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PSYCHOSOCIAL REPERCUSSIONS OF THE COVID-19 ON PRIMARY CARE WORKERS

REPERCUSSÕES PSICOSSOCIAIS DA COVID-19 EM TRABALHADORES DA ATENÇÃO PRIMÁRIA À SAÚDE

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ABSTRACT: **Aim:** To diagnose the health of workers in Primary Care Units of a regional area in Fortaleza, Ceará, where COVID-19 had a high incidence, and to verify the relationship between this diagnosis and the evolution of the pandemic locally. **Methodology:** A quantitative research based on situational diagnosis was conducted. For statistical analyses, Fisher's Exact Test was used. **Results**: Despite the psychosocial risks identified and the workers falling ill, there was no significant association between the workers' health diagnosis and the evolution of the local pandemic. **Conclusions:** The absence of an association may indicate the influence of complex factors in the dynamics between the health of workers and the pandemic context, such as variability in working conditions, the level of institutional support, differences in the training and qualifications of professionals, the emotional and physical burden imposed by the pandemic, as well as the sociocultural and economic issues that affect the mental and physical health of workers.

KEYWORDS: Health Personnel. Pandemic Preparedness. Primary Health Care. Psychosocial Impact. Work.

RESUMO: **Objetivo:** Diagnosticar a saúde dos trabalhadores nas Unidades de Atenção Primária de uma regional em Fortaleza, Ceará, onde a COVID-19 teve alta incidência, e verificar a relação entre este diagnóstico e a evolução da pandemia localmente. **Metodologia:** Foi conduzida uma pesquisa quantitativa baseada em diagnóstico situacional. Para as análises estatísticas, foi utilizado o Teste Exato de Fisher. **Resultados:** Apesar dos riscos psicossociais identificados e do adoecimento dos trabalhadores, não houve associação significativa entre o diagnóstico de saúde dos trabalhadores e a evolução da pandemia local. **Conclusões:** A ausência de associação pode indicar a influência de fatores de ordem complexa na dinâmica entre a saúde dos trabalhadores e o contexto pandêmico, como a variabilidade nas condições de trabalho, o nível de suporte institucional, as diferenças na formação e capacitação dos profissionais, a carga emocional e física imposta pela pandemia, além das questões socioculturais e econômicas que afetam a saúde mental e física dos trabalhadores.

PALAVRAS-CHAVE: Atenção Primária à Saúde. Impacto Psicossocial. Pessoal de Saúde. Preparação para Pandemia. Trabalho.

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INTRODUCTION

The first case of COVID-19 in Brazil was recorded in São Paulo on February 26, 2020, triggering increasing tension in the Unified Health System (*Sistema Único de Saúde - SUS*). The pandemic exposed critical flaws in the infrastructure and planning of public health policies. With the exponential rise in cases and deaths, the gaps in governmental responses became evident, marked by denialism, economic losses, discouragement of scientific measures such as the use of masks, social distancing, and the absence of vaccines in 2020. These factors made work in the health sector extraordinarily tense. It is important to highlight what was similarly done in other countries, where the management of the pandemic also faced significant challenges, including high rates of infection and mortality. This initially generated profound health crises and led to urgent reevaluations of public health policies.[1,2]

Health workers faced significant physical and mental strain during the pandemic, being vulnerable to contamination and transmission due to their role as community references. There is an urgent need for accurate, evidence-based epidemiological data on mental suffering and the psychological and psychiatric conditions related to COVID-19. However, psychosocial repercussions have been underestimated due to the predominant focus on infectious issues and intensive care.[3]

The excessive emphasis on clinical and infectious aspects has obscured the long-term consequences on the mental health of professionals, who frequently deal with the stigma and emotional pressure resulting from their experiences during the crisis. Thus, the guiding questions of this study are: What are the psychosocial repercussions of the COVID-19 pandemic on Primary Health Care (PHC) workers? And what psychosocial risk factors are involved in the health-disease process of these professionals during the health crisis?

