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COVID-19 and the implications of social and hospital isolation for older adults

A COVID-19 e as implicações do isolamento social e hospitalar para o paciente idoso

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Abstract

Objective
To investigate the human-environmental impacts of social and hospital isolation on older adults hospitalized for Coronavirus Disease 2019 (COVID-19) treatment.

Method
This is an exploratory, descriptive, and qualitative study conducted with 16 hospitalized older adults, who answered a sociodemographic questionnaire and a guiding question. Data were analyzed through textual analysis using the *Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires* (IRaMuTeQ) software.

Results
Social and hospital isolation, associated with the perceived loss of privacy, autonomy, and mobility, led to an overload of the hospital environment and intensified its role as a stressor.

Conclusion
Understanding the person-environment relationship can support interventions aimed at preventing psychological distress and promoting the mental health of older adults in hospital settings.

Keywords: COVID-19; Environmental psychology; Frail elderly; Hospitals, isolation; Social isolation.

Resumo

Objetivo
Investigar os impactos humano-ambientais do isolamento social e hospitalar em pessoas idosas hospitalizadas para tratamento da Coronavirus Disease 2019 (COVID-19).

Método
Pesquisa exploratória, descritiva e qualitativa, realizada com 16 idosos hospitalizados, que responderam a um questionário sociodemográfico e a uma pergunta disparadora. Os dados foram analisados por meio de análise textual com o uso do software Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires (IRaMuTeQ).

Resultados

O isolamento social e hospitalar, associado à percepção de perda da privacidade, autonomia e mobilidade, gerou sobrecarga no ambiente hospitalar e intensificou seu papel como ambiente estressor.

Conclusão

A compreensão da relação pessoa-ambiente pode subsidiar intervenções voltadas à prevenção de agravos psíquicos e à promoção da saúde mental da pessoa idosa em contextos hospitalares.

Palavras-chave: *COVID-19; Psicología ambiental; Idoso fragilizado; Hospitais de isolamento; Isolamento social.*

Environmental Psychology is a broad interdisciplinary field that brings together knowledge from Social Geography, Architecture, Environmental Engineering, Psychology, Biology, among many other areas. The Environmental Psychology field of study does not focus a specific area of knowledge but is concerned with the understanding of the person-environment interrelationship (Campos-de-Carvalho et al., 2017).

Campos-de-Carvalho et al. (2017) state that the environment is multidimensional, and encompasses the physical environment, whether built or natural, as well as the social, political, cultural, affective and psychological dimensions of a given context. It is further understood that social and affective relationships and physical space are inseparable. Thus, environmental changes permeate both the physical, affective and social dimensions, and promote subjective changes in the individuals located in that environment (Campos-de-Carvalho et al., 2017).

Based on this understanding, we concluded that environmental changes resulting from the COVID-19 pandemic were the cause of significant changes in different spheres of life. The speed of contagion and the large number of deaths imposed the need to implement sanitary measures including physical/social distancing (Ferreira et al., 2021). Although necessary, these interventions together with uncertainties in the different dimensions of daily life led to changes and ruptures in the way of living and in connection with daily life (Bessa et al., 2023).

In this scenario, home, previously understood as a primary territory (Castro et al., 2021; Ferreira et al., 2021), a place of rest and private space for intimacy, becomes an environment of uncertainty and of multiple tasks (Ferreira et al., 2020). Another setting that has undergone significant changes is the hospital. Public and private hospitals had to adapt to new safety protocols and included in their routines the use of social and hospital isolation health measures as a way to reduce contagion (Agência Nacional de Vigilância Sanitária, 2020; Bessa et al., 2023).

Social isolation is the act of separating an individual or group from the rest of society. This isolation may be voluntary or not. Although necessary in the pandemic framework, this measure brought huge challenges to the mental health of different populations (Castro et al., 2021). Hospital isolation is a practice that involves separating patients with contagious or infectious diseases in controlled environments in order to prevent the spread of the disease to other people, including other patients, visitors, and health care professionals (Silva et al., 2020).

Thus, patients with suspected or confirmed COVID-19 were directed to isolation areas, separated from other pathologies' patients; they were subjected to greater access and movement restrictions. Consequently, the increased rigidity in patient control in the hospital setting further fostered the feeling of privacy, autonomy, and mobility loss (Giron et al., 2024).

Some hospitals opted to partially or completely suspend the presence of bedside companions for elderly patients in isolation areas. It is worth noting that the Statute of the Elderly, Law No. 10,741 of October 1, 2003, establishes that older adults who are hospitalized or receiving

outpatient care have the right to a room companion (Presidência da República, 2003). However, the restriction/suspension was justified by the unprecedented health emergency and health crisis resulting from the COVID-19 pandemic (Canali & Scortegagna, 2021).

Thus, it is evident that the coronavirus pandemic has caused significant harm to the quality of life of older adults, especially of patients with physical and cognitive impairments. This population has been identified as being the most vulnerable to clinical complications, as well as to behavioral, environmental, and affective changes (Bessa et al., 2023). The propensity for complications is due to the physiological decline, natural to aging, which causes a weakening of the immune system (Günther, 2022). In addition, there are negative implications of more severe social distancing (Barbosa et al., 2021).

Hospitalization is commonly perceived as a distressing experience for patients and family members, and involves physical and emotional disturbances (Costa et al., 2020; Shumaker & Reizenstein, 1982). In the framework of social and hospital isolation, the negative effects were amplified, and older adults experienced physiological problems and profound losses in the social spheres (Barbosa et al., 2021).

