International Journal of Health Science

IMMUNIZATION AGAINST COVID-19 AND WORK LEAVE IN A UNIVERSITY HOSPITAL: EXPERIENCES AND REFLECTIONS OF WORKPLACE NURSING

Flavia Maria Da Silva Andrade Dias

Empresa Brasileira de Serviços Hospitalares/ EBSERH/HU-UFPI Teresina, Piauí https://orcid.org/0000-0003-1550-460X

Mauricio Mendes Boa Vista de Castro

Universidade Federal do Piauí/UFPI Teresina, Piauí https://orcid.org/0000-0002-8463-1197

Keyla Maria Pereira de Sousa

Empresa Brasileira de Serviços Hospitalares/ EBSERH/HU-UFPI Teresina, Piauí http://lattes.cnpq.br/3872292092734677

Maria do Amparo Ferreira Santos e Silva

Empresa Brasileira de Serviços Hospitalares/ EBSERH/HU-UFPI Brasília, Distrito Federal http://lattes.cnpq.br/5335536195760774

Adriana Kirley Santiago Monteiro

Empresa Brasileira de Serviços Hospitalares/ EBSERH/HU-UFPI Teresina, Piauí http://lattes.cnpq.br/4298447331807150



All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).

Narlene Fontenelle Basílio da Silva

Empresa Brasileira de Serviços Hospitalares/ EBSERH/HU-UFPI Teresina, Piauí http://lattes.cnpq.br/4012137251745114

Ana Jessica Sousa Leite Araújo

Empresa Brasileira de Serviços Hospitalares/ EBSERH/HU-UFPI Teresina, Piauí http://lattes.cnpq.br/3453354912524277

Maria do Socorro de Melo Brito Barros

Empresa Brasileira de Serviços Hospitalares/ EBSERH/HU-UFPI Teresina, Piauí http://lattes.cnpq.br/7116225780941537

Vera Lucia Sousa Alves

Empresa Brasileira de Serviços Hospitalares/ EBSERH/HU-UFPI Teresina, Piauí http://lattes.cnpq.br/9962500760795733

Joicy Aline Alencar de Oliveira

Empresa Brasileira de Serviços Hospitalares/ EBSERH/HU-UFPI Curitiba, Paraná http://lattes.cnpq.br/4768418395944666

Iairo Iose de Moura Feitosa

Empresa Brasileira de Serviços Hospitalares/ EBSERH/HU-UFPI Teresina, Piauí http://lattes.cnpq.br/6421808138811526

Ana Virgínia Uchoa Prado Paz

Empresa Brasileira de Serviços Hospitalares/ EBSERH/HU-UFPI Teresina, Piauí http://lattes.cnpq.br/8503175617950517

Abstract: In Brazil, the emergency use of two vaccines against SARS-CoV-2 was authorized in January 2021. Nursing at work, it recognizes occupational risks, monitors diseases related to work activities and devises prevention routines, such as immunization. Thus, the objective was to analyze and describe the experience of occupational nursing during the vaccination campaign against COVID-19, and its repercussions on the monitoring of COVID cases among employees of a University Hospital. This is a descriptive study, of the experience report type, of immunization actions against COVID-19 and monitoring of cases among professionals, developed by occupational nursing in the period from 2021 to 2022. In 2021, 1308 employees were immunized against COVID -19. Once the vaccination schedule is completed, it can be seen that despite the delta variant, circulating in 2021, being more contagious, we recorded fewer cases of contaminated employees than in 2020. The average number of days off work was 12 days in 2020 and of 9 days in 2021, observing the positive impact on absenteeism. With the arrival of the omicron variant, in the first quarter of 2022, there were 346 confirmed cases, with an average of 6 days away. Occupational nursing built a database that allowed statistics for decision making and maintenance of all services provided at the hospital. Despite the higher number of cases than in 2020 and 2021, the milder characteristics of the infection in 2022 allowed for a shorter return to work. It can be said that the performance of the work nursing team in the immunization of workers is relevant to prevent the transmission of COVID-19, in the hospital environment or social environment, significantly reducing the rate of absenteeism. It is recommended to carry out studies where other specialties act in the area of worker health promotion.

