

COVID-19 Vaccine: analysis of how the population of a Family Health Strategy perceives this practice

Vacinação para COVID-19: análise de como a população de uma Estratégia Saúde da Família percebe essa prática

Vacunación contra COVID-19: análisis de cómo percibe esta práctica la población de una Estrategia de Salud de la Familia

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RESUMO

Objetivo: Analisar como a população adscrita de um território da Estratégia Saúde da Família percebe a prática da vacinação contra COVID-19. **Método:** Estudo transversal, observacional e quantitativo no qual participaram 122 usuários de ambos os sexos e maiores de 18 anos. Foi aplicado um questionário estruturado na Unidade de Saúde da Família. **Resultados:** A maioria (86,88%) dos entrevistados considera a imunização contra a COVID-19 segura e importante para a redução de casos graves, hospitalizações e óbitos pela doença, uma pequena parcela (33,60%) apresenta receio das possíveis reações adversas. No entanto, a favorabilidade da aplicação vacinal diminui de acordo com a faixa etária a ser imunizada, sendo maior em adultos e menor em crianças. Dentre as fontes de informações sobre vacinação mais citadas estão a televisão (71,31%) e profissionais de saúde (44,26%). **Conclusão:** Assim, faz-se necessário a promoção de ações educativas nos territórios da Estratégia Saúde da Família, a fim de promover a conscientização acerca da importância e da necessidade da vacinação, assim como remediar falsas informações.

Descritores: Vacinas contra COVID-19; Percepção; Fontes de Informação.

ABSTRACT

Objective: to analyze the vaccine perception for COVID-19 in a territory of Family Health Strategy. **Method:** Observational, quantitative and cross-sectional study, which included 122 users of both sexes and over 18 years old. A structured questionnaire was applied at the Family Health Unit. **Results:** About the vaccine perception for COVID-19, most respondents consider immunization is safe and important for the reduction of severe cases, hospitalizations and deaths (86,88%), while a small portion are afraid of possible adverse reactions (33,60%). However, the favorability of vaccination decreases according to the age group to be immunized, being higher in adults and lower in children. Among the most cited sources of information about vaccination are television (71,31%) and health professionals (44,26%). **Conclusion:** It is necessary to promote educational actions in the Family Health Strategy territories, in order to promote awareness about the importance and necessity of vaccination, as well as remedy false information.

Descriptors: COVID-19 Vaccines; Perception; Information Sources.

RESUMEN

Objetivo: Analizar cómo percibe la población afiliada a un territorio de Estrategia de Salud de la Familia la práctica de la vacunación contra la COVID-19. **Método:** Estudio transversal, observacional y cuantitativo en el que participaron 122 usuarios de ambos sexos y mayores de 18 años. Se aplicó un cuestionario estructurado en la Unidad de Salud de la Familia. **Resultados:** La mayoría (86,88%) de los encuestados considera que la inmunización contra la COVID-19 es segura e importante para reducir los casos graves, las hospitalizaciones y las muertes por la enfermedad, una pequeña porción (33,60%) teme posibles reacciones adversas. Sin embargo, la favorabilidad de la vacunación disminuye según el grupo de edad a inmunizar, siendo mayor en adultos y menor en niños. Entre las fuentes de información sobre vacunación más citadas se encuentran la televisión (71,31%) y los profesionales de la salud (44,26%). **Conclusión:** Por lo tanto, es necesario promover acciones educativas en los territorios de la Estrategia Salud de la Familia, con el fin de promover la concientización sobre la importancia y necesidad de la vacunación, así como remediar las informaciones falsas.

Descriptores: Vacunas contra la COVID-19; Percepción; Fuentes de Información.

