



Journal of Nursing

Revista de Enfermagem

UFPE On Line

ISSN: 1981-8963

ORIGINAL ARTICLE

ADESÃO DOS IDOSOS À VACINAÇÃO CONTRA GRIPE PARTICIPATION OF ELDERLY IN INFLUENZA VACCINATIONS PARTICIPACIÓN DE LOS ANCIANOS EN LAS VACUNAS DE LA GRIPE

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ABSTRACT

Objective: to identify areas of lower participation in the National Vaccination Campaign Against Influenza. **Method:** a descriptive study, with the use of questionnaire to 121 unvaccinated elderly belonging to Primary Health Care and Family Units in São José and Maravilha, Uberlândia - MG/ Brazil, in 2009. The research project was submitted to the Ethics Committee for Research and approved under protocol 703940. **Results:** among the reasons for not joining the campaign reported by seniors, prevailing was *not having time to go vaccinate* (21.49%); for the other reasons given, prevailing were *not been interested in taking or not believing in the vaccine* (31.09%). **Conclusion:** the results suggest the need for guidance on the importance of the vaccine through the media and training of health professionals, to ensure homogeneous vaccination coverage in the municipality. **Descriptors:** Influenza Vaccine; Elderly; Vaccination Coverage.

RESUMO

Objetivo: identificar as áreas de menor adesão à Campanha Nacional de Vacinação Contra a Gripe. **Método:** estudo descritivo e exploratório, com a aplicação de questionário a 121 idosos não vacinados pertencentes às Unidades de Atenção Primária de Saúde da Família São José e Maravilha no Município de Uberlândia-MG/Brasil, no ano de 2009. O projeto de pesquisa foi submetido à apreciação do Comitê de Ética em pesquisa e aprovado sob o protocolo 703940. **Resultados:** dentre os motivos da não adesão à campanha relatados pelos idosos predominou *Não tive tempo de ir à unidade para me vacinar* (21,49%); quanto aos outros motivos alegados, destacou-se *Não tive interesse em tomar ou não acreditava na vacina* (31,09%). **Conclusão:** os resultados sugerem a necessidade da orientação quanto à importância da vacina através dos meios de comunicação e a capacitação dos profissionais de saúde, para garantir coberturas vacinais homogêneas no município. **Descritores:** Vacinas Contra a Influenza; Idosos; Cobertura Vacinal.

RESUMEN

Objetivo: identificar áreas de menor participación en el nacional campaña vacunación contra la Influenza. **Método:** Un estudio descriptivo, con el uso de cuestionario a 121 personas mayores no vacunados perteneciente a la atención primaria de salud y unidades de la familia en São José y de Maravilha, Uberlândia - MG Brasil, en 2009. El proyecto de investigación fue presentado al Comité de ética para la investigación y aprobado bajo protocolo 703940. **Resultados:** entre las razones para no unirse a la campaña por las personas mayores, que prevalece no tenía tiempo para ir a vacunar (21,49); por las razones expuestas, prevaleciendo fueron no ha interesado en tomar o no creer en la vacuna (31.09). **Conclusión:** los resultados sugieren la necesidad de orientación sobre la importancia de la vacuna a través de los medios de comunicación y formación de profesionales de la salud, para garantizar la cobertura de vacunación homogénea en el municipio. **Descriptores:** Vacuna contra la Influenza; Ancianos; Cobertura de Vacunación.

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INTRODUCTION

The World Health Organization - WHO - chronologically classifies 'elderly' as a person who is over 65 years old in developed countries and over 60 years old in developing countries.¹

In the world and particularly in Brazil, the number of elderly is increasing significantly due to advances in medicine, early diagnosis, disease prevention and health promotion, thus generating a higher life expectancy.¹ The numbers of hospitalisations for acute respiratory infections among the elderly have declined in recent years, after the influenza vaccination campaign started in 1999. Influenza and pneumonia are among the leading causes of morbimortality for this age group, causing concern for health authorities, due to the virus' large antigenic variability and the possibility of transmission from an infected individual to others.²

In the elderly and in individuals with chronic diseases, influenza has great epidemiological value due to its severe consequences (pneumonia or worsening of pre-existing diseases), significantly increasing the framework of morbidity in this population. Influenza, or 'the flu', is characterised as an acute infectious disease of the respiratory tract, highly contagious, benign and self-limited, occurring with greater intensity at the end of autumn and during winter.³

Human influenza is transmitted through infected droplets which spread rapidly and efficiently from an infected individual, through coughing or sneezing, to a non-immunized individual, either by vaccination or by a previous infection.² The Ministry of Health established a vaccination campaign with the primary goal to reduce, in the elderly, the morbidity and mortality caused by influenza hospitalisations, thus contributing to the increase in expectation and quality of life.

