Metaphorical perceptions of nurses working in pandemic units about being a nurse during Covid-19: A mixed methods research

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Abstract. The aim of the research was to examine the perceptions of nurses working in pandemic units about being a nurse during the Covid-19 process using the metaphor analysis method. The sample of the research consisted of 54 nurses who worked in pandemic units. In the research, the data transformation type of convergent mixed design, which is a mixed methods design in which qualitative and quantitative data are collected, was used. 79.6% of the nurses participating in the research were between the ages of 26-35, 72.2% women, 59.3% single and 70.4% had no children. In the research, nurses created 24 different metaphors about being a nurse during the Covid-19 process. The metaphors were collected in five conceptual categories: situation, action, animal, profession and object. It was observed that metaphors generally evoked restriction of freedom, isolation, inauthenticity/meaninglessness, negative impact on the professional self-concept and worthlessness. A significant difference was detected in the object metaphors category with the variables of marital status and having children. No significant difference was detected in the variables of gender, seniority and the pandemic unit the nurses worked in. In light of these results, it was thought that nurses were very worn out during the pandemic process, experienced burnout, and their professional self-concept was damaged. In this context, it is recommended to support and strengthen nurses professionally and psychosocially during difficult processes such as pandemics.

Keywords: Covid-19 pandemic, nursing, metaphor analysis

Introduction

With the emergence of the Covid-19 pandemic, all health professionals around the world have stepped into a very difficult and demanding process in every aspect. It can be said that nurses, in particular, are one of the groups most affected by the pandemic process, as they are present in all organizations that include society (Jackson et al., 2020). Studies have revealed that nurses caring for patients diagnosed with Covid-19 feel negative emotions (Liu et al., 2020; Fernandez et al., 2020; Sun et al., 2020) such as fatigue, fear of being infected and transmitting the disease to others (Coşkun Şimşek and Günay, 2021; Kaçkın et al., 2021; Deliktaş Demirci et al., 2020; Liu et al., 2020; Jiang et al., 2020) and helplessness (Fernandez et al., 2020; Sun et al., 2020) due to their heavy workload (Liu et al., 2020; Sun et al., 2020; Jiang et al., 2020) and constant use of personal protective equipment (Coşkun Şimşek and Günay, 2021; Kaçkın et al., 2021; Deliktaş Demirci et al., 2020; Liu et al., 2020; Jiang et al., 2020). Due to these negative emotions, nurses experience hopelessness (Coşkun Şimşek and Günay, 2021), apathy, fear, depression associated with sleep problems, post-traumatic stress disorder, anxiety disorder (Cheung et al., 2021; Lai et al., 2020) and burnout (Cheung et al., 2021).

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The burnout experienced by nurses causes absence of work without justification or due to illness, decreased work performance (Giorgi et al., 2016) and the intention to quit the job (Parker and Kulik, 1995). Some of the nurses have stated that they have alienated from the profession during this period, want to retire as soon as possible or will leave the profession when possible (Yıldırım et al., 2021). Nurses also stated that their job satisfaction decreased (Labrague and de Los Santos, 2021) and their organizational and individual intention to quit the profession increased due to the Covid-19 pandemic (Yiğitol and Büyükmumcu, 2021; Labrague and de Los Santos, 2021).

Considering these difficulties, it is understood that strengthening the competencies of nurses is of great importance. Thus, nurses with increased competency levels will be able to provide better quality care (Güvendi-Oruç, 2020). Competence refers to individuals' knowledge, skills, abilities and qualities (Foss et al., 2004). Competence in nursing is defined as the basic skills required to fulfill one's role as a nurse (Fukada, 2018). It can be said that the low level of competence of nurses during the Covid-19 period is due to stressful working conditions and high patient mortality rates, as well as the need to be better equipped in terms of clinical skills (Hui et al., 2023). In this context, in order to empower nurses with low competency levels, it is important to understand what it means for them to work during the pandemic.

People resort to metaphors because they have difficulty grasping the whole or an important aspect of life (Landau, 2018). In this way, how they interpret their experiences and events is revealed (Woodside, 2018). Examining how nurses use metaphors helps to understand the way they define their work and determine their priorities (Goodman, 2001).

In the light of this information, this research discusses how nurses working in pandemic units make sense of being a nurse during the Covid-19 period through metaphors. It was thought that seeing this process from the nurses' perspective was necessary to develop solution suggestions. It is thought that the research findings will contribute to the planning of necessary interventions to empower nurses.

It is anticipated that the success rate will increase if the execution and management of nursing services are carried out by competent nurses during the Covid-19 pandemic period. However, it can be said that nurses, who are in a strategic position in the fight against the pandemic, have new roles to improve the quality of care and meet the health needs of societies (Güvendi-Oruç., 2020).