The literature indicates that well-established family relationships and social bonds promote the well-being of older adults and enable them to better cope with periods of crisis. Hence the experience of social and hospital isolation during the pandemic increased older adults' anxiety, stress and psychological distress (Giron et al., 2024; Paúl, 2005).

These facts allow analyzing the person-environment relationship of older adults hospitalized for COVID-19 treatment in the hospital environment (Giron et al., 2024). In addition to a physical dimension, the hospital has a cultural, symbolic and social dimension. These dimensions are inseparable, interrelated and influence each other, producing the organizational, social and therapeutic climate (Paris et al., 2021).

Sudden and unpleasant environmental changes are directly linked to our health and produce stress. Likewise, from an interactional point of view, when we set some change on the hospital setting we are directly influencing the behavior of its users: patients, family members and staff (Felippe & Silveira, 2019; Figueiredo, 2005).

Environmental stress is a concept from Environmental Psychology that sheds light on the understanding of psychological problems during the pandemic and is related to objective environmental aspects that are external to the individual (Ferreira et al., 2020). Environmental stress refers to a set of responses that allow the individual to cope with negative and overwhelming situations in an environment and these responses allow reinstating a state of balance (Günther & Fragelli, 2017).

Stressors are characteristics of the environment that are considered unfavorable to the psychosocial conditions considered as stressful by each individual (Ferreira et al., 2020; Shumaker & Reizenstein, 1982). In the hospital setting, patients are considered the most vulnerable group, due to their state of illness, and are therefore more subject to the negative effects of stressful environments (Figueiredo, 2005).

Among all the hospital sections, the Intensive Care Unit (ICU) is the most complex and intense place (Felippe & Silveira, 2019). This space admits patients who are considered to be in the most serious condition and have urgent medical needs. The environmental characteristics of an ICU can favor the emergence of psychopathological symptoms, such as disorientation and psychotic episodes (Costa et al., 2020).

The COVID-19 hospitalization treatment further intensified the fear associated with this space. Faced with the impossibility of social support, older adults hospitalized in ICUs in isolation and their families, experienced daily fear of the patient's clinical problems and the fear of more invasive interventions, such as intubation. Furthermore, hospitalization due to COVID-19 in an ICU was closely related to a possible lonely death (Barbosa et al., 2021; Giron et al., 2024).

Environmental Psychology postulates that the hospital environment can play a restorative or stressful role in the illness process (Felippe & Silveira, 2019). Hence, the greater rigidity of hospital flows, and social and hospital isolation favor situations of stress and psychological suffering (Giron et al., 2024).

The opposite of a stressful environment would be a restorative environment. Restorative environments promote health and prevent illness, as they have aspects that allow for the reduction of fatigue and stress (Gressler & Günther, 2013). For an environment to be considered restorative, it must contain certain properties. The first is the possibility of getting away from a specific situation that generates some type of stress (Alves, 2017).

Another necessary attribute is the sense of belonging, that is, the individual feels positively connected to the location. Added to this is fascination, which is the ability of the environment to capture the individual's involuntary attention, without effort. And, finally there is the compatibility, which is the possibility of adaptation between the individual's demands and the environment that surrounds him/her (Alves, 2017; Gressler & Günther, 2013).

Restorative environments can reduce traces of confinement and social isolation, and increase individual autonomy, as they allow patients to regulate their privacy (Alves, 2017; Gressler & Günther, 2013). Privacy is configured as a set of actions that enable selective control of access by other people (Altman, 1976). It is an important factor in quality of life, as it is characterized as a human need for protection of oneself or a group, and involves factors such as personal autonomy (Cavalcante & Pinheiro, 2018).

In line with the concepts described above, environmental docility provides new perspectives for studying the quality of life and well-being of hospitalized older adults. A docile environment enhances the use of individual capacities and allows elderly individuals to act closer to their best performance zone (Günther & Elali, 2018; Paúl, 2005). A docile environment is closely linked to the positive affect that individuals establish in their relationship with places (Albuquerque & Günther, 2019; Günther & Elali, 2018).

Environmental docility is presented as a hypothesis within an ecological aging model proposed by Lawton and collaborators, and highlights that environments with higher levels of demands produce a significant impact on individuals with low behavioral competence (Lawton & Nahemow, 1973). Therefore, psychosocial aspects and environmental characteristics (movement, orientation and information) are fundamental to the set up of a docile environment for older adults (Albuquerque & Günther, 2019).

Furthermore, the concept of environmental docility enables a better interpretation and adaptation of the experience of the finitude process of the hospitalized older adults (Günther, 2022). Thus, hospitals that take care of older adults in social and hospital isolation or not, need to strive, as far as possible, to ensure the maintenance of an environment that favors the well-being of older adults in any setting (Gressler & Günther, 2013).

In view of the above, it is necessary to elucidate environmental aspects in order to understand the health and disease processes of older adults in the framework of social and hospital isolation. Therefore, our work aimed to understand, from the perspective of Environmental Psychology, the

implications of health measures for the mental health of older adults hospitalized for treatment of COVID-19. It is understood that a deeper study of human-environmental relationships will enable the projection of models that favor health care processes and the prevention of psychological problems in older adults who are in social and hospital isolation.

Method

Study design

This is an exploratory, descriptive and qualitative study (Pesce & Moura-Abreu, 2019), which sought to delve deeper into Environmental Psychology topic that is little explored in the literature.

Participants

The study involved the collaboration of 16 participants, including 9 patients hospitalized for COVID-19 treatment and 7 COVID-19 patients' family members.

