

## **STRUCTURAL ANALYSIS OF THE SOCIAL REPRESENTATIONS ON COVID-19 AMONG ASSISTANCE NURSES**

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### **ABSTRACT**

**Objective:** to analyze the structure of the social representations on Covid-19 among assistance nurses.

**Method:** a study with a qualitative approach, based on the Theory of Social Representations, with structural analysis, conducted with 178 nurses from Ceará, Brazil, from May to June 2020. The evocations were processed with the EVOG 2000<sup>®</sup> software, creating the four-house chart. IRAMUTEQ<sup>®</sup> was used to produce the similarity tree.

**Results:** the potential central nucleus was composed of “fear” and “isolation”, with “death” constituting the first periphery; “sadness”, “pain”, and “uncertainty” in the second periphery; and “dyspnea”, “anguish”, and “pandemic”, in the contrast zone.

**Conclusion:** at the first moment, the representations were constructed around negative feelings and emotions. New studies are indicated, with the adoption of other analysis methods to confront the findings.

**DESCRIPTORS:** Coronavirus. Nursing. Health professionals. Fear. Social isolation. Death.

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# ANÁLISE ESTRUTURAL DAS REPRESENTAÇÕES SOCIAIS SOBRE COVID-19 ENTRE ENFERMEIROS ASSISTENCIAIS

## RESUMO

**Objetivo:** analisar a estrutura das representações sociais sobre a Covid-19 entre enfermeiros assistenciais.  
**Método:** estudo qualitativo fundamentado na Teoria das Representações Sociais, com análise estrutural, realizado com 178 enfermeiros do Ceará, Brasil, no período de maio a junho de 2020. As evocações foram tratadas pelo *software* EVOC 2000 originando o quadro de quatro casas. Utilizou-se o IRAMUTEQ para produzir a árvore de similitudes.

**Resultados:** o possível núcleo central foi constituído pelos elementos “medo” e “isolamento”, com a “morte” constituindo a primeira periferia; “tristeza”, “dor” e “insegurança”, na segunda periferia; e “dispneia”, “angústia” e “pandemia”, na zona de contraste.

**Conclusão:** no primeiro momento, as representações foram construídas em torno de emoções e sentimentos negativos. Indicam-se novos estudos, com adoção de outros métodos de análise para confronto dos achados.

**DESCRITORES:** Coronavírus. Enfermagem. Profissionais de saúde. Medo. Isolamento social. Morte.

# ANÁLISIS ESTRUCTURAL DE LAS REPRESENTACIONES SOCIALES SOBRE COVID-19 ENTRE ENFERMEROS ASISTENCIALES

## RESUMEN

**Objetivo:** analizar la estructura de las representaciones sociales sobre Covid-19 entre enfermeros asistenciales.

**Método:** estudio de enfoque cualitativo, fundamentado en la Teoría de las Representaciones Sociales, con análisis estructural, realizado con 178 enfermeros de Ceará, Brasil, entre mayo y junio de 2020. Las evocaciones se sometieron a tratamiento en el *software* EVOC 2000® dando origen al cuadro de las cuatro casas. Se utilizó el IRAMUTEQ® para generar el árbol de similitud.

**Resultados:** el posible núcleo central estuvo constituido por los siguientes elementos: “miedo” y “aislamiento”, con la “muerte” constituyendo la primera periferia; “tristeza”, “dolor” e “inseguridad”, en la segunda periferia; y “disnea”, “angustia” y “pandemia”, en la zona de contraste.

**Conclusión:** en el primer momento, las representaciones se construyeron en torno a emociones y sentimientos negativos. Se indican nuevos estudios, con la adopción de otros métodos de análisis para confrontar los hallazgos.