This research was produced from the data obtained from the first stage of a four-stage doctoral thesis titled "The Effect of the Role Performance Strengthening Program Based on the Roy Adaptation Model on the Adaptation Performance and Competence of Nurses Working in Pandemic Units". "RPGP Pre-Action Semi-Structured Interview Form", one of the data collection tools used in the research, was developed by the researchers conducting the thesis study in accordance with the subject.

In the first stage of the thesis study, it was aimed to understand and interpret how nurses working in pandemic units perceived being a nurse during the pandemic process. It is thought that the results obtained will not only make sense of the nurses' experiences regarding the pandemic process, but also shed light on some of the reflections of the process in the healthcare system.

In this context, the aim of the research is to examine the perceptions of nurses working in pandemic units about being a nurse during the Covid-19 period using the metaphor analysis method. For this purpose, answers were sought to the following questions:

1. What are the metaphors that nurses produce about being a nurse during the pandemic? Why are the nurses produce these metaphors?

2. Under which conceptual categories are these metaphors grouped in terms of their common features?

3. Do these conceptual categories differ significantly according to the descriptive characteristics of nurses?

Method and paradigm of research

This research is a mixed methods research planned in the data transformation type of convergent mixed design. Mixed methods research is a research method in which data collected through quantitative and qualitative methods are integrated with each other, or qualitative data are collected and merged into quantitative data, quantitative data are collected and t merged into qualitative data, correlated or blended with each other (Creswell and Clark, 2017). Convergent mixed design method is a research method in which data are collected simultaneously, analyzed separately and the results obtained from qualitative and quantitative databases are compared with each other. The qualitative part is in the discourse analysis pattern and shaped according to the interpretive paradigm; the quantitative part is also in a descriptive survey design and shaped according to the functional paradigm (Gunbayi, 2020).

Sampling

This research was conducted with the voluntary participation of 32 nurses who worked in the pandemic inpatient services, pandemic intensive care unit and emergency department of Akdeniz University Hospital between 28.02.2022 and 17.04.2022, based on the purposeful sampling method.

Data Collection

Nurses who volunteered to participate in the research were informed about the purpose of the research and the confidentiality of the data and their written and verbal approval was obtained. The population of the research consisted of nurses actively working in the pandemic inpatient services, pandemic intensive care unit and emergency department orange area of Akdeniz University Hospital. A total of 87 nurses who were active in the pandemic inpatient services, pandemic intensive care unit and emergency department orange area were invited to the research, and 54 of 87 people agreed to participate in the research. During the pandemic, 850 nurses worked at Akdeniz University Hospital.

Quantitative data collection forms (Sociodemographic Information Form, Nurse Competence Scale and Adaptive Performance Scale) were given and collected by the researcher to 54 nurses who volunteered to participate in the research between 28.02.2022 and 21.03.2022. After adding up the scores obtained from these forms and taking their average, it was determined that the number of participants who scored below 26 points from the Nurse Competency Scale was 42. Individual in-depth interviews were conducted with 35 of these nurses using the "RPGP Pre-Action Semi-Structured Interview Form" and qualitative data were collected between 31.03.2022-17.04.2022. During face-to-face interviews, data were recorded with a voice recorder, with permission from the nurses. Online interviews were recorded as video. Nurses were asked to create a metaphor about being a nurse during the pandemic, express their opinions verbally and provide justification for their metaphors. 32 of the 35 nurses participating in the study expressed a metaphor about being a nurse in the pandemic. The metaphors expressed by the nurses in response constituted the main data source of the research.

Ethics procedures

Institutional review board (IRB) approval for the study was obtained from Akdeniz University Faculty of Medicine Clinical Research Ethics Committee (dated 27.10.2021 and numbered KAEK-751); Institutional permission was also obtained from Akdeniz University Hospital (dated 31.12.2021), which is included in the research sample. The procedures in this study followed the tenets of the Declaration of Helsinki. Nurses who agreed to participate in the research were informed about the purpose of the research and the confidentiality of the data before applying the data collection forms, and their written and verbal permissions were obtained. Collecting and storing all information about nurses is based on

the principle of confidentiality. Codes were used instead of real names in the process of transcribing the interviews. During the interviews, audio recordings were made with the permission of the nurses. Permission was received via e-mail from the researchers who conducted the validity and reliability study of the Adaptive Performance Scale and Nurse Competence Scale, which will be used for quantitative data, to be used in the study.

Analysis of data

In order to ensure the validity and reliability of the research, internal validity (reliability), external validity (transferability), internal reliability (consistency) and external reliability (confirmability) criteria were considered (Lincoln and Guba, 1985). In ensuring the internal validity of the research, the issues specified in the research ethics processes were followed. In order to ensure the external validity of the research, participants were selected through purposeful sampling in a way that would contribute to revealing, understanding and interpreting the phenomenon in the best possible way.