Keywords: Vaccination; Nursing work;

INTRODUCTION

On March 11, 2020, months after the world became aware of the first cases of a flu-like illness progressing to Severe Acute Respiratory Syndrome in the city of Wuhan, China, the World Health Organization decreed that we were experiencing a global pandemic. of COVID-19, a disease caused by the new coronavirus (Sars-CoV-2). Among the recommendations, the acceleration of vaccines, therapeutic and diagnostic measures were proposed (World Health Organization, 2020).

Besides, in 2020, the development of scientific studies with vaccine candidates against the new coronavirus was monitored with unprecedented attention. Four lines of this research were carried out in Brazil, which helped us get closer to the backstage and everyday life of science, as well as raising expectations of proximity to technology that could end the pandemic (WHO, 2020).

Authorization for emergency use of the first vaccines took place in some European countries and in the United States before the end of 2020. In Brazil, in the second half of January 2021, the National Health Surveillance Agency (ANVISA) authorized emergency use of two vaccines. Soon after, an ICU nurse at Instituto Emílio Ribas (São Paulo-SP), Mônica Calazans, was the first Brazilian to be vaccinated in the national territory (CASTRO, 2021; EMMERICH, 2021).

In Brazil, the vaccines adopted were that of AstraZeneca, imported and destined to be produced by the Oswaldo Cruz Foundation (Fiocruz-Rio) and the co-production with Active Pharmaceutical Ingredient (IFA) from Sino-Brazilian Coronavac, known to be a virus produced by the Butantan-São Paulo Institute (CORRÊA FILHO; RIBEIRO, 2021). The administration of immunobiologicals

started with two priority groups: the elderly population, due to the higher risk of death from COVID-19, and health professionals who were the first line in the fight against COVID-19 (DA PAZ SILVA FILHO et al, 2021).

Recognized internationally, for the consolidated trajectory of the National Immunization Program (PNI), the country was associated with a well-structured epidemiological surveillance system, however this status was not able to prevent the late immunization of the population, nor the difficulties in the distribution of doses of the vaccine, which was associated with the resurgence of the pandemic, according to Fleury and Fava, 2022.

In order to carry out a vaccination campaign, Silva (2021) points out that professional action is necessary from the planning stage, including development of strategies, supervision, administration of immunobiologicals, control of doses applied daily and of materials used, as well as conservation and monitoring of vaccines.

Occupational nursing is responsible for recognizing occupational risks, monitoring absences due to illness, devising routines for the prevention and monitoring of diseases related to work activities, including immunization campaigns in the work environment (DE MATOS; DA SILVA; DE LIMA, 2017). Silva (2021), reinforces that because it is a team with extensive knowledge of the health sectors and assistance to individuals the nursing team has the power to transform reality whatever the scenario.

Thus, the objective is to analyze and describe the experience of occupational nursing during the vaccination campaign against COVID-19, and its repercussions on the monitoring of COVID cases among employees of a University Hospital.

MATERIAL AND METHODS

This is a descriptive study, of the experience report (ER) type, which is a narrative and reflective way of expressing a lived event. RE is knowledge that is transmitted with a scientific contribution (GROLLMUS et al, 2015). Because it is a RE, it brings a vision focused on the experience of the authors, exclusively, participating in the construction of knowledge, about a relevant experience, in a certain area of activity.

This scientific product does not require the approval of a Research Ethics Committee. It must be noted that all the ethical conducts that are assumed in a scientific production such as the one below, according to Resolution No. 466/2012 of the National Health Council (CNS) (BRAZIL, 2012). Thus, the aim is to describe the experience lived by occupational nursing during the vaccination campaign against COVID-19, and its repercussions on the monitoring of COVID cases among employees of a University Hospital from April 2020 to March 2022.