**DESCRIPTORES:** Coronavirus. Enfermería. Profesionales de la salud. Miedo. Aislamiento social. Muerte.

## INTRODUCTION

*Coronavirus Disease 2019 (Covid-19)* is characterized for being an infectious disease caused by the *Severe Acute Respiratory Syndrome (SARS-CoV-2)*, whose behavior has not yet been clarified. This virus is responsible for an unprecedented pandemic in the last one hundred years of the Brazilian health history, causing a sanitary crisis not experienced for a long time, jeopardizing millions of people around the world.<sup>1</sup>

Until the second half of September 2020, the disease incidence in the world was 4,184/1,000,000 inhabitants, and Brazil was in the 8<sup>th</sup> position compared to other countries, with an incidence of 22,451 cases/1,000.000 inhabitants. In this same period, the world's mortality rate was 127 deaths per one million inhabitants when, in Brazil, this incidence was five times higher, i.e., 673 deaths/1,000,000 inhabitants.<sup>2</sup>

Due to the quick spread potential, combined with high mortality, the lack of specific and therapeutic measures proven to be effective, the deficient structure of the Brazilian health system, and the insufficiency of hospital beds, the Covid-19 pandemic resulted in the adoption of radical measures by health care authorities never experienced by contemporary society. Among them, the closure of commercial establishments and schools, the prohibition of people's flow in public areas, intercity sanitary barriers, and even the closure of international borders have caused great changes in society's lifestyle, having to face economic, psychosocial, and political problems, as well as the health system crisis.<sup>3-5</sup>

Given this new sanitary situation and its effects, scientists have been dedicating themselves to studying the effects of the pandemic, especially with the health professionals who, unlike most people who abide by social distancing, are at the front line of care in the health services. In this context, nurses stand out for representing a substantial contingent of professionals in those teams and staying long hours with the patients, increasing the possibility of developing the Burnout Syndrome given the uncertainty they experience of getting infected and transmitting the virus to their family members.<sup>6</sup>

This epidemiologic and social reality, conditioned by the pandemic, reveals the vulnerability of the health care professionals. Significant changes in people's lifestyle and in the care processes provide different perceptions on this reality, indicating that, through this new scenario, in which behaviors are redirected, and meanings and judgments are formed, it is important to understand the social representations, which are still being constituted by several groups, including nurses, who experience the impacts caused by Covid-19.

Social representations are models for nurses to interpret their experiences about how they relate to the environment and how they are part of the knowledge system, expressed by beliefs and metaphors transcending individual experiences. Given these considerations, the following question was asked: what is the representational structure on Covid-19 among nurses providing care to patients affected by this disease?

Therefore, this study aims to analyze the structure of the social representations on Covid-19 among assistance nurses in Ceará. This study is relevant as it gathers nurses' experiences and representations on the daily coping with this virus, the care actions provided and, at the same time, the acquisition of greater knowledge on the disease. Therefore, linked to practical knowledge, the experience can be a tool for more meaningful and safe care actions, thus encouraging professionals to produce a new way of performing and providing care. This implies apprehending and carrying out inferences on the situation faced, basing the new virus and disease on old knowledge frameworks and developing images for both, creating social representations, as the theory indicates.<sup>7-8</sup>

## METHOD

This is a qualitative study directed by the Consolidated Criteria for Reporting Qualitative Research (COREQ) tool based on the theoretical-methodological framework of the Theory of Social Representations (TSR), in its structural approach. According to the structural approach, social representations are organized in a central nucleus and peripheral elements characterizing the study group's representativeness; the first is the reason for organization, meaning, and permanence over time. The central nucleus is linked to the group's social memory, the most consensual aspect. On the other hand, the peripheral system is related to a more immediate context, being flexible, and presenting practical aspects.<sup>9</sup>

Thus, it provides the comprehension of how the studied object is understood by the subjects in the relationships established by them, when constructing reality and incorporating the universe. The theoretical proposal is concerned with the connection between subject and object and how individual and collective knowledge is built on the Social Representations derived from common sense.<sup>7</sup>

The setting of this study was Ceará, Brazil, the center of the Covid-19 pandemic, in the Northeast region, with more than eight thousand deaths, presenting high mortality rates due to the disease until September.<sup>10</sup>

The population consisted of 14,308 nurses from the state of Ceará. The initial sample was composed of 2,145 nurses chosen by convenience, who accepted to participate in the first stage of the study, answering an online questionnaire, and in the second stage through a phone call.

