

# The leading role of Nursing in the vaccination against COVID-19 versus questionable irregularities – a descriptive-exploratory study

Protagonismo da enfermagem na vacinação contra a COVID-19 versus irregularidades contestáveis – estudo descritivo-exploratório

Protagonismo de la enfermería en la vacunación contra el COVID-19 versus irregularidades cuestionables – estudio descriptivo exploratorio

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## ABSTRACT

**Objectives:** To analyze news items that deal with irregularities involving Nursing professionals during the vaccination process against COVID-19 and to discuss technical, ethical and legal courses of action applied or suggested by the Federal and Regional Nursing Councils. **Method:** A documentary, qualitative and descriptive-exploratory research study, whose sources were news items published by the Nursing Councils. The data were processed in the IRAMUTEQ® software through descending hierarchical classification, which allowed performing the lexical data analysis. **Results:** A total of 19 news items constituted the textual corpus, with identification of 117 Text Segments, of which 95 were used (81.20%) and created two thematic blocks. The first deals with the vaccination moment and the second is on the ethical dilemmas of this process. **Conclusion:** The leading role of the Nursing team in immunization is evidenced. Mistrust and patrolling emerged, due to news items about unethical actions. There is a need to protect the professionals' image and ensure safe practices for the population.

**Descriptors:** Pandemics; Nursing; Vaccination.

## RESUMO

**Objetivos:** Analisar notícias que tratem de irregularidades envolvendo profissionais de enfermagem durante o processo de vacinação contra a Covid-19 e discutir condutas técnicas, éticas e legais aplicadas ou sugeridas pelos Conselhos Federal e Regionais de Enfermagem. **Método:** Pesquisa documental, qualitativa, descritiva-exploratória, cujas fontes foram notícias veiculadas pelos Conselhos de Enfermagem. Os dados foram processados pelo software IRAMUTEQ®, por meio da classificação hierárquica descendente que permitiu a análise lexical dos dados. **Resultados:** 19 notícias constituíram o corpus textual, sendo identificados 117 Segmentos de Textos, dos quais 95 foram aproveitados (81,20%) e originaram dois blocos temáticos. O primeiro trata sobre o momento da vacinação e o segundo sobre os dilemas éticos deste processo. **Conclusão:** Evidencia-se um protagonismo da equipe de enfermagem na imunização. Surgiram a desconfiança e o patrulhamento, em função de notícias sobre atos antiéticos. Verifica-se a necessidade de proteção da imagem dos profissionais e assegurar práticas seguras à população.

**Descritores:** Pandemias; Enfermagem; Vacinação.

## RESUMEN

**Objetivo:** Analizar noticias que aborden irregularidades que involucran a profesionales de enfermería durante el proceso de vacunación contra el Covid-19 y discutir conductas técnicas, éticas y legales aplicadas o sugeridas por el Consejo Federal y los Consejos Regionales de Enfermería. **Método:** Investigación documental, cualitativa, descriptiva, exploratoria, cuyas fuentes fueron noticias publicadas por los Consejos de Enfermería. Los datos fueron procesados por el software IRAMUTEQ®, mediante la clasificación jerárquica descendente que permitió el análisis léxico de los datos. **Resultados:** El corpus textual estuvo compuesto por 19 noticias, se identificaron 117 Segmentos de Texto, de los cuales se utilizaron 95 (81,20%) y originaron dos bloques temáticos. El primero se refiere al momento de la vacunación y el segundo a los dilemas éticos de este proceso. **Conclusión:** El equipo de enfermería tiene un papel protagónico en la inmunización. Surgió la desconfianza y el control, debido a noticias sobre actos poco éticos. Es necesario proteger la imagen de los profesionales y garantizar prácticas seguras para la población.

**Descritores:** Pandemias; Enfermería; Vacunación.

## INTRODUCTION

Since the outbreak of the COVID-19 pandemic in March 2020, the technical-scientific and humanized response of the Nursing professionals to the population with suspected and/or confirmed disease caused by the Sars-CoV-2 virus has been observed. And society symbolically recognized the value of this profession in fighting against the pandemic through applause, reports from patients and other health professionals dignifying the value of Nursing and documentaries explaining the fierce routine of these professionals, among other means that valued and recognized Nursing, both socially and professionally<sup>(1)</sup>.