A limitation in pandemic research is highlighted[4], showing that they focused mainly on health workers in hospitals, neglecting PHC, despite being one of the main 'gateways' of SUS and the front line in the fight against COVID-19. This study is politically justified by its importance in qualifying the universality and comprehensiveness of SUS in the field of work, as well as supporting policies aimed at worker health, considering the psychosocial repercussions of the COVID-19 pandemic.

The objectives are to present the situational diagnosis[5] of the health of workers who are working in Primary Health Care Units *(Unidades de Atenção Primária à Saúde - UAPS)* of Regional VI in the city of Fortaleza, Ceará, an area with a high incidence of COVID-19, and to verify the relationship between the situational health diagnosis of PHC workers and the behavior of the pandemic in Regional VI.

Understanding the health conditions of PHC professionals, effective strategies can be developed that not only improve individual well-being but also ensure a more effective response to health crisis situations, benefiting the community as a whole. Health promotion should be seen as a collective effort that directly impacts the quality of care and the health of the population, highlighting the importance of public policies that prioritize both professionals and users of the health system.

METHODOLOGY

This study adopts a quantitative design, applying structured questionnaires to Primary Health Care professionals to collect data on the psychosocial repercussions of the pandemic. The analysis includes the use of statistical tests to analyze contingency tables to identify significant associations between psychosocial risks and variables related to working conditions. The resulting diagnosis provides

the basis for planning strategic actions aimed at health promotion and prevention, with the goal of improving effectiveness in meeting the needs of the population served.

This research investigates the psychosocial repercussions of the COVID-19 pandemic among Primary Health Care (PHC) workers in a Regional unit of Fortaleza, Ceará, Brazil, characterized by a high incidence of the disease. It focuses on the psychosocial risks faced by professionals and the dynamics of their work related to the health-disease-care process.

Initially, epidemiological data on the pandemic in Fortaleza, Ceará[6], were analyzed in the Regional Health Coordination VI *(Coordenadoria Regional de Saúde VI - CORES VI),* chosen for its high incidence of COVID-19 cases among health workers and users. The research was adapted to a hybrid format, allowing data collection both in person and remotely through Google Meet. Structured interviews were conducted in two modalities: in face-to-face meetings at the UAPS where safety conditions were ensured, and through digital platforms for those who preferred or needed to participate remotely. The participation of professionals for the interviews was coordinated within their services, with the acquisition of a statement from CORES VI and previous agreements with local managers. This ensured a collaborative environment while respecting current public health guidelines. This hybrid approach not only expanded the reach of the research but also respected the different needs and realities of participants during the pandemic.

Data collection occurred from December 2021 to March 2022. It was approved on November 13, 2021, by the Ethics Committee for Research Involving Human Beings at the State University of Ceará (UECE), in accordance with Resolution No. 466 of the National Health Council[7]. The research presents the opinion number 5.136.506.

Structured interviews were used in a hybrid format due to health requirements related to the persistence of the pandemic, following guidelines from the National Commission of Ethics in Research[8]. Participants followed the ethical-humanistic procedure for formal acceptance to participate in the study through the Informed Consent Form (ICF).

Data collection took place in three distinct units, involving the following categories: Community Health Agents (*Agentes Comunitários de Saúde-ACS*), Community Endemic Agents (*Agentes Comunitários de Endemias-ACE*), one manager, one doctor, two nurses, and three nursing technicians, with a total of 14 interviewed workers.

PHC workers who worked on the front line against COVID-19 in Regional VI of Fortaleza, Ceará, and who volunteered to participate in the study were included. The exclusion criteria included those who had been working in the position for less than six months or who had been away from work for more than six months. No specific sampling criteria were defined and free and spontaneous participation was requested through consultations with UAPS managers.

A Google Forms questionnaire was used as an evaluation tool, containing questions to characterize participants, diagnose COVID-19, and assess its repercussions on health and the work environment.

The data were tabulated in Microsoft Office Excel 2019. Descriptive analysis was performed based on the data presented in frequencies and percentages. Some categorical variables were dichotomized (length of service, diagnosis period, work absence, job satisfaction, and access to supplies) to facilitate the association test.

