$ and A study conducted by N. Kakade, S.V Kakade (2012) it was found that gender and age of the students was significantly associated.

CONCLUSION

The study findings revealed that Pamphlet was highly effective in improving knowledge and attitude of nursing staff regarding prevention of H1N1 influenza it is reflected on practices too. There is a need for routine integration of the awareness and education programs in the Nursing staffs for the prevention of H1N1 Influenza. Health seeking attitude and practices of participants were good as many of them used face mask and proper hand washing However practice and attitude is good there is need for more observation and motivation to prevent hesitation while taking care of patients.

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