In January 2021, when initiating the vaccinating process against COVID-19 for the Brazilian population, an advent that marks the beginning of the effective fight against transmissibility of SARS-CoV-2, Nursing became news again. After all, in this vaccination context, Nursing plays a leading role, has knowledge about the means of storage, distribution and application of the vaccine, adverse effects and waste disposal measures resulting from this procedure. Nursing professionals participate in this entire process, having immediate access to such inputs, above all, aware of their importance for the survival of human beings in the current scenario.

A recent study already points out that vaccinating people is capable of controlling the pandemic, with a significant decrease in new cases of the disease and, above all, in serious cases and deaths<sup>(2)</sup>. And, therefore, most people have longed to be vaccinated, as it is expected that vaccination will mean protection against the disease, or that, if contracting COVID-19, the disease will be manifested in a mild way. Therefore, in this context, the vaccine expresses life maintenance and respect for people's dignity.

However, it is worth noting that there have been reports from journalists and isolated individuals that some Nursing professionals do not apply the vaccine and seem to misappropriate doses of this input for marketing or for application to family members and friends. Videos were also broadcast in which some Nursing professionals inserted the needle into the users' muscle and, when they noticed, the syringe was empty, with no vaccine<sup>(3)</sup>.

Such events resulted in negative impacts for Nursing, characterizing itself as a severe blow to the recognition and value that the profession has been having in the pandemic context. It was

this contradictory context that caused us concern and motivated us to carry out this study, which aims at: analyzing news items that deal with irregularities involving Nursing professionals during the vaccination process against COVID-19; and discussing technical, ethical and legal course of action applied or suggested by the Federal and Regional Nursing Councils.

## METHOD

A qualitative study of the documentary type, whose primary sources were news items published in COFEN's site ([www.cofen.gov.br](http://www.cofen.gov.br)) and in those of the Regional Nursing Councils, in the "Notícias" ("News") tab. It is considered that, in the midst of so many fake news items circulating in the pandemic context, accessing the news through official portals, such as those mentioned above, makes it possible to verify events not only from a media perspective. But, above all, to highlight actions and deliberations of the COFEN/COREN system, allowing Nursing professionals to recognize their rights and duties, to understand what the representatives of the category have done in order to clarify their members and in their defenses.

Data collection consisted in cataloging the news items published since the beginning of vaccination against COVID-19 in Brazil. Therefore, the time frame considered January 17<sup>th</sup>, 2021 as the starting date and, as the final point, May 12<sup>th</sup> of the same year, because on this occasion it was found that there had been no publications related to the theme for 1 month.

In addition, the data collected were sufficient to meet the objectives of this study.

In order for the collected data to be processed in the *Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires* - IRAMUTEQ®, they were grouped into a single file referred to as *textual corpus*. Textual *corpus* is understood as the set of texts constructed by the researcher and intended to be analyzed<sup>(4)</sup>. And for each interview to be properly identified by the software like a distinct text, they were separated from each other by a command line. The command lines are represented by codes, so that IRAMUTEQ® recognizes the different texts (news items) that were being submitted for analysis<sup>(4)</sup>.

The titles of the publications, as well as their abstracts, were removed from the texts and, as far as possible, the names of people were suppressed, choosing to identify them, when necessary, through the position/function they

were representing. It is noteworthy that news items that had been published in more than one website (reposts), were only considered once in the textual analysis.

Once with the textual *corpus* prepared, that is, corrected according to the guidelines of the IRAMUTTEQ tutorial (available at Iramuteq.org), it was processed by the software. IRAMUTEQ® is a free and open access software that performs the lexical analysis of words in a text, as it has complete dictionaries in several languages and is anchored in the R software, responsible for performing the mathematical and statistical analyses about qualitative data<sup>(4)</sup>.