Audio recordings of individual in-depth interviews, which included nurses' reasons for choosing metaphors about being a nurse in the pandemic, were transcribed and analyzed using the NVIVO qualitative data analysis program. After the themes were created, categories were created for metaphors that had common characteristics with each other. In order to ensure the internal reliability of the research, "Cohen's Kappa Analysis" was conducted to determine the consistency level of each metaphor according to the category it belongs to. While performing the Kappa analysis, stepwise multiplication was performed to ensure agreement between coders, Cohen's kappa coefficient was calculated to determine the reliability of themes between raters, and an inquiry audit was performed in terms of the process (Gunbayi, 2018). The 24 metaphors and five categories in the research were sent to two field experts for the analysis and they were asked to match them. The thematic coding made by the researcher and the matches made by the field experts were transferred to the SPSS statistical program and Cohen's Kappa Analysis was performed. As a result of the analysis, it was seen that the consistency between the researcher and expert opinions was "perfect agreement (kappa value: 0.93)". Following the theme analysis, a descriptive analysis was conducted by presenting the participants' justifications for the metaphors as direct quotations. Content analysis was conducted to interpret the participants' characteristics as independent variables in a comparative and in-depth manner. In order to ensure the external reliability of the research, all data collection tools, raw data, coding made during the analysis phase, notes and inferences forming the basis of the report were stored for later approval review by an external expert.

After a total of 24 metaphors were found and these metaphors were collected under five categories, all data were transferred to the SPSS 25.0 statistical program. The number (f) and percentage (%) of participants representing metaphors and categories were calculated. Then, Pearson Chi-Square test was applied to test whether the categories differed according to the descriptive characteristics of the nurses and the results were analyzed and interpreted.

Findings

The distribution of descriptive data of the nurses participating in the research is given in Table 1. It was seen that 65.6% of the nurses were women, 68.8% were single, 78.1% had children, 46.9% had a total working experience of 4 years or less, and 81.2% worked in the emergency department.

Table 1.

Defining Characteristics of Nurses

Defining Characteristics	f	%
Gender		
Female	21	65.6

Male	11	34.4
Marital status		
Married	10	31.2
Single	22	68.8
Child		
There is	25	78.1
None	7	21.9
Total Years of Working in the Profession		
4 years and less	15	46.9
5-10 years	13	40.6
11 years and more	4	12.5
Pandemic unit		
Emergency department	26	81.2
Pandemic inpatient service	6	18.8

Table 2.

Metaphors Expressed by Nurses

Metafor	n (%)	Metafor	n (%)
Being a mother	1 (3.1)	Ant	2 (6.3)
Seeing a polar bear in the desert	1 (3.1)	Soldier	2 (6.3)
The story of rabbit and the turtle	1 (3.1)	Astronaut	1 (3.1)
Claustrophobia	1 (3.1)	Bank employee	1 (3.1)
A life without pleasure	1 (3.1)	Garbage man	1 (3.1)
Struggling at the bottom of the well	1 (3.1)	Frame	1 (3.1)
Like a fish out of water	1 (3.1)	Box	1 (3.1)
Being in an endless sea	1 (3.1)	Battery	1 (3.1)
Jump into fire	1 (3.1)	Visor and mask	1 (3.1)
Just run	1 (3.1)	"Mazlum" (a Turkish movie character)	1 (3.1)
Driving a taxi in heavy traffic	1 (3.1)	Fenerbahçe	1 (3.1)
Lab rat	3 (9.4)	Superhero	5 (15.6)

Table 2 includes the metaphors produced by nurses. Being a nurse during the pandemic was most likened to being a superhero (15.6%), and second to being a lab rat (9.4%). It was found that there were a total of 24 metaphors used by nurses regarding being a nurse during the pandemic. These metaphors are grouped under five categories: "situation, action, animal, profession and object metaphors" (Table 3).

Table 3.

