Awareness and Attitudes Towards Influenza and Influenza Vaccination among Healthcare Professionals in Pakistan

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ABSTRACT

Background: The coverage of the vaccine for health workers is not satisfactory. The study was conducted with health workers in a large community. A self-administered questionnaire was used based on “Awareness and Attitudes.” Several factors may be related to influenza vaccination, and identifying these can support the development of policies and strategies that expand vaccination coverage.

Aim: To identify vaccination-related factors based on awareness and attitudes, but priority is still scarce.

Methods: It was a cross-sectional study among 349 healthcare workers to determine their attitudes and awareness toward the vaccine. The results were evaluated statistically to observe the significant association using the fisher's exact/Chi-square tests respectively. A p-value < 0.05 is taken as significant.

Results: Three hundred and forty-nine responses were analyzed (190 men and 159 women). The average age of vaccines was 41.10±11.90 years. 186 (53.2%) patients aged > 40 yrs, while the majority of 263 (75.4%) were nurses. A percentage increase was seen of healthcare professionals from private set-up who were susceptible to influenza 109 (59.6%) compared to other HCPs in public sector, GP clinics and vaccination centers (P=0.010*).

Practical implication: Healthcare professionals are more likely to receive the shot themselves and encourage their coworkers and patients to do the same. This can increase overall vaccination rates and assist in stopping the influenza virus from spreading. Healthcare workers are more likely to take preventative measures to stop the transmission of the virus, such as wearing masks and washing their hands, if they are informed of the risks of influenza and the advantages of vaccination.

Conclusion: There is a lack of awareness about the nosocomial nature of influenza among HCPs. Awareness and counseling can increase in the vaccination rate among healthcare workers.

Keywords: Influenza vaccination, Healthcare workers, attitudes and knowledge

INTRODUCTION

Influenza is considered a significant health problem worldwide1. The World Health Organization (WHO) estimates between 3 million to 5 million cases of severe illness and 290,000 to 650,000 flu-related deaths occur globally annually2. Worldwide, it is estimated that annually there will be 3 to 5 million severe cases of influenza, culminating in 250 to 500,000 deaths, hospitalizations, and social and economic losses3.

On the other hand, vaccination is an effective tool in preventing influenza and serious cases and hospitalizations related to this disease4. Health workers are one of the priority groups for which the influenza vaccine is recommended annually5. However, studies conducted in different places in the world often show low coverage of influenza vaccine among health workers, which can have repercussions on illness, absenteeism, and transmission of influenza to patients, compromising the adequate functioning of health services6,7.

Several factors may be related to influenza vaccination, and identifying these can support the development of policies and strategies that expand vaccination coverage8. In Pakistan, where the influenza vaccine is recommended for all health workers, scientific production to identify vaccination-related factors in this group is still scarce9. Several factors may be related to influenza vaccination, and identifying these can support the development of policies and strategies that expand vaccination coverage.

Influenza is a respiratory tract infection categorized into upper respiratory tract infection (URTI) and lower respiratory tract infection (LRTI). The agents that are responsible for causing these infections include viruses, bacteria, and mycobacteria. According to research studies, influenza affects approximately 20% of the world’s population yearly, increasing the risk of serious illness and death10.

This increase in influenza epidemics has given rise to significant mortalities and morbidities, as the flu is still a major problem worldwide11,12.

The healthcare workforce includes doctors, paramedics, nurses, and pharmacists, frequently interacting with patients with known or unknown flu-like sicknesses at hospitals or healthcare facilities. Thus, healthcare professionals are more prone to contract influenza-like flu and transfer it to patients they cater to. They are even likely to suffer the symptoms themselves, which can be unpleasant when caring for the patients. Among many other infections, HIV infection is an important risk factor for influenza and is also associated with mortality. Such individuals experience substantially elevated influenza-associated mortality due to their compromised immune systems13.

Many problems prevail in Pakistan regarding barriers to vaccine administration in HCPs. These problems include a lack of adequate storage, sufficient staff to administer the vaccine, fear of needles, cost concerns, and doubts about the vaccine’s effectiveness. Pakistan has gaps in published guidelines for influenza vaccination and a lack of research studies conducted on influenza. Data on HCPs’ attitudes, practices, knowledge, and challenges related to influenza vaccination are scarce in Pakistan14. This study was carried out to determine the current influenza vaccination among HCPs from across Pakistan. A KAP survey design was used to gather information on HCPs’ attitudes, practices, knowledge, and related factors and barriers surrounding influenza vaccination. The study also evaluated HCP knowledge of HCPs towards influenza vaccination, determined why HCPs not vaccinated, and identified factors associated with influenza vaccination.

