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Perceptions on influenza vaccination in a sample of patients and health professionals in Campinas

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ABSTRACT

Seasonal influenza represents a public health challenge, and annual vaccination is a safe and effective strategy for prevent its dissemination and control epidemics. Vaccination coverage, however, remains below the desired level; knowing the perceptions of doctors and patients about the vaccine can be useful to improve prevention. The aim of this study was to indentify in a sample of doctors and patients attended in two intership centres the adhence to the referral to influenza vaccination in 2016, and the reasons for vaccination acceptance or refusal. The cross-sectional and exploratory study was made by the aplication of a questionary, after its approval by the Ethics Board; the participants signed a informed consent form before the participation. 72 subjects were enrolled: 52 patients and 20 health care workers (HCW). All the HCW were vaccinated, howerver, more than half of the patients have not been vaccinated (53,8%). Two hospitalized patients who were over than 60 years old (considered the risk group for this disease) were not vaccinated. More than half of the unvaccinated (64,3%) also have not been vaccinated for the last four years, evidencing a repeated behavior of refusal or disinterest by the vaccine. Among HCW, the most relevant reasons to adhere to vaccination were: protection against the vírus, if they care a patient with flu (85%) and reduction of absenteeism (70%). Among the vaccinated patients, 95.8% believe that the vaccine is important in preventing the disease, but only 62% of them received medical referral for vaccination., 46,9% of the unvaccinated patients did not receive orientations about flu vaccination. The HCW are already attentive to the need of vaccination, but there is not much information and efficient orientation for the patients, about the disease and vaccine. A lack of concern about the individual risk of influenza and the absence of knowledge about vaccine benefits could conduct to low vaccine coverage.

Keywords: Influenza. Vaccine. Health care work.

INTRODUCTION

Influenza is an acute viral infection of the respiratory system with high transmissibility from person to person. Seasonal influenza viruses circulate around the world and can target people of all age groups [1]. This acute febrile disease has a benign and self-limited evolution in the majority of the population, but one of its characteristics is the occurrence of annual epidemics with rapid dissemination in seasonal periods [1,2]. It is associated with great morbidity due to respiratory diseases, greater severity in the elderly, children up to five years of age, malnourished or immunosuppressed individuals, pregnant women and patients with comorbidities [1-4]. The epidemics determine a decrease in the work force due to absenteeism and overload in health services [3]. In the United States, the Centers for Disease Control estimates that since 2010 approximately 140 to 710 thousand hospitalizations related to the disease occur every year and 12 to 56 thousand deaths [4].

Four types of influenza virus have been described: influenza A, B, C and D viruses. A and B viruses have been linked to seasonal epidemics and A virus has been responsible for major pandemics, C virus is of no public health importance and D virus does not cause disease in humans. Influenza A viruses are classified into subtypes: the subtypes of influenza A / H1N1 and A / H3N2 currently circulate worldwide [1,3]. The influenza virus has high mutation rates, what may results in new viral variants in the community, for which the population does not have immunity, resulting in outbreaks and pandemics.

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Associated with care about respiratory transmission of the influenza virus, annual vaccination is a safe and effective measure to prevent the spread of the virus and control epidemics. It is used in public immunization campaigns and is composed of inactivated, fragmented and purified viruses [5]. The trivalent vaccine, used in Brazil, is updated each year depending on the types and viral subtypes circulating with products that immunize against two strains of influenza A virus and one strain of influenza B [1,2,4]. In Brazil in 2016 the vaccine was offered free of charge to the population at greater risk: health professionals, individuals aged 60 and over, children aged six months to five years, pregnant women, puerperal women (up to 45 days postpartum), adolescents and young people (12 to 21 years old) fulfilling socio-educational measures, indigenous peoples, prison population and prison staff, patients with other comorbidities and immunosuppressioned individuals, teachers of public and private schools [3].

Despite being provided free of charge to high-risk groups in campaigns since 1999, influenza vaccination coverage is still below desirable. Considering the importance of influenza vaccination, the objective of this study was to identify, in a sample of patients seen in an outpatient clinic and hospital, adherence to influenza vaccination and the reasons given for acceptance or refusal of vaccination. We also verified the vaccination rate among the health professionals who attended these patients.

METHODS

The project was approved by the Research Ethics Committee of the São Leopoldo Mandic Faculty (CAAE No. 56659616.6.0000.5374) and those responsible for the study places have given written authorization for its accomplishment. The cross-sectional and exploratory study was carried out through the application of questionnaires in two sites of internship of the students of the Faculty of São Leopoldo Mandic in Campinas (SP): UBS Carvalho de Moura and Hospital of the Edvaldo Orsi Hospital Complex (CHPEO). At the UBS patients were interviewed in routine consultations and at the Hospital during internment. Active health professionals in both services during the study were also included. The sample obtained was of convenience, according to the period of seasonality of the disease and the stage of the student in those places; subjects of both sexes and of any age have participated in the study.