ORIGINAL

Introduction

The coronavirus disease 2019, called COVID-19, originated with an outbreak of severe acute respiratory infection in the Chinese city of Wuhan, in December 2019 and has the SARS-CoV-2 virus as its etiological agent. COVID-19 was designated as a global pandemic by the World Health Organization (WHO) in March 2020.¹ COVID-19 showed a high speed of spread and the ability to cause deaths, especially in vulnerable populations. In Brazil, the challenges were even greater due to social inequality, with populations in precarious housing and sanitation conditions and in a situation of agglomeration.²

Based on studies directed at the SARS-CoV-2 virus, ways to prevent COVID-19 were developed to mitigate the negative impacts of the disease on the population. Among the prophylactic measures are social distancing, the use of masks and vaccination.³ Vaccines present the best cost-benefit alternative in the field of public health. In Brazil, the Ministry of Health (MoH) presented the so-called National Plan for the Operationalization of Vaccination (PNO) against COVID-19 as a measure to combat the disease, defined as a Public Health Emergency of International Concern.⁴

Initially, two vaccines were selected as capable of introduction into the public health network in Brazil, these being the CoronaVac and AstraZeneca immunizers. The national vaccination campaign began in January 2021, about three months after the start of the vaccination campaign in Europe and the United States of America, with the CoronaVac immunizer, produced by Butantan and the Chinese pharmaceutical company Sinovac.⁵ AstraZeneca is produced by the University of Oxford in partnership with the Serum Institute of India and the Oswaldo Cruz Foundation (Fiocruz), which made it possible to produce the immunizer in the national territory, facilitating distribution in the country and providing the first results to Brazilian society.^{4,6}

In July 2021, adolescents aged 12 to 17 were included in the National Immunization Plan (PNI) against COVID-19. The expansion of the use of the Comirnaty (Pfizer/BioNTech) and CoronaVac (Butantan/Sinofarm) vaccines for application in children aged 5 to 11 years was approved by the National Health Surveillance Agency (ANVISA) between December 2021 and January 2022.⁷

The dissemination of fake news influences the population's vaccination perception for all age groups, becoming a serious health problem in Brazil. A survey conducted in 2021 identified the internet as an information barrier about the importance of vaccination, thus causing a reduction in confidence in vaccines by the population.⁸ In the case of COVID-19, the belief that immunizers have not been sufficiently studied, in view of the rapid time of their development, is one of the factors associated with the misleading vaccine perception and its consequent refusal, to which are added the distrust as to the origin of the vaccine and political-ideological factors. Online mobilizations and anti-vaccine movements were one of the main factors responsible for the reduction of confidence in vaccines against COVID-19 by the Brazilian population.⁹

Understanding how the population perceives vaccination for COVID-19 is essential for directing educational actions that seek to expand vaccine adherence. In this sense, the objective of this study was to analyze how the population enrolled in a territory of the Family Health Strategy perceives the practice of vaccination against COVID-19.

Method

This is a cross-sectional study with users of the Parque São Jorge Family Health Strategy, in the municipality of Rondonópolis, located in the southeastern region of the state of Mato Grosso. The sample was for convenience and users aged 18 years or older, of both sexes, who agreed to participate in the research by signing the Informed Consent Form (ICF) and who attended the unit during the data collection period, were included in the study. Users who did not have health, cognitive and communication conditions to answer the questionnaire were excluded.

Initially, a pilot test was carried out to test and adapt the data collection instrument with individuals not included in the study. When the population came to the health unit, they were invited to participate in the research, being informed of the objectives of the study, as well as the ethical aspects.

Data were collected from November 2022 to January 2023, at the reception of the health unit with a structured questionnaire that contained three blocks of information:

a) sociodemographic data: gender, age, color/race, marital status, education, family income, work situation and whether they went out to work during the pandemic;

b) data on immunization: if vaccinated, how many doses and which vaccines;

c) perception of vaccination: degree of importance of vaccines as a way to avoid COVID-19, whether favorable to vaccination against COVID-19 in adults, adolescents, and children, vaccine safety, fear of adverse reactions in the future, confidence in the vaccine, whether they consider them important for reducing cases, hospitalizations, and deaths from COVID-19.

The data were tabulated in Microsoft Excel and analyzed using JASP 0.16.3.0. Descriptive statistics were applied and absolute and relative values were calculated.

The research was approved by the Research Ethics Committee (CEP) of the Júlio Muller University Hospital, Federal University of Mato Grosso CAEE 39427420.1.0000.5541, Opinion Number: 4.418.798. Thus, all ethical aspects of research with human beings were respected, in accordance with Resolution No. 466/2012 of the National Health Council of the Ministry of Health.