According to the pandemic decree of the Ministry of Health, on March 11, 2020, the executive board of a University Hospital (HU) organized its Emergency Operations Committee (COE), considering that, within the municipality's Health Care Network, the institution would become a reference for serious cases of COVID-19. Given this context, a hospital contingency plan was elaborated. The document presents the new flows to be adopted by the hospital during the pandemic, and among them the monitoring of professionals on leave due to COVID-19, as well as the prevention and control of infection (DIAS; ANDRADE, 2022).

The vaccination campaign was carried out based on the logistics and strategies created by the Municipal Health Foundation (FMS) of the municipality and in accordance with the guidelines of the Ministry of Health, in order to establish priority for professionals working in the covid area, vaccinators and other care professionals.

The experience took place from January 2021 to April 2022, by the nursing team working at the Specialized Service in Safety and Occupational Medicine (SESMT) of the HU, which acted from the planning of the vaccination campaign, also developing functions in the logistics of immunization employees, vaccinators, registration of and control of administered doses and conservation of immunobiologicals. During the entire period of public health emergency, the same team was responsible for the tratios related to sick leave, making specific records in data systems of leave due to COVID-19, scheduling and monitoring of COVID test results and recorded the period of absence due to illness in the employee's frequency.

RESULTS AND DISCUSSION

The first phase of the campaign with health professionals in the COVID area was carried out on January 20 and 21, with the immunobiological produced by the Butantã Institute (called CoronaVac). According to the National Plan for the Operationalization of Vaccination against COVID-19, the vaccine produced by the Sinovac/Butantã laboratory has a recommended interval of 4 weeks between the two recommended doses, with an efficacy of 77.96% (BRAZIL, 2022). In addition to the application of immunobiologicals, the doses administered were recorded in an electronic form and physical maps made available by the health foundation, and in the SESMT's own spreadsheet.

In the second phase, which comprised the period from January 26 to February 4, the other healthcare professionals were vaccinated and finally, in the last few days, the other health workers. The vaccine provided by the health department was produced by Oswaldo

Cruz Foundation (Fiocruz) - the AstraZeneca vaccine. For this immunization, the National Immunization Program initially opted to adopt the two-dose scheme with an interval of 12 weeks, with an efficacy of 73.43% for the general population or individuals with comorbidities (BRASIL, 2022). At this second moment, the FMS has already provided access to the version of the Information System of the National Immunization Program (SI-PNI) COVID for the coordination of SESMT to register doses directly in the system.

It must be noted that employees of outsourced companies, researchers, residents and students were also immunized, even if there was no staff dimensioning at SESMT to serve them, the action was jointly extended to all workers.

Both phases were carried out within the scope of the HU itself, with inputs provided by the FMS and organization, coordination and execution by the local SESMT with support from other hospital units. The administration of the second dose of the CoronaVac vaccine was also carried out at the University Hospital, from February 17 to 19, 2021, in a space reserved exclusively for the administration of the vaccine to professionals already immunized with the first dose, with the presence of an FMS auditor.

After completing the first phase that dealt with the immunization of workers in the COVID area, the complete immunization of about 98% of workers who remained working in the covid area during this period was ensured (some workers were not immunized on the scheduled date for reasons such as pregnancy, death, illness or transfer of municipality).

The municipal protocol and method adopted for the immunization campaign against COVID underwent changes in the interim, so that the drive-thru modality became a priority by the FMS, as it guarantees

distance and reduces crowds. A specific website was made available to health institutions for registering their employees, giving them the possibility to schedule vaccinations according to the recommended schedule. In the case of the AstraZeneca vaccine, respecting the recommended interval between the first and second doses. The second stage was completed for the most part in April, as recommended, but due to the fact that the second dose was not carried out in the workplace, there was a dispersion of the dates of application of the second dose at even longer intervals than recommended, especially due to unavailability of vacancies, generating scheduling difficulties.

Thus, the second dose was given outside the hospital without direct participation in the organization of the SESMT nursing staff, who were responsible for registering and guiding the scheduling of the second dose.