Categories

Category	Metaphor	f	%
Situation	Being a mother (1), Seeing a polar bear in the desert (1), The story of rabbit and the turtle (1), Claustrophobia (1), A life without pleasure (1), Struggling at the bottom of the well (1), Like a fish out of water (1), Being in an endless sea (1), "Mazlum" (a Turkish movie character) (1), Fenerbahçe (1), Superhero (5)	15	%46.9
Action	Jumping into the fire (1) Just running (1) Driving a taxi in heavy traffic (1)	3	%9.4
Animal	Lab rat (3), Ant (2)	5	%15.6
Profession	Soldier (2), Astronaut (1), Bank employee (1), Garbage man (1)	5	%15.6
Object	Frame (1), Box (1), Battery (1), Visor and mask (1)	4	%12.5

According to Table 3, it was seen that nurses most frequently created a metaphor related to the "situation" category (46.9%). Animal and profession categories were expressed equally and rank second

(15.6%). These categories were followed by object (12.5%) and action categories (9.4%), respectively. The categories, the metaphors in these categories and the reasons why nurses chose these metaphors are detailed below:

a. Situation metaphors

Metaphors collected under this category were examined and it is seen that nurses compare being a nurse in the pandemic to "*being a mother, seeing a polar bear in the desert, the story of rabbit and the tortoise, claustrophobia, a life without pleasure, struggling at the bottom of the well, being in an endless sea, like a fish out of water, Mazlum: a Turkish movie character, being like Fenerbahçe and being like a superhero*". Among these metaphors, being a mother is expressed in the sense of showing the unrequited and unconditional love and devotion inherent in motherhood to patients. *Seeing a polar bear in the desert* has been used to describe being a nurse during a global pandemic, which is a rare situation. *The story of rabbit and the tortoise* metaphor is expressed in the sense that as a nurse, progress in this process is very slow, but at the end of the process, nurses will be profitable with the experience and knowledge gained. The metaphor of *claustrophobia* represents working in a closed space for a long time without being able to take a break. The metaphor of *an unpleasant life* is expressed as the disruption of daily routines and the negative impact of social life due to closures during the pandemic process. The metaphors of *struggling at the bottom of the well* and *being in an endless sea* represent the feelings of loneliness and abandonment that nurses experience during the pandemic. The metaphor of *being like a fish out of water* represents the shock experienced at the beginning of the process, the crisis that follows, and the difficulty in adapting to the process. The metaphor of *Mazlum*, a Turkish movie character, is a product of the idea that nurses are ignored, not fully compensated for their work and are oppressed. *Being like Fenerbahçe* is a metaphor used to mean bad luck and the nurse who expressed this metaphor stated that being a nurse in such a period was literally unlucky. *The superhero* metaphor represents the idea that nursing is heroic in such a difficult process that rarely occurs. Some sample expressions regarding the reasons why nurses choose these metaphors are as follows:

"It's about sacrifice, like motherhood. You start to think if that's why the patient said something you might not care about, or if it would give them a different motivation. That's why it's like motherhood." (Female, 30 years old, Pandemic ICU, working for 8 years)

"It's like seeing a polar bear in the desert. I started nursing and suddenly found myself in the pandemic. Pandemic is something that rarely happens but it found me. My chance in life." (Female, 26 years old, Emergency Department, working for 1 year)

"Being a nurse in a pandemic… It's like being at the bottom of a well. Just struggling at the bottom of the well for me." (Female, 25 years old, Emergency Department, working for 1 year)

"It's like staying on a boat in an endless sea. The boat cannot go alone, it gets caught in the current and goes in the wrong direction. It would be very difficult to reach land. Defenseless, powerless, inadequate." (Female, 25 years old, Emergency Department, working for 2 years)

"Being a nurse in the pandemic.. Bring me Mazlum. Bring Mazlum from Yeşilçam. The nurse is everywhere, always, the oppressed. Whether material or spiritual." (Male, 34 years old, Emergency Department, working for 12 years)

b. Action metaphors

Metaphors in this category are "*jumping into the fire, just running and driving a taxi in heavy traffic.*" The metaphor of *jumping into the fire* represents taking part in the pandemic process, which was considered extremely dangerous, without having the opportunity to adapt. *Just running* means working

for hours without a break, constantly running to fulfill the tasks that await you. The metaphor of *driving a taxi in heavy traffic* also represents the density in hospitals during the pandemic period. This metaphor, which was the product of the idea of leaving people where they needed to go, was expressed in the sense of making continuous efforts for the recovery of patients in a difficult period such as a pandemic and when the number of healthcare personnel is insufficient. Some sample expressions regarding the reasons why nurses chose these metaphors are as follows:

"It's like jumping into the fire. It's like there's a fire and you're risking your own life to save the patient. Because there (pandemic unit) you don't care about your own life. Frankly, I liken working here to this." (Female, 29 years old, Pandemic ICU, working for 6 years)

"For example, there is heavy traffic. We are taxi drivers and our aim is to take the person where they want to go. We are trying to get there, we are working to do it…" (Female, 24 years old, Emergency Department, working for 1 year)

c. Animal metaphors

Nurses who used the metaphor of *being like a lab rat* thought that something was being tested on them. The metaphor *of being like an ant* represents the non-stop work of nurses. Some sample expressions regarding the reasons why nurses choose these metaphors are as follows:

"Being a nurse in a pandemic is like… I feel like a guinea pig. So I feel like they experimented on me." (Male, 24 years old, Emergency Department, working for 1 year)

"Frankly, I compare it to an ant. Because in any case, we have to work hard because our task is too much and the number of patients is high." (Male, 24 years old, Emergency Department, working for 1 year)

d. Profession metaphors

When the metaphors collected under this category were evaluated, it was seen that *the soldier* metaphor was expressed in two ways. The first one originates from the idea that nurses protect and look after patients. In the second one, it was stated that the pandemic was like a battlefield and nurses were likened to soldiers thrown into the war on the front lines. *The astronaut* metaphor is a metaphor that refers to the difficulty of using personal protective equipment. *The bank employee* metaphor expresses that efforts are made to keep up with hundreds of people waiting for healthcare services in hospitals, similar to people waiting in line at banks. *The garbage collector* metaphor emerged from the idea that although nurses work under very difficult and bad conditions, their efforts are ignored. Some sample expressions regarding the reasons why nurses choose these metaphors are as follows:

"There are infantrymen in the military. Infantry are the first to go in case of war. I felt like them, we were at the front. Because we were the first to make contact with the patient in the emergency department." (Male, 25 years old, Emergency Department, working for 3 years)

"The first thing that comes to my mind might be an astronaut. In other words, I likened it to an astronaut on a different planet with protective equipment." (Male, 30 years old, Emergency Department, working for 1 year)

e. Object metaphors

The metaphors collected under this category were examined, it was found that *the frame* metaphor represented the nurses not receiving the value they deserved during the pandemic process. The nurse expressing this metaphor likened the process to a framed picture and being a nurse in the pandemic was likened to the frame of this picture. He stated that during the pandemic process, people only saw the

picture and the necessary attention was not given to the frame, whereas the frame was the one that held the picture and ensured that the picture was not damaged. *The box* metaphor represents being confined to the workplace during the pandemic, not leaving it for a long time and working without meeting individual needs. *The battery* metaphor emerged from the idea that nurses are like a battery that is charged and used, and that they work constantly without rest. Finally, the metaphor of *visor and mask* was used by a nurse who stated that she would remember working in this process as a visor and mask. Here are a few sample expressions:

"It's like frame of a portrait. There is no painting without a portrait. Just like the healthcare system cannot function without nurses. In the media, only doctors appear unfortunately. We are not visible. People are just looking at the picture…" (Male, 34 years old, Pandemic Inpatient Service, working for 1 year)

"I compared it to a rechargeable battery. You put the rechargeable battery on the charger, it charges, then you drain it again, you use it again, you put it on the charger again, it charges..." (Female, 32 years old, Emergency Department, working for 1 year)

The relationship between the descriptive characteristics and the metaphors used by nurses to compare being a nurse in the pandemic is shown in Table 4.

Table 4.

Descriptive Characteristics of Nurses and the Relationship Between Categories

Descriptive Characteristics of Nurses	Categories n (%)				
	Situation Metaphors	Action Metaphors	Animal Metaphors	Profession Metaphors	Object Metaphors
Gender					
Female	11 (52.4)	3 (14.3)	2 (9.5)	2 (9.5)	3 (14.3)
Male	4 (36.4)	0 (0)	3 (27.3)	3 (27.3)	1 (9.1)
p value	0.388	0.534	0.310	0.310	1
Marital status					
Married	5 (50.0)	0 (0)	0 (0)	1 (10.0)	4 (40.0)
Single	10 (45.5)	3 (13.6)	5 (22.7)	4 (18.2)	0 (0)
p value	1	0.534	0.155	1	**0.006**
Child					
There ise	12 (48.0)	3 (12.0)	5 (20.0)	4 (16.0)	1 (4.0)
None	3 (42.9)	0 (0)	0 (0)	1 (14.3)	3 (42.9)
p value	1	1	0.560	1	**0.025**
Total Years of Working in the Profession					
4 years and less	8 (53.3)	2 (13.3)	3 (20.0)	2 (13.3)	0 (0)
5-10 years	4 (30.8)	1 (7.7)	2 (15.4)	3 (23.1)	3 (23.1)
11 years and more	3 (75.0)	0 (0)	0 (0)	0 (0)	1 (25.0)
p value	0.222	1	1	0.661	0.085
Pandemic Unit					
Emergency department	12 (46.2)	2 (7.7)	4 (15.4)	5 (19.2)	3 (11.5)
Pandemic inpatient service	3 (50.0)	1 (16.7)	1 (16.7)	0 (0)	1 (16.7)
p value	1	0.476	1	0.555	1