Instruments

Sociodemographic questionnaire: The aim was to characterize the participants' variables such as gender, comorbidities, hospitalization unit and vaccination status.

Narrative Interview: This type of interview allows the respondent to speak up freely, and the surveyor to reveal and interpret the participants' comments on the theme of this study (Batista et al., 2017). After a trigger question, the participant was free to respond.

The basic question asked to the older adults hospitalized for COVID-19 treatment was: "Could you please tell me about your COVID-19 history and the experience of being hospitalized for treatment of this disease?" In the case of the family member of the older adult hospitalized for COVID-19 treatment the question was: "Could you tell me, please, about your history with COVID-19 and the experience of having an older adult in the family hospitalized for treatment of this disease".

Collection and Analysis Procedures

Data collection took place in the second semester of 2021. Contacts with participating patients and their families took place on the premises of two hospitals located in upscale neighborhoods in the metropolitan region of Fortaleza (Ceará, Brazil). Both hospitals are considered large hospitals with highly complex hospital services and belong to the Fortaleza health private network. Participants who met the inclusion criteria were selected upon indication of the nurse in charge of the patient's hospitalization unit. The meeting with the participants took place at bedside in the hospital unit. To avoid contamination, the use of Personal Protective Equipment (PPE), such as an N95 mask, apron/coat and cap, was mandatory. The interviews were audio-recorded and lasted approximately 30 minutes.

The interviews were transcribed and subsequently analyzed using the software *Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires* (IRaMuTeQ), a free program developed by French researcher Pierre Ratinaud that seeks to capture the structure and organization of discourse and to reveal the relationships between the lexical worlds that are most frequently

enunciated by the research participants (Camargo & Justo, 2013). The results of the software analysis were discussed taking into account the literature data.

The interview transcripts were analyzed using the Descending Hierarchical Classification (DHC) textual analysis. In our study the DHC was given priority, since it allows a clear interpretation of the results by grouping the texts into classes. DHC considers that the higher the chi-square (χ^2), the more associated a word is with a class. The chi-square (χ^2), test is a statistical technique used to determine whether there is a significant association between categorical variables. Words with $\chi^2 < 3.80$ ($p < 0.05$) were disregarded.

This study was approved by the Ethics Committee of the University of Fortaleza (opinion number: 4,942,593), and was conducted in accordance with the ethical standards set forth in Resolutions No. 466/12 and 510/16 of the National Health Council of 2012 and 2016.

Results

Table 1 was set up based on the sociodemographic questionnaire responses for better visualization and characterization of the participants. There was no significant difference regarding the variable "gender" among the patients. However, in relation to the variable "gender" of the accompanying family member, there was a predominance of women.

Table 1
Sample sociodemographic data

Variables	Total
Sample	
Patients	9
Family members	7
Family members' gender	
Female	6
Male	1
Patients' gender	
Female	5
Male	4
Patients' Comorbidity Profile	
Comorbidities	9
No comorbidities	0
Patients Admission Unit	
Remained or evolved into a room/ward	6
Was in Intensive Care Unit	3
COVID-19 vaccine - patients	
Took 1 to 2 doses	8
Didn't take any dose	1

Note: COVID-19: Coronavirus Disease 2019.

Regarding the patients' sociodemographic data, all participants had some comorbidity. The data demonstrate that there was a predominance of patients vaccinated with at least one dose of the COVID-19 vaccine. Regarding the hospitalization unit, most patients at the time of the interviews were in a private room or ward, that is, from the moment of hospitalization they remained or progressed from the ICU to this type of accommodation. Considering that data collection occurred at a time when vaccines had already been made available, and that most of the older adults had

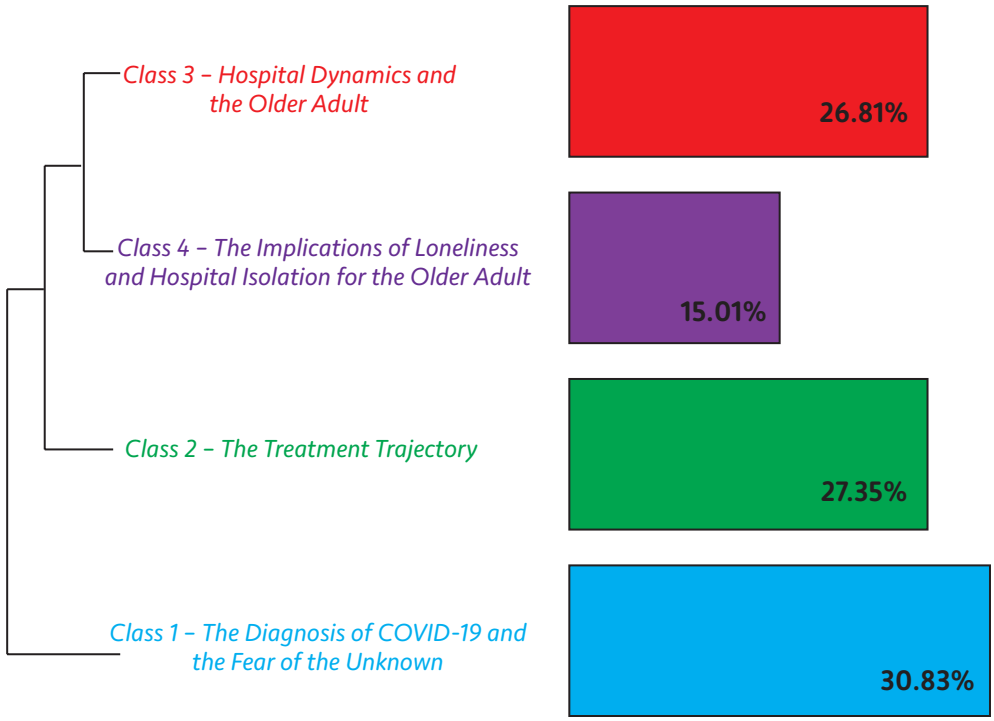
already received 1 to 2 doses, it is possible that the variable "vaccine" had some influence on the variable "Profile of Hospitalization Units", since one of the purposes of the vaccine is to prevent the worsening of the disease.