All participants were informed about the purpose of the study and signed a free informed consent form (ICF); patients under the age of 18 could only participate with the consent of their parents or guardians, who also signed the ICF.

The questionnaire contained an initial part with demographic data of the participant, age and reason for the medical consultation (which divided patients into emergency situations and in a situation of primary health care). There were questions about influenza vaccination (subject of research and family) in the year 2016 and previous years, as well as information on possible reasons for vaccine application or refusal.

The data obtained were tabulated in an Excel program for analysis and analyzed by the Bioestat 5.0 Program (Instituto de Desenvolvimento Sustentável Mamirauá, Tefé-AM). The Fisher's exact test was used to compare the variables and the level of significance considered was 5%.

RESULTS

In the period from April 2016 to November 2016, invitations were made for participation in the study and included 72 individuals: 52 patients and 20 health professionals (13 physicians, 5 nurses and 2 community health agents).

Among the interviewees, 52 were female and 20 male. The age of health professionals ranged from 25 to 76 years, with a mean of 31.5 ± 13.98 years. The age of the patients interviewed ranged from 5 to 83 years, with a mean of 39.2 ± 21.4 years.

44/72 respondents (61.1%) received the vaccine in 2016. The characteristics of the studied population, according to the vaccination status, can be seen in Table 1.

Among all patients, 24/52 (46.2%) received the influenza vaccine in 2016 and 39/52 (75.0%) reported that there was at least one individual in their home who received the vaccine that same year. All health care providers reported that they received the influenza vaccine.

The patients were divided according to the reason for their consultation or presence in the health service between: "patients in emergency situation" (Group E) and "patients in Primary Health Care or Routine Care" (Group PHC). Hospitalized patients were included in the E Group.

Of the 12 individuals in the E Group, 6 (50.0%) were vaccinated. Among the six non-vaccinated individuals, two were in the age range indicated for vaccination (age 60 or over). Of the 40 individuals in the PHC Group, 18 (45.0%) were vaccinated (Table 2). None of the 22 unvaccinated were in the age range indicated to take the vaccine.

Table 1. Distribution of population according to influenza vaccination. Campinas (SP), 2016, n= 72.

	Vaccinated (n)	Vaccinated (%)	Not Vaccinated (n)	Not Vaccinated (%)
Interviewed Patients (52)	24	54,5%	28	100%
Interviewed Professionals (20)	20	45,5%	0	0%
Total (72)	44	61,1%	28	38,9%

Table 2. Distribution of vaccinated according to the Emergency Situation (Group E) and Primary Health Care (Group PHC). Campinas (SP), 2016, n = 52.

	Vaccinated (n)	Vaccinated (%)	Not Vaccinated (n)	Not Vaccinated (%)
Group E (12)	6	50,0%	6	50,0%
Group PHC (40)	18	45,0%	22	55,0%

Several reasons were presented by the patients to justify receiving (figure 1) or not receiving the vaccine (figure 2).

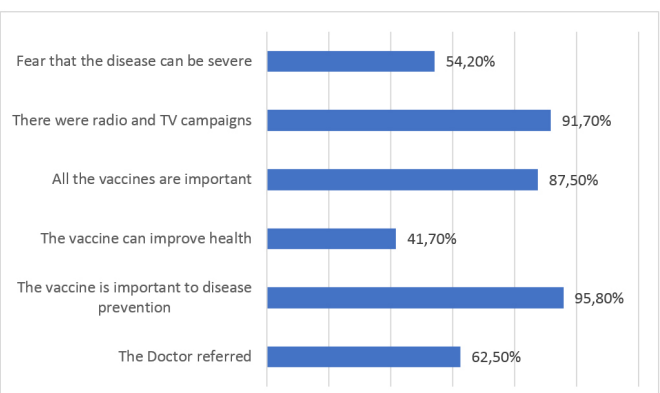

Figure 1. Reasons attributed by patients to justify the receipt of the influenza vaccine in 2016, Campinas (SP) 2016, n = 24.

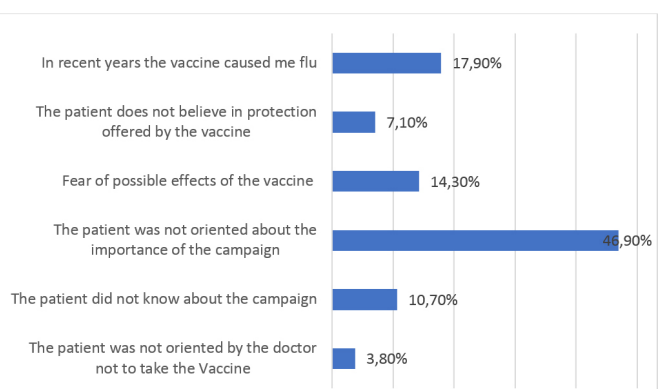

Figure 2. Reasons attributed by patients to justify non-receipt of influenza vaccine in 2016, Campinas (SP), 2016, n = 28.