Vaccination should occur in the period prior to wider circulation of the virus and be given every year to confer adequate protection, since its composition also varies annually depending on the circulating strains.⁴ The influenza vaccine is safe and effective, consisting of inactivated virus; however like other vaccines, some adverse, although benign, events can arise, such as pain and sensitivity at the injection site, erythema and induration, and systemic low-grade manifestations such as fever, malaise and myalgia, that may start between 6 and 12 hours after vaccination. Runny nose, muscle aches and vomiting may occur, although

rarely. Hypersensitivity reactions are rare and may occur due to hypersensitivity to any component of the vaccine.⁵

Given the above, this study becomes necessary in order to identify information related to influenza vaccination in the elderly, highlighting the factors that lead to non-adherence to the national vaccination campaign against influenza. This identification is crucial for the proper monitoring of the immunisation program and possible interventions in the target population, thus achieving the vaccination coverage goals proposed by the Ministry of Health.

This study aims to identify areas of lower adherence to the National Campaign of Vaccination against Influenza and identify factors that influence non-adherence in the elderly.

METHOD

This is a descriptive and exploratory, qualitative and quantitative study⁶, developed in Uberlândia, in Northern Health Region, which had lower influenza vaccination coverage in 2009. The Region has two Primary Care Family Health Units / UAPSF with vaccination room: São José and Maravilha.

The target population consisted of elderly adults attended in the catchment area of São José and Maravilha's UAPSF which did not attend the National Campaign of Vaccination against Influenza, held in the period from 25/04/2009 to 29/05/2009.

The sample was calculated for relatively small finite populations and in a sampling without replacement, using the formula

$$n = \frac{N.p.q[Z_{\alpha/2}]^2}{p.q.[Z_{\alpha/2}]^2 + (n-1).E^2}, \text{ where } n \text{ is the}$$

sample size, p and q are approximated possibilities of the two events (to be or not to be interviewed) and as these values are not known, for each an approach of 50% or 0.5 chance was made. $Z_{\alpha/2}$ is the coefficient of normal distribution and tabulated values will be used for this purpose; the formula reliability is 95% or 0.95. "N" is the total population size, and "E" is the margin of error of 8% or 0.08.⁷

According to the calculations, n was 121 elderly respondents, with 65 from UAPSF São José and 56 from UAPSF Maravilha.

Inclusion criteria were: seniors aged over 60 years; having their residence in the UAPSF catchment area; not having a proof of vaccination card; agreeing to participate in the study and signing the Consent Form. Exclusion criteria were: seniors and caregivers

who did not agree to participate in the study; elderly vaccinated in the campaign of 2009.

Data collection was performed in all of the UAPSF micro-areas until reaching the desired sample number of 121 unvaccinated elderly, and took place continuously in the morning and afternoon hours. The team consisted of three people: two interviewers / researchers / academics and a community worker responsible for the micro-area.

A questionnaire was applied containing closed questions such as: personal data (sex, age, education, occupation, marital status, number of children, number of residents in the household and monthly income), whether they have information about the flu vaccine and its importance what is the source of information about the vaccine, the number of vaccinations they've had and reasons for not having influenza vaccinations in 2009. This tool is an adaptation of the Ministry of Health's Fast Monitoring Spreadsheet for Rubella and Congenital Rubella Syndrome Vaccine Coverage, published in Report No. 5 of 2008.⁴

Questions 2 and 4 of the survey asked through which media seniors would like to be informed about the vaccine and the vaccination campaign against influenza. One of the answer's options was radio, TV and internet. The internet option was excluded, as it is believed that access to it is not part of the socio-economic and cultural development

of the population interviewed.

A pilot study was conducted interviewing 10 elderly people to evaluate the above questionnaire, which found that the question number 3 "Do you know the importance of vaccination?" was redundant due to question number 1: "Do you have information about the flu vaccine?" For this reason, question number 3 was excluded.

