

CONTEXT OF HEALTH PROFESSIONALS DURING THE PANDEMIC IN THE RIBEIRA VALLEY



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ABSTRACT

The COVID-19 pandemic outbreak that occurred in March 2020 overloaded the public and private health system in the country, exponentially increasing the number of cases of hospitalizations and deaths. A document prepared by the Synthesis of Social Indicators (SIS) corroborates this scenario, presenting an analysis of the living conditions of the Brazilian population in 2022 in which it states an increase of 97.6% in deaths caused by the virus between the years 2020 and 2021. Health professionals who worked on the front line in the fight against the disease directly suffered the impacts of the pandemic, as exemplified by the growth in the rates of Flu-like Syndrome (GS), with 650,456 cases reported in November 2021, of which 23.6% were confirmed for Covid-19 (Ministry of Health, 2021, p. 44). In addition, according to the same document released by the Federal Government, most of those affected were nursing technicians/assistants (29.8%), nurses and the like

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(16.9%) and doctors (10.8%). Furthermore, the mental health of such professionals has become a topic of discussion, as Da Silva et al. (2022, p.3) argue that scenarios of work overload, overcrowding of work environments, constant interpersonal relationships, and other factors can directly influence the progress of Burnout Syndrome. Based on this scenario, this research aimed to investigate the mental health status of these professionals working in the Ribeira valley before and during the pandemic, as well as the possible reasons that influenced this context. To this end, a questionnaire was prepared through Google Forms and applied to 70 research participants. There was a worsening in the mental health status of these professionals compared to the period before the pandemic, and it was also found that most respondents developed some mental illness resulting from the social context, especially stress and anxiety.

Keywords: Covid-19, Health professionals, Psychological Diseases.

INTRODUCTION

The Covid 19 pandemic, practically indelible between the years 2020 and 2021, had its gradual mitigation in 2022. This pandemic outbreak has created scenarios of terror experienced by thousands of individuals, whether directly or not. The virus that causes the disease, SARS-COV2, showed its first sign of contamination in Wuhan, China, in December 2019, following its large-scale spread quickly. In Brazil, the first case was confirmed on February 26, 2019 (Portal G1, 2020) and, from that moment on, the country showed great difficulties in containing the problem, causing an exponential increase in the number of infected people.

The number of cases had a sudden growth, since, when analyzing data from July 2020, the country registered about 4.5 million cases and 140 thousand deaths from Covid-19, advancing to 21 million confirmed cases and approximately 600 thousand deaths by September 2021, according to data from the Corona Virus Brazil database (BRASIL, 2021), which assumes an approximately 4 times higher number of cases and deaths in just over 1 year.

In view of this significant increase in cases and, consequently, the volume of hospitalizations, the health area has reached its operational limit in several regions of the country. This led to exhaustive work by health professionals to meet the need for care and monitoring of those infected. Given this scenario, the pandemic became the scene of considerable psychic and social disorders, pertinent issues for the time, such as quarantine. In this way, themes related to mental health came to the fore, since, according to Pavoni et.al (2021), social distancing and loneliness were directly "associated with anxiety, depression, self-mutilation, and suicide attempts throughout life". In addition, the exhaustion of the health system was also the subject of discussion, since mental anguish can originate from the high stress arising from the lack of institutional attention and adequate treatment for patients (Shigemura et.al, 2020; Xiang et.al, 2020, apud Moser et.al, 2021).

In the Ribeira Valley, in the State of São Paulo, the evolution of Covid-19 was also evident. According to data from the State Data Analysis System of the State of São Paulo (SEADE Foundation), in August 2020 the moving average of daily hospitalizations in the Vale do Ribeira region was 6 patients per day, evolving to an average of 15 patients in June 2021, when it presented the highest peak of hospitalizations in the region (SEADE Foundation, 2021).

Considering that those qualified in the health area had changes in their routine, being subject to longer working hours to meet the demand for these professionals in the public and private health systems, it was necessary to deepen the theoretical basis of the study, as well as the application of the research in order to contextualize the pandemic in the Ribeira Valley. Therefore, this study aims to verify the impacts of the pandemic period on the mental health and physical exhaustion of health professionals in the Ribeira Valley.

