OBJECTIVE: to identify the repercussions of the work in health during the COVID-19 pandemic.

METHOD: a documentary study with a quantitative approach. The corpus consisted in national and international journalistic materials. The search was conducted online from January to June 2020, with content analysis.

RESULTS: a total of 10 headlines were identified, from which four different units of meaning emerged: 1) The reality experienced by the health professionals due to the insufficiency of Personal Protective Equipment in pandemic times; 2) Risk of contamination by the new coronavirus suffered by the health professionals; 3) Physical and emotional exhaustion of the health workers in the front line against the new coronavirus; and 4) Responsibility of the governmental institutions regarding workers’ health and safety during the COVID-19 pandemic.

CONCLUSION: the study contributes by understanding the professionals’ experience and providing this perspective for decision-making in health management, assistance and research.

DESCRIPTORS: Infections by Coronavirus; Pandemics; Workers’ Health; Nursing; Public Health.
INTRODUCTION

The emergence of the SARS-CoV-2 virus in Wuhan, China, in December 2019, led to a local epidemic that spread rapidly on a global scale, with 29,155,581 confirmed COVID-19 cases worldwide and 926,544 deaths by September 15th, 2020(1).

It is estimated that, in the absence of interventions to interrupt transmission, COVID-19 would result in 7.0 billion infections and 40 million deaths globally in 2020, compromising the responsiveness of the health systems in all affected countries[2]. With the rapid spread of the disease, there is important concern with the health professionals, who face a high risk of exposure to the new coronavirus, for acting in the front line in fighting and controlling the spread of the virus[3].

Given the pandemic context, it becomes necessary to ensure the safety of the health professionals who are directly involved in the care of infected people, not only to safeguard continuous assistance to the patients, but also to ensure that the professionals do not spread the virus, which can be transmitted through coughing, droplets and respiratory aerosols, or through contact with body fluids and contaminated surfaces[4].

Since the outbreak of the epidemic in December 2019, more than 3,000 health workers have been infected with COVID-19 in China alone[5]. Based on recent evidence, the World Health Organization (WHO) has published guidelines for health care services regarding infectious diseases such as COVID-19, with the objective of enabling infection control and preventing contamination[1].

This publication recommends workers in the care services for patients with COVID-19 to wear gloves, waterproof aprons, effective respiratory protection such as N95 respirators, and eye protection with goggles or face shield[1]. However, as the pandemic spreads globally, the use and scarcity of Personal Protective Equipment (PPE) increase.

In addition to the concern about the scarcity of PPE, other dilemmas are experienced daily by the health professionals working during the COVID-19 pandemic, such as knowing the risks of contracting the disease, the concern about transmission to family members, feelings of inability when confronted with seriously-ill patients and the intense workday[3], generating physical and psychological repercussions.

It is observed that these factors lead to conflicts and to a complex illness process, materialized through different symptoms and psychological distress, with a negative incidence on the health-disease process and on the professionals’ low quality of life. Given this context, this study aimed to identify the repercussions of the work in health during the COVID-19 pandemic.

METHOD

This is a documentary study with a qualitative approach. Documentary research corresponds to a study category that uses a wide source of documents considered primary or raw materials, that is, documents that have not undergone analytical processing[5].

The search for research materials was conducted in the files of the national-scope newspapers (O Globo, UOL, O Estado de S. Paulo, Brasil de Fato, Folha de São Paulo, Diário de Pernambuco, Jornal Brasiliense) and of international newspapers (Medical News Today, BBC News, Euro News), available online, based on the reproduction of the
statements of the professionals interviewed through understanding and synthesis by the reporter. This research was conducted between January and June 2020.

When accessing the journals’ databases, it was necessary to determine a keyword for the research. When researching the term “illness in professionals”, no article was found. However, when the term “Psychological illness in health workers” was used, it was possible to find material corresponding to the search.

While reading and screening the material, articles and opinion texts by columnists were excluded, since the authors’ opinion would already be evidenced. Less expressive subject matters were also removed, which included information without sources or small notes. At the end of the selection process, it was possible to collect 10 articles for analysis.

The descriptors used were “Worker’s health” and “Coronavirus”, controlled by the Health Sciences Descriptors (Descritores em Ciências da Saúde, DeCS), as well as the uncontrolled descriptor “Coronavirus infections”.

The selection criterion involved the choice of subject matters that dealt directly with the subject of “Illness in health workers”; and of those that addressed issues related to the possible repercussions and psychological distress as a result of the work of health professionals during the COVID-19 pandemic.

The documentary research was carried out by MS and PhD students. To guide it, a research protocol was created and validated by two of the authors with PhDs. Data collection was conducted in pairs. The protocol, entitled “Documentary Research Protocol”, consists of the following elements: name of the newspaper and the main headlines that involved the theme.