IRAMUTEQ performs five types of textual analysis: classical lexicography, similarity analysis, word cloud, group-specificity search and Descending Hierarchy Classification (DHC)<sup>(4)</sup>. As it offers a more robust analysis, in this study the choice was to perform the analysis through the DHC. From the DHC, the data are represented in a dendrogram that outlines different classes from a grouping of terms (lexicons), from which the absolute frequency of each of them and the chi-square value ( $\chi^2$ ) are obtained<sup>(5)</sup>. For this study, the lexicons with their respective  $\chi^2$  values were presented, only mentioning those that had  $p < 0.0001$ , a result that points to a significant association. In addition, it is worth considering that, at the interpretive level, the meaning of the classes depends on the theoretical framework of each research study<sup>(4)</sup>. Thus, in view of the results displayed by the software, the researcher analyzes the lexicons and text segments (TS) from each class, identifying the themes and naming the classes. Upon presenting the results, at the end of the TS (news excerpts) there will be the identification of the news items, through the coding "not", followed by an Arabic number that indicates the chronological sequence of the news item identified and the origin of the data. It is noted that such excerpts were copied in full, according to the original publications.

Elaboration of the study considered the SRQR (Standards for Reporting Qualitative Research) Checklist<sup>(6)</sup>.

As it does not directly involve human beings, and the data used come from open and free access electronic websites, there was no need to submit this research to the Research Ethics Committee. In addition, it was observed that the news items published respected the copyright of the respective publications.

## RESULTS

A total of 33 publications were identified, of which 14 were by the COFEN, which were later replicated in COREN's sites – Sections: MT, AM, RS, TO, SE, SC, and PR. Therefore, the textual corpus consisted of 19 different news items, 05 of which were made available by COFEN's website and the others by different sections of COREN's site (RJ, MG, RR, ES, AL, CE, GO, DF, MS). From the report generated by IRAMUTEQ®, 117 TS were identified, of which 95 were used, representing a total of 81.20% of the material. Six classes were identified through the DHC.

Figure 1 shows a dendrogram that presents the lexicons contained in the TS associated with each class and the TS percentage incorporated into each class. Thus, in this graphic representation, it is possible to see 5 partitions in the *corpus*, the first of which divided it into two thematic blocks. The first was referred to as: COVID-19 vaccination moment, covering classes 6 (Before accusing, it is necessary to ascertain the facts), 5 (Social control during COVID-19 vaccination), 1 (Safe communication during vaccination) and 2 (Leading role of Nursing in the context of the COVID-19 vaccination).

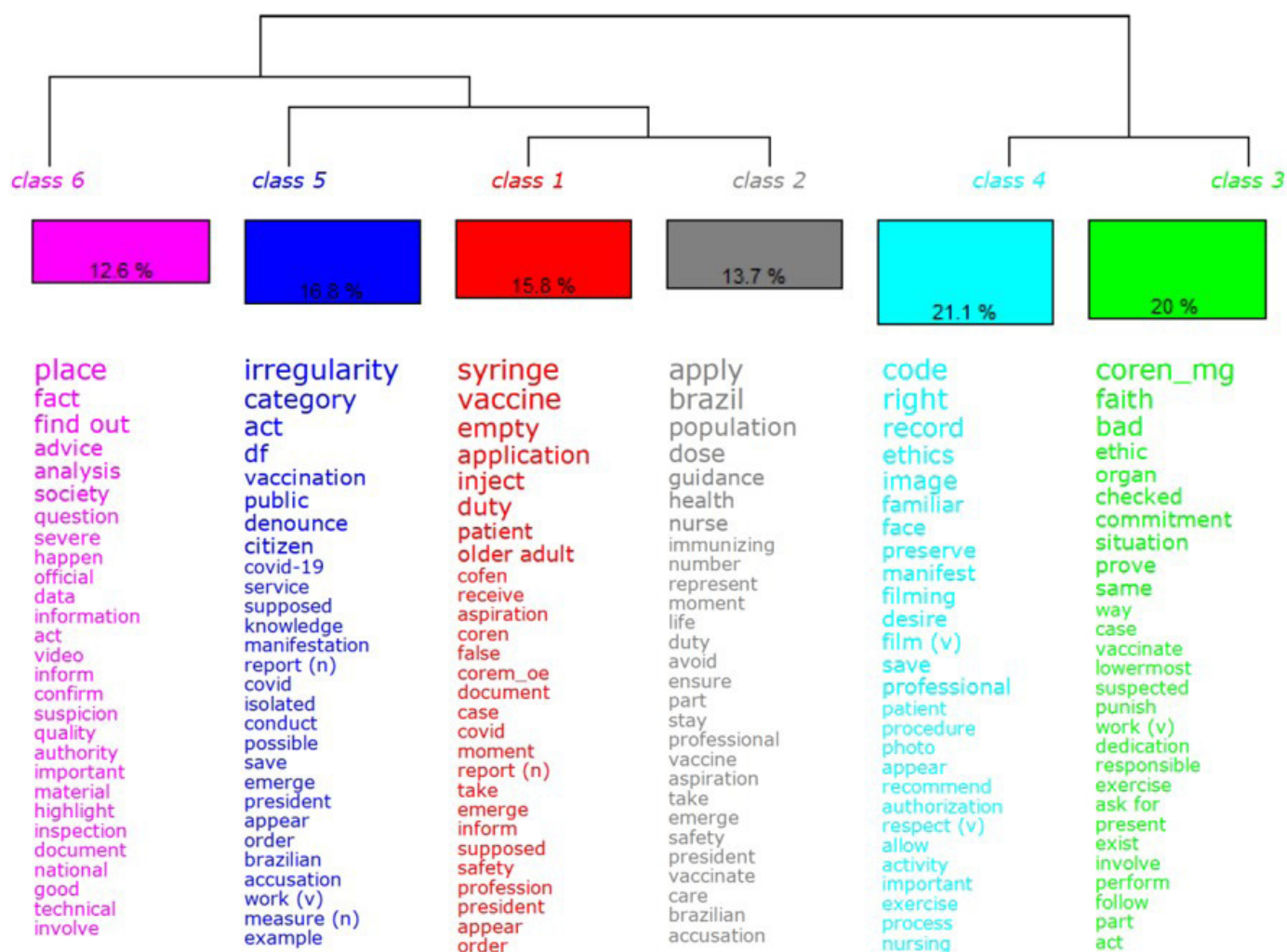
The second thematic block was referred to as: Ethical dilemmas during vaccination against COVID-19 and included classes 4 (Rights and duties of patients and professionals in the vaccination context) and 3 (Assessment of irregularities during vaccination).