Pearson X^2 ; $p<0,05$

Table 4 shows the relationship between nurses' descriptive characteristics and the metaphors they use about being a nurse in the pandemic. The results in table was evaluated and it was seen that the metaphors of female (52.4%) and male (36.4%) nurses were mostly in the situation category, which expresses the state of being of nurses. However, no significant relationship was found between gender and categories. Marital status was examined and it was found that both married people (50.0) and single

people (45.5) mostly expressed metaphors in the situation category. On the other hand, a significant difference was detected between marital status and object metaphors reflecting the working environment of the pandemic period, such as frame, box, battery, visor and mask ($p = 0.006$). When the table was evaluated according to whether or not to have children, it was found that there was a significant difference with the object metaphors category, as in the marital status variable ($p = 0.025$). There was no statistically significant difference between seniority and the type of pandemic unit nurses worked in and the categories ($p>0.05$).

Discussion

The aim of this research is to understand and interpret the perceptions of nurses working in pandemic units about being a nurse during the Covid-19 process, through metaphors. The findings were examined and it was seen that nurses created 24 different metaphors in five different categories about being a nurse during the Covid-19 process.

The metaphors created by nurses and the categories in which these metaphors were grouped were examined; it was seen that the metaphors generally evoked restriction of freedom, abandonment, increased responsibilities and worthlessness. The pandemic have a negative impact on nurses due to reasons such as long working hours and overwhelming workload (Lai et al., 2020), being away from family and social support resources and the risk of virus transmission (Özkan et al., 2022; Cheung et al., 2021; Maben and Bridges, 2020), witnessing the loss of the patients receiving care or teammates (Akkuş et al., 2022; Cheung et al., 2021; Maben and Bridges, 2020).

The pandemic process caused nurses to experience anxiety (Kaçkın et al., 2021), increase in obsessions (Arslan et al., 2023; Kaçkın et al., 2021), feel powerless in managing patients' conditions, loneliness, and a feeling of guilt for not being able to provide adequate care due to fear of contamination (Muz and Erdoğan Yüce, 2021). In this process, nurses had difficulty in obtaining personal protective equipment (Özkan et al., 2022; Lai et al., 2020). In the study conducted by Arslan et al. (2023), it was stated that the use of personal protective equipment makes it difficult to establish therapeutic communication with patients, understand and interact with the patients. During the pandemic process, nurses experience stigma (Özkan et al., 2022; Akkuş et al., 2021; Kalateh Sadati et al., 2021; Muz and Erdoğan Yüce, 2021), social isolation, anxiety about the future (MacKay et al., 2023; Özkan et al., 2022) and fear of death due to the virus (Yiğit and Açıkgöz, 2021).

Yalom (1980) stated that the most basic concerns of humans are death, restriction of freedom, isolation and inauthenticity, and that these concerns create an existential crisis in humans. Existential crises are periods when everything becomes complicated and therefore anxiety increases; in other words, it occurs when people try to find answers to difficult situations (Bugental, 1965). Experiencing an existential crisis is one of the indicators of survival. This means that people take action to avoid what is negative (Jacobsen, 2006). Rehnsfeldt and Arman (2016) stated that people often resort to metaphors and images to understand the meaning of difficult existential situations.

In this study, the metaphors created by nurses include *being a mother, being like a lab rat, being like a soldier, being like an astronaut, being like a bank employee, and driving a taxi in heavy traffic* represent the increasing responsibilities and workload and therefore the "restriction of freedom" of nurses due to the role uncertainty they experience during the pandemic process. In addition, *claustrophobia* and *the box* metaphors have been evaluated as "restriction of freedom" because they were created to express staying in a closed space for hours without taking a break. Studies on the subject state that nurses express not feel free during the pandemic by the metaphors as *an octopus* (Özkan et al., 2022), *a bird in a cage* (Savsar et al., 2023) and *living in wartime* (Marey-Sarwan et al., 2022).

Although metaphors about death, one of the four most basic human concerns, were not included in this study, some studies have shown that nurses associate the Covid-19 process with death (Moran et al., 2023; Çalık et al., 2023; Çakmak et al., 2022; Durgun et al., 2022). Some studies have shown that nurses

compared being a nurse during the pandemic to a prison (Moran et al., 2023; Savsar et al., 2023; Çalık et al., 2023; Çakmak et al., 2022; Durgun et al., 2022). This metaphor has been thought to represent both restriction of freedom and isolation. Among the metaphors in this study, the metaphors of *a life without pleasure, being at the bottom of a well* and *being in an endless sea* are symbols of the "isolation". In some studies, metaphors produced by nurses were grouped under the theme of "loneliness" (Savsar et al., 2023; Çakmak et al., 2022). This theme was also thought to represent isolation.