The analysis of the journalistic materials was carried out through the content analysis modality described by Bardin(6), which incorporates a set of techniques of analysis of the communications, through thematic and objective procedures to describe the content of the statements and to obtain indicators that allow inferring knowledge regarding their production/reception conditions. The analytical-interpretive path unfolded in the stages of pre-analysis (fluctuating reading, constitution of the corpus - comprehensive reading - and formulation and reformulation of hypotheses and objectives), exploration of the material, and treatment of the results obtained and interpretation(6).

According to Minayo, Assis and Souza(7-8), the interpretation process took place through a comprehensive reading of the material obtained, aiming at impregnating and constructing the empirical categories, which encompass elements or aspects with common characteristics or that are related to each other, grouped in units of meaning that are a classification of these categories, in a grouping of elements, ideas or expressions around a concept, seeking to establish articulations between the data and the theoretical frameworks.

The choice of the analytical categories or analysis structures was carried out by anchoring the reading; and the substrate, extracted from the empirical data, produced an understanding of the meaning attributed to the contradictions, diversities and tensions that were guided by the theoretical framework. After immersion in the reading of the transcripts, thematic clippings were made, which culminated in the identification of the analytical categories with their respective units of meaning.

The choice of the period for collection of the materials corresponded to a moment of major dissemination of COVID-19 in the countries of Europe, North America and Latin America, which resulted in an expressive increase in the number of newspaper articles on the coverage of the spread of the pandemic. The choice of these newspapers was due to the fact that they have major impact and circulation throughout the state.

The study does not require approval from any ethics committee, since the data used are in the public domain; however, it certifies that all ethical principles were followed according to Resolution 466/2012.
RESULTS

The final sample of the news headlines consisted of 10 news items linked to newspapers in their online versions, made available between February and June 2020. The information is shown in Chart 1.

Chart 1 – Headlines. Natal, RN, Brazil, 2020

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>NEWSPAPERS AND DATES</th>
<th>HEADLINES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EURO NEWS 2/14/2020</td>
<td>“Lack of equipment against Coronavirus”</td>
</tr>
<tr>
<td>2</td>
<td>UOL 2/14/2020</td>
<td>“Coronavirus generates an increasing impact on health workers”</td>
</tr>
<tr>
<td>3</td>
<td>O ESTADÃO DE S. PAULO 3/21/2020</td>
<td>“In the front line, physicians and nurses report apprehension at work and at home”</td>
</tr>
<tr>
<td>5</td>
<td>BBC NEWS 4/1/2020</td>
<td>“Coronavirus: Why does COVID-19 affect health professionals so much?”</td>
</tr>
<tr>
<td>6</td>
<td>BRASIL DE FATO 4/20/2020</td>
<td>“Professionals with COVID-19 report lack of PPE in a private hospital in SP”</td>
</tr>
<tr>
<td>7</td>
<td>FOLHA DE S. PAULO 5/7/2020</td>
<td>“Overload and risks deteriorate the mental health of physicians and nurses in the pandemic”</td>
</tr>
<tr>
<td>8</td>
<td>O GLOBO 5/14/2020</td>
<td>“Brazil recorded 31,700 health professionals infected by COVID-19”</td>
</tr>
<tr>
<td>9</td>
<td>Correio Braziliense 6/1/2020</td>
<td>“COVID-19: 485 health professionals working in public hospitals are infected”</td>
</tr>
<tr>
<td>10</td>
<td>Diário de Pernambuco 6/1/2020</td>
<td>“Pernambuco has almost 10,000 health professionals infected by COVID-19”</td>
</tr>
</tbody>
</table>

Source: The authors (2020)

News articles 08, 09 and 10 featured as headlines the high levels of contamination among health professionals with the new coronavirus, portraying a reality experienced by countries such as Spain, Italy and China; while headlines 01 02, 03, 05 and 06 show scarcity of PPE, work overload, and disarticulation of the institutions responsible for managing the fight against the pandemic.

On the other hand, headlines 04 and 07 portrayed the anguish and fear of the workers, who need to live with the idea of being the main risk group acting in the front line, knowing
that they can be the next ones to be added to the statistics of infected people. They also emphasized the psychological changes resulting from a series of aggravating factors as a reality experienced by many who are assisting contaminated patients, weakening the integrity of health care.

The content analysis of the interviews in the newspaper articles under study allowed identifying four units of meaning: (1) The reality experienced by the health professionals due to the insufficiency of PPE in pandemic times, (2) The risk of contamination by the new coronavirus suffered by the health professionals, (3) Physical and emotional exhaustion of the health workers acting in the front line against the new coronavirus, and (4) Responsibility of the governmental institutions regarding workers’ health and safety during the COVID-19 pandemic.