Fisher's Exact Test was used, as all evaluated groups had expected frequencies less than five. For variables that had one empty group (zero) in the 2x2 crossover, the association test was not performed. The analyses were made using the Statistical Package for the Social Sciences (SPSS), version 22,

considering statistical significance with a p-value < 0.05. Unlike other tests that use approximations, Fisher's test calculates the probability of the observed data in small samples.

The data are presented in frequencies and percentages (Table 01). The relationship of the response variable for participants who answered "yes" to the COVID-19 diagnosis (n=12) is indicated (‡footnotes) (Table 02). Finally, the p-value with Fisher's Exact Test was also added (*footnotes), but the variables showed one of the groups empty (zero) in the 2x2 crossover. The statistical significance considered was p-value < 0.05.

RESULTS

The research presented responses about demands perceived by the participants in two blocks: 1) occupational profile: work unit, gender, age, occupation, length of service, and marital status; 2) health profile: COVID-19 diagnosis, absenteeism, working conditions, health issues, access to Personal and Collective Protective Equipment, job satisfaction, physical activity, and employment relationship.

The choice of items from the two blocks for data collection aimed to capture the experiences and perceptions of health workers during the pandemic. The first block, focused on demographic and professional aspects, is crucial for understanding the context in which each interviewee operates, analyzing variables that influence their mental and physical health. The second block addresses the impact of COVID-19 on mental health, including symptoms of stress, anxiety, and burnout, as well as exploring institutional support and coping strategies. These items guide the collection of relevant data and underpin future interventions and health policies, offering an overview of the professionals' needs and enabling the construction of effective support strategies.

The results of this study are based on the arithmetic mean of a questionnaire answered by 14 workers from the three health units who fully responded to questions related to the characterization of participants' profiles, COVID-19 diagnosis, and its repercussions on health and work environment aspects (Table 01).

Table 01 - Characterization of workers in Primary Health Care Units (n=14). Fortaleza-CE, 2022.

Variables	**n (%)**
Age	
22 to 40 years old	8 (57,1)
≥ 41 years old	6 (42,9)
Sex	
Female	12 (85,7)
Male	2 (14,3)
Occupation	
Community Health Agent	6 (42,9)
Vaccination technician	1 (7,1)
Nursing technician	2 (14,3)
Intermediate Level Management (coordination)	1 (7,1)
Doctor	1 (7,1)
Nurse	3 (21,4)
Function time	
up to 5 years	6 (42,9)
≥ 6 years	8 (57,1)
Marital status	
Married	5 (35,7)
Divorced	2 (14,3)
Stable union	1 (7,1)
Single	6 (42,9)

Source: The authors.

The data presented below highlight the determinants and conditioning factors of health, as well as their psychosocial implications in the work environment of health professionals working in the UAPS of CORES VI, in Fortaleza, Ceará (as shown in Table 02). Despite the data analysis, no significant association was identified between the situational health diagnosis of these workers and the behavior of the pandemic in the context of this quantitative study (as shown in Table 03).

Table 02: Aspects of health, structure, bond, access and work environment in Primary Health Care Units (n=14). Fortaleza-CE, 2022.

Variables	**n (%)**
Diagnosis of COVID-19	
Yes	12 (85,7)
No	2 (14,3)
Diagnosis period (‡)	
1st semester of 2020	6 (42,9)
1st semester of 2021	2 (14,3)
2st semester of 2021	1 (7,1)
1st semester of 2022	3 (21,4)
Time off work	
Yes, not specified	6 (42,9)
Yes, Covid-19	5 (35,7)
No	3 (21,4)
Job satisfaction	
Satisfied	7 (50,0)
Partially Satisfied	5 (35,7)
Unsatisfied	2 (14,3)
Team ties	
Satisfied	11 (78,6)
Partially Satisfied	3 (21,4)
Access to inputs	
Very common	8 (57,1)
Often	4 (28,6)
Occasionally	2 (14,3)
Deficiency	
Yes	13 (92,9)
No	1 (7,1)
Physical activity	
Yes	9 (64,3)
No	5 (35,7)

Source: The authors.