Among the unvaccinated, 18/28 (64.3%) also did not receive the vaccine in the last four years, although two of them were within the age range in which the vaccine is indicated. Almost half of those not immunized 13 / 28 (46.4%) reported that they believed that there were other ways to prevent influenza, despite the vaccine.

All health professionals interviewed received the vaccine in 2016 and 19 of them (95.0%) were also vaccinated in at least one of the last four years. The reasons given by the professionals to receive the vaccine can be seen in figure 3.

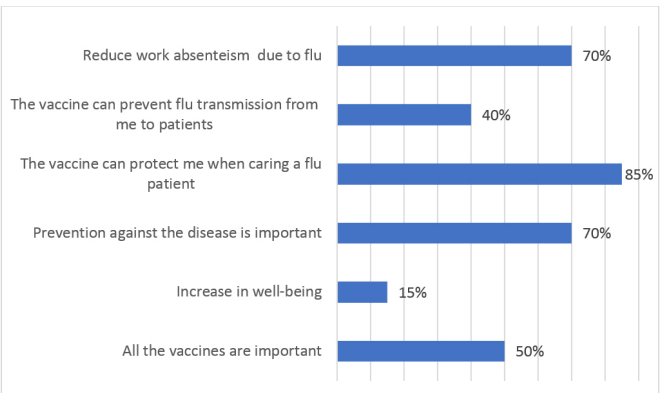

Figure 3. Reasons attributed by professionals to justify the receipt of the influenza vaccine in 2016, Campinas (SP), 2016, n = 20.

When analyzing specifically the 11 interviewees over 60 years of age (1 health professional and 10 patients), nine (88.9%) received the vaccine in 2016; the two patients who did not receive the vaccine in 2016 were also not vaccinated in any of the last four years.

DISCUSSION

Seasonal influenza is a serious public health problem. The virus spreads easily from person to person and can infect all age groups. It is estimated that overall seasonal influenza accounts annually for three to five million cases of serious illness and 290,000 to 650,000 deaths [1]. Vaccination against influenza is the most effective and safe way of avoiding the disease and preventing its secondary respiratory complications [1,5,6]. Nevertheless, population vaccine coverage rates do not reach the levels recommended for global protection.

Annual vaccination campaigns in Brazil reached global coverage (all groups for which the vaccine was available) from 92.8% in 2016, falling to 87.8% in 2017 [7].

This study revealed that more than half of the 52 patients seen at two medical school trainees (53.8%) did not receive the vaccine in 2016; two of these patients (hospitalized) were over 60 years old and therefore within the group considered to be at higher risk for the disease. More than half of those who were not vaccinated in 2016 (64.3%) also did not receive the vaccine in the last four years, what evidences a repeated behavior of refusal or disinterest by the vaccine.

Even considering that not all patients in this population belonged to the higher risk group for whom the vaccine is available for free, it is interesting to note the reasons given for whether or not to receive the vaccine. Medical recommendation was referred by 62.5% of the vaccinated patients and absence of medical recommendation by 42.9% of the unvaccinated. There was one patient reporting that the doctor advised not to apply the vaccine due to allergy to the egg, which is appropriate. Previous research has shown that the health professional is the main facilitator to influence the decision whether or not to take any vaccine at all ages [8-10]. Although this recommendation rate is lower than expected (62.5%), since the ideal is for the physician to recommend vaccines for all patients, other information obtained by the vaccinated patients indirectly refers to adequate medical information, once 87,5% of the subjects have reported that all vaccines are important and 95.8% believe that this vaccine is important for the prevention of the disease. Media campaigns were also proved to be an important tool for persuading people to get vaccinated (87.5% of patients reported that this factor influenced them).

Misconceptions about the vaccine, such as the vaccine does not determine protection or the belief that the vaccine causes the disease, were also justifications for non-vaccination. The belief that the vaccine is not necessary, that it can causes problems or that it is unnecessary are reasons that have already been identified in other studies [11-14].

All health professionals reported receiving the influenza vaccine in 2016. Data from the National Immunization Program show that in 2016, 111.4% of the health workers received the influenza vaccine, although in 2017 coverage has dropped to 88.0% 6. Annual vaccination is critical to protect not only the health professional, who is constantly exposed to the virus during the flu season, but also to protect his patients and family. Concerns about absenteeism referred to in this group have already been identified in previous studies [15,16].

This study demonstrated that the population of health professionals evaluated is aware of the need for vaccination, but it was evidenced a lack of effective guidance on the disease and the vaccine among the patients. Considering this analysis it can be inferred that other prophylactic measures may also not be sufficiently intensified yet. Prevention interventions need to be conducted at all oportunity of encounter with the patient and health professional. The low adherence to vaccination in the studied population (53.8% unvaccinated) may be secondary to a lack of knowledge about the disease and the benefits of vaccine prevention. Patients appear to be sensitive to medical recommendations and information received through the media.

This study has limitations: the sample is small and the participants are part of a heterogeneous group, which may present different access to health information and vaccine services. It is necessary to implement measures of information and convincing about the importance of vaccines in each medical center, since this study identified possible missed opportunities of information.

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