Knowledge and awareness towards Swine Flu pandemic among a sample of paramedicals serving in primary health care centers in Baghdad

Maral Fathalla Thabit*

الخلاصة

انفلونزا الخنازير هو مرض تنفسي يصيب الخنازيريسببه فيروس من النوع الاول من فيروس " اتش 1 ان1" وانه يصيب الخنازير في العادة بصورة دورية وعادة لايؤثر هذا الفيروس على البشر ولكن المرض المنتشر مؤخرا للانسان هي طفرة جينية لهذا الفيروس ، حيث ظهر المرض للمرة الاولى في المكسيك في نيسان 2009 ، وانتشر حول العالم بسرعة هائلة.لانه قليل من الناس يملك مناعة كافية لمقاومته، لذلك انجزت دراسة مقطعية شملت 126 من ذوي المهن الطبية العاملين في عشرة مراكز للرعاية الصحية الاولية في بغداد ،تم اختيارهم عشوائيا لغرض تقييم المعارف و الوعي حول وباء انفلونزا الخنازير.تم استحصال وجمع المعلومات عن طريق استمارة استبيان معدة مسبقا وتحتوي على23 اسئلة متعددة تغطي جوانب معرفية بالمرض و،ثم تم تحليل البيانات احصائيا باستخدام الجداول الرقمية البسيطة.اظهرت النتائج بان النسبة الاكبر من استجابات ذوي المهن الطبية الصحيحة تخص تعريف المرض98,4%، انتقال المرض بواسطة الرذاذ المتطايراثناء السعال او العطاس 97,6%، اعراض المرض المماثلة للانفلونزا التقليدية 91,2% ،والذين يعانون من ضعف جهاز المناعة هم اكثر عرضة للوفاة 91,2% كما ان مختلف التاثيرات الاقتصادية 95,2%،وطرق الوقاية بتغطية الفم والانف اثناء السعال والعطاس 97,6%، كما اظهرت النتائج بان اكثرنسبة للاستجابات الخاطئة كانت تخص اندلاع المرض في وقت سابق35%، اصابة الخنازير انفلونزا البشر والطيور 42,8% ، لاتنتقل العدوى بين الخنازير المصابة عن طريق الهواء 20,6%، وانه هنالك لقاحات متعددة تعطى للخنازير وليس للبشر 19% .

استنتج بشكل عام مستوى مقبول لمعارف ووعي ذوي المهن الطبية عن انفلونزا الخنازير. ويوصى بتكثيف البرامج التدريبية للتثقيف الصحي على شكل دورات مكثفة و لفترات قصيرة لكل ذوي المهن الطبية بكافة الوسائل المتاحة عن هذا المرض.!!!!!!!!!!!!!!!!!!!!!!!!!!

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Abstract

Swine Flu is a respiratory illness of pigs caused by type A H1N1 influenza viruses that cause regular outbreaks in pigs, while Swine Flu viruses normally do not infect human, the disease that has spread lastly to human, is a version of this virus, it was first identified in Mexico at April 2009,

*Community Health Department Medical Technology Institute/ Baghdad

It has since become a pandemic and spread quickly because few people have full resistance against it, so a cross-sectional study was conducted on 126 randomly selected paramedicals serving in ten different PHCCs in Baghdad, to find out their knowledge and awareness towards Swine Flu.

Data was collected by using previously structured questionnaires including 23 statements concerning the knowledge of disease, data was statistically analyzed by using simple binomial tests. The results show that the majority of correct premedical's responses regarding disease definition(98.4%),spread of viruses between people through coughing or sneezing(97.6%),disease symptomatology similar to seasonal influenza (91.2%), immune suppressed people are more vulnerable to death(91.2%), different economic hazards(95.2%),prevention of disease through covering mouth and nose during coughing or sneezing(97.6%), only some disappointing responses regarding previous disease pandemics(35.%), circulation of the virus in humans, pigs and birds(42. 8%),no airborne infection between infected pigs (20.6%) and there are multiple vaccines given to pigs and not to human(19%).

Conclusion: An overall acceptable level of paramedicas knowledge and awareness regarding Swine Flu.

Recommendation was suggested for additional training and educational programmes as intensive courses for short periods with all available methods.

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Introduction

Swine Flu is a respiratory illness of pigs caused by type A influenza viruses that cause regular outbreaks in pigs, while Swine Flu viruses normally do not infect human , human cases occur in individuals who had a history of recent direct contact with pigs [1], Swine Flu viruses have the capacity to mutate so that they are easily transmissible a long human and Swine Flu viruses have been reported to spread from person to person but in the past ,this transmission was limited and not sustained beyond three people [2].

Swine Flu viruses are most commonly of H1N1 sub-type ,the virus that spread to human is a version of this virus, but other subtypes are also circulating in pigs (e.g,H1N2, H3N1, H3N2) [3].