Table 03: Relationship between the situational health diagnosis of PHC workers and the behavior of the pandemic in Regional VI (n=14). Fortaleza-CE, 2022.

Variables	Job satisfaction		p	Bond		p	Access to inputs		p
	Satisfied n=7	Part. Satisfied /Unsatisfied n=7		Satisfied n=11	Part. Satisfied n=3		Often n=12	Occasionally n=2	
Age									
22 to 40 years old	4 (50,0)	4 (50,0)	0,301	6 (75,0)	2 (25,0)	0,615	8 (100,0)	0	(*)
≥ 41 years old	1 (16,7)	5 (83,3)		5 (4,7)	1 (16,7)		4 (66,7)	2 (33,3)	
Sex									
Female	5 (41,7)	7 (58,3)		10 (83,3)	2 (16,7)	0,396	11 (91,7)	1 (8,3)	0,275
Male	0	2 (100,0)	(*)	1 (50,0)	1 (50,0)		1 (50,0)	1 (50,0)	
Length of service									
Up to 5 years	3 (50,0)	3 (50,0)	0,580	4 (66,7)	2 (33,3)	0,538	6 (100,0)	0	(*)
≥ 6 years	2 (25,0)	6 (75,0)		7 (87,5)	1 (12,5)		6 (75,0)	2 (25,0)	
Diagnosis of COVID-19									
Yes	4 (33,3)	8 (66,7)	0,604	10 (83,3)	2 (16,7)	0,396	10 (83,3)	2 (16,7)	(*)
No	1 (50,0)	1 (50,0)		1 (50,0)	1 (50,0)		2 (100,0)	0	
Diagnosis period ‡									
Year 2020	2 (33,3)	4 (66,7)	0,727	6 (100,0)	0	(*)	6 (100,0)	0	(*)
Years 2021 and 2022	2 (33,3)	4 (66,7)		4 (66,7)	2 (33,3)		4 (66,7)	2 (33,3)	
Time off work									
Yes	4 (36,4)	7 (63,6)	0,725	9 (81,8)	2 (18,2)	0,547	10 (90,9)	1 (9,1)	0,396
No	1 (33,3)	2 (66,7)		2 (66,7)	1 (33,3)		2 (66,7)	1 (33,3)	
Deficiency									
Yes	0	1 (100,0)		0	1 (100,0)	(*)	0	1 (100,0)	(*)
No	5 (38,5)	8 (61,5)	(*)	11 (84,6)	2 (15,4)		12 (92,3)	1 (7,7)	
Physical activity									
Yes	4 (44,4)	5 (55,6)	0,580	9 (100,0)	0	(*)	8 (88,9)	1 (11,1)	0,604
No	1 (20,0)	4 (80,0)		2 (40,0)	3 (60,0)		4 (80,0)	1 (20,0)	

Source: the authors.
‡Variable answered only by participants who responded "yes" to the COVID-19 diagnosis (n=12).
*It was not possible to perform the statistical test as the variables presented one of the groups as empty (zero) in the 2x2 crossover; Statistical significance considered: $p<0.05$.

DISCUSSION

PHC is intrinsically linked to the demographic profile and the socioeconomic and cultural conditions of the population, highlighting the importance of characterizing a dynamic territory, as exemplified by the regionalization of SUS in Fortaleza, Ceará. According to data from the National Registry of Health Establishments (*Cadastro Nacional de Estabelecimentos de Saúde – CNES*), via e-Gestor[9], Fortaleza has a population of 2,669,342 inhabitants, and in April 2022, it had 452 Family Health Strategy (*Estratégia Saúde da Família - ESF*) teams, achieving 84.8% coverage of PHC. The city has 116

health centers, the first points of care in the network due to their proximity and ability to address most health needs.

