

PARAMEDICAL STAFF ATTITUDE AND BELIEVE REGARDING INFLUENZA ACCINE IN BAGHDAD / IRAQ

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ABSTRACT

Background: Influenza is a contagious respiratory illness caused by influenza viruses that infect the nose, throat, and lungs, It can cause mild to severe illness and can lead to death, Symptoms of influenza infection include fever, cough, sore throat, runny or stuffy nose, body aches headache, chills, and fatigue, Some people have vomiting and diarrhea, while others have respiratory symptoms without a fever.

Objective: to assess attitude and believe of paramedical staff regarding influenza vaccine. **Method:** Across sectional study, were carried out

for a period of 6 month a total of 400 of paramedical staff were choosing by multistage sample technique by direct interview **Result:** The current study was conducted on 400 paramedical staff with their mean age 38.4 ± 10.9 years ranging from 20 to 62 years, The knowledge score for the 45 items ranged from (90-125) (Mean \pm SD 109.1 ± 7.2), knowledge about influenza vaccine is considered high (53.3%), Fear from side effects was the major barrier, while Influenza vaccine is safe and, Preventing the spread of the virus to family were the major reason to receive the vaccine. **Conclusion:** Misconceptions and access to influenza vaccine were barriers to uptake of influenza vaccine. Beliefs about influenza vaccination have significant effects on HCW seasonal influenza vaccine uptake. We recommend targeting these beliefs when designing educational programs for HCW regarding influenza vaccination. **Recommendation:** Medical programs need to emphasis the benefits of influenza vaccination in the protection of healthcare workers and patient safety across the medical education program.

KEYWORDS: Influenza, vaccination, Baghdad, attitude, believe.

INTRODUCTION

Influenza is a contagious respiratory illness caused by influenza viruses that infect the nose, throat, and lungs, It can cause mild to severe illness and can lead to death, Symptoms of influenza infection include fever, cough, sore throat, runny or stuffy nose, body aches headache, chills, and fatigue, Some people have vomiting and diarrhea, while others have respiratory symptoms without a fever.^[1] vaccination can reduce the incidence of the disease by between 70 to 90% in healthy adults, pneumonia hospitalization by 48-57%, hospitalization for any acute and chronic breathing conditions by 27-39%, absences from work by 32-45% and the use of antibiotics by 25% with consequent savings in health and social expenses.^[2] The Center for Disease Control and Prevention. (CDC) Advisory Committee on Immunization Practices (ACIP) has voted against use of live attenuated influenza vaccine for use during 2016-2017 season due to its poor/relatively lower effectiveness.^[3] Objective: to assess attitude and believe of paramedical staff regarding influenzavaccine.

METHODOLOGY

Study design

This study is a cross –sectional study conducted at 10 randomly selected (multistage sample) health care sector in Baghdad city. The unit of the present study was a group of paramedical staff for both genders (400) who were present at the time of conducting the study, Data were obtained by direct interview with the paramedical staff by using detailed self-reporting questionnaire form.

Statistical analysis

Analysis of data was carried out using the available statistical package of SPSS-24 (Statistical Packages for Social Sciences- version 24). Data were presented in simple measures of frequency, percentage, mean, standard deviation, and range (minimum-maximum values). The significance of difference of different percentages (qualitative data) were tested using Pearson Chi-square test with application of Yate's correction or Fisher Exact test whenever applicable. Statistical significance was considered whenever the P value was equal or less than 0.05.

RESULTS

Table (1): The current study was conducted on 400 paramedical staff with their mean age 38.4±10.9 years ranging from 20 to 62 years and the highest percentage (30.8%) were from

those 30-39 years age group and most of them were females (67.3%) living in urban area (98.0%), with their level of education of medical institute (66.5%), married (74.3%), and they were all working in PHCs (100%) as shown in table 1.

Table 1: The distribution of studied sample according to demographic characteristics.