For Maciel and collaborators (2022), in an analysis of the vaccination campaign against COVID-19, the PNI lost its protagonism, despite the potential and acceptability of vaccination against COVID-19 by the population, as it presents many problems and leaves several gaps in the Brazilian scenario. Something noticeable in the municipality of Teresina, due to the constant changes in strategies for dealings related to the immunization of workers, one of the first groups prioritized by the PNI.

In the last quarter of 2021, the FMS asked all health institutions to include all workers on the scheduling website so that they could schedule booster doses according to the new recommendations, SESMT professionals entered the data of approximately 3000 professionals (among those linked to the company, outsourced workers, students, residents, professors and researchers who worked in the service) so that they could schedule the application of new immunizing

doses.

In 2021, 1,308 employees were immunized against COVID-19, in loco, between January and February. Once the vaccination schedule is completed, it can be seen that despite the delta variant, circulating in 2021, being more contagious, we recorded 169 cases of contaminated employees, against 362 cases in 2020. The average number of days off work was 12 days in 2020 and 9 days in 2021, observing the positive impact on absenteeism due to coronavirus infection.

Even with the clear perception of a decline in new cases, the routine of scheduling COVID tests and removal in case of positive results was maintained, the treatments related to certificates saw their volume decrease significantly, to the point of having weeks without any cases registered, still in 2021.

Bosse et al (2021) reported on the experience and importance of vaccination against COVID in Santa Maria, and its potential to reduce incidence, severe cases and deaths, generating positive effects in health promotion and protection. As well as emphasizing the multiplicity of the role of the professional nurse in collective immunization strategies.

With the arrival of the omicron variant, there was a resurgence of cases, reaching a peak and a massive drop in the number of cases in the first quarter of 2022. 346 cases were laboratory confirmed, but with an average of 6 days of absence.

Even so, with a number of cases that exponentially surpassed the monthly average of cases in the last two years, it was possible to maintain all the care provided at the hospital, without the need for new hires or blocking outpatient care as in previous years, due to the milder characteristics of the variant, which allowed for a quicker return to work despite the number of cases higher than in 2020 and 2021.

With a view to maintaining the full functioning of the Hospital, preventing outbreaks in the workplace and guaranteeing safe assistance to the population, as of the second half of January 2022, the hospital management was given an overview of incidence of COVID-19 cases among employees, average removal, return to work, testing and results.

In a study carried out in 12 hospitals in São Paulo by Lilla et al (2022), the vaccination adherence rate was 98.34% and provided a significant reduction in transmission, even in the phase of greater cases of hospitalizations due to COVID-19.

FINAL CONSIDERATIONS

The COVID-19 pandemic brought a series of problems to health systems, among the main measures to prevent and control the virus, the immunization of the population, with the group of health workers as a priority, in order to maintain the strength of active work.

In the vaccination campaign against COVID-19, there were several challenges, such as the logistics of spaces for accommodating people, prioritization of risk groups, strategy for completing the vaccination schedule, variation in the system for recording data on applied doses.

These challenges emphasized the relevance of nursing work from work to service, with direct effects on SUS users who depend on the care provided by employees, which was fully maintained.

During the immunization campaign against COVID-19, occupational nursing acted in the immunization logistics of employees and the reasons related to sick leave. In addition to scheduling and monitoring COVID test results, constituting a relevant database for people management.

This experience favors the construction

of knowledge in the implementation of actions to immunize workers, as well as in the management of people and work processes, although it is limited to a study carried out in a single health institution in the municipality under the management of the Union and hence differs from other municipal management models. It is recommended, therefore, that other studies be carried out that include

other institutions, such as smaller hospitals under municipal or state management, where other specialties act in the area of promoting workers' health.

REFERENCES

BOSSE, Bruna Rodrigues et al. Campanha de vacinação COVID-19 em Santa Maria, Rio Grande do Sul: relato de experiência. In: Congresso internacional em saúde. 2021.