Results

A total of 122 users participated in the study. The mean age was 36 years. The participants were mostly women (68.85%; n=84), aged between 18 and 39 years (60.65%; n=74), self-declared white (35.25%; n=43), without a partner (59.83%; n=73), studied for 9 years or more (78.69%; n= 96), with a family income of 2 minimum wages or more (88.52%; n=108), inserted in the formal or

informal labor market (75.41%; n=92), who left to work during the pandemic (66.39%; n=81). Table 1 presents these data.

Table 1 - Sociodemographic characteristics of the research participants. Rondonópolis, MT. 2023. n=122

Variables	N	%
Sex		
Male	38	31,15%
Female	84	68,85%
Age in years		
18 - 39	74	60,66%
40 - 59	59	36,88%
60 or more	03	2,46%
Color/Race		
White	43	35,25%
Brown	41	33,60%
Black, indigenous and yellow	38	31,15%
Marital status		
Companion	49	40,16%
Without a partner	73	59,83%
Schooling in total years of study		
Up to 5	19	15,57%
6 to 8	07	5,74%
9 or more	96	78,69%
Household income		
Up to 1 minimum wage	14	11,48%
2 or more minimum wages	108	88,52%
Working situation		
Retired	08	6,56%
Formal or informal work	92	75,41%
Not inserted in the labor market	22	18,03%
Went out for work during the pandemic		
Yes	81	66,39%
No	41	33,60%

Regarding the COVID-19 vaccination of the population studied, it was found that a total of 119 (97.54%) respondents received at least one dose of the immunizers, while 81 (66.39%) had been vaccinated with a complete schedule (2 doses), 1 (0.82) with only the first dose of the vaccine and 37 (30.32%) were immunized with the booster dose. The most used vaccine in the complete vaccination schedule was AstraZeneca (36.88%; n=45), followed by Pfizer (25.41%; n=31) and CoronaVac (18.03%; n=22). In the case of the booster vaccine, the most applied among users was the Pfizer immunizer (26.22%; n=32).

A frequency of 47.89% (n=57) of those immunized reported having some adverse effect to the vaccine, the most reported were: pain at the application site (21%; n=25), joint pain (20.16%; n=24), fever (15.96%; n=19), headache (15.12%; n=18) and chills (11.76%; n=14).

Regarding the opinion of users about vaccination against COVID-19, 86.88% (n=106) consider vaccine protection important to avoid the disease. A prevalence of 96.72% (n=118) stated that they were in favor of immunization in

adults, 93.44% (n=114) agreed with the vaccination of adolescents and only 60.65% (n=74) were in favor of the application of vaccines in children. Data shown in Table 2.

Table 2. Characterization of the perception of vaccination against COVID-19 by users of the Parque São Jorge Family Health Strategy. Rondonópolis, MT. 2023. n=122

Answers	N	%
As for vaccination, as a way to avoid COVID-19, you consider:		
Important	106	86,88%
Not very important	12	9,83%
Indifferent	4	3,27%
Are you in favor of vaccination against COVID-19 in adults?		
Yes	118	96,72%
No	3	2,45%
Indifferent/Has no opinion	01	0,82%
Are you in favor of vaccination against COVID-19 in adolescents (12-18 years)?		
Yes	114	93,44%
No	07	5,73%
Indifferent/Has no opinion	01	0,82%
Are you in favor of vaccination against COVID-19 in children (05-11 years old)?		
Yes	74	60,65%
No	29	23,77%
Indifferent/Has no opinion	19	15,57%
In your opinion, vaccines for COVID-19:		
Are they safe?	77	66,11%
Are you afraid of possible adverse reactions that may arise in the future?	41	33,60%
Are they not reliable?	18	14,75%
Are they important for the reduction of COVID-19 cases?	65	53,27%
Are they important for reducing severe cases and hospitalizations for COVID-19?	111	90,98%
Are they important for reducing deaths from COVID-19?	112	91,80%

The sources of information about vaccines cited were mostly TV (71.31%; n=87), health professionals (44.26%; n=54), websites (27.86; n=34) and shared by messaging app (20.49%; n=25).

Discussion

Vaccination is considered a public health tool, since the decision to get vaccinated or not will have an individual and collective impact. However, due to the insecurity and fear of adverse reactions presented by the population, immunization actions for COVID-19, despite contributing to the control of the pandemic, showed low acceptance. In this research, we present the perception of users of an FHS about vaccination for COVID-19.