Classical Lexicographic Analysis and Descending Hierarchical Classification

In order to extract data that would allow us to understand how social and hospital isolation that were adopted by hospital institutions for virus mitigation/protection, affected the mental health of older adults hospitalized with this disease, a general corpus was generated consisting of 489 Text Segments (TS), with 373 TSs (76.28%) being used. A total of 16,925 occurrences (words, forms or vocabulary) emerged, with 5,510 distinct words and 1,350 words with a single occurrence.

The content reviewed was categorized into four classes (Figure 1). Class 01: The diagnosis of COVID-19 and the fear of the unknown, with 115 TS (30.83%); Class 02: The treatment trajectory, with 102 TS (27.35%); Class 03: Hospital dynamics and older adults, with 100 TS (26.81%); Class 04: The implications of loneliness and hospital isolation for older adults, with 56 ST (15.01%).

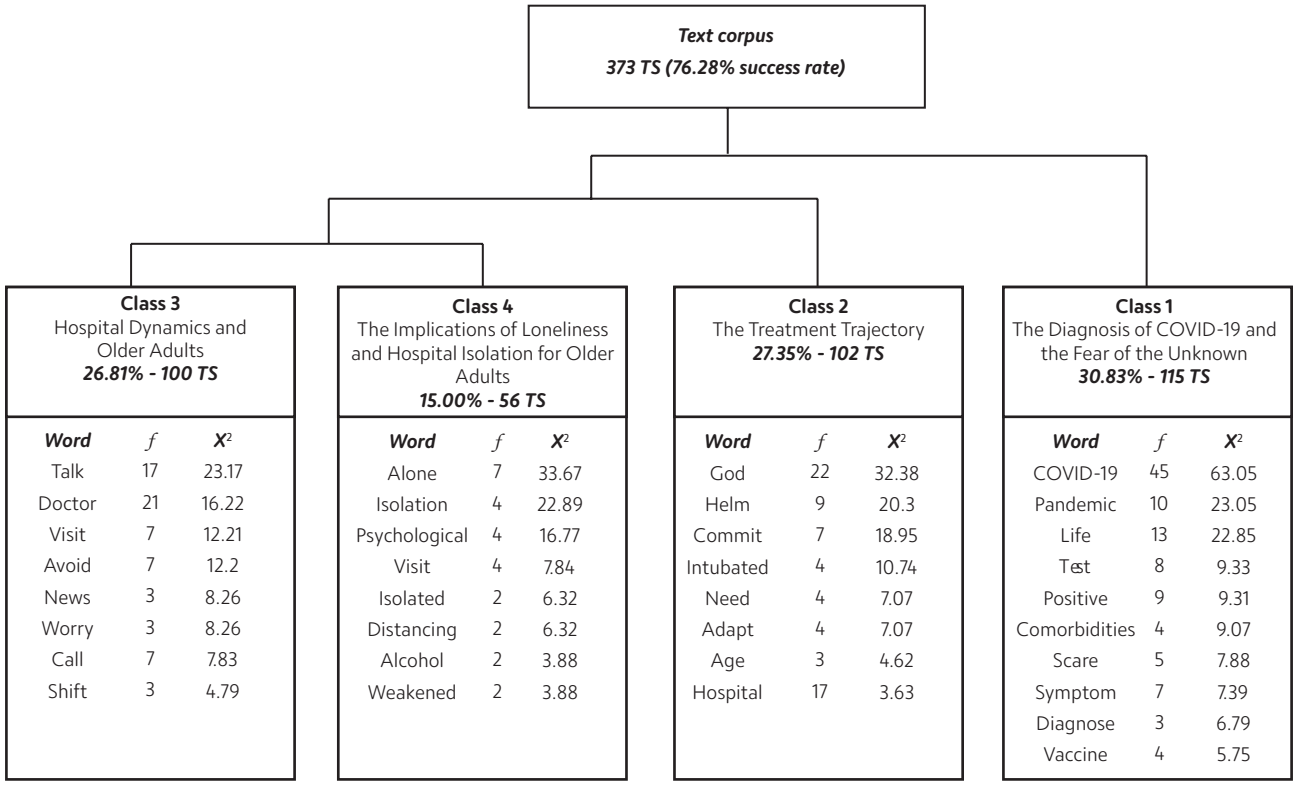
Figure 1
Descending hierarchical classification dendrogram



Source: Based on IRAMUTEQ software (version 0.7 alpha 2).

For better visualization, a diagram was developed with the list of words from each class generated from the chi-square test (χ^2). The evocations that presented similar vocabulary and vocabulary different from the other classes was displayed (Figure 2). The classes that emerged in the descending hierarchical classification are described, operationalized and exemplified below.

Figure 2
Class diagram



Source: Based on IRAMUTEQ software (version 0.7 alpha 2).