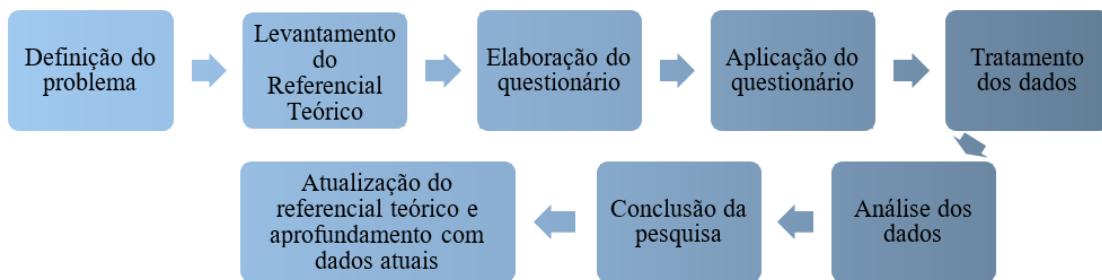
METHODOLOGY

The development of the research began with the definition of the research problem and a survey of the bibliography necessary for the theoretical basis of the work. The primary study was carried out on websites that repository scientific articles, such as Scielo (Scientific Electronic Library Online) and Google Scholar, which included journals such as BJHR (Brazilian Journal of Health Review), Research, Society and Development, Cogitare Enfermagem, Revista Brasileira de Psicoterapia, Revista Eletrônica Acervo Saúde, Revista Enfermagem UERJ and Revista Brasileira de Medicina do Trabalho; in addition, there were also searches on reliable news sites and government databases, such as the Ministry of Health — FIOCRUZ (Oswald Cruz Foundation), SEADE Foundation (State System of Data Analysis) and IBGE (Brazilian Institute of Geography and Statistics).

In order to collect data regarding the impacts of the pandemic on the health of health professionals in the Ribeira Valley, a questionnaire was prepared in the *Google Forms* application with 17 closed questions. The questionnaire was disseminated by messaging applications (Whatsapp and Messenger) in a convenience sample (VERGARA, 2003) because they were health professionals close to the researchers, and also by e-mail in contact with hospitals in the region. This type of sample is defined by Cozby (2003, p.152) as a non-probabilistic sample, that is, it may not be fully generalized to the entire population.

The sample of respondents was composed of 70 health professionals who work in the Vale do Ribeira region. Subsequently, the analysis of the results was performed by descriptive statistics. Finally, an update of the theoretical framework was produced, in view of the deepening of the discussion since 2021. Figure 1 shows how this research was designed and the respective stages involved.

Figure 1 – Flow of research activities



Source: Prepared by the authors.

In addition, this research has as its main nature the descriptive approach, since it seeks to understand in a more in-depth way a theme already known; In addition, its basis in questions and numerical graphs give the study the quantitative character, in addition to the theoretical basis for foundation and; Finally, the questionnaire was mainly shaped with closed and mandatory questions, in addition to making the answers more consistent among all respondents and, thus, making the analysis more reliable.

RESULTS

Millions of individuals around the world have suffered on various scales with the spread of the New Coronavirus and, mainly, due to the unpreparedness of public health agencies in the face of such an atypical situation. One of these bodies was precisely the Unified Health System (SUS), which, when faced with such a crisis, ended up having to sustain a high demand of patients in contrast to the smaller number of trained professionals. Thus, this generated an overload of work for those competent in this sector, impacting the daily life and psychological perception of such people in the face of that new and unexpected reality.

Based on the perception that, in addition to those infected, those who treated the victims were also directly affected by the virus, the questionnaire applied to the 70 participants had initial questions of sociodemographic content.