Paramedical staff demographic characteristics		No	%
Age (years)	<30	106	26.5
	30---39	123	30.8
	40---49	79	19.8
	50---59	80	20.0
	=>60	12	3.0
	Mean±SD (Range)	38.4±10.9 (20-62)	
Gender	Male	131	32.8
	Female	269	67.3
Residence	Urban	392	98.0
	Rural	8	2.0
Educational level	Secondary school	37	9.3
	Medical institute	266	66.5
	College & higher	97	24.3
Marital status	Married	297	74.3
	Single	82	20.5
	Divorced	2	0.5
	Widowed	19	4.8
Health institution working in	Health care sector	-	-
	Primary health care center	400	100

Table 2: Regarding attitude of paramedical staff about influenza vaccine, revealed that approximately (86.3%- 94.3%) of them agree for flu vaccine must be taken to reduce the spread of flu in the community, People who are at greater risk should be vaccinated, Vaccination is the most important measure in preventing influenza infection, Vaccination can reduce the risk of more serious influenza outcomes Such as hospitalization and death, Vaccines not weaken the immune system) in addition (62.3%- 49.3%) of studied sample agree for the vaccine should be mandatory for certain categories of people, need to have the vaccine with full precautions; except 20.3% of them agree for The vaccination of workers in the field of health care is essential and is not optional)(figure 1).

Table 2: Distribution of studied sample according to their attitude towards the influenza vaccine.

Attitude		N0	%
Vaccination is the most important measure in preventing influenza infection	Agree	345	86.25
	Disagree	55	13.75
XX=The vaccination of workers in the field of health care is optional and is not essential	Agree	319	79.75
	Disagree	81	20.25
The vaccine must be taken to reduce the spread of flu in the community	Agree	377	94.25
	Disagree	23	5.75
XX=Vaccines weaken the immune system	Agree	51	12.75
	Disagree	349	87.25
Vaccination can reduce the risk of more serious influenza outcomes Such as hospitalization and death	Agree	346	86.50
	Disagree	54	13.50
XX=No need to have the vaccine with full precautions	Agree	151	37.75
	Disagree	249	62.25
The vaccine should be mandatory for certain categories of people	Agree	197	49.25
	Disagree	203	50.75
People who are at greater risk should be vaccinated	Agree	358	89.50
	Disagree	42	10.50

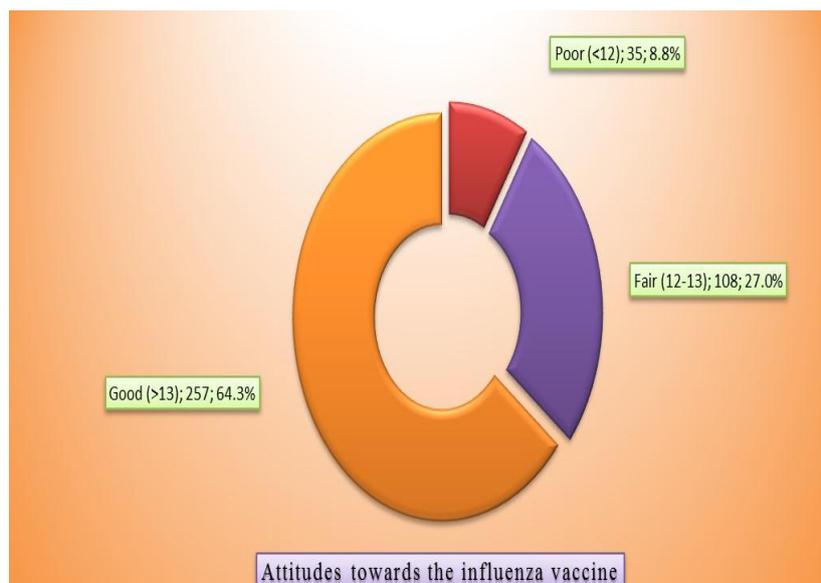


Figure 1: The attitude score towards influenza vaccine.

Figure 1: This figure showed higher percentage had good score (64.3%) while low percentage 8.8% had poor attitude score 35%.

Table 3: Regarding the practices of paramedical staff, revealed that all aspect of believe have the higher percentage (56.8%- 94.0%) of studied sample answered they practices the took the vaccine dose against the flu previously, Intends to get the flu vaccine every year, wearing gloves during vaccination, Place the syringe used in the tool container immediately after use,

you are advised to take the vaccine, Wash your hand before and after vaccination, Do not approach the flu patient at work); Dealing with pain relief drugs after vaccination; while low percentage (36.8%) of them practice no need for sterilize the injection area before injection).(Figure 2).