Class 01 – The diagnosis of COVID-19 and the fear of the unknown – involves 30.83% (*f* = 115 ST) of the total corpus analyzed. It is the class that is most distant from the others. It consists of words and radicals in the range between χ^2 = 5.75 (Vaccine) and χ^2 = 63.05 (COVID-19).

The discourses of this class take us back to the beginning of the pandemic. The content presents the way in which it changed the daily lives of these families. Significant changes are identified in the context of the home and in the family dynamics. Here, we see narratives that illustrate how the quarantine periods began and the adaptation to the new habits necessary for viral control.

> So, at the same time that I had to take care of them, I had to work. And my employer took a long time to adopt the home office practice. They didn't have a structure prepared to manage their processes away from the physical space where we worked. As a result, I ended up carrying the virus to them. (Participant 4 – Family member)

The risk of contamination and the reconfigurations imposed by COVID-19 have imposed a stressful setting in the households. We can see how the requirements for social distancing, quarantine periods and adaptation to new routines were assimilated. In Class 01, the concept of environmental docility emerges as a perspective for understanding the negative implications of this period.

> The first time I had COVID-19, as I said, was at work. I tested positive and had very mild symptoms. But when it came to mental health, it was a dilemma. Because I am the only child; my parents are 62 years old and I still live with them. I had friends who were active in the health field who even left home. They started living alone so as not to infect their parents. (Participant 4 - Family member)

Concerns about physical and mental health were identified. Family members reported that they experienced constant fear of carrying the virus home and thus being responsible for infecting their loved ones, especially the older adults. The responses indicate the adoption of behaviors and practices to protect older adults. The statements express feelings that convey guilt, fear, anxiety and uncertainty.

> Receiving the news that it was also COVID-19 generates a great deal of fear. We think: she's going to die soon. For those who understand, we immediately think: "She's going to die because of her age, because of all her history". (Participant 3 – Family member)

In addition to the physical dimension, the COVID-19 pandemic has affected all areas of human life. Most intensely, Class 01 manifests the negative impact of detecting the first symptoms and the perplexity of a positive result for COVID-19. For older adults, a "positive for COVID-19" diagnosis is loaded with stigma, fear and uncertainty about the course of the disease. The content of this class indicates a mix of "incomprehension" and "hope" regarding the use and objectives of the vaccine.

> It's not an easy disease. We didn't expect it. No one in my family had caught COVID-19. She just caught it now. So, we thought the pandemic was over. It's not over yet, but it is over. Finally, there are few people still with COVID-19. And she just caught it now. She was admitted to the hospital on the day she was going to get her third vaccine dose. (Participant 7 - Family Member)

Old age is a period of more frequent reflections on finitude and death, given the loss of loved ones and the recognition that the end of life is near. However, it is noted that the COVID-19 pandemic has made death even more tangible and obvious. Dying has become a possibility and a constant fear in the daily lives of older adults and their families.

Class 02 – The treatment trajectory – belongs to a different sub-axis from Classes 03 and 04, but with an intermediate proximity. It involves 27.35% (f = 102 ST) of the total corpus analyzed. It consists of words and radicals in the range between χ^2 = 3.63 (Hospital) and χ^2 = 32.38 (God).

Faced with the reality experienced during the COVID-19 pandemic, patients and their families go through a phase of intense emotional exhaustion. It is clear that feelings of failure, fear, anguish and suffering emerge throughout the illness. There is also a fear of complications in the patient's prognosis.

> I covered it up as much as I could. I wanted to protect them, so as not to worry them. But my friend took care of things. Then they got all worked up here, they sent for me and thank God everything is going well. Then I went to the hospital in the countryside, I spent the night there while the girls made plans here to send for me. So I stayed there during the night. The other day I came here to the hospital. When I arrived I was already admitted to the ICU. (Participant 10 – Patient)

The utterances indicate that patients and family members live in a constant state of alert. There is a concern about being constantly available, as changes in the patient's clinical condition may occur at any time. Improvements in test results are monitored and celebrated on a daily basis.

> Because, we don't know who passed it to her? How she got it? She was at home. So, it's a very harmful disease. A person comes into the hospital with 30% of their lungs compromised, which was her case. In one morning and one night, suddenly, her lungs are compromised to 70%. It's very fast. The virus acts very quickly, wearing down and suddenly destroying the person's lungs. And she had 80% of her lungs compromised. (Participant 9 – Family member)

It is clear that patients and family members seek to adapt to technical terms and data related to clinical exam results (pulmonary impairment, saturation and intubation). This is due to

the need for better monitoring of the patient's condition, as well as understanding the medical information provided.

> So, I think it was because she gets along with the helmet. They say that there are patients who don't tolerate the helmet. So, if she hadn't gotten along with it, she wouldn't respond well. Her mouth is all sore. Her nose and eyes are all dry. All of this is a consequence of the helmet. It hurts, but, thank God, if it wasn't for the helmet, she would have been intubated, because of the damage to her lungs. (Participant 7 – Family member)

The talk indicates the impact that a stressful environment has on the therapeutic process. Here, we can see the fear of the worsening of the disease and the dread of the need to be transferred to an ICU, and/or even the need for intubation, since, throughout the COVID-19 pandemic, intubation was seen as synonymous with "not coming back". It is worth noting that, in hospital practice, this is one of the places with the greatest technological support for care. However, the perception of solitary death is amplified in the ICU, since COVID-19 has imposed greater restrictions and changes to this space.