The following were defined as inclusion criteria: (1) professionals providing care to patients with Covid-19 during the data collection period, and (2) working in urgent care units and hospitals. Additionally, the selection of these criteria was based on three aspects of the subjects' constitution as a social group to be studied by the Theory of Social Representations: (1) same professional class, (2) care implementation to the same group of patients affected by an unknown syndrome in the context of a pandemic, and (3) working in higher complexity levels in the care network, such as urgent care and hospitals.

Participants with whom it was not possible to get in contact after three phone calls and those who did not accept to answer the question through the phone were excluded in the second stage.

A semi-structured questionnaire with 12 questions gathering information about nurses' socioeconomic status, email, and telephone number was produced to collect the data. After producing the questionnaire, a pilot test with six professionals was conducted. As difficulties or non-conformities were not identified, collection continued.

On social media (*WhatsApp, Instagram, Facebook*), nurses from Ceará, belonging to the knowledge network of the researchers, and those who mentioned Nursing as their profession on private social media were identified. The 2,145 nurses identified were invited to participate in the study through a private message, explaining the research objective and, if they accepted, the free and informed consent form was sent and returned online, and the link was sent to them so that they answered the questionnaire.

This first moment occurred between May 17<sup>th</sup> and May 21<sup>th</sup>, 2020 (the period defined for the data collection). Thus, of the 2,145 nurses contacted, 773 answered the message and agreed to participate. However, only 762 returned the instruments properly filled out, which were available through *Google Forms*.

Of the 762 nurses who completely answered the data collection instrument sent through *Google Forms*, it was possible to contact 213 by phone. They were contacted between May 29<sup>th</sup> and June 13<sup>th</sup>, 2020, and 35 refused to participate in the word evocation test. Therefore, the final sample consisted of 178 nurses.

The contact was made through a phone call, in which the Free Word Association Technique (FWAT) was applied. During the call, the participants were not asked where they were, but if they were in a comfortable and reserved environment to answer the questionnaire. Subsequently, the following was requested: “tell me the first five words that come to your mind when you listen to the term Covid-19”. The mean time for evocations was 14 seconds, with a minimum of eight and a maximum of 30 seconds to say the five terms.

According to the evocation order, the terms mentioned were reported in individual files, cataloged in an alphanumeric manner, with the letter E and the number corresponding to the order of the calls made by the researchers to guarantee confidentiality.

This method for collecting data (via telephone) is due to the social isolation in place, which hinders conducting face-to-face research studies. Besides, virtual and telephone means are consolidated in other study types and can be characterized as an acceptable technique in the apprehension of the Social Representations.

The sociodemographic data were consolidated in *Excel*<sup>®</sup>, exported for analysis in the *Statistical Package for the Social Sciences* (SPSS), version 23.0, and presented by means of descriptive statistics, absolute and relative frequencies, and standard deviation.

The words were typed in files other than *Word* to materialize the study corpus, with appropriate codings for treatment, by means of the *Ensemble de programm permettant l'analyse des evocations* (EVOC 2000<sup>®</sup>) and *Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires* (IRAMUTEQ<sup>®</sup>) programs, with subsequent homogenization of terms, aiming at standardization, concerning inflections (gender and number). Subsequently, the file was saved in *.txt* (format supported by EVOC) and *Unicode UTF 8 .txt* (format recognized by IRAMUTEQ<sup>®</sup>).