Table 3: Distribution of studied sample according to their believe towards the influenza vaccine.

believe		N0	%
I took the vaccine dose against the flu previously	Yes	267	66.75
	No	133	33.25
Intends to get the flu vaccine every year	Yes	236	59.00
	No	164	41.00
You are advised to take the vaccine	Yes	348	87.00
	No	52	13.00
Do not approach the flu patient at work	Yes	305	76.25
	No	95	23.75
Wash your hand before and after vaccination	Yes	338	84.50
	No	62	15.50
XX=Sterilize the injection area before injection	Yes	253	63.25
	No	147	36.75
Wearing gloves during vaccination	Yes	376	94.00
	No	24	6.00
Dealing with pain relief drugs after vaccination	Yes	227	56.75
	No	173	43.25
	Total	400	100.00

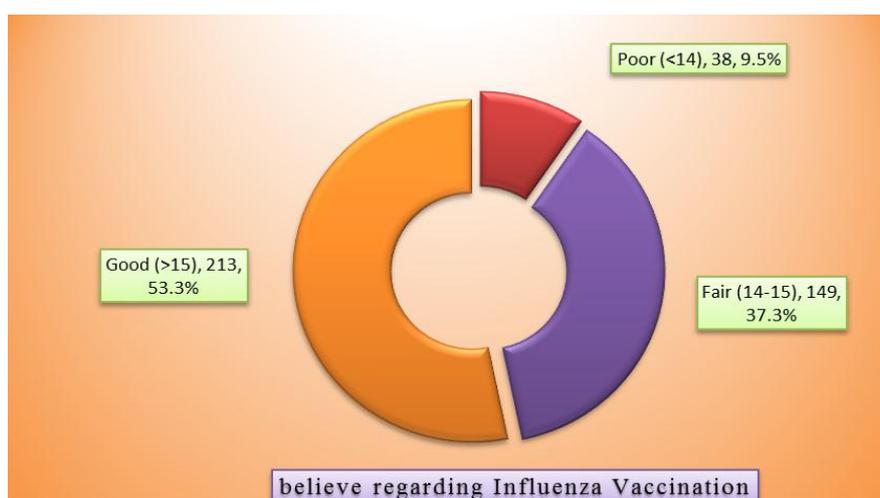


Figure 2: The believe score towards influenza vaccine.

Figure 2: This figure showed higher percentage had good score (53.3%) while low percentage 9.5% had poor believe score 38%.

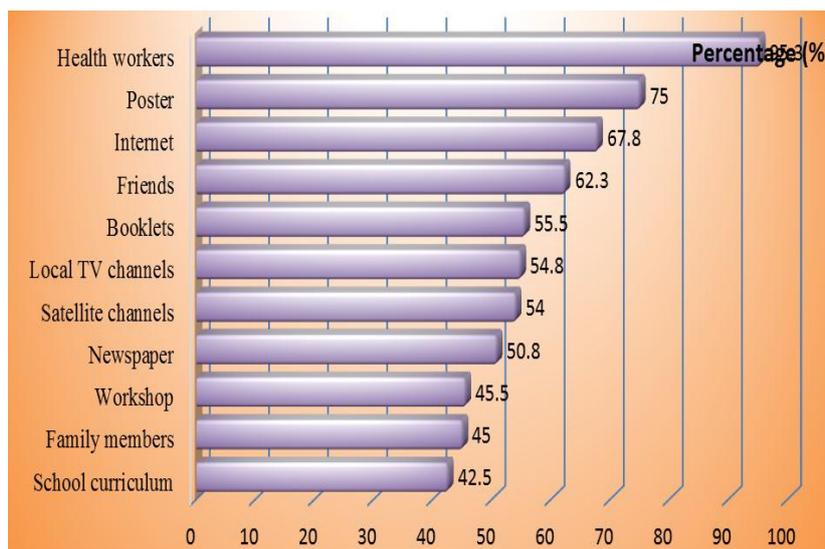


Figure 3: Source information score of paramedical staff.

Figure 3: Shows the main source of paramedical staff information on the vaccine, it reveals that the majority of them get their information for their colleagues “other health workers” (95.3%), while 75%, 67.8%, and 62.3% of them got it form Posters, Internet, and friends respectively. In more than 50%, the newspaper, booklets, local TV channels, satellite channels were the source of information about the vaccine, while slightly above 40% were got from school curriculum, workshops, and family members.