> She got worse on Saturday... we were devastated. We spent the weekend feeling bad, everyone crying, I mean everyone. And she herself was really bad, the psychologist talked to her and everything, trying to tell her that she couldn't come to the apartment now. That she had to stay in the ICU a little longer and go back to the helmet, because she was already on the Venturi mask, which was to help her lungs recover faster. Because her lungs were 80% compromised. But there was a lot of prayer, a lot indeed. And thank God she got better and better. (Participant 7 – Family member)

It is clear that the accentuation of loneliness and longing for family become even more present in this environment. For family members, the desire for information about the patient's clinical condition and the feeling of imminent loss cause anguish and suffering. It is noted that spirituality emerges as a coping mechanism for the illness process, since it allows a new perspective on losses and pain.

> And I think that training and qualification for professionals is also very important in this hospital setting, because there are, as in every organization, outstanding professionals. But there are professionals who, I don't know if they hurt my Dad in some way, but they hurt me and my mother. They hurt the family that is with him, and who tries to do the best they can to make amends with as little trauma as possible. (Participant 4 – Family member)

Another important point that emerges in this class concerns the humanization of health care. Family members report concerns about the way the healthcare team conducts the treatment. In addition to technical knowledge, the talks demonstrate the importance and weight of interpersonal relationships and how the social bonds established in the hospital space can give this environment a restorative aspect.

Class 03 – Hospital dynamics and older adults – covered 26.81% (f = 100 ST) of the total corpus analyzed. It consists of words and radicals in the range between χ^2 = 7.83 (Connect) and χ^2= 23.17 (Speak). The concept of environmental docility and privacy occupy an important position in this class.

In this connection, the rupture with the home environment becomes more intense, and encourages the expression of complaints regarding the treatment process. The speeches demonstrate that in the scenario of COVID-19, in a more pronounced way, the hospital institution had to disregard the individual demands of its users. It is also clear that the need for social and hospital isolation led to feelings of insecurity and anxiety.

> Even visiting is difficult. Because I believe that it should be something with more respect, the hospital procedures. But I believe that it should have healthier ways, I don't know if that's the name, more flexible, something like that. I know that this is a concern for the person who visits. But there should be another way. I don't know, at least seeing through the glass and talking over here and the reply coming from the other side of the glass, something like that. Or looking at her monitor, because sometimes I came and she was intubated, but I wasn't very worried about that because I was more worried about her vital signs. (Participant 6 – Family member)

We can see that patients and their families have difficulty adjusting to the hospital dynamics and flows. The context of COVID-19 has imposed greater rigidity on the routines of this environment, a factor that further accentuates the decline in older adults' skills, as well as the manifestation of psychological distress. Patients in the ICU present agitation, anxiety and discomfort.

> The word hospitalization is already a maxim. I have been hospitalized several times, but one of the worst things a doctor can say is this: you are going to be hospitalized. You lose your freedom, you lose your self. At home you can do whatever you want, but not here; you are chained. It is horrible... so hospitalization scares us, this time it is even worse, because since it is COVID-19 there is no communication, so no one can talk to me, so the suffering is greater, especially for me, [who] am a very affectionate father. (Participant 16 – Patient)

Family members report that the means of communication and the time allocated by the hospital (health professionals) to provide daily updates on the patient's clinical condition are unsatisfactory. The resources employed by the institution are perceived as limited, inhumane and insufficient to meet the need for information. The suspension of older adults' right to have a companion at bedside is perceived as something aversive and triggers feelings of loneliness and helplessness.

> So, this affects us, because we stay at home, anxious, without any news. There is one thing that I think is bad about the ICU: it only gives out the patient information bulletin once a day. We have 24 hours in a day, and only 1 hour out of 24 to get news about your patient. This is because here, in the hospital, he is a patient. But at home, he is a father, he is a husband, he is a grandfather, he is an uncle, he is a father-in-law. He is not a patient. And sometimes the institutions do not realize this. (Participant 4 – Family member)

Regarding hospital rules, patients and family members perceive themselves as passive figures in relation to the treatment procedures. The institution is the one that controls access and schedules. Confinement and the loss of privacy lead to increased environmental stress and, consequently, the manifestation of problems related to mental health.

Class 04 – The implications of loneliness and hospital isolation for older adults – is the closest to Class 03, involving 15.00% (f = 56 ST) of the total corpus analyzed. It consists of words and radicals in the range between χ^2 = 3.88 (Weakened) and χ^2 = 33.67 (Alone).

The accentuation of loneliness described in this category corroborates the traumatic aspect of family separation. Concerns about mental health and signs of psychological distress return with greater intensity as a result of the breakdown of social ties. The content of this class demonstrates that sadness and anxiety, resulting from social and hospital isolation, have become predominant in the daily lives of hospitalized elderly patients.

> Not talking to my children or my wife is not possible, it's hard for me. "It's for your own good... for whom?" The psychological aspect ends, being psychologically well is the best medicine. I'm not sure about anything... It is tough to isolate patients in such a way that they are not able to communicate. (Participant 9 – Patient)

The statements indicate that being hospitalized for treatment of COVID-19 is different from being hospitalized for treatment of other pathologies. The accentuation of loneliness is perceived as an aggravating factor for the therapeutic process of older adults. Once again, there are indications that isolation promotes a disruption in the daily routine of patients and family members, and triggers stressful situations. The negative impacts resulting from health measures produce questions regarding the effectiveness of the treatment.