After collection, the data was consolidated and tabulated for statistical analysis, correlated with the theoretical reference and presented in the form of tables.

The ethical guidelines in Resolution N° 196/96 were followed. This study design was approved by the Ethics and Research (CER) of the Triângulo University Centre - UNITRI under registration N° 703940.

RESULTS

During the study period, 121 elderly enrolled in UAPSF Maravilha and São José's were interviewed, with the sample comprising of 52.07% women and 47.93% men, being predominantly: married (59.50%), aged 60 to 64 years (31.40%), illiterate / primary education (91.73%) and monthly income of 1-3 minimum wages (66.94%) (Table 1).

Table 1. Characterization of the elderly in the area covered by UAPSFs Maravilha and São José, Uberlândia (MG), Brazil. 2009.

Características	n	%
Sex		
Female	63	52.07
Male	58	47.93
Age group		
60-64	38	31.40
65-69	31	25.62
70-74	25	20.66
75-79	17	14.05
80 or over	10	8.27
Number of residents in the household		
Alone	18	14.97
Two people	42	34.73
Three people	30	24.77
Four people	12	9.84
Five or more people	19	15.69
Number of children		
None	8	6.62
1 to 2	24	19.83
3 to 4	34	28.10
5 or more	55	45.45
Education		
Illiterate/ incomplete Elementary	111	91.73
Elementary / incomplete Intermediate	4	3.31
Intermediate / incomplete Secondary School	4	3.31
Secondary School / incomplete College	2	1.65
College	0	0
Marital status		
Married	72	59.50
Single	10	8.26
Divorced	16	13.23
Widower	23	19.01
Occupation		

Retired	64	52.89
Pensioner	7	5.78
Mason	3	2.49
Homemaker	31	25.62
Other	16	13.22
Monthly income		
0 - 1 minimum wage	37	30.58
1 - 3 minimum wages	81	66.94
4 - 6 minimum wages	3	2.48
7 or more minimum wages	0	0

It was found that 66.94% of respondents had no information about the flu vaccine, among which 56.20% would like to be informed about the vaccine through mass media such as radio and television. When asked about the source of information of the vaccination campaign in 2009, 61.98% said

they had obtained the information through radio and television. Regarding acceptance of the vaccine, it was observed that 49.59% of seniors reported not having participated in any vaccination campaign against influenza (Table 2).

Table 2. Distribution of the senior regarding information about the vaccine and the number of campaigns in which they participated, in the area covered by UAPSFs Maravilha and São José, Uberlândia (MG), Brazil. 2009.

n	%	
Do you have information about the flu vaccine?		
Yes	40	33.06
No	81	66.94
How would you like to be informed?		
Media (radio and TV)	68	56.20
Doctors	21	17.35
Family / Friends / Neighbours	3	2.48
Health Community Agents	28	23.14
Church	0	0
Other	1	0.83
How did you get informed about the flu vaccination campaign?		
Media (radio and TV)	75	61.98
Doctors	2	1.65
Family / Friends / Neighbours	16	13.22
Community Health Workers	17	14.05
Church	0	0
Other	11	9.10
How many flu vaccination campaigns have you participated in?		
No Campaigns	60	49.59
1 Campaign	36	29.75
2 Campaigns	7	5.79
3 Campaigns	4	3.30
4 Campaigns	6	4.96
5 Campaigns	1	0.83
6 Campaigns	2	1.65
8 Campaigns	5	4.13

Among the reasons for not participating in vaccination campaigns against influenza reported by the elderly, the most common

was: I had no time to go to the centre to be vaccinated (21.46%) (Table 3).

Table 3. Reasons for not participating in the campaign of vaccination against influenza for seniors in the area covered by UAPSFs Maravilha and São José, in Uberlândia (MG) in 2009. Uberlândia (MG), Brazil. 2009.

Reasons for not participating in the campaign of vaccination	n	%
I had no time to go to the centre to be vaccinated	26	21.46
I refused to be vaccinated for various reasons	14	11.54
I did not know anything about the vaccination	11	9.24
Because I got sick after the last vaccination	11	9.12
The vaccinators did not come to my house	3	2.5
Medical recommendation	3	2.5
Other	53	43.64
Total	121	100%

Table 4 outlines the other reasons cited by the elderly when asked about not participating in the vaccination campaign against influenza in 2009. Among other responses, the noteworthy were: Not

interested in taking or not believe in the vaccine, with 16 subjects (31.08%), and Had no information on the vaccine, with 15 subjects (28.81%).