Then, the evocations were appraised, by the analysis and construction of the four-house chart, graphically demonstrating the terms related to the central and intermediate nuclei, referring to the set of words evoked. The words' frequency and the Mean Order of Evocations (MOE) were considered, using the following parameters: minimum frequency of 15, intermediate frequency of 32, and *Rang* of 2.8.

The possible central nucleus was represented by the elements with the highest frequencies and indicated by the largest number of people in the first positions (upper left quadrant). The quadrant presenting low-frequency elements in initial positions (lower right quadrant) is called the contrast zone, while the one with high frequency is rendered in the last positions (upper right quadrant), first periphery. The second periphery quadrant (lower right quadrant) is constituted of elements with low frequency and in the last positions.<sup>7-8</sup>

The textual corpus was processed by IRAMUTEQ<sup>®</sup>, version 0.7 alpha 2, to perform similarity analysis and maximum tree construction to visualize the connection between the elements of the representation. The outcomes were presented through a table and a figure for better understanding of the findings. The discussion was based on the national and international literature, as well as on the proposals of the Theory of Social Representations. The study had approval by the Research Ethics Committee.

## RESULTS

Of the 178 nurses, 165 (92.7%) were female, with a mean age of 32.7 ( $\pm 6.8$ ) years old, varying from 21 to 66 years old. Regarding marital status, 102 (57.3%) were married. The mean time of training was 7.5 ( $\pm 5.7$ ) years. More than half ( $n=101$ , 56.7%) worked in the hospital and the others ( $n=77$ , 43.3%) in Emergency Care Units (ECUs). 71 (39.9%) worked in intensive care units, and all of them assisted patients hospitalized due to Covid-19. Of the participants, 112 (62.9%) worked in Fortaleza (capital of Ceará). All were working in these services even before the pandemic.

A total of 890 words were listed, 198 were different, and 90 evocations were mentioned only once. Terms mentioned less than 15 times were excluded, and the four-house chart was built (Table 1).

**Table 1** - Structure of the social representation of Covid-19 among nurses, by means of the Free Word Association Technique, by telephone contact. Ceará, Brazil, 2020. (n=??)

Central Elements			Intermediate Elements		
Frequency >= 32		Rang < 2.8	Frequency >= 32		Rang > 2.8
Evocation	Freq.	Rang	Evocation	Freq.	Rang
Fear	117	1.855	Death	71	2.803
Isolation	35	2.743			

Intermediate Elements			Peripheral Elements		
Frequency >= 32		Rang < 2.8	Frequency >= 32		Rang > 2.8
Evocation	Freq.	Rang	Evocation	Freq.	Rang
Dyspnea	30	2.700	Sadness	26	3.346
Anguish	28	2.429	Pain	18	3.167
Pandemic	15	1.800	Uncertainty	17	3.353

\* Frequency

The potential central nucleus was composed of “fear” and “isolation”. It is important to highlight the presence of the fear-isolation pair as elements structuring the representations, as well as the high frequency of “death”. Ultimately, a triad was formed, in which fear is importantly combined with the highest frequency of analysis and the second-lowest *Rang*, death with the second-highest frequency, and isolation with the third-highest frequency. It is possible to consider that the Covid-19 social representation for nurses is around these elements.