Unit of meaning 1: The reality experienced by the health professionals due to the insufficiency of PPE in pandemic times

The interviewed professionals asserted that, although the equipment is fundamental to ensure their own protection, its numbers are insufficient for continuous use; thus, unavailability of PPE was mentioned in most of the materials, as illustrated by the following statements:

Using and reusing the mask, several times, ends up making it unusable, it turns into a piece of paper on our face. (Nurse)

How are you going to intubate a patient without protection? This is happening. At the front door of the Municipal and State hospitals, you can see outsourced employees washing the entrance with better equipment than the physicians inside. (Physician)

Lack of protection is everywhere and improvisation seems to be widespread. (Physician)

Unit of meaning 2: Risk of contamination by the new coronavirus suffered by the health professionals

The limited knowledge about the pathological agent, the overcrowding of hospitals, and the lack of effective pharmaceutical measures were aggravating factors in the large-scale spread of the virus among health workers. That was the reality described in the headlines, as can be seen below:

Our job is to take care of others and now we have to go home and take care of ourselves. (Physician)

We did what we could, we did our best, but unfortunately we became statistics. (Nurse)

Now the Government finds itself in this dilemma: a handful of professionals over 60 years old, who put themselves at risk by working in the front line with a highly contagious disease. (Physician)

Unit of meaning 3: Physical and emotional exhaustion of the health workers acting in the front line against the new coronavirus

The professionals’ constant exposure to risk, fear of transmitting the virus to their family members, and physical overload contribute to increasing the distress captured through feelings of fear, tension and anguish, as illustrated in the statements:

What changed in our routine was working with fear. The fear of getting contaminated or contaminating our relatives. (Nurse)
Our work environment is tense, because we are having conflicts. The physicians are scared and demanding more from us. (Nurse)

I’m kind of an outcast in my family. I’m diving in the swamp every day. (Physician)

Most of the physicians have never seen this level of anguish and anxiety in their careers. (Physician)

Unit of meaning 4: Responsibility of the governmental institutions regarding workers’ health and safety during the COVID-19 pandemic

From the analyzed corpus, it was possible to perceive the professionals’ understanding of the State’s duty in combating the pandemic. The need for an open dialog between government officials and health professionals was evidenced, as well as the provision of adequate materials – from PPE to equipment like mechanical ventilators – for the performance of the professionals in the care of patients with COVID-19, according to the statements:

We perfectly understand what we are being exposed to and we will work every day aware of this risk, but we want to work with a counterpart from the hospital to guarantee our safety. (Physician)

The State is completely unprepared, it owes us an explanation. (Physician)

They are concerned with informing, explaining what the fake news are, but they make sure to keep their distance when the time comes to talk. (Nurse)

DISCUSSION

The lack of adequate Personal Protective Equipment, which meets the protection measures, and the need for rational use are a threat to the workers who work in the most diverse health care services daily(9).

Considering the statements obtained in the research, it is possible to show that the perception of the risk for contamination among the professionals working in health services focused on the treatment of COVID-19 is directly related to the insufficiency of resources that make working conditions safer, like PPE.

These findings corroborate a study(10) that assures the existence of several factors in the work environment that are harmful to the organism, such as physical, biological and emotional conditions. Most of the times, these factors cause low quality of the services provided and discontinuity of actions, as well as other repercussions such as absenteeism, presenteeism, overload, burnout and abandonment of the profession, among others.

Health professionals are constantly exposed to situations considered of risk for their health and safety. Among all the agents found in the health care services that put workers’ physical integrity at risk, biological sources stand out, responsible for much of the occupational illness that surrounds life at work(11).

The use of PPE is an important strategy in addressing the biological risks present in the health services. It is up to the institutions to provide workers with constant access to these devices, which meet the realities of the hospital units, with a view to reducing contagion of infectious diseases, promoting the safety, health and well-being of their employees(12).

In an article published in the Journal of Educational Evaluation for Health Professions
during the COVID-19 pandemic, physicians, nurses and other health professionals from several countries became infected with SARS-CoV-2 through direct care to patients diagnosed with this virus\textsuperscript{(13)}.

Among Chinese health professionals, the lethality of the COVID-19 infection was lower than among the general Chinese population. However, with respect to incidence, the Italy Group for Evidence Medicine reported that 8.3% of the total COVID-19 cases in Italy occurred in health professionals, twice the percentage reported in China (3.8%)\textsuperscript{(14)}.

In Brazil, according to data released at the Nursing Observatory, portal of the Federal Nursing Council (\textit{Conselho Federal de Enfermagem, COFEn}), the number of infected Nursing professionals was already 20,149, with 208 deaths, by June 18\textsuperscript{th}, 2020, completion date of this manuscript\textsuperscript{(15)}.