Table 4. Other reasons cited by the seniors in the area covered by UAPSFs Maravilha and São José in Uberlândia (MG) in 2009. Uberlândia (MG), Brazil. 2009. (n = 53).

Other reasons	n	%
Not interested in taking or not believe in the vaccine	16	31.08
Had no information about the vaccine	15	28.81
Had no flu symptoms for many years	7	12.32
Friends who got the vaccine got sick.	5	10.34
I forgot	4	7.11
I was sick during the vaccination period	4	7.11
I have several allergies	2	3.23
Total	53	100

It was found that 21.62% of the elderly reported showing some sort of vaccine-related adverse effect. The most-cited systemic manifestations included fever (23.07%), local pain occurring at the injection site (7.70%) and others (50%) temporally related to the vaccine. Several respondents (19.23%) reported more than one adverse event associated.

DISCUSSION

Influenza vaccine constitutes the main public health strategy in improving the living conditions of the elderly population, as well as reducing the number of hospitalisations resulting from complications of influenza virus infections.⁸

In analysing the education of the population studied, it was found that 91.73% of respondents had not finished elementary school. It is known that low educational levels of elderly populations recalls times when the chances of access to school were unequal, depending on social class or gender. The older the population, the less the education levels. These facts may be related to the difficulty of understanding the risk / benefit of the vaccine.⁸⁻¹¹

With respect to age, we found that the majority (31.40%) belong to the age group 60-64 years, which corroborates a similar study.⁹ There is also a high percentage of the population (25.62%) aged 65 years or older, which is in line with the results presented in previous studies, which affirms that the Brazilian population is reaching a life expectancy of over 65. According to official data, the average life expectancy for both sexes is 73.17 years¹², corroborating a study in São Paulo seeking to know the vaccination coverage, which found ages from 70 to 79 years.

As for the media through which elderly people would like to be informed about the flu vaccine, 56.20% of respondents reported television and radio as a means of easy access and understanding. The second means chosen

was information through community health workers (23.14%). Among the responsibilities of community health workers, worth highlighting are: being in permanent contact with families through home visits, developing educational actions, looking to stimulate health promotion and prevent diseases.^{10,14}

Among the reasons given by the subjects to justify not participating in the national campaign of vaccination against influenza in 2009, standing out was: I had no time to go to be vaccinated (21.46%). This result was not found in any similar study. As for other reasons reported, topping the list were: Had no interest in taking or not believe in the vaccine (31.09%) and Had no information about the vaccine (28.81%). Studies confirm that there is a large knowledge gap in the elderly population about the importance of vaccinations to health, a fact that suggests the inadequacy of the approaches used to promote the campaign in the media and among health professionals.^{8,11}

Of the seniors who participated in previous campaigns of vaccination against influenza, 78.38% had no adverse events to the vaccine. This fact is scientifically proven, since the vaccine is composed of different strains of inactivated, purified and fragmented *myxovirus influenzae*, with high immunogenicity and low reactogenicity, giving good efficacy and tolerability.¹⁴ As found by other authors, adverse vaccine events, reported by 21.62% of the elderly respondents, can be classified as mild or even of no clinical and epidemiological importance.

CONCLUSION

This study enabled an approximation to the real knowledge, attitudes and practices of the elderly regarding the flu vaccine and the National Influenza Vaccination Campaign. There was inadequate knowledge about their true objectives and the importance of this strategy and public policy implemented by the Ministry of Health, with the aim of reducing the morbidity profile of a portion of the population, especially those with of low

socioeconomic status, who are more vulnerable to health problems.

The results of the study reinforce the importance of guidance and means of communication about the importance of flu vaccination. There is still a need for training of health professionals, particularly community health workers, so that they can promote and orientate the population effectively and improve the participation of the elderly, and thus ensure homogeneous vaccination coverage throughout the municipality in accordance with the targets set by the Ministry of Health.

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Submission: 2012/10/09
Accepted: 2013/03/09
Publishing: 2013/04/01

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