CORES VI, with the largest number of health establishments (37 services), presents a complex panorama with significant challenges and potentials. In recent years, Social Organizations (SOs) have also started managing services such as the Customer Service Center, dispensing medications, and collecting tests, with some units entirely managed by SOs since 2019[10]. However, the implementation of spontaneous demand[11] reception still faces divergences among workers.

A study identified a low presence and extent of essential PHC attributes in Fortaleza, such as first-contact access, longitudinality, coordination, and comprehensiveness[12]. Job satisfaction among health professionals is directly related to management conditions and the work environment, influencing the psychosocial dimension of workers. It was observed that units with greater proximity between managers and workers exhibited higher levels of satisfaction.

PHC, as a strategic and essential component of SUS, plays a crucial role in reorienting the work process and positively impacting the health of the population. It fosters an important relationship between workers and users, based on the principle of comprehensiveness and the ethics of care, especially relevant in the sociopolitical context of the COVID-19 pandemic[10].

This study reinforces the need for a transversal dialogue that recognizes different health practices and produces committed and co-responsible care. The humanization of health, supported by an ethical-aesthetic-political approach, requires the active and conscious participation of all involved: users, managers, and workers. In this context, 'aesthetics' is not limited to appearance but reflects an inventive and creative process in health production, promoting autonomous and meaningful subjectivities. Meanwhile, 'politics' addresses institutional organization, emphasizing the importance of social control in care and management practices, ensuring that decisions respect the needs and desires of the community. Thus, ethics becomes an essential foundation to ensure that health practices are not only technical but also human, respecting the dignity and uniqueness of each person[13].

In addition to broad structural issues in the micro-work process, there is an urgent need to discuss mental health issues[14], pointing to a significant gap in COVID-19 management protocols, which until now have not adequately addressed psychological support for PHC workers. The pandemic exacerbated pre-existing problems, emphasizing the need for more integrated solutions to support the mental health of health professionals.

It is essential to integrate training, care, self-care, and spaces for horizontal communication among managers, the community, and workers, especially in the face of the new emerging psychosocial demands during and after pandemic. This reinvention process requires a greater collaborative network to face contemporary challenges in PHC[15].

Thus, data analysis reveals the importance of targeted interventions for promoting the mental and physical health of PHC workers, especially in health crisis contexts. The relationship between the situational diagnosis and the behavior of the pandemic highlights the need for public policies that ensure the well-being of health professionals, contributing to the effectiveness of the health system in critical moments. The health of workers is fundamental to the quality of care and requires care strategies that consider their specificities, especially in situations of stress and overwork[16].

The pandemic exacerbated certain aspects of existing social inequalities, demonstrating the urgent need for policies and interventions aimed at protecting and supporting the population, including the specificity of work fields and their territories for practical prevention and health promotion actions. This includes implementing public health measures adapted to local conditions, expanding social

assistance programs, and investing in basic infrastructure to improve living conditions in these vulnerable areas[17].

The practical implications of this study are significant for the scientific community and for public health management. The results indicate the urgency of developing health policies that include systematic psychological support for PHC workers. The implementation of continuous training and self-care programs can improve not only the mental health of professionals but also the quality of care provided to the population. Moreover, creating effective communication channels between managers and workers is essential to promote a healthy work environment that fosters collaboration and job satisfaction. Such interventions will not only meet the emerging needs of professionals during and after the pandemic but also contribute to a more resilient and adaptable health system for future challenges.

CONCLUSION

Despite identifying significant psychosocial risks that resulted in illness, the statistical results did not show a significant association between the situational health diagnosis of workers and the behavior of the pandemic. This lack of association may indicate that other factors not captured in this study or an inherent complexity in the dynamics between workers' health and the pandemic context are at play. These findings underscore the need for more in-depth future investigations to understand the nuances of this relationship.

Therefore, it becomes essential to promote strengthening practices in PHC, emphasizing care management as a goal to expand the resolution capacity of health networks to care for workers in crisis scenarios. Thus, the objective of conducting a situational diagnosis was achieved, ensuring that these results are useful and effective for post-pandemic strategic planning.

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