The latest strain of H1N1 started in Mexico, the initial spread of the virus appeared to be rapid-that, coupled with several deaths of young, and otherwise flu victims raised global awareness and initial alarm. It contains genetic material that typically found in strains of the virus that affect humans, birds and swine [4].

One June 11,2009 ,the W.H.O. declared that a pandemic of 2009 H1N1 flu virus under way. The total number of laboratory confirmed cases world-wide reached 55,867 and the number of deaths from the disease globally was 238 ,Swine Flu cases had been reported throughout Iraq was 475[5].

An important starting point in designing proper prevention tools is to know how much educated people know about H1N1 Infection , like paramedicals who are persons trained to assist medical professionals and give emergency medical treatment and spend a lot of time in work placements which can be based anywhere in the country. They fall in the high-risk category as they are more likely to be exposed to the H1N1 virus, contracting and spreading the infection and also involved in prevention and treatment and provide information to public about the lethal viral infection[6].

This study attempts to highlight the knowledge, awareness and points of lacunae in knowledge towards pandemic of Swine Flu among paramedicals with respect to different epidemiological and clinical aspects of Swine Flu infection.

Methods

A cross-sectional study was carried out during January 2010 on 126 randomly selected paramedical staff serving in ten PHCCs ,(AlMansour, Washash , Hay ALsalam, Hay Alghazalyia, Hay Babyle , Baghdad Al gadida Awal, Bab Almuatham , Shiek Al-Omar , Hay Almustansyria,and Hay –Al Thobatt).

Paramedical staff including all types of personnel in the fields of nursing , mid wifely , sanitation , dental hygiene, pharmacy, physiotherapy , laboratory medicine , and radiology[6].

Data was collected using previously structured questionnaires including 23 different statements covering different epidemiological and clinical aspects of the disease, analysis of data(correct responses) was done statistically using (SPSS) program for windows using simple binomial tests .

Results

The total number of paramedicals included in the study was 126 and was distributed as follows:-

Table (1) Distribution of paramedicals according to correct responses regarding definition of disease.

Correct definition of disease	No.	%
It is a respiratory disease	117	92.8
Viruses are most commonly of H1N1subtype	124	98.4
People usually get flu from infected pigs.	95	75.3
Viruses spread directly from human to pigs	70	55.5
H1N1 virus circulate in humans, pigs and birds	54	42.8
Outbreaks occur usually in autumn and winter	92	73
It is not a new disease	44	35

The majority of paramedical's correct responses regarding disease definition, it is a respiratory disease(92.8%) and viruses are most commonly of H1N1subtype 98.4% , 42.8% of respondents were aware that the new H1N1 virus circulate in humans, pigs and birds , only 35% of respondents knew that it is not a new disease.

Table(2) Distribution of paramedicals according to their correct responses regarding mode of transmission.

Correct modes of transmission	No.	%
Viruses spread between people through coughing or sneezing	123	97.6
Touching contaminated surfaces	115	91.2
Virus killed at 71c°	74	58.7
No air borne infection between infected pigs.	26	20.6

The majority of paramedicals (97.6 %) responded correctly regarding flu viruses that spread mainly from person to person through coughing or sneezing, (58.7%) of correct responses that the virus is killed at 71c˚ only 20.6 % of respondents think about the direct transfer of the virus between pigs .

Table (3) Distribution of paramedicals according to their correct responses regarding disease symptomatology .

Correct disease symptomatology	No.	%
Symptoms in humans are similar to seasonal influenza	92	73
Some people have reported more diarrhea and Vomiting	115	91.2

Considerable percentage (73%) of respondents were aware of disease symptomatology which appear to be similar to those produced by seasonal influenza, (91.2%) of paramedicals responded correctly regarding that some people have reported more diarrhea and vomiting.

Table (4) Distribution of paramedicals according to their correct responses regarding dangerous health and economic effects.

Correct health and economic effects	No.	%
H1N1 virus is undergoing constant mutation	91	72.2
Virus develop resistance to antiviral medicines	90	71.4
Immune suppressed people are more vulnerable to death	115	91.2
W.H.O declared that a pandemic of 2009 H1N1 virus underway	102	81
Economic hazards on tourism, air line, schools, and Media companies.	120	95.2

(91.2 %) of correct paramedical responses regarding vulnerability to death in certain groups of people and considerable percentage (71.4%) of correct answers regarding the resistance of Swine Flu viruses to antiviral medicines. Majority of correct responses (95.2%) regarding different economic hazards on tourism, airline, schools, and media companies,

Table (5) Distribution of paramedicals according to their correct responses regarding prevention and treatment .

Correct method of prevention and treatment	No.	%
Coughing or sneezing by covering mouth and nose with a tissue	123	97.6
There are multiple vaccines given to pigs and not to human	24	19
Seasonal flu vaccine give some immunity against swine flu	104	82.5
Tami flu is used for the treatment of infection	92	73

Coughing or sneezing by covering mouth and nose with a disposable tissue practiced by (97.6%) of included paramedicals. very law correct responses (19%) regarding the availability of human vaccine.