SOCIODEMOGRAPHIC PROFILE AND WORK DYNAMICS OF THE RESPONDENTS

Regarding gender, the data obtained allow us to conclude that 77.1% of the respondents were women and 22.9% were men. With regard to their age group, the majority represented by 58.6% fall into the range between 31 and 45 years old. Aged 18 to 30 years and 46 to 60 years present, respectively, 22.9% and 15.7%. It should be noted

that only 2.9% of respondents were over 60 years old at the time the survey was conducted. Table 1 shows that most of the respondents lived in the city of Registro/SP, with 30% of the total sample, followed by Jacupiranga/SP with 20% and Pariquera-Açu with 18.57%. It is valid to state that the sample presented answers from Curitiba/PR and Maracanaú/CE but that, despite claiming to live in cities outside the region, they worked in the health area in Vale do Ribeira, State of São Paulo, in the period of 2021.

Table 1 – City of residence of the respondents

City	Qty. of respondents	%
Registration/SP	21	30,00%
Jacupiranga/SP	14	20,00%
Pariquera-Açu/SP	13	18,57%
Cajati/SP	8	11,43%
Eldorado/SP	5	7,14%
Iguape/SP	3	4,29%
Curitiba/PR	2	2,86%
Barra do Turvo/SP	1	1,43%
Maracanaú/CE	1	1,43%
Miracatu/SP	1	1,43%
Sete Barras/SP	1	1,43%
Total	70	100%

Source: Prepared by the authors

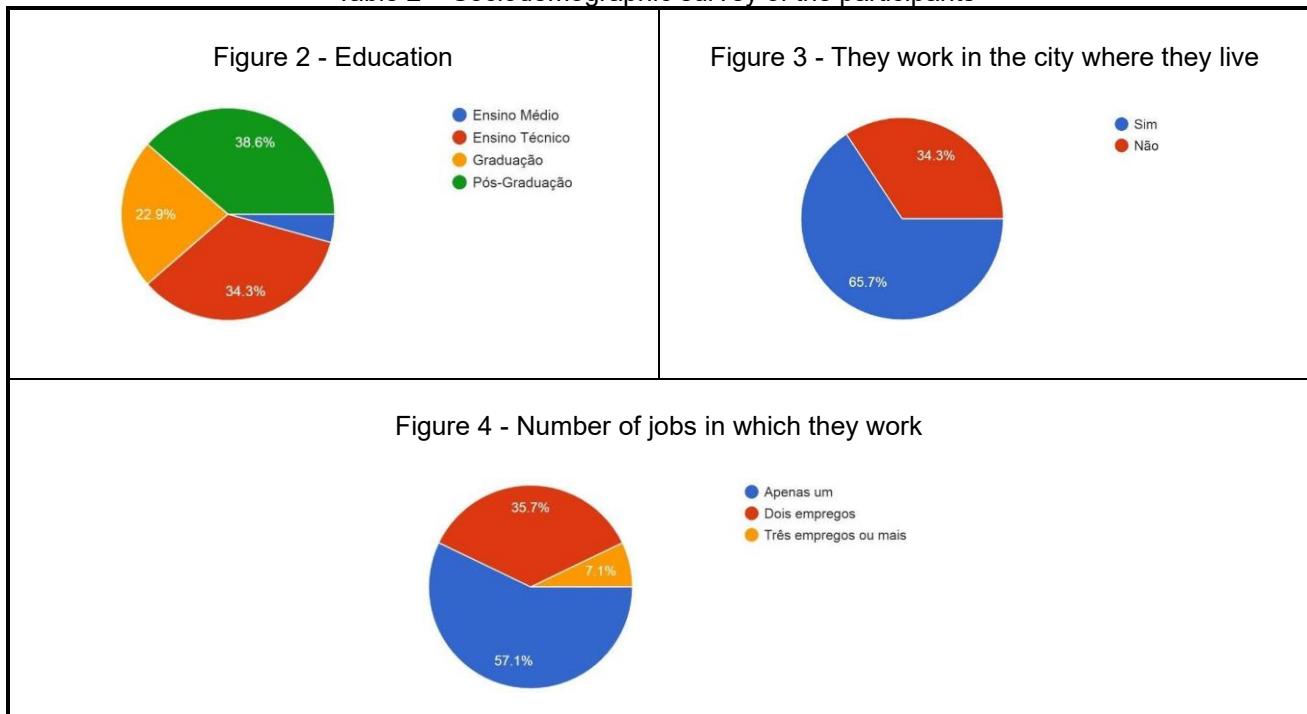
Regarding the respondents' academic background, it is possible to analyze in Figure 2 that 34.3% of the people who answered the questionnaire had obtained a technical course. On the other hand, the largest portion — 38.6% — of the respondents completed graduate school, while 22.9% and 4.3% finished undergraduate and high school, respectively. To characterize the sample, the respondents were also asked about the area in which they worked. Of the total of 70 participants, 4% worked in the area of care or support, 22 were nursing technicians, 14 nurses, 17 psychologists and 13 physicians. The sample of respondents comprised professionals from different perspectives of health care, being multiprofessional.