From Figure 1, it is possible to state that class 4 is the one with the greatest representation in the *corpus*, as it incorporates most of the text segments (21.1%), with class 6 being the one with the lowest representation (12.6%).

Presentation of the classes will follow the order in which they originated (6, 5, 1, 2, 4, 3).

Class 6 discusses, on the one hand, the importance of investigating the facts, as they can be questionable, and, on the other hand, the relevance of ascertaining the veracity of the information before making criticisms and judgments on the professionals. In this way, the main lexicons evidenced are the following: "Local" ( $\chi^2 - 36.57$ ), "fact" ( $\chi^2 - 16.6$ ) and "find out" ( $\chi^2 - 14.72$ ) in this class.

*In addition to finding out what happened to the professional, we also need to know the working conditions of the place and clarify*



**Figure 1** - Dendrogram corresponding to the Descending Hierarchical Classification. Rio de Janeiro, RJ, Brazil, 2021.

Source: Prepared by the authors (2021).

*the entire context that gave rise to this very serious failure (NOT 8 – COREN/MG).*

In class 5, there is concern to present information so that the citizen knows how to report irregularities identified during vaccination. However, it highlights the category’s commitment to the health of the population. In this class, the lexicons “irregularity” ( $x^2 - 37.31$ ) and “category” ( $x^2 - 26.6$ ) stood out:

*There are adequate mechanisms to monitor and report irregularities. Therefore, it is necessary to avoid media spectacularization, as this impairs proper functioning of the vaccination rooms and compromises the public service (NOT 16 – COREN/DF).*

*Most of these professionals work committed to everybody’s health. Isolated cases cannot be a breach to promote disrespect to an entire category of workers (NOT 18 – COREN/MS).*

Class 1 emphasizes the importance of communication between professional and patient during vaccination, even showing transparency, by allowing the patient to monitor the entire process of aspiration and administration of the vaccine as well as to record this moment through photographs and/or filming. The following lexicons stood out in this class: “syringe” ( $x^2 - 27.79$ ), “vaccine” ( $x^2 - 26.47$ ), “empty” ( $x^2 - 22.27$ ), “application” ( $x^2 - 16.94$ ) and “inject” ( $x^2 - 16.52$ ).