This study aimed to ascertain the attitudes of healthcare workers working in different health care sectors about the influenza
vaccine, their status of being vaccinated, and analyze the personal characteristics that affect vaccination.

**METHODOLOGY**

This multicenter cross-sectional study was conducted with HCPs across Pakistan to determine knowledge, attitude, practice, and barriers regarding influenza vaccination. The study was conducted in both urban and rural areas of Pakistan from November 2022 to January 2023. The research population was comprised of all the healthcare workers who work in the facility. However, to ensure a high percentage of participation in the research, teaching staff and physicians who work in basic sciences and are unlikely to have contact with patients were not included in the study. The study participants were health workers: General practitioners, consultants, nurses, nursing technicians/auxiliaries, physiotherapists, nutritionists, technicians, laboratory workers, and sanitation workers in professional practice during the collection period data. The survey included multiple-choice and closed-ended questions about knowledge, attitudes, practices, and barriers to influenza vaccination. Data were gathered through in-person interviews. Each interview took about 15 to 20 minutes. The participants could easily understand the English language and could answer the questions that were written. For each questionnaire, a unique identifying number with a code was provided to protect the answers’ privacy. In the current study, 300 HCPs from all around Pakistan participated. The questionnaire was divided into five sections: the first section contained demographic information with five items; the second section asked questions about HCPs' attitudes about influenza vaccination or the reasons they chose not to do so with six items; the third section asked a few questions about their knowledge of influenza and the influenza vaccine with eleven items; and also the final section asked questions about the understanding of influenza vaccination.

The minimum sample size required was estimated considering a bilateral error of 0.05, a statistical power of 0.8, and a prevalence of 0.7. The minimum number of surveys needed was 349. The analyses were conducted using the statistical software IBM SPSS Statistics for Windows version 22.0 (IBM Corp, Armonk, NY, USA). The data were presented and tabulated in MS Excel where possible associations were calculated using a chi-square test, and continuous variables were reported as means and 95% confidence interval (CI) by taking a 5% significance.
DISCUSSION
HCPs are more likely to contract and spread the illness to their patients because influenza is highly contagious. The most successful technique for preventing influenza virus infection and the problems that go along with it is immunization. This study evaluated HCPs’ knowledge, attitudes, awareness, and impediments surrounding influenza vaccination. The behavioral domain is represented by knowledge, attitude, and awareness factors. It is commonly established that a person’s preventative habits can be influenced by their knowledge and attitude.12

Awareness regarding vaccination safety and efficacy will make vaccination programs successful in the country. For this, first of all, the factors that cause anti-vaccine attitudes and strategies for changing it. Healthcare professionals play a very important role in recommending influenza vaccination to all included in the groups for which it is indicated.13

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In the Pakistani study, 72.6% of doctors didn’t know that the WHO guidelines for influenza vaccination. Further HCPs also understand their role in disease transmission and that vaccination helps prevent infection from spreading to others.19 Similarly, the “lack of time” was also reported in other studies, and it was also shown that some interventions26 might increase vaccination rates.21 22

Another important finding was the higher vaccination rate in those who had worked for more than six years in internal medicine departments and emergencies. Those working in internal medicine departments may have been convinced of the need for vaccination by more recent education about vaccination in their work environment. In the same way, an increase in years of work experience may have made physicians more sensitive to the benefits of being vaccinated. Another study also found that increased education or medical knowledge score was accompanied by increased vaccination rates.21 22 The important issue is the higher tendency to be vaccinated in some groups. Examining the characteristics of these groups and determining factors influencing being vaccinated could also increase the vaccination rate in other groups. The reporting supports our opinion in other studies that was arranging for education programs and organization of vaccination implementation within the facility increased the vaccination rate.26

An increase in the vaccination rate among healthcare workers, especially physicians, may improve the population’s health. To increase this rate, healthcare units should create education programs that would help change the attitudes of healthcare workers and organize vaccination services that can be accessed easily. Also, special invitations which indicate the benefits of being vaccinated should be encouraged. That would help to reduce the number of people who avoid vaccination because of its side effects.

CONCLUSION
There is a lack of awareness about the nosocomial nature of influenza among HCPs. Awareness and counseling can increase in
the vaccination rate among healthcare workers. To increase this rate, healthcare units should create education programs that would help change healthcare workers’ attitudes and organize vaccination services that can be accessed easily. Also, special invitations which indicate the vaccination time should be sent to healthcare workers. Additionally, research on vaccine technology should be encouraged. That would help to reduce the number of people who avoid vaccination because of its side effects.

Conflict of interest: Nil

REFERENCES