BRASIL. Ministério da Saúde (MS). Secretaria de Vigilância em Saúde, Departamento de Imunização e Doenças Transmissíveis, Coordenação Geral do Programa Nacional de Imunizações. **Plano Nacional de Operacionalização da Vacinação contra a Covid-19** – 12a edição. Brasília: MS; 2022.

BRASIL. **Resolução nº 466, de 12 de dezembro de 2012.** Dispõe sobre diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos. Brasília: Ministério da Saúde, 2012.

CASTRO, Rosana. Vacinas contra a Covid-19: o fim da pandemia?. Physis: Revista de Saúde Coletiva, v. 31, p. e310100, 2021.

CORRÊA FILHO, H. R.; RIBEIRO, A. A. Vacinas contra a COVID-19: a doença e as vacinas como armas na opressão colonial. **Saúde em Debate**, v. 45, p. 5-18, 2021.

DA PAZ SILVA FILHO, P. S. *et al.* Vacinas contra Coronavírus (COVID-19; SARS-COV-2) no Brasil: um panorama geral. **Research, society and development**, v. 10, n. 8, p. e26310817189-e26310817189, 2021.

DE MATOS, D. A. Reis; DA SILVA, S. O. P.; DE LIMA, C. B. Enfermagem do trabalho: abordando competências e habilidades para a atuação do enfermeiro. **Temas em Saúde**., v.17, n.3, p. 204-216, 2017.

DIAS, F.M.S.A.; ANDRADE, N.S. Gestão de Equipamentos de Proteção Individual no enfrentamento à pandemia de COVID-19 em um Hospital Universitário: relato de experiência. **Journal of Education Science and Health**, v. 2, n. 4, p. 01-09, 2022.

DO NASCIMENTO GALVÃO, D. *et al.* Os desafios durante a campanha de vacinação contra COVID-19: um relato de experiência e reflexões. **Research, Society and Development**, v. 10, n. 10, p. e302101018712-e302101018712, 2021.

EMMERICH, F. G. Comparisons between the neighboring States of Amazonas and Pará in Brazil in the second wave of COVID-19 outbreak and a possible role of early ambulatory treatment. **International Journal of Environmental Research and Public Health**, v. 18, n. 7, p. 3371, 2021.

FLEURY, S.; FAVA, V. M. D. Vacina contra Covid-19: arena da disputa federativa brasileira. **Saúde em Debate**, v. 46, p. 248-264, 2022.

GROLLMUS, N. S. *et al.* Relatos metodológicos: difractando experiências narrativas de investigación. In: **Forum Qualitative Sozialforschung/Forum: Qualitative Social Research**. 2015.

LILLA, J.A.C. *et al.* Impacto da vacinação e das medidas de prevenção para COVID-19 em trabalhadores da área da saúde de 12 hospitais do Estado de São Paulo. **The Brazilian Journal of Infectious Diseases**, v. 26, p. 101797, 2022.

MACIEL, E. *et al.* A campanha de vacinação contra o SARS-CoV-2 no Brasil e a invisibilidade das evidências científicas. **Ciência & Saúde Coletiva**, v. 27, p. 951-956, 2022.

ROLOFF, D. I. T. *et al.* Enfermeiros do trabalho: experiência interdisciplinar em saúde do trabalhador. **Revista Brasileira de Enfermagem**, v. 69, p. 897-905, 2016.

SILVA, E. S. C. A importância da enfermagem na linha de frente da vacinação contra a covid-19: um relato de experiência. Trabalho de Conclusão de Curso (Graduação em Enfermagem) – Pontifícia Universidade Católica de Goiás, Goiania, 2021. Disponível em: https://repositorio.pucgoias.edu.br/jspui/bitstream/123456789/2507/1/TCC%20FINAL%20-%20ELISIANA. pdf. Acesso em: 28 junho 2023.

WHO. **World Health Organization.** Timeline: WHO response COVID-19. Disponível em: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/interactive-timeline. Acesso em: 28 junho 2023...