*The Council has guided people to accompany the entire process, from aspiration of the immunizing vial, then the liquid inside the syringes, until the final procedure, when the syringes must be empty and the people actually received the vaccine dose (NOT 4 – COFEN).*

*The Nursing professional responsible for the vaccine must pass on all the information requested by the patient about the vaccine they will receive. Inform the patient that they have the autonomy to register through a photograph or video (NOT 13 – COREN/CE).*

Class 2 highlights the leading role of Nursing when applying vaccine doses in Brazil and emphasizes that cases of inadequate procedures during vaccination are specific facts in the face of the number of Brazilians already vaccinated by the Nursing workforce throughout the national territory. The following lexicons stood out: "apply" ( $x^2 - 34.58$ ), "Brazil" ( $x^2 - 26.34$ ), "population" ( $x^2 - 20.3$ ).

*Nursing is based on the construction of quality public health and we cannot tarnish the work of these professionals in Brazil by isolated facts, especially at a time when everyone is required to unite to guarantee life (NOT 15 – COREN/RR).*

Class 4 discusses the right of the professional and the patient in relation to the use of their image (photographs and filming) during vaccination, pointing out the legal provisions that deal with the subject matter. The following lexicons stood out in this context: "code" ( $x^2 - 37.28$ ), "law" ( $x^2 - 36.61$ ), "record" ( $x^2 - 25.07$ ), "ethics" ( $x^2 - 22.3$ ).

*It is important to record that the patient can film the vaccination moment. But they cannot film the face of the Nursing professional without prior authorization. The Federal Constitution, the Civil Code and the Nursing Code of Ethics ensure the inviolability of the image of professionals in the exercise of their functions (NOT 16 – COREN/DF).*

Class 3 portrays COREN-MG's concern about fact-finding to confirm and/or refute the professionals' bad faith, as determined by the Code of Ethics. The following lexicons stood out: "coren\_mg" ( $x^2 - 24.88$ ), "faith" ( $x^2 - 16.7$ ) and "bad" ( $x^2 - 16.06$ ).

*Without prejudice to the investigations carried out by other bodies, if proven that a nurse or technician acted in bad faith, they may even lose their professional license (NOT 2 – COFEN).*

## DISCUSSION

### COVID-19 vaccination moment

"Thematic block one" dealt with the vaccination moment, highlighting the guidelines given by the Nursing Councils to the professionals (in order to avoid irregularities) and to the patients (in order to guide social control).

In Brazil, with delay and distrust of denialist political segments, immunization against COVID-19 was only initiated in January 2021. The vaccination process began with a mixture of enthusiasm, emotion and rigidity in the definition of priority groups to mitigate, mainly, overcrowding of the hospital services.

The crisis triggered by COVID-19 made the importance of Nursing evident and showed the leading role of a contingent, until then with little visibility, despite being represented by 2,488,210 professionals, including nurses, nursing technicians and nursing assistants<sup>(7)</sup>. In the media, we saw the Nursing team facing adversity to vaccinate people in remote locations, users publicly thanking the team's efforts, in short, the population showing recognition for the professionals' efforts<sup>(8)</sup>.

In this context, it is necessary to emphasize that Brazilian Nursing is undoubtedly one of the main responsible for the success of the National Immunization Program (*Programa Nacional de Imunizações*, PNI), with an experience accumulated in years in the immunization process, exercising various functions that permeate the monitoring of all the technical and operational configurations of the vaccine rooms and campaigns, with actions aimed at the safety procedures and efficacy of immunobiologicals, handling and administration

of immunizers, and monitoring of the population in the post-vaccination period<sup>(9,10)</sup>.

Regarding the process of administering the COVID-19 vaccine, Nursing must follow the guidelines of good practices for safe administration, such as: user identification; identification, validity and confirmation of the immunizer; recognition of the precautionary situations, such as people who have previously used antiplatelet agents or anticoagulants, or human immunoglobulin; individuals with immune-mediated rheumatic diseases; and people with a history of cancer; transplanted or immunosuppressed. Individuals who have had COVID-19 need to wait 30 days to be vaccinated and nurses should also be aware of the contraindications to vaccine administration<sup>(11)</sup>.