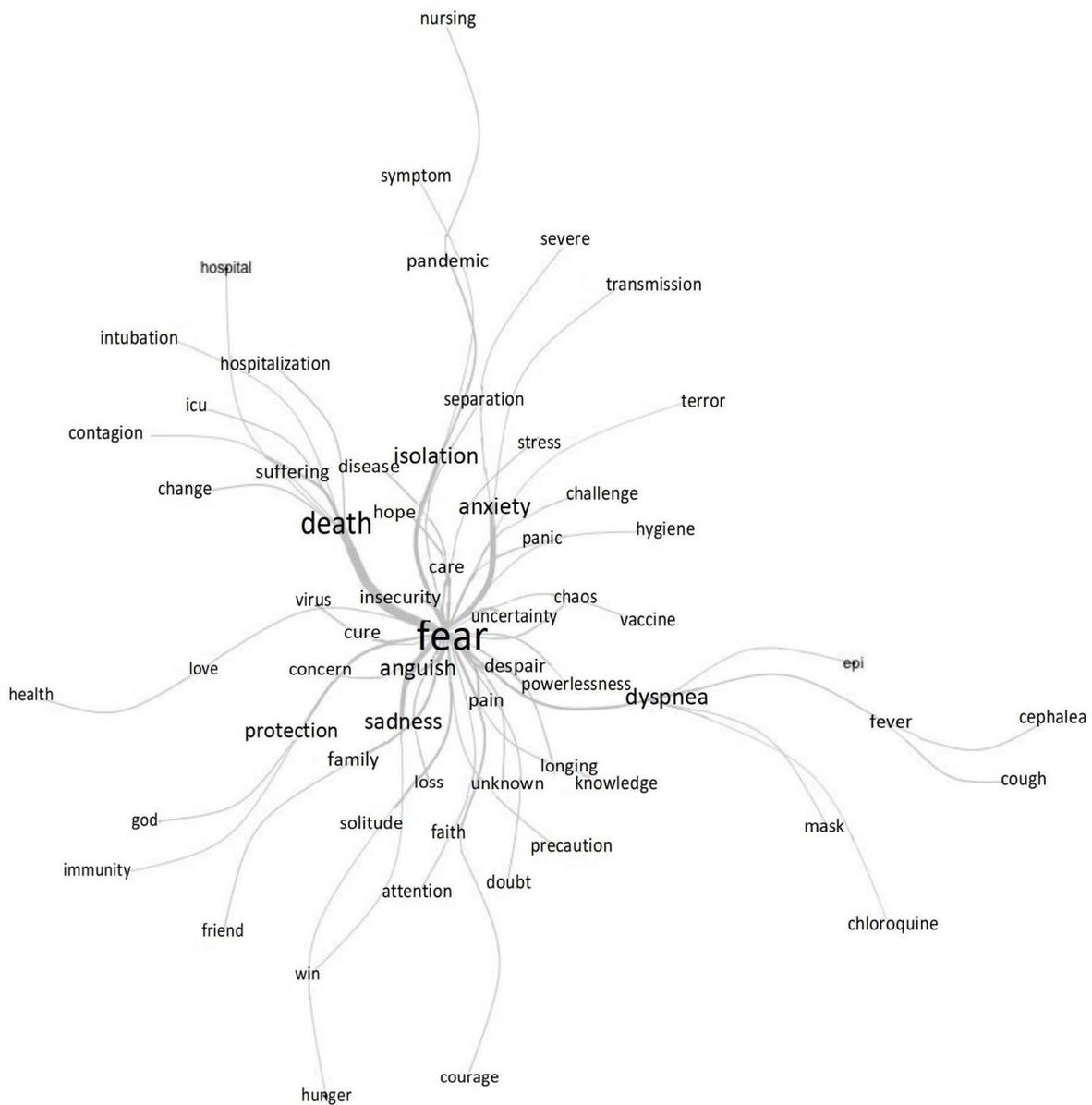
The similarity analysis of the evocations produced a maximum tree (Figure 1), aiming at confirming the nuclei centrality and the centrality presented in Table 1.

The similarity tree figure explains how the word “fear” has an organizing effect on the figure exposed, with 20 aggregating evocations and five nuclei, “death” (n=72), “isolation” (n=34), “anxiety” (n=32), “dyspnea” (n=30), and “anguish” (n=28). The term “death” is an intermediate element with seven elements associated with it, presenting connections with “change” (n=04), “hospitalization” (n=04), “hospital” (n=04), (“ICU”) (n=03), “intubation” (n=04), “contagion” (n=02), and “suffering” (n=02). At the same time, “isolation” was present as a central nucleus and had connections with the terms “symptom” and “pandemic”.