> But regarding the hospitalization, if he can stay until the last day, I'm calm, let's see if we can handle it. But I'm calm, thank God. As for the physical issue, I'm calm. I'm worried about his psychological condition. But my niece is coming; it's the best medicine for Dad's treatment. Because when my niece arrives, you look at him and his expression changes, just upon hearing her voice. (Participant 12 – Family member)

The increased rigor of flows and dynamics in areas designated for the treatment of COVID-19 has fostered negative feelings towards the hospital setting. It is observed that confinement in the ICU increases episodes of spatial and temporal disorientation. Another important point that emerges again in this class is the perceived imbalance between the demands of older adults and the social isolation resulting from hospitalization.

> Every time I talk to him, he asks: where am I? What time is it? What day is it? I say: you are in the hospital. But in which hospital he asks? I am in a closed room here, locked, isolated. What day is it today? He complains that he is isolated, alone. What day is it? What time is it? My daughter, I lose track of time here because I stay here alone. I sleep, I wake up, I sleep, I wake up. I say, look at your cell phone to see what day it is today. Tell me what day it is. I realize that sometimes he is losing track of things. (Participant 12 - Family member)

It is clear that hospitalization for COVID-19 treatment is full of pain and loneliness. For older adults, the losses experienced are immense, since patients are isolated from their family, they lose their autonomy, and experience the hospitalization process with stress, sadness, anxiety and suffering.

Discussion

In general, interpersonal relationships, uncertainty about the future, and environmental quality are related to stress levels, whether as promoters or reducers. The evocations of Class 01 (The diagnosis of COVID-19 and fear of the unknown) portray how the COVID-19 pandemic has changed the daily lives of families.

Significant changes in daily routines and the social aspect of the home are evident (Ferreira et al., 2020; Ferreira et al., 2021). The home has come to group together public aspects of life, not just private ones (Castro et al., 2021). Excessive care with the maintenance of sanitary measures and the changes imposed increase the manifestation of stressful aspects of the residential environment, and are perceived as factors that trigger anxiety (Ferreira et al., 2021).

This class highlights concerns about the burden of age and fear of complications due to comorbidities (Bessa et al., 2023). A positive diagnosis for COVID-19 produced high levels of psychological distress (Bessa et al., 2023). Being "old" during the COVID-19 pandemic fueled stereotypes and social behaviors of overprotection, which camouflage ageist discourses and attitudes (Canali & Scortegagna, 2021).

It is clear that the need to protect the older adults, within the context of uncertainty, intensified the discrepancy between the skills of the elderly and the demands of the environment

(Günther, 2022). Characteristics such as the loss of control over oneself and one's routines became even more explicit in the COVID-19 scenario. The physical and psychological harm perceived in this scenario corroborates the harmful effects of environmental stress (Altman, 1976; Günther, 2022).

Environmental Psychology enhances the concept that every environment can cause emotions, and that, through our actions, new meanings and affections can be inserted into the environment (Ferreira et al., 2020). Therefore, in order to minimize harm to older adults, whether in a pandemic scenario or not, we ought to make adjustments to the home space that allow the maintenance of some level of autonomy. It is understood that docile and restorative environments favor the well-being of the older adult, and the positive connection to the location (Günther & Elali, 2018).

In the evocations of Class 02 (Treatment trajectory), feelings of vulnerability and helplessness caused by the illness arise. The COVID-19 pandemic highlighted the high degree of fragility of older adults (Bessa et al., 2023). The disease appears unexpectedly and imposes countless losses. The family needs to adapt to a new reality, which leads to emotional imbalance and an immediate feeling of helplessness (Ferreira et al., 2021).

The feelings of uncertainty and fear that arise when faced with a COVID-19 diagnosis make the process of care and well-being of older adults even more difficult, and interfere with stress levels (Giron et al., 2024). Reports also suggest that any indication of the need for hospitalization, especially in an ICU, is seen as distressing and causing psychological distress (Barbosa et al., 2021; Shumaker & Reizenstein, 1982).

People with the most debilitated health conditions and the most serious conditions are taken to the ICU (Costa et al., 2020). During the COVID-19 pandemic, this environment has become one of the most feared places for patients and their families, and this space has been given a status equivalent to a "death sentence". It is potentially a stressful environment (Barbosa et al., 2021).

The ICU is also one of the places that will cause most a decline in autonomy and privacy of patients especially of older adults (Felippe & Silveira, 2019). Since these are aspects that are fundamental to the health and well-being of older adults, it is essential that adjustments be made to give older adults some level of personal control (Figueiredo, 2005).

The discourses indicate that spirituality and the use of faith promote adaptation and well-being, and function as a positive strategy in coping with the process of illness and the need for hospitalization. It was observed that to resort to a religion or belief minimizes loneliness and fear, and facilitates the care procedures and the reduction of stress (Barbosa et al., 2021; Bassani, 2020).

Furthermore, Environmental Psychology reinforces that maintaining positive social relationships during hospitalizations serves as support for older adults since they promote the humanization of care and help patients cope during periods of crisis. Impaired patient attachment to the care setting hinders adherence to treatment and jeopardizes the establishment of connections with health professionals (Felippe & Silveira, 2019; Gressler & Günther, 2013).

Therefore, interventions that enable the humanization of the therapeutic process and the strengthening of bonds are essential for the prevention of psychological problems, especially in critical scenarios, such as the COVID-19 pandemic. Humanized care connects closely with the aspects that make up gentle and restorative environments. Therefore, enhancing the relationships between patients, families and healthcare teams favors the construction of strategies aimed at promoting health, care and psychosocial rehabilitation (Campos-de-Carvalho et al., 2017; Canali & Scortegagna, 2021).