In the study of Çalık et al. (2023), one nurse likened being a nurse during the pandemic to a knot, and another nurse likened it being a puzzle game. Along with these two metaphors, the empty mind metaphor in Savsar et al.'s study (2023) was interpreted as nurses being forced to make sense of the pandemic process. *The fish out of water metaphor* created in this study also refers to meaninglessness, similar to the metaphors above. This metaphor emphasizes "inauthenticity" or "meaninglessness" due to the reasons such as uncertainty during the pandemic, being caught unprepared for the crisis and not being able to manage the crisis effectively.

Austrian psychologist Viktor Emil Frankl, one of the pioneers of existential psychology, talks about the meaning of life in his works. The relationship that Viktor Frankl established between life and meaning has an important role in his being one of the very few people who survived the Nazi Concentration Camps (Frankl, 2022). Frankl (2022) emphasized that those who lost hope in the Concentration Camps lost their lives earlier, while those who held on to an understanding/hope for the future had a higher chance of survival. It has been observed that nurses' perception of life and the values they attribute to life were affected during the pandemic process. In the study conducted by Aydın et al. (2022), some of the nurses talked about the importance of living in the moment during the pandemic process. Nurses stated that they understood how important it is to be together and just breathing (Aydın et al., 2022; Özkan et al., 2022) and realized that death can come suddenly (Aydın et al., 2022). In the study conducted by Özkan et al. (2022), nurses stated that they understood the value of being able to move freely and their ties with life were strengthened. Similarly, other studies have reported that nurses' views on the meaning of life are affected by a rare event such as a pandemic (Deliktas Demirci et al., 2021; Villar et al., 2021; Wu et al., 2020). In our study, it was observed that nurses had difficulty making sense of the situation they were in and what they were experiencing and that they were reconsidering their perspectives on life.

Each metaphor created about being a nurse during the pandemic describes the difficulty nurses experience during this process. Each metaphor is unique to the individual, just like cognitive schemas. Piaget (2003) defined schema as the way individuals categorize and organize individual elements such as objects, events, thoughts and behavior in their environment in their minds. Schemas are structures that guide thought processes. When a person is affected by a certain stimulus, schemas related to this stimulus become active. The schemas that become active organize raw data and transform it into thought and cognition (Beck, 1964). The fact that cognitive schemas are specific to each person shows that each person's life experience and way of making sense of life are also unique. According to Viktor Frankl, one of the important elements of the philosophy of life is the subjectivity of human life and experience. Frankl stated that, each person's way of transcending/self-actualizing is different from others. Therefore, each person seeks different meaning through subjective life experience and can only make sense of life from their own perspective (Frankl, 2021).

In the study, it was observed that in addition to the nurse who emphasized the meaninglessness she experienced during the pandemic process, there was also a nurse who tried to attribute meaning to working in this process. Contrary to the metaphor of *being like a fish out of water*, it is thought that the nurse who created the metaphor as *the story of the rabbit and the turtle* tried to make sense of the pandemic process from her own perspective and with her own cognitive schemes. The nurse who created this metaphor stated that nurses are progressing slowly like a turtle during the pandemic, but it is the nurses who will benefit from this process.

It was observed that the only metaphor used in a positive sense among all metaphors was *being like a Superhero*. This metaphor made us think that nurses had a very lofty goal and went beyond their own

limits to achieve this goal. Similarly, in their research conducted by Aydın et al. (2022) it was stated that nurses compared being a nurse to being a superhero during the pandemic and experienced self-transcendence. The concept of "self-transcendence" means that a person gives more than what is expected from them (Koltko-Rivera, 2006), deals with the problems of others as well as their own problems, benefits the environment and social life (Schneider and Krug, 2010; Koltko-Rivera, 2006), and adapted to living in a community (Koltko-Rivera, 2006). During the pandemic, nurses took responsibility for both themselves and others. It can be said that nurses who act by realizing this responsibility manage the existential crisis they experience more easily. Similar to this finding in our study, Çalık et al. (2023) stated that, two nurses compared being a nurse during the pandemic to being a hero. In addition to the superhero metaphor, the metaphors of *jumping into the fire, just running, being like an ant* and *a battery* that is recharged as it runs out represent that nurses work for the patients with great devotion, leaving their own needs in the background. In the study conducted by Özkan et al. (2022), nurses stated that they worked by sacrificing their private lives, families and professional rights during the pandemic process. Despite all the difficulties they experienced in this difficult process, nurses acted selflessly for the patients and did their profession with devotion and love (Arslan et al., 2023; Kazanç and Karagözoğlu, 2023; MacKay et al., 2023; Şen Tepe and Durat, 2022; Kalateh Sadati et al., 2021).