Discussion

An important starting point for designing proper prevention tools is to know how much people know about Swine Flu, especially among the educated persons and those who work in the field of prevention and treatment of infectious diseases [7]. Paramedicals represent a dynamic, educated and highly positioned group in the Iraqi society; therefore, they are expected to play a crucial rule in limiting the increasing number of Swine Flu cases. The majority of premedical's correct responses regarding the causative virus. H1N1 is the strain which causes seasonal outbreak of flu on regular basis [3].

They were aware that the new H1N1 virus is different, it contains genetic material that is typically found in humans, birds and swine [2], in Hawaii paramedicals say it is not unusual for pigs to catch the flu [8]. The virus is thought to be spreading in the same way that seasonal flu spreads, they can spread mainly from person to person through coughing or sneezing of people with influenza, sometimes people may be infected by touching contaminated surfaces with the virus. [1]

Many people who get flu show no symptoms at all [3] , yet considerable percentage, of respondents were aware of disease symptomatology which appear to be similar to those produced by seasonal flu[fever , cough, sore throat , body aches and chills], the

2009 outbreak has shown an increased percentage of reporting diarrhea and vomiting [1] . In most people it is mild disease and recover without the need for any hospital treatment [5] ,paramedicals in Chandigarh, India feel it is important to exercise caution if one develops cold, cough, high fever and respiratory problems after coming in contact with a Swine Flu positive case or even a suspected one [9] .The majority of correct paramedical responses regarding vulnerability to death in certain groups of people. Those with immune suppression problem either because of treatment or disease [4] . Many doctors and paramedicals serving in government hospitals of Chandigarh(India) had tested positive and has been asked to take extra-precautions against Swine Flu, also they had succumbed to Swine Flu after coming in contact with the positive cases during their treatment [9].

Considerable percentage of correct answers regarding the resistance of swine flu viruses to antiviral medicines, limiting the effectiveness of chemo- prophylaxis's [10] .

Majority of correct responses regarding different economic hazards, scare was shown among paramedical students in nursing school and college of India has led to a sudden fall in their attendance [11] .Far fewer paramedical Muslims than normal are undertaking the lesser pilgrimage known as Umrah because of a variety of precautions are in place [12].

The virus can produce weight loss and poor growth in infected pigs causing economic loss to farmers, in some cases the infection can cause abortion [3], in Egypt animals being taken away for slaughter as part of a national precaution against Swine Flu [13].

Effect of swine flu on Mexico industry, tourism industries, airline, and media companies had already been hit by the global economic slowdown Flu for example China has stopped all flights into and out of Mexico [14].

To reduce the risk of catching the virus from patients, coughing or sneezing by covering mouth and nose with a disposable tissue [1]. Practiced by almost of included paramedicals. The Health Protection Agency(UK) recommends that health care workers wear a face mask if they come into contact with infected patients [15]. , in

Bahrain, 29.2% of paramedical staff had asked for Swine Flu danger money because they are at risk and they should be paid accordingly [16].

Although paramedicals are highly educated subjects , the results indicated some disappointing facts regarding their basic knowledge for example very low correct responses regarding the direct transfer of the virus between pigs , probably the spread occurs either by touching noses or through dried mucus and not by air borne infection[2]. Also about the availability of human vaccine, actually there are no vaccines that contain the current Swine flu virus causing illness to humans because viruses change very quickly [17]. Many countries routinely vaccinate swine populations against Swine influenza. The CDC(USA) is working on a vaccine for the new swine flu virus, but it will take a while [4].

In fact there are many vaccines available to be given to prevent swine Flu in pigs although their affectivity are only 10% [10],about 80% of the state medical fraternity in Mumbai were not sure about the nature ,side effects ad doses of the vaccine; so were unwilling to be vaccinated [18]. And it was surprisingly that the law correct responses regarding that it is not a new disease, actually previous flu global pandemics occurred in 1918 (Spanish flu), 1957 (Asian flu) and in 1968 as (Hong Kong outbreak) [5].

Conclusions

1) Paramedicals serving in the PHCCs represent a dynamic, educated and well trained group; they are expected to play a crucial role in swine flu controlling program.
2) The overall paramedicals knowledge and awareness was acceptable only show some disappointing responses concerning previous disease pandemics , circulation of H1N1 virus in human , pigs and birds , no airborne infection between infected pigs and availability of multiple vaccines in pigs and not for humans.

Recommendations

1- There is a need to more educate paramedicals in proper aspects of swine flu curriculum in Iraq.
2- Paramedicals must adhere to national training and educational programs as intensive courses for short period.
3- There should be enough materials in health centers to make paramedicals more aware , the media should cover the subject on daily basis.
4. Increased use of technology would increase the paramedical's awareness about the disease.

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