In addition, Figure 3 demonstrates the work dynamics that these health professionals had. It was possible to see that 57.1% of the respondents had only one job, while about 35.7% had double shifts and 7.1% worked in three different jobs. It is necessary to emphasize that professionals with more than one job could be more vulnerable to stressful situations due to excessive working hours, as defended by Marins et al. (2020, apud Alves, Souza and Martins, 2022) who state that the psychological condition of these individuals is based on a pandemic moment by a conjuncture of physical exhaustion, and remuneration

inconsistent with double working hours, in addition to other risk factors that lead to a decrease in quality of life.

Finally, Figure 4 demonstrates the work dynamics that these health professionals had. It was possible to see that 57.1% of the respondents had only one job, while about 35.7% had double shifts and 7.1% worked in three different jobs. It is necessary to emphasize that professionals with more than one job could be more vulnerable to stressful situations due to excessive working hours, as defended by Marins et al. (2020, apud Alves, Souza and Martins, 2022) who state that the psychological condition of these individuals is based on a pandemic moment by a conjuncture of physical exhaustion, and remuneration inconsistent with double working hours, in addition to other risk factors that lead to a decrease in quality of life.

Table 2 – Sociodemographic survey of the participants

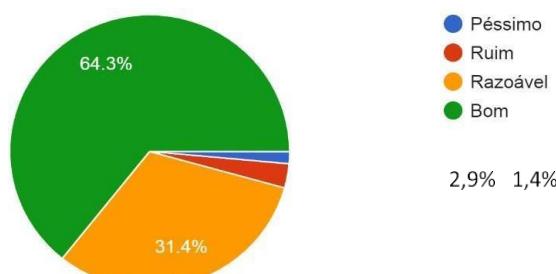


Source: Prepared by the authors

PERCEPTION OF THE MENTAL HEALTH OF PROFESSIONALS

Respondents were asked how they perceived their mental state before the pandemic. The data in Figure 5 showed that only 4.3% of the respondents considered their psychological state as bad or very bad, while 95.7% of the respondents conceived it as good or reasonable.

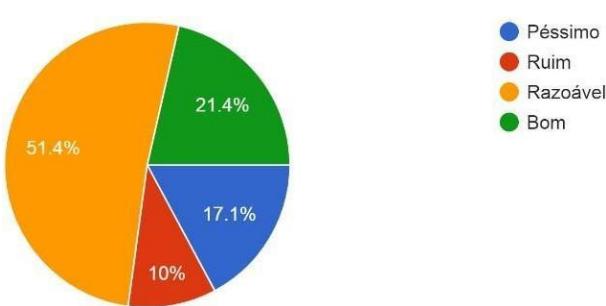
Figure 5 – Mental state of health professionals before the pandemic



Source: Prepared by the authors

Figure 6 demonstrated the respondents' perception of their mental health status during the pandemic period. There was a significant increase in respondents who considered it bad or very bad (27.1%) in relation to the situation before the pandemic. There was also a decline in the number of respondents who judged their mental state to be good, decreasing from 64.3% to 21.4%, which demonstrates the impact of the pandemic on the psychological well-being of these professionals.