The evocations of Class 03 (Hospital dynamics and older adults) show that the norms and routines of hospitalization awaken in patients and family members the feeling of loss of freedom, as well as the reduction of privacy and autonomy. The insecurities perceived in this context are related to the difficulty in adapting to the sanitary measures of social and hospital isolation imposed to mitigate viral contamination; to the obstacles in adapting to the routines and schedules established by the institution.

It is understood that the hospital physical space bears an impact on the therapeutic treatment of the patient, and that environmental quality directly affects the process of treatment adherence (Figueiredo, 2005). Regardless of COVID-19, the hospitalization process is already indicative of an event that triggers stress and insecurity in any age group (Paris et al., 2021; Shumaker & Reizenstein, 1982).

In connection with COVID-19, the hospital has become even more depersonalized and depleted of identity figures, and consequently favored the increase in stress levels and oppositional behaviors (Felippe & Silveira, 2019; Paris et al., 2021). Barriers in the hospital environment, whether physical or emotional, tend to cause greater cognitive and physiological losses in the elderly (Albuquerque & Günther, 2019; Figueiredo, 2005).

It is understood that the subtraction of the right to privacy can lead to a series of negative consequences, such as increased stress, reduced sense of control over the environment, decreased satisfaction with life and impairments in the older adult cognitive performance. It can also negatively affect social interactions and the sense of personal identity (Altman, 1976; Cavalcante & Pinheiro, 2018).

It is understood that the effects of hospital dynamics, together with the fragility imposed by disease and aging, are integral parts of the health-disease relationship (Costa et al., 2020). Patients hospitalized in the ICU and their families experience daily the fear of the patient undergoing invasive procedures and complications in his/her clinical condition. Furthermore, the fear of a lonely death increases (Canali & Scortegagna, 2021).

It is therefore necessary for older adults to have a greater level of control over the environment and over the management of their needs (Albuquerque & Günther, 2019; Altman, 1976). It is worth noting that, in this connection, environmental docility enables greater balance in human-environmental relations and less damage to the physical and mental health of older adults (Paris et al., 2021).

The evocations of Class 04 (The implications of loneliness and hospital isolation for older adults) demonstrate that the accentuation of loneliness increases the likelihood of the patient's mental illness and the worsening of his/her clinical conditions. Once again, the concept of a stressful environment emerges to better understand the harm caused by isolation and loneliness (Gressler & Günther, 2013).

For older patients, the process of hospitalization implies separation from their home environment and family members (Felippe & Silveira, 2019). Hospital isolation, associated with factors such as social isolation and bed rest, give the environment a stressful aspect. As a result, disorientation and suffering are observed (Bessa et al., 2023).

It is understood that, in order to control infection levels and protect life, issues related to mental health, especially for the most vulnerable groups, such as older adults, had to be put on the back burner (Barbosa et al., 2021). However, it is worth noting that interpersonal relationships and maintaining some level of personal control are aspects that enable a better quality of life and healthy aging (Gressler & Günther, 2013; Günther, 2022).

Strengthening and maintaining social ties are fundamental in the dynamics of hospitalization in old age. For older adults, family relationships and emotional bonds become fundamental in the therapeutic process, and prevent feelings of loneliness and abandonment during hospitalization (Canali & Scortegagna, 2021).

Reducing loneliness and building meaning considering social and hospital isolation facilitate adherence to the proposed treatment and positive environmental adaptation (Giron et al., 2024; Lawton & Nahemow, 1973). Therefore, a closer look at how human-environmental relationships occurred in hospital institutions during the pandemic period allows us to better understand the health and disease processes of older adults (Günther & Elali, 2018).

Furthermore, the incorporation of restorative aspects into the hospital, such as green areas, works of art and affective decoration (personal objects) makes it possible to reduce environmental stressors, and consequently reduce stress levels, psychological problems and improve adherence to treatment (Alves, 2017; Gressler & Günther, 2013).

Conclusion

In general, it is clear that the environmental quality of the hospital institution and interpersonal relationships are related to stress levels, either as promoters or reducers. It is understood that social and hospital isolation, adopted for virus mitigation/protection, affected the mental health of older adults.

It was found that the loss of autonomy and privacy of older adults in the hospital environment promoted physical and cognitive losses. The relevance of social bonds and family support for the quality of the care procedures was also observed. It is concluded that the concepts of Environmental Psychology and the deepening of human-environmental relationships can help in the establishment of therapeutic models that favor the care of older adults in situations of social and hospital isolation.

We should point out that limitations arose during the course of this investigation. The first limitation concerns the sample and its characteristics, since it primarily involved participants from the private health network and from the Northeastern region. Therefore, results cannot be considered representative of the Brazilian population. In addition, many elderly individuals had cognitive and speech impairments, and were therefore unable to participate in the interviews. Consequently, the inclusion of family members made it possible to reduce this barrier and provide a closer understanding of the phenomenon.

Another important factor concerns the use of narrative interviews, which, despite being a rich instrument for data collection, allow participants to have the freedom to record and organize their experience in a broader way, going beyond the theme of the person-environment relationship.

Furthermore, this work does not end here, but serves as a starting point and an encouragement for health professionals, specialists and managers to collaborate in the discussion, research and development of effective models for the comprehensive care of the elderly population in view of the need for social and hospital isolation. Therefore, it is suggested that research be expanded to enable a more in-depth assessment of human-environmental impacts and a more comprehensive understanding of the challenges faced by this population.

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