The importance of the word “death” was also observed in the tree, in which a specific content group emerges, including the terms “hospitalization”, “hospital”, and “intubation”, among others that could be mentioned. It is, therefore, physical death resulting from the Covid-19 infection.

## DISCUSSION

The social representations indicate a reality absorbed by a group of people and rebuilt in their cognitive system, which is based on values, experiences, and contexts where they are inserted. It is constituted as a significant organization that interprets reality and guides actions and behaviors.<sup>9</sup>



**Figure 1** – Similarity analysis of the evocations on Covid-19 by nurses, through the Free Association of Words Technique. Ceará, Brazil, 2020.

The central nucleus is composed of more stable and strict elements of representation, resistant to changes, filled with values and with an ideological basis of the group, in the face of the moment experienced.<sup>9</sup> By analyzing Table 1, it is possible to observe that the potential central nucleus of the social representation on Covid-19 among nurses is represented by “fear” and “isolation”. However, it is necessary to consider the term death as an element present in the first periphery but importantly mentioned by the subjects. Then, there is an affective characteristic and a behavioral one, both related to the pandemic, as well as the concreteness of human finitude expressed in more than 140,000 deaths in Brazil.<sup>2</sup>

Based on the proposals of the theory of the central nucleus, the term “isolation” was part of the central nucleus of the representation. It is known that isolation turns meetings, leisure activities, and work actions unfeasible. It is a condition imposed by the pandemic to contain virus transmission and prevent the health system from collapsing.<sup>4</sup>

Over the last few years, no disease has given rise to social isolation as the one people are experiencing now, hindering theoretical and scientific production on the subject matter, and signaling that the social representation on Covid-19 among nurses is still being constructed. Thus, it is considered that this unprecedented condition in the last decades produces socio-cognitive representations among nurses about Covid-19, especially within the isolation context, about the use of PPE, the uninterrupted information conveyed by media, and the tension between health and economy, given the novelty situation.

In addition to distancing from society, the isolation of the person under care can cause several impacts, considering that, during the illness process, they are away from family members, whether in a hospital or isolated at their homes.<sup>11</sup> In addition, many professionals have isolated themselves from their family members as a preventive measure.

The pandemic experience with many infections and deaths is an exceptional reality for nurses in the 21<sup>st</sup> century. Providing care to people infected by the new coronavirus has become a challenge due to the diversity and complexity of symptoms presented, as well as in view of the structural and work process difficulties revealed by this new reality, in addition to the high exposure of these individuals to the virus.

Another possible central element was represented by “fear”. It is understood that the professionals’ fear can be mainly related to the possibility of infection and death. A Chinese study pointed out that several young individuals, members of health teams and infected by Covid-19, whose conditions seemed mild in the initial stage of the disease, have recently worsened markedly and died, increasing, above all, fear towards the virus.<sup>12</sup>

In the last fifty years, health care professionals were at risk of getting infected by HIV/AIDS, SARS, swine influenza, and ebola. As there are still some gaps about SARS-CoV-2 regarding pathophysiology, mode of transmission, susceptibility profile, and infectious nature, in addition to failures in the provision of Personal Protective Equipment (PPE), health care professionals are being required to take substantial and uncertain risks provoking fear and anguish.<sup>13</sup>

The literature points out that, by taking care of patients with infectious diseases, the fear of getting infected is present among nursing professionals as a stress factor that stimulates negative attitudes, directly impacting on the care provided, triggering symptoms and provoking harms to these professionals’ lives.<sup>14</sup> In addition, the fear of infecting their families was a feeling revealed by nurses during the first days of assistance in the pandemic.<sup>15</sup>

Women experience fear more frequently than men and, in addition to that related to exposure, facing catastrophic situations, and working in overcrowded services with undersized staff are frightening situations in the professional practice.<sup>16</sup>

The dimension represented by “fear” also contemplates the experience of these nurses in view of the experiences acquired, elaborated and resignified in the work processes, and which present possible configurations of the collective reality, showing that these feelings are intrinsic to human beings in the various roles performed.