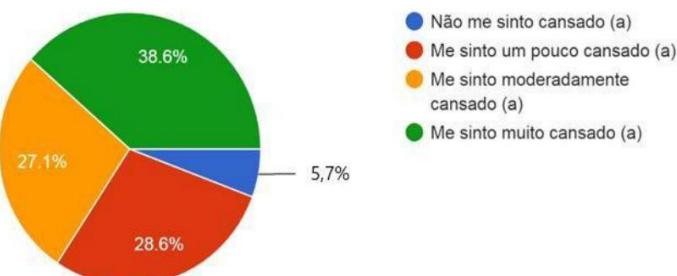
Figure 6 – Mental state of health professionals during the pandemic



Source: Prepared by the authors

Figure 7 shows that 38.6% of the respondents declared that they felt very tired due to the working day during the pandemic, while 55.7% said they felt little or moderately tired, in contrast to the 5.7% who said they did not feel tired with the work routine. In fact, the exhaustion of the health system throughout Brazil to meet the demands of the pandemic may have been a primary factor for the current situation of health professionals in the country.

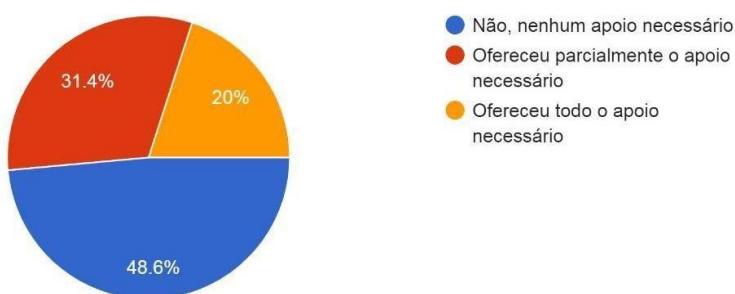
Figure 7 - Level of fatigue of health professionals



Source: Prepared by the authors

The professionals were also asked about the support that the health institutions where they worked offered to face the pandemic period, in view of all the risks that permeated their activity. It should be noted that only 20% of the respondents stated that there was all the necessary support, in contrast to the 80% who said they had received partial or no support. As pointed out in Figure 8.

Figure 8 – Support offered by health institutions



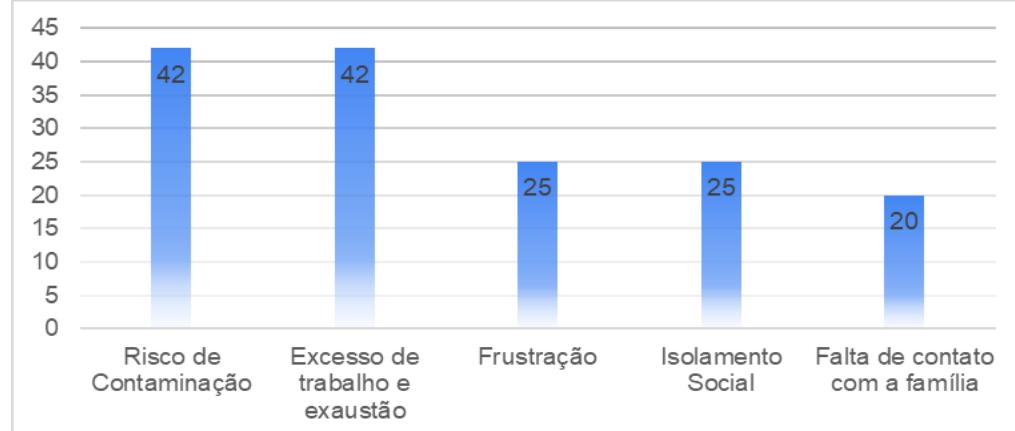
Source: Prepared by the authors

The lack of support for professionals in the performance of their activities, lack of physical structure and equipment resulting from the misapplication of resources could trigger a series of offensive factors to health professionals, and one of them is the confidence of professionals in relation to the performance of their activities. Professionals were asked how much the COVID-19 period affected their confidence and only 31.4% of respondents declared that their confidence was not affected by the pandemic, while 27.1% declared that their confidence was somewhat affected, 28.6% had their confidence moderately affected and 12.9% had their confidence very affected.