The Ministry of Health's recommendation is that the population be vaccinated against COVID-19 with the application of two 0.5 ml doses of the immunizer, with an interval of two to twelve weeks, according to the vaccine manufacturer. However, due to the limited availability of the doses, the MS prioritized groups to be vaccinated and, among these, there are populations at greater risk for contagion and complications by SARS-CoV-2, such as older adults (aged 60 years old or more), health professionals and people with morbidities, among others<sup>(11)</sup>.

In relation to the vaccine administration technique, it must be aseptic and the professionals need to guide the users about the manufacturer of the vaccine to be administered and the stages, ranging from viewing the aspirated content, the dose and administration route; they should also indicate that possible post-vaccine adverse events should be formally communicated to the health service where the user received the vaccine, consolidating transparency of the actions and the importance of greater user engagement in care<sup>(11,12)</sup>. Corroborating this, the Nursing councils reinforce with the professionals the importance of following the detailed steps of safe medication administration in order to avoid irregularities and possible complaints<sup>(13)</sup>.

It is noteworthy, in another way, that despite the careful and important social role performed by Nursing and the entire effort to carry out mass vaccination of the population, this professional collective is not exempt/free from making mistakes. Indeed, immunization errors are a reality

to be faced by the health systems and by the Nursing workforce<sup>(14)</sup>.

The Institute of Medicine (IOM) report called *To Err is Human* pointed out that nearly 100,000 people die each year due to serious adverse events arising from health care in the United States of America. This report gave visibility to the topic of patient safety and there was worldwide concern about this issue, encouraging bodies and agencies responsible for health to develop strategies in order to avoid errors arising from the care system<sup>(15)</sup>.

In the context of Nursing, it appears that errors are usually related to work overload and to management problems and that they require professional and institutional measures for their confrontation<sup>(16)</sup>.

However, what drew the attention in the pandemic context was that the news items that portrayed the possible Nursing errors due to recklessness, negligence and malpractice during the vaccine administration process were sometimes untrue and/or were already criticizing and judging the professionals involved, without any prior and careful investigation to check the veracity of the facts and the conditions under which they occurred.

In this sense, the Nursing Councils reiterated to the population the importance of reporting dubious facts and/or situations related to the Nursing practice; however, they emphasized that investigation of the facts must precede any and all judgments<sup>(17)</sup>. In addition, the Councils emphasize that any and all complaints made are investigated and, when applicable, an Ethical-Disciplinary Process is established, conducted in accordance with the current Code of Ethics<sup>(18)</sup>. Thus, it is important that the population use the relevant channels to make this type of accusation, for example, seeking the ombudsman of the Municipal Health Departments of the states and municipalities as well as the COREN<sup>(17)</sup>.

In addition, if on the one hand, at the vaccination time it is important that the population is attentive and actively participates in the process to avoid the recurrence of errors and even fraudulent and unscrupulous actions, on the other hand, it is fundamental to emphasize that Nursing professionals are instructed to establish efficient communication with the patients, as this, in addition to minimizing and even preventing

errors, conveys trust, credibility and, above all, it increases transparency of the actions carried out, contributing to the recognition and value of the profession<sup>(16)</sup>.

### **Ethical dilemmas during vaccination against COVID-19**

“Thematic block two” dealt with the ethical dilemmas during vaccination against COVID-19, showing that there are legal requirements that support the Councils to act in favor of defending the Code of Ethics. During the vaccination campaign against COVID-19, due to facts that were broadcast in the media throughout Brazil, the COFEN guided the Nursing professionals to carry out the immunization stages in front of the users, as a way of respecting the patient’s right to know the procedure that will be carried out and resolve any doubts in relation to the actions of the category<sup>(13)</sup>.

It also recommended that the professionals express their desire or not to be filmed or photographed during the procedure, as article 21 of the Nursing Code of Ethics protects the right to the image of these professionals. Therefore, in the same way that the patients or their families have the right to record the procedure, the professionals have the right to accept or not to expose themselves through their image<sup>(18)</sup>.

The right to the image is also protected in the 1988 Federal Constitution, in the 2002 Civil Code and in the Brazilian Penal Code. In this sense, Brazilians enjoy this right and start to decide on the control of their own image, whether in photographs, paintings, engravings, videos, etc. Therefore, the Federal Constitution ensures that everyone has the right to have their image protected, preserving respect, good reputation and honor<sup>(19)</sup>.

