ANALYSIS OF COVID-19 VACCINE COVERAGE AND ADHERENCE AMONG THE ADULT POPULATION OF ANÁPOLIS, GOIÁS

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ABSTRACT

Vaccination is an effective and cost-effective policy for preventing and controlling infectious diseases. In Brazil, vaccination coverage continues to grow, despite the challenges of an emerging country. However, a number of factors, such as poor adherence to campaigns, prevent such programs from being as effective as they should be. In this sense, it is necessary to help identify the barriers and challenges that prevent optimal adherence to vaccination. Given this, the present study aims to analyze COVID-19 vaccination coverage and adherence among the adult population in the municipality of Anápolis, Goiás. This is a cross-sectional, descriptive, and quantitative study developed using a semi-structured questionnaire that assessed vaccination coverage, adherence, and knowledge of the COVID-19 vaccine. A total of 136 adults were surveyed, of whom the majority were men (54.25%) aged between 18 and 59 years. Regarding the COVID-19 vaccine, 84.04% knew its function. Adherence to the first and second doses was high (91.48% and 88.29%), but only 28.72% completed the vaccination schedule with booster doses. Thus, the study showed high initial adherence to COVID-19 vaccination among older adults in Anápolis, Goiás, with confidence in the vaccine's efficacy and safety. However, there was low adherence to booster doses, highlighting challenges such as fear of adverse effects and lack of medical recommendation.

Keywords: COVID-19 infections; Vaccination coverage; Knowledge

INTRODUCTION

The National Immunization Program (PNI) is a government initiative to help protect the population through vaccination. It began in 1973 and is coordinated by the Ministry of Health, in collaboration with state and municipal health departments. The PNI ensures that all target groups, in all parts of the country, have access to all vaccines necessary to protect against more than 20 diseases. It is also organized into an integrated and hierarchical network to ensure that the program is implemented correctly in all areas (DOMINGUES *et al,* 2021; BRAZIL, 2023).

Vaccination is one of the most effective and cost-effective health policies for the control and prevention of infectious diseases, through which there is already a proven reduction in mortality and the perpetuation of diseases today.

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preventable. Immunization is thus largely responsible for the eradication of several diseases with epidemic and pandemic potential (GUIMARÃES *et* al, 2021; LOPES JUNIOR *et al*, 2021).

Thus, when analyzing population adherence to the COVID-19 vaccine among adults in Brazil, positive results were observed, especially after full approval for this age group in the National Immunization Program (PNI). Data from the Ministry of Health indicate that adult vaccination began in June 2021, and initially there was strong uptake, driven by awareness of the severity of the disease and the effectiveness of the vaccines. Uptake of the first dose of the vaccine was high in several regions of the country, with more than 80% of adults receiving the vaccine by the end of 2021. However, uptake of booster doses has been a challenge. Even so, the overall impact of vaccination has been significant, with a substantial reduction in COVID-19-related deaths and hospitalizations (MASSARANI *et al.,* 2021; DOMINGUES *et al.,* 2021; SILVA FILHO *et al.,* 2021).

However, challenges were observed, such as vaccine hesitancy among some individuals, related to the spread of misinformation about possible adverse effects and doubts about vaccine safety. According to a survey published by Fiocruz, confidence in the vaccine varied over time, being lower among groups exposed to fake news and conflicting information. In addition, unequal access to healthcare in remote areas of Brazil also limited equitable vaccination coverage in some regions. Nevertheless, educational campaigns and expanded access to vaccination services have helped to minimize these impacts and ensure high vaccination coverage among adults (DAHER *et al.,* 2022; BRAZIL, 2023). Therefore, this study aims to analyze COVID-19 vaccination coverage among adults aged 18 to 59 years in Anápolis, Goiás.

METHOD

This is a cross-sectional, descriptive, and quantitative study developed using a semi-structured questionnaire, answered via Google Forms, which will assess vaccination coverage, adherence, and knowledge of the COVID-19 vaccine.

The study was conducted at the Central University Outpatient Clinic and the Children's and Adolescents' Outpatient Clinic. In addition, an informational booklet on syphilis was made available to all participants. A sample calculation was made, considering the population data of the municipality of Anápolis provided by the 2010 Census, estimating a sample of 136 adults surveyed. A total of 110 questionnaires were

analyzed, 16 of which were excluded from the survey due to incomplete completion, leaving a total of 94 adults.

The data obtained were tabulated and quantified using descriptive statistics, using simple frequency and percentage. This research followed all the standards established by Resolution 466/2012 of the National Health Council and was submitted to the Research Ethics Committee of UniEVANGÉLICA, with an approval opinion (CAAE: 79675624.1.0000.5076).

RESULTS

When analyzing the sociodemographic profile of the study population, it can be observed that the majority is represented by men (54.25%), with 63.82% in the 18-35 age group. Regarding marital status, 58.51% are single and 44.68% have a high school education. In terms of occupation, 40.42% work in formal employment and the majority earn between 2 and 4 minimum wages (37.23%).

Regarding participants' knowledge about the COVID-19 vaccine, 84.04% stated that they knew the vaccine's function. However, 39.36% said they did not know how the vaccine is made, and 36.17% did not know how it works in the body. Regarding confidence in safety, 77.65% trust the vaccine, and 82.97% believe in its effectiveness.

When analyzing the vaccination status of these adults, it was possible to observe that the majority had received the first and second doses, with a percentage of 91.48% and 88.29%, respectively. However, a minority have a complete vaccination schedule, with only 61.70% vaccinated with the third dose and 28.72% with the fourth dose. In addition, only 61.70% remembered the laboratory where the vaccines were taken.

Among those surveyed, 8.51% did not receive any doses of the COVID-19 vaccine, and the main reasons for this were "I am afraid of the effects of the vaccine" (37.5%), "I believe it is not necessary" (21.9%), and "other" (53.1%). Finally, when asked about their COVID-19 diagnosis, 61.70% had had the disease.

CONCLUSION

In conclusion, this study showed significant adherence to COVID-19 vaccination among adults aged 18 to 59 years in Anápolis-GO, especially for the first and second doses of the vaccination schedule. Most participants demonstrated basic

knowledge about the function of the vaccine and a general confidence in its safety and efficacy, which contributed to a high initial vaccination rate. However, adherence to booster doses was substantially lower, which may pose a challenge for maintaining adequate immunization in the long term.

Factors such as fear of adverse effects and belief that it is not necessary were identified as barriers to vaccination, suggesting the need for more effective communication and incentive strategies. Educational campaigns that combat misinformation and promote a deeper understanding of the importance of booster doses are essential to ensure continued protection among adults and herd immunity. Strengthening public policies, in line with the joint work of health professionals and managers, will be fundamental to overcoming these challenges and increasing vaccination coverage, ensuring greater protection of the adult population against COVID-19.

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