Furthermore, some elements presented a connection with fear in the similarity analysis, such as “anxiety”, “despair”, “stress”, “horror”, “concern”, “anguish”, “pain”, “uncertainty”, “loss”, “sadness”, and “solitude”, among others. There is predominance of negative feelings imposed by fear, complemented by other meanings for the nurses during the Covid-19 pandemic.

From this perspective, when considering that there may be positive experiences in a crisis scenario, the representations permeated by negative elements are imperiously observed. It is expected that nurses find internal elements to deal with the senses and meanings imposed by the moment, and that they receive institutional support broadly and respectfully.

Considering that the first periphery connects presents a connection between the concrete reality and the central nucleus, its function is to support the group's heterogeneity.<sup>9</sup> The term fear presented an important relation to "death", showing that the proximity of death is real and significant. Death presented connections with "change", "hospitalization", "hospital", "ICU", "intubation", "transmission", and "suffering", representing an important interaction with the biological constituents of the disease and of the hospital environment, where almost all deaths occur.<sup>17</sup>

The representation of death interconnected with the hospital environment can also be generated by the professionals, due to shortage of resources. The Brazilian regions with fewer hospital beds in specialized services and mechanical ventilators were associated with the highest mortality means, especially in parts of the Northeast, South, and Southeast Regions.<sup>18</sup>

In fact, Covid 19 has had thousands of victims and reveals that care for critical patients requires a consubstantiated scientific and professional framework, as well as an emotional structure supporting the professionals through complications and losses during care provision. Even though many lives were protected, deaths were significant due to their number and to the speed with which they occurred, so that the repercussions among nurses cannot be specified.

Within the context of the nurses' work, reflecting on death lacks theoretical support consistent with the perception of life finitude and how it impacts on the care practice. Care situations in the dying process are imprecise and unique, requiring nurses to make decisions that extend beyond clinical constructs but impose ethics and even meanings that can hardly be understood through the hard sciences.<sup>19-20</sup>

Death is a complex and suffered situation, whose frequent occurrence, within a pandemic context as the present one, has an important impact on health care professionals, especially nurses. It is also pointed out that this theme is little discussed in the academic scope, thus producing vulnerable professionals as regards the finitude of human life, especially when this life is under the care of these professionals. It is indicated that psychological support has positively contributed to nurses dealing with death.<sup>21</sup> In addition, they must understand the complexity involving the death situation and its corresponding meanings, mainly for the patients and family members, considering the subjectivity and the sociocultural and institutional conditions of the subjects involved in this process.<sup>22</sup>

Other terms emerged in the contrast zone, such as "dyspnea", "anguish", and "pandemic". Recognizing that a pandemic is defined in Epidemiology as a health problem that affects populations on more than one continent,<sup>23</sup> it is believed that the evocation among the subjects participating in this study revealed the conceptual and reified aspect of the representations, as well as a problem that is beyond daily reality and reaches a global dimension, demanding coping actions in different modalities.

The social determinants of the pandemic signal that lifestyles during this moment have shown an individualistic facet through non-protective behaviors, as well as a humanitarian side in others, who propose to help and minimize suffering in the population.<sup>24</sup>

Dyspnea was a significant complication of the disease, normally related to pain, to fatigue, and to the infectious process.<sup>25</sup> As dyspnea is a clinical manifestation prevalent among Covid-19 patients and often leads to a severe condition that can progress to death, it can also be considered a reified and experiential aspect.