Thus, in order to publish images, there is the need for prior authorization from the individual since, otherwise, it may be characterized as a crime, typified in article 218C of the Penal Code, ensuring compensation for undue exposure, as determined by the Civil Code, in its article 20<sup>(19)</sup>.

Corroborating this, the right to disclose the image is valid for both the patient and the professional, and is related to the person’s prerogative about wanting or not projection of their image or personality to society. It is evident that, with

the advent of the social media, the Internet and the use of apps, images are transmitted quickly, which makes this legal asset easily violated.

However, the right to image should not be confused with the right to information. Therefore, the patients have the right to be informed about any and all procedures that will be performed on them, even so that they can take part in the decisions about care and treatment. In this context, in relation to the vaccination campaign, every user or patient will have the right to know and follow the procedure to be carried out; however, in order to film and/or disclose it, they must be aware of the legal prerogatives<sup>(13)</sup>.

Another point of concern and emphasis on the part of the COFEN/COREN System is in relation to inappropriate behavior during vaccination. In this regard, it is worth noting that millions of doses of the vaccine against COVID-19 have already been applied and, in relation to the number of doses applied, there are few complaints about irregular vaccine applications, with application of part of the dose or no application. However, all cases are being verified and, if bad faith is proven, the responsible professionals can be penalized as determined by the professional Code of Ethics<sup>(18)</sup>.

In addition, articles 70 and 72, of the same legal document, prohibit Nursing from using its knowledge to be conniving or to practice actions typified as a crime or criminal misdemeanor, both in environments where it exercises the profession, and in those where it does not, or any action that infringes the ethical and legal postulates<sup>(18)</sup>.

In this sense, an ethical and disciplinary infringement is understood to be any action, omission or conniving situations that implies disobedience and/or non-compliance with the provisions of the Code of Ethics, as well as non-compliance with the COFEN/COREN System’s rules. The seriousness of the infringement will be characterized from the action, omission and results; from there, the appropriate penalties will be applied (verbal warning; fine; censure; suspension of professional practice and revocation of the right to the professional practice)<sup>(18)</sup>.

Therefore, it is necessary to clarify the population about their rights during vaccination and also highlight that many news items that circulated in the social media and networks in fact joined

a significant number of fake news items that plagued these communication channels and culminated in an infodemic, hindering access to legitimate information about the pandemic<sup>(20)</sup>.

Furthermore, it is also necessary to continually reinforce with society the importance of the Nursing professionals' work, especially those who work in the front line against the pandemic, both in the direct assistance provided to the hospitalized patient as in the vaccination campaigns, highlighting the dedication and commitment of the professional category which, even working in adverse conditions, with terrible working conditions, extremely long workdays and low wages, among other problems, continues to perform their work activities with supreme efforts, even putting their own physical and mental health at risk<sup>(7)</sup>.

The study presented limitations, as the publications were collected during the course of the COVID-19 vaccination campaign. In addition, only the Brazilian scenario was considered, giving rise, therefore, to the opportunity to carry out new studies to verify if the phenomenon observed can also be verified in other countries.

## CONCLUSION

It was possible to evidence certain leading role of the Nursing team that traditionally takes the lead in immunizations in Brazil. However, in the wake of applauses, gratitude and reverence, mistrust

and patrolling emerged due to reported cases of unethical actions in the application of doses, in addition to broadcasting by the media of videos of dubious origin of the "wind vaccines", many of them without any proof of veracity.

The need to protect the professionals' image was verified, as well as the disclosure of official complaint channels and, above all, measures to ensure safe practices for the population. The performance of the Class Councils acting in defense of the professionals of the category and also protecting the citizens' rights was also verified. It is estimated that this research may contribute to elucidate the questions inherent to the Nursing practice during the vaccination against COVID-19 and reassert the leading role of Nursing's social duty before, during and after the pandemic. It is also suggested that new research studies may be carried out, pointing out, for example, the outcome of the surveys launched by the Councils on the basis of the aforementioned complaints.

## CONFLICT OF INTEREST

The authors have declared that there is no conflict of interest.

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