DISCUSSION

Part 1: The demographic characteristics of the studied sample of paramedical staff.

Age group

Throughout the course of the data analysis, the distribution of the paramedical staff according to age groups there was a distinct females preponderance with Mean±SD of their ages was (38.4±10.9)years. the age range at the time of study was between (20-62).

In comparison with some neighboring countries, this is similar to what had been reported in Iran (38.49±7.25)(4) with range from (23-57)years and in Saudi Arabia (35.8±8.9)(5) with range from (22 to 64 years) and in Italy(2) (mean age was 47.7) with range from (28–67) years and in UK(6)(the mean age of the participants was 36 years (SD 10.3).

The highest percentage (30.8%) of them were in the age group (30-39) years, this is different from what had been reported by Brown, in USA^[7], 2010 (Over 40%) were of (40 to 49) years old. The difference of the results may be due to difference categories of sample.

Gender

More than half of studied sample were females (67.3%), in comparison with some neighboring countries and other countries in the world, this is similar to what had been reported study in Jordan (57.9%)^[8], in Saudi Arabia(51.84%)^[9], in Iran (67.6%)^[4] in Ohio (82%)^[10], in France(64%)^[11], in Australia(61.6%)^[12] these differences may be due to sampling variation. no significant difference in mean knowledge scores between females and males ($P > 0.05$). in Iran.^[4]

Marital status

The highest percentage (74.3%) of studied sample were married, this results is similar to what had been founded in Jordan (51%)^[8], in Iran (75%)^[4], this result may be due to our population greater member tend to marry from early age particularly for whom employment.

Educational level

The highest percentage of studied sample were from medical institute (66.5%), in comparison with some neighboring countries and other countries in the world, this result is different to what had been reported in Australia(100%)^[12] College & higher, in Jordan (66.9%)^[8] College & higher, these differences may be due to sampling variation.

Source of information of paramedical staff regarding Influenza vaccine

In current study each member of studied sample might have more than one answer different sources of information about influenza may be due to availability of sources and personality liking it.

Health workers were the main sources of information of studied sample from other sources, similar results founded in Australia (12) only 42.5% of HCW participants learnt about influenza vaccine through their School curriculum This result is difference from other reported in Jordan (56.1%) (8), learnt about the vaccine during their university/college study, we were very surprised to know that, which means that this vaccine is somehow neglected by many health sciences schools at the college or university level.

Attitudes towards the influenza vaccine

The triad of knowledge, attitudes and practices in combination governs all aspects of life in human societies and all three pillars together make up the dynamic system of life itself. Therefore they were linked all together in a way so that any increase in knowledge changes in

attitudes towards influenza vaccine as well as changes in the kinds of practices that were followed influenza vaccine, this was approved in this study the influenza vaccine as well as changes in the kinds of practices that were followed influenza vaccine, this was approved in this study the majority(86.3%) Vaccination is the most important measure in preventing influenza infection, as reported in previous study in Malaysia(85.3%) (13), The vaccination of workers in the field of health care is essential and is not optional(20.3%). this result is different from other result reported by Rashid et. al., 2015 in Malaysia (61%) (13) were in support of mandatory influenza vaccination policies for medical students. This different due to In our study, the majority of respondents reported not being compelled to vaccinate as it was “recommended” and not mandatory for HCWs.

Believe of paramedical staff regarding Influenza Vaccination

In the present study believe of paramedical staff regarding Influenza Vaccination about (66.8%) answered (took the vaccine dose against the flu previously), (59.0%) Intends to get the flu vaccine every year this result is agreement with other study in Iran(4)(80.6%) had received an influenza vaccination in the past and (65.4%)intended to receive vaccination in the coming year. This result is differences from other study reported in Jordan (73.1%) (8) of them did not receive the vaccine previously due to Fear from side effects was the major barrier.

CONCLUSION AND RECOMMENDATION

Our findings indicate that if HCW get immunized against influenza, they do so primarily for their own benefit and not for the benefit to their patients. Misconceptions about influenza and influenza vaccine could be improved by education, and organizational barriers could be bridged with sustainable, structural changes to allow flexible and workplace vaccine delivery. Paramedical staff should be adhere to educational programs and national training as intensive courses for short period. Further studies among medical, paramedical staff and patients are needed to assess the knowledge, attitude and believes toward influenza vaccine.

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