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ORIGINAL ARTICLE

'The body seems to have no life': The experiences and perceptions of fatigue among patients after COVID-19

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Abstract

Aims and Objectives: This study aimed at determining the perception of fatigue among patients with a history of the coronavirus disease (COVID-19).

Background: Fatigue is a long-lasting distressing symptom. It is a multidimensional symptom consisting of several factors, including physiological, psychological, social and environmental. It is vital to examine and understand the perception of fatigue among post-COVID-19 participants.

Design: A descriptive phenomenological design.

Methods: The study sample consisted of 14 post-COVID-19 participants that were recruited using criterion sampling. The fatigue levels of the participants were determined using the Chalder Fatigue Scale (CFS), and those with a fatigue score above 12 were interviewed. All the interviews were conducted with a smartphone due to the COVID-19. The COnsolidated criteria for REporting Qualitative research (COREQ) checklist was used.

Results: The age of the participants varied from 24 to 67 years, with the majority of the participants being female (n = 8). The COVID-19 duration ranged from one to 11 months, and the CFS scores varied between 14 and 33. Four themes emerged following the qualitative data analysis: a new symptom beyond fatigue, fatigue increases dependency in daily life, fatigue impedes sociability and a way to hold on to life's regular rhythms.

Conclusions: This study concluded that fatigue in post-COVID-19 participants is a new experience that is difficult to define and manage and overwhelmingly affects the physical and social aspects of life. Participants look for new ways to live with fatigue and turn to traditional methods and psychosocial strategies.

Relevance to clinical practice: This study revealed the miscellaneous aspects of fatigue in post-COVID-19 participants. Nurses should evaluate fatigue with a holistic approach that includes its physical, social, emotional and spiritual aspects. Nurses can play an active role in the management of fatigue, which is a very common symptom in the COVID-19 pandemic.

KEYWORDS
COVID-19, fatigue, pandemic, qualitative research

[Correction added on July 8, 2023, after first online publication: the information of the corresponding Author has been changed.]

1 | INTRODUCTION

Some patients with the coronavirus disease-19 (COVID-19) may be asymptomatic, some others may show symptoms ranging from a mild cold to severe respiratory failure resulting in death (Rothan & Byrareddy, 2020). Patients with COVID-19 commonly experience symptoms such as fever, shortness of breath, cough, sputum, muscle pain, fatigue, insomnia and loss of taste and smell (Gautier & Ravussin, 2020; Huang et al., 2020; Mizrahi et al., 2020). Recent studies report that fatigue is one of the most common symptoms, with a rate varying from 40% to 72% of the patients, and is a highly debilitating symptom among COVID-19 patients (Carfì et al., 2020; Halpin et al., 2021; Rudroff et al., 2020). A study by Halpin et al. (2021) evaluating 100 COVID-19 patients reported that 72% of the patients hospitalised in intensive care units and 60.3% of the individuals in the in-patient clinics experienced fatigue. Carfì et al. (2020) stated that fatigue was the first symptom in 53% of the individuals diagnosed with COVID-19 (Carfì et al., 2020). Besides, Townsend et al. (2020) emphasised that fatigue in COVID-19 patients lasted for up to 10 weeks on average, and the patients experienced a burden due to fatigue (Townsend et al., 2020). The literature highlights that individuals experiencing COVID-19-related fatigue, have difficulty returning to their normal routines. In the light of all this information, it is an important priority to address the fatigue experienced due to COVID-19 in-depth and to discuss the effects of fatigue on individuals.

What does this paper contribute to the wider global clinical community?

- This study reveals that post-COVID-19 patients experienced multi-faceted fatigue.
- This study highlights the need for a holistic approach from nurses while assessing fatigue in post-COVID-19 patients.
- This study recommends that nurses should inform post-COVID-19 patients about the possible self-coping methods to deal with fatigue.

2 | BACKGROUND

Fatigue is defined as a general feeling of weakness or an unpleasant subjective feeling that can progress from a lack of energy to a feeling of burnout (Phillips, 2015). However, the definition and causes of fatigue differ according to diseases, and there are many definitions of fatigue specific to diseases (Mahmud et al., 2021). Post-COVID-19 fatigue was defined as the reduction in physical and/or mental performance that occurs from alterations in central, psychological or peripheral factors because of the COVID-19 (Mahmud et al., 2021; Rudroff et al., 2020). In order for the fatigue experienced by an individual to be named as post-COVID-19 fatigue, the person must not need hospital care in the clinical evaluation, no fever in the last 3 days, and one month has passed since the onset of COVID-19 according to World Health Organization (WHO) (Mahmud et al., 2021). In a study conducted by Stavem et al. (2021), 46% of individuals reported fatigue about four months after symptom onset of COVID-19, and this describes as post-COVID-19 fatigue (Stavem et al., 2021). However, not everyone experiences the same severity of post-COVID-19 fatigue. The literature has reported that individuals generally experience fatigue with a moderate severity of 4.8 out of 10 (Halpin et al., 2021). Nevertheless, some individuals suffered from severe fatigue after COVID-19 with a rate of 15% (Halpin et al., 2021).

Several factors may contribute to the development of COVID-19-related fatigue (Rudroff et al., 2020), among which the central nervous system is the primary factor. Disturbance of the central nervous system due to COVID-19 triggers fatigue by causing changes in the levels of neurotransmitters such as serotonin and dopamine, decreasing neuromuscular irritability, axonal inflammation and demyelination (Rudroff et al., 2020; Wostyn, 2021). Moreover, hypoxemia caused by the shortness of breath and the effects of the disease on the lungs may increase fatigue in patients with COVID-19. Besides, the literature has emphasised that physical factors, including pain and psychological factors such as depression, anxiety, fear and social isolation, also play a role in fatigue among patients with COVID-19 (Morgul et al., 2020; Townsend et al., 2021). Fatigue, which is influenced by several factors, can cause dependency and disability by limiting the day-to-day activities of patients. Increasing fatigue is associated with the worsening of health status, decrease in daily activities, sleep disorders, decrease in motivation, decrease in concentration, depression, anxiety and stress in patients with COVID-19 (Morgul et al., 2020; Townsend et al., 2020; Zhu et al., 2020). All these problems reduce the quality of life of the patients, cause repeated hospitalisations, and result in an increase in the mortality rates (Garrigues et al., 2020; Zuin et al., 2021).

Existing literature has mentioned the mental, physical, sociological or psychological aspects of fatigue in COVID-19 patients (Michie et al., 2020). Hence, it is noteworthy that fatigue is a multidimensional symptom based on subjective perceptions. Another remarkable characteristic of this symptom among COVID-19 patients is that it persists for a