Subsequently, the health professionals were questioned about the aspects that, in their perspective at the time, negatively influenced their psychological state. It is worth noting that the respondents had the possibility to indicate more than one factor in their

answer. When analyzing Figure 9, it was noticed that the reasons that brought greater insecurity to the professionals and negatively affected their psychological state were the risks of contamination, overwork and exhaustion, since they appeared more frequently (42 responses), followed by frustration and social isolation, with 25 responses each.

Figure 9 – Aspects that can negatively influence the psychology of health professionals



Source: Prepared by the authors

DISCUSSION

By analyzing the data in Figure 6, it can be stated that the vulnerability of the mental health of health professionals was accentuated in the pandemic period, since only 21.4% of the participants stated that their psychological condition was good in this period. Teixeira et al. (2020) highlight that health professionals were vulnerable to contracting Covid-19 because they worked on the front line of the fight against the disease, receiving a high viral load. The authors also point out that the high risk in the care of infected patients, often performed without adequate working conditions, can cause enormous stress to these professionals. In addition, specifically in relation to workers in the field of nursing, it was highlighted by Marins et al. (2020, p.5) that high levels of stress generate occupational crisis, that is, professionals question whether this profession is really ideal for them, individually.

In addition, the findings in Figure 7 are corroborated with studies such as that of Ribeiro, Vieira & Naka (2020, p.3), in which the authors describe that health professionals during the pandemic period were at greater risk of obtaining Burnout Syndrome as a result of the increase in the number of working hours. It is worth mentioning that this syndrome occurs due to a set of 3 main factors, according to McCray (2008, apud Silveira et al., 2016): emotional exhaustion, that is, difficulty in dealing with the high sentimental load of

the environment in which they are inserted; depersonalization, which is represented by increased apathy towards other individuals and; finally, low professional achievement, based on low self-esteem and a feeling of incapacity at work. Another study that is in line with the findings of this present study is that of De Almeida et al. (2020), based on the Manual of Recommendation of Mental Health and Psychosocial Care in the Covid-19 Pandemic, which highlighted the importance of recruiting and training teams with experience in psychosocial care and mental health to support professionals and patients with signs of mental illness. Another recommendation was that, after the pandemic period, there should be continuous attention to the mental health of the teams that worked on the front line, more specifically those that worked with the most serious cases, in order to mitigate the long-term damage. The authors also stated that it would be important to adopt strategies, such as reducing the working day or increasing the rest period for these professionals, in addition to referring those who present symptoms to psychotherapists, psychiatrists or psychologists, highlighting the online methodology.

In addition, according to the Manual used by the authors, the importance of a frequent support network is evident, since, even if through digital means, it generates emotional well-being (FIOCRUZ, 2020, p. 42). However, it is also worth noting that, in the same work, the presence of non-pathological malaise is affirmed, that is, that they are "common" in the area and that only require diagnosis due to their intensity and frequency (*ibdem*, p. 43).

During the years following the pandemic, there were also several aspects of the country that became more evident, including the prominence in the media focused on the Health System. The increase in victims indicated a growing concern (Noronha et al. 2020), since there were few conditions to serve all those affected, even with the sum of public and private institutions that were directed to this field. Thus, the increase in mortality has become one of the main signs of social unpreparedness in the face of the pandemic, especially in health centers and hospitals in the country's micro-regions — as shown in Figure 8, where the lack of support from institutions was something of great notoriety. The lack of resources also proved to be a severe obstacle, according to Souza (2021, p.8), since there was a great lack of beds, PPE, and other resources for the protection of health workers. In addition, there were reports in Rio de Janeiro that reported the abuse that certain institutions made to workers, where, for example, the lack of adequate clothing made nurses take their own shoes to the places in contamination (Dendossola, 2020).

However, in 2021 no survey respondent found anything similar that occurred in the Vale do Ribeira region.