In the present study, most respondents consider vaccines safe and important for reducing severe cases, hospitalizations, and deaths from COVID-19, but a small portion (33.60%) are afraid of possible adverse reactions in the future. In a survey conducted in 2022, 54.9% of respondents stated that immunization would enable the gradual resumption of daily activities, and that it would not cause damage to the health of the population. Even so, the same population group of the aforementioned research showed that they did not have confidence in the development of an effective vaccine in a timely manner and therefore were afraid of adverse reactions.¹⁰

A digital survey was carried out in 20 countries, and they state that vaccine refusal is related to the fear of possible adverse reactions in the short and long term, being associated with fake news disseminated among the population, mainly through digital media. On the other hand, groups of people who obtained official data from health professionals and organizations had a lower fear of adverse reactions.¹¹

Since 2019, the World Health Organization (WHO) has considered vaccine hesitancy as one of the ten threats to global health, permeating behavioral and cognitive factors, such as the perception of vulnerability to the disease and the ability to think critically.¹² Refusal of immunizers has been present since the emergence of the first vaccine, establishing itself on the questioning of the safety of immunobiologicals and their possible side effects. With COVID-19, the anti-vaccine movement has intensified through the spread of fake news on social media and political and ideological positions.⁸

In 2021, a survey was carried out in which they questioned whether those responsible took their children to be immunized, 43% answered negatively, influenced by *fake news*.¹³ This ease of producing and reproducing erroneous information in the digital environment has become a challenge for public health, where the creation of effective strategies to combat false information is necessary both in the virtual environment and within the health units themselves, with the training of professionals who have the ability to solve any question related to immunobiologicals as well as able to deny any false information that may influence the taking of decision of the individual.

According to the data collected in the present study, the acceptance of immunization against COVID-19 increases according to the age group, that is, there is a better perception of vaccination in adults than in children. One researcher observes that the proposal for national immunization of children has caused hesitancy on the part of parents and guardians, a fact that is in agreement when analyzing vaccination adherence by children.¹⁴

There are about 20,707,411 children in Brazil between the ages of 5 and 11 years, of which 14,917,531 were immunized with the first dose, representing 72.03% of this population group. In the state of Mato Grosso, when analyzing

the application of two doses, 29.39% of children between 05-11 years old were vaccinated, while adolescents aged 12-17 years total 61.43% of immunized, and adults aged 18-59 years account for 85.21%.¹⁵⁻¹⁶

In 2020, a study was carried out with Chinese parents and showed that 45.2% were hesitant to vaccinate their children. The main variables of parental hesitancy were gender, as mothers were more fearful of the result of the vaccine, in the medium and long term. Regarding the age of the child, the younger, the higher the level of parental refusal, and finally, the higher the level of knowledge about COVID-19, the less hesitation.¹⁷

Despite the availability of immunizers, hesitancy to vaccinate occurs due to reluctance or refusal, which threatens to reverse progress in the fight against diseases that can be prevented through immunization, such a process being noted by the return of diseases previously eradicated, such as measles. Anti-vaccine movements are highlighted as a crucial factor for vaccine refusal, relating the dissemination of false information to low vaccination coverage.¹⁴

In the present study, the main vehicle of information about COVID-19 vaccines among the interviewees was the television media (71.31%). This fact contrasts with a study carried out by the University of Oxford, with a sample of 2,047 Brazilians, where 57% of respondents declared to get their information through social networks, while 51% get their information through TV.¹⁸

As limitations of the study, it can be mentioned that this is a convenience sample, which may impact the representativeness of the sample. In addition to this factor, we mention that this is a study that included only users of one health unit. Future studies, encompassing users from other areas, should be carried out.

Conclusion

Most PHC users consider vaccines important to prevent COVID-19 cases, hospitalizations, and deaths from the disease, however, a portion of the population is afraid of possible adverse effects of the immunizers. Confidence in vaccines varies according to the age group to be immunized, being higher in vaccination for adults and lower in children. TV and healthcare workers are the main sources of information for COVID-19. It is necessary to promote educational actions in the territories of the Family Health Strategy, in order to promote awareness about the importance and need for vaccination for COVID-19, especially for children and adolescents.

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