Given the situation imposed by the new coronavirus and the growing number of infected health professionals, it is necessary that, in addition to the measures that make it possible to reduce the contamination rate in the general population, governmental agencies promote measures that seek to minimize the risks they suffer, as they are a specific group at higher risk of contact with viruses.

In this perspective, this reality can result in the development of psychological disturbance in the professionals who are dealing directly with this epidemiological phenomenon, as well as in the uncertainty of what is to come, since this is a unique situation in the century. This context exerts a significant impact on the mental health of people linked to providing direct care to the population, which, in turn, overloads the health services, causing significant occupational stress\textsuperscript{(16)}.

The different statements of the professionals revealed that there are situations in which work causes an increase in the psychological burden, affecting workers’ mental health; as a result, diseases take on more subjective forms, hindering their association with the professional activity. Motivation, interest and pleasure are replaced by fear, uncertainty, anxiety and displeasure.

The increased risk of being infected, falling ill and dying; the possibility of infecting other people; overload and fatigue; exposure to large-scale deaths; frustration for not being able to save lives despite the efforts; and distancing from family and friends are stressors experienced by the health professionals in the context of pandemics\textsuperscript{(17)}. Regarding COVID-19 in particular, the challenges faced by the health professionals can be a trigger for the onset or intensification of anxiety, depression and stress symptoms\textsuperscript{(18)}.

In China, mental health teams began to notice signs of psychological distress, increased irritability, and refusal to indulging in rest moments in health professionals who worked in the front lines\textsuperscript{(19)}. In Brazil, especially with regard to Nursing professionals, the COFEn developed a channel: the team is made up of volunteer nurses specialized in mental health care, so that Nursing professionals can seek emotional help in the midst of the coronavirus pandemic situation\textsuperscript{(20)}.

Professional life is surrounded by duties and specificities that most often require exhaustive dedication from workers. This condition exposes professionals to distress clearly evidenced by the Burnout Syndrome, characterized by negative attitudes and feelings that reflect on the people around them at work and on the performance of their work activities, as well as on their self-perception, developing a series of signs and symptoms such as emotional exhaustion, depersonalization and lack of personal fulfillment, affecting the individual's health\textsuperscript{(21)}.

Psychosocial risks have directly contributed to the emergence of destructive processes in the work environment, causing job dissatisfaction, compromising quality of life, and contributing to their illness\textsuperscript{(22)}.

In addition to this condition, there is the seriousness of an epidemic, which constitutes
a threat to public health and whose repercussions have a global impact. Managing a situation like this is also a challenge for governmental institutions, since several factors are decisive for guaranteeing care that meets the needs experienced. It is up to the manager to strengthen and encourage protective measures that guarantee the integrity of the teams during the provision of health care to infected patients[23]. Despite the negative repercussions evidenced, it is worth mentioning that the health professionals believe that they have professional and social responsibilities regarding patient care. However, when added to the concerns about the health and safety of their family members, mental health is compromised, mainly because they witness complications and deaths resulting from COVID-19[24].

The adoption of protective measures on the safety and health of the professionals working in health institutions is constituted by the Brazilian Federal Constitution of 1988 linked to the International Labor Organization (ILO), which establishes the creation of strategies for health promotion and prevention of worker’s health problems. For these actions to be achieved, it is necessary to understand the conditioning factors of the psychological illness of health workers in a pandemic situation, such as lack of PPE, work overload, fear of contamination and cross-infection, and lack of training and information about proliferation of the virus[25].

The World Health Organization[1] warns the countries about the importance of an emergency investment of financial resources, in order to create conditions that provide resolute care to COVID-19 cases, so that the infection risks imposed on the professionals are reduced; with the priority of investment in measures aimed at infection control and provision of equipment for individual and collective protection, in addition to appreciating work, mainly by governmental entities and health service managers, associated with the concrete reduction in the number of cases, providing benefits to the physical and mental health of the entire team[26].

One of these measures is to guarantee the safety and well-being of the workers fighting the pandemic, ensuring adequate working conditions, with not only technological but also psychosocial support, since this is really scarce.

It is also noteworthy that the limitations in carrying out the study were issues related to time, to the rapid changes in information about the diseases, and to the access to complete online newspaper articles.

FINAL CONSIDERATIONS

The newspaper articles make clear the health workers’ exposure to the risk of contracting SARS-CoV-2. This threat is exacerbated by the limited knowledge about the pathological agent, overcrowding in hospitals, insufficient PPE, and lack of effective pharmaceutical measures.

The reports presented in this study also show that the workers’ exposure produces emotional and physical impacts resulting from work overload, concern about transmitting the virus to family members, and insufficiency of equipment aimed at their own protection. The main contribution of this research is that, from the story told and written, it can document the weaknesses and potentialities in health care.

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Work in health and the repercussions during the covid-19 pandemic: a documentary study
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