In this research, anguish was yet another negative feeling around the reality experienced by these professionals, thus composing the representation on the disease. A number of research studies indicate the presence of feelings revealing nurses' suffering and powerlessness when taking care of terminal patients,<sup>26</sup> as well as higher risks of presenting anguish when providing care to Covid-19 patients.<sup>27</sup>

The second periphery, represented by the terms "sadness", "pain", and "uncertainty", promoted coherence and protection to the central nucleus, represented by negative emotions with the potential to generate stress and suffering. These elements show the important emotional and physical impact to which nurses are subjected.

The psychological distress of the health professionals, specifically of the nurses in the front line of the fight against Covid-19, can be derive from the assistance nature itself and from the new ways of working, which are highly stressing for these workers.<sup>11,17,27</sup> In many areas, nurses are adapting themselves to provide care, at the final moments of the patients and more frequently, in the face of a faster clinical deterioration than what they were accustomed to.

These negative feelings can be influenced by intrapersonal, interpersonal, and organizational factors that influence coping with the problems found in this current context of health systems and services during the pandemic. The ability to resolve internal conflicts, deal with anxiety, self-control, self-awareness, and self-management skills have never been more necessary and fundamental to maintain emotional balance and harmony in health teams' work relationships.

In some services, for example, to relieve nurses' mental stress, the head nurse has held a 30-minute meeting with the nurses who will work in the isolation area the following day, so as to make them aware of the correct use of the equipment and resources adequate for the hospital. In addition, nurses have been protected and assessed immediately after they feel any discomfort; those with anxiety or insomnia symptoms are thus encouraged to seek the help of the team's on-call psychotherapists, who will assess and help them to deal with possible stress and depression.<sup>12</sup>

Thus, qualitative recognition becomes indispensable in the perspective of experiencing and portraying the professional praxis, completely human and, as such, surrounded by complexities that directly influence the nurse-patient relationship. Further discussions on the subject are thus urgent during professional training, so as to equip nurses not only regarding clinical care but also in relation to the emotional components related to death, which may influence the care process.

Despite what was presented, one of the limitations of this research is the researchers' difficulty regarding the availability of professionals to perform the evocations, as well as the impossibility of establishing face-to-face contacts for data collection. Additionally, new research studies are necessary, with the adoption of other analysis methods to compare the findings.

## CONCLUSION

This study presented the structural analysis of the social representations on Covid-19 among assistance nurses, highlighting the presence of the negative emotional element as a possible central axis. The representation was composed of the "fear" and "isolation" elements, present in the quadrant of the candidates for centrality, and of "death" in the first periphery.

It is believed that this study contributes to understanding the moment experienced by nurses in the provision of direct care to Covid-19 victims, by means of a structural approach of the social representations. Additionally, it favors the interpretation of the reality of these social actors. How these professionals attribute meaning to the disease allows establishing links to reflect on the object under study, perceived by nurses based on the realities they live.

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## NOTES

### ORIGIN OF THE ARTICLE

Extracted from the research study - Epidemiological, clinical and social aspects of health professionals during the COVID-19 pandemic in Ceará, conducted by the Nursing Department, Univerisdad Federal do Ceará, in 2020.

### CONTRIBUTION OF AUTHORSHIP

study desing: Coelho MMF, Vasconcelos VM.

Data collection: Coelho MMF, Vasconcelos VM.

Data analysis and interpretation: Coelho MMF, Vasconcelos VM, Cabral RL, Oliveira RM, Araújo MAM, Gomes AMT.

Discussion of the results: Coelho MMF, Vasconcelos VM, Cabral RL, Oliveira RM, Araújo MAM, Gomes AMT.

Writing and/or critical review of content: Coelho MMF, Vasconcelos VM, Cabral RL, Oliveira RM, Araújo MAM, Gomes AMT.

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### ETHICS COMMITTEE IN RESEARCH

Approved by the Ethics Committee in Research with Human Beings of the Universidade Federal Ceará, under opinion No.4,029,492/2020, and Certificate of Presentation for Ethical Appraisal No. 30873320.6.0000.5054.

### CONFLICT OF INTERESTS

There is no conflict of interests.

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