This study also includes metaphors that suggest that nurses' professional self-concept was negatively affected during the pandemic process. These metaphors are *being like a garbage man, being like a frame, being like Mazlum*, a Turkish movie character, and *being like Fenerbahçe*. Nurses stated that they did not receive the moral and material support they expected from the management during this process, that they were forgotten and that they felt worthless. Similarly, in the study of Çalık et al. (2023), it was seen that some metaphors created by nurses were grouped under the themes of "low value/underestimation" and "worthlessness". In the study conducted by MacKay et al. (2023), nurses stated that the public did not see the negativities they experienced during the pandemic process, therefore they did not take the disease seriously and the nurses were not respected. The fact that nurses think that they are not rewarded for their efforts reduces professional satisfaction and strengthens the desire to leave the profession (Alfuqaha et al., 2023). Xia et al. (2022) stated that, nurses were alienated from the profession due to excessive workload. Differently, in the study by Luo et al. (2023), nurses mostly talked about the positive changes in their professional values and emphasized the positive changes in their sense of responsibility and professional identity. In the study of Zhang et al. (2021), it was found that nurses experienced positive changes in their professional identities as a result of the pandemic.

Finally, it can be said that, the metaphor of *seeing a polar bear in the desert* evokes the misfortune. *The visor and mask* metaphor is the only thing that comes to mind of the nurse who created the metaphor, considering the pandemic process. In the study conducted by Savsar et al. (2023), it was observed that nurses expressed working in the pandemic with metaphors of masks and oxygen tanks. It was thought that with all the metaphors created, nurses tried to make sense of working during the pandemic process and put it in their minds. Supporting this view, Arslan et al. (2023) interpreted nurses' efforts to explain caregiving using metaphors during the pandemic process by following mask, distance and hygiene rules as an effort to adapt to this challenging process.

In the study, a significant difference was detected in the object metaphors category with the variables of marital status and having children. There is no significant difference was detected in the variables of gender, seniority and the type of pandemic unit nurses worked in. This result suggested that nurses' marital status and having children may be related to the meaning they attach to working in pandemic units. Accordingly, it can be said that nurses who are married and have children have more roles than single nurses, and that they have difficulty in fulfilling these roles due to reasons such as not getting the help they need and not being able to spare enough time for themselves.

This study was conducted in the data conversion type of convergent mixed design, one of the mixed methods research methods; data collected through quantitative and qualitative methods were integrated together. In this respect, the use of mixed methods is one of the limitations of this research.

Conclusion

This study was conducted to understand and interpret the perceptions of nurses working in pandemic units about being a nurse during the Covid-19 process by using the metaphor analysis method and to evaluate its relationship with descriptive variables. It was observed that nurses created metaphors in five different categories and the majority of their metaphors had negative meanings due to the difficulties experienced during the pandemic process. Thus, it was thought that this was a reflection of the fact that nurses were worn out during the pandemic process, experienced burnout, and their professional self-concept was damaged. It is recommended that nurses be supported and strengthened psychosocially during difficult processes such as pandemics. In this way, it will be possible to contribute to the profession through development and progress both individually and institutionally.
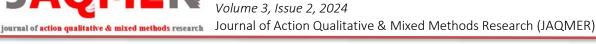
Recommendations

It is recommended that nurses be supported and strengthened psychosocially during difficult processes such as pandemics. In this way, it will be possible to contribute to the profession by developing and progressing both individually and institutionally. It is also recommended to conduct interventional research that will contribute to the determination of skills that will support nurses in coping with pandemics and similar difficult periods.

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Conflicts of Interest

No conflict of interest has been declared by the authors.

Author Contributions

Belkıs Şimşek and Kadriye Buldukoğlu conceived the idea for this manuscript and contributed to the writing and editing of the review. Belkıs Şimşek: Data curation, Writing, Conceptualization and Methodology, Kadriye Buldukoğlu: Supervision, Writing-Reviewing and Editing.

This manuscript has not been published, it is not under consideration for publication elsewhere, its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the research was conducted, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. This manuscript did not utilize any grants.

Declaration of Competing Interest

This research did not receive any specific grant from funding agencies in the public, commercial or not-for-profit sectors.

Ethics approval

In the writing process of the study titled "**Metaphorical perceptions of nurses working in pandemic units about being a nurse during covid-19: A mixed methods research**", the rules of scientific, ethical and citation were followed; it was undertaken by the authors of this study that no falsification was made on the collected data. "Journal Action Qualitative & Mixed Methods Research [JAQMER] and Editor" had no responsibility for all ethical violations to be encountered, and all responsibility belongs to the authors and that the study was not submitted for evaluation to any other academic publishing environment.

Institutional review board (IRB) approval

Institutional Review Board (IRB) approval of this research was obtained from Akdeniz University Faculty of Medicine Institutional Review Board (IRB) and numbered KAEK-751 on October 10th,.2021.