As a result, it can be noted that the mental health of workers was negatively affected, with serious mental problems mainly related to fear, as defended by Souza (2021, p.9). In addition, research produced by Prado et al. (2020) and Teixeira (2020) demonstrated that it was not only Brazilian professionals who suffer from psychological problems, but several specialists around the world. Most of them demonstrated difficulties such as lack of sleep, stress, anxiety, depression and panic, which can even lead them to cause symptoms of PTSD (Post-Traumatic Stress Disorder) — data that corroborate those presented in Figure 9. There was also a crucial factor in the psychological pressure of health professionals, according to Prado et al. (2020, p.7), which is ethical and moral suffering, since professionals often have to choose which patients they will live with, which generates several contradictory feelings not only for health professionals, but also for the general public.

In an integrative review of articles published on the mental health of health professionals, Prado et al. (2020) showed that the imminent risk of contamination and mortality contributed to a high rate of anxiety, fear, depression, anguish, impaired sleep, and other feelings related to exposure to the virus for those professionals who were directly linked to infected patients. The authors highlighted that they identified in five articles published in China, moderate to severe stress rates in 59% of health workers, depression in 12.7% to 50.4%, and anxiety in 20.1% to 44.6% of these professionals. It was also emphasized that factors such as lack of sleep, fear and feelings of anguish were present in the study samples. Also in this context, a study carried out by De Humerez et al. (2020) carried out a survey based on a mental health nursing care project for nursing professionals during the pandemic period, evidencing the most emerging feelings among these professionals. The feelings, as well as their description, are shown in Chart 1.

Chart 1 – Emerging feelings among nursing professionals

Feeling	Description
Anxiety	Lack of PPE; pressure from the leadership with the news made available by the media.
Stress	People are arriving all the time; Death like never before Happened.
Fear	Risk of becoming infected and infecting family members.

Ambivalence	Feeling on the part of the population (neighbors, friends) who applaud them, but discriminate against them, avoiding contact
Depression	By loneliness, estrangement from families, death of the co-workers.
Exhaustion	Emotional exhaustion with the volume of work.

Fonte: Adapted from Humerez et al. (2020)

In this way, the importance of welcoming and caring for the mental health of health professionals during the pandemic and in later periods was perceived. According to Saidel et al. (2020), there are several alternatives for mental health care for health professionals in scenarios similar to those of Covid-19 andemia, highlighting that the important thing is to assertively implement actions, document and disseminate the results for the improvement and consolidation of these initiatives as part of the health care of the professionals involved.

CONCLUSION

This study aimed to assess the mental health status of health professionals who worked directly on the front line of the fight against Covid-19 in the Ribeira Valley, in addition to identifying the factors that influenced the change in their mental state. To this end, a bibliographic survey was carried out, covering both the pandemic period and the most recent periods.

In the survey, it was possible to verify the mental state of the professionals before and during the pandemic, according to the perception of those involved. It was found that there was a significant worsening in the mental health status of those surveyed, since only 4.3% considered themselves in a very bad or bad state before the pandemic, while this number increased to 27.1% during the pandemic period. Most health professionals (92.9%) reported having been influenced by the pandemic in changing their mental state. However, when correlating this factor with the number of jobs of the professionals, a direct relationship was not found between the worsening of the mental health status and the fact of working in two or more jobs.

One of the factors that may be related to the worsening of the mental health status of these professionals is the lack of support offered by the public and private health systems, since 80% of the respondents reported having received only partial or no support during the pandemic.

Another important evidence found in the research was the aspects that, in the perception of health professionals, negatively influenced their psychological state, especially the risk of contamination and overwork, with frequent exhaustion.

Therefore, it was demonstrated in this research, and corroborated by the articles of the theoretical framework, that the pandemic directly affected health professionals who worked on the front line of the fight against Covid-19, notably health professionals in Vale do Ribeira, State of São Paulo. This study also highlighted the urgent need for interventions for the monitoring and treatment of these professionals who presented symptoms of psychological illnesses during and after the pandemic. Considering that most professionals reported having developed some psychological illness due to the impacts of the pandemic, this need for support becomes even more pressing. Finally, it is essential to emphasize the importance of governments promoting investments and campaigns aimed at the well-being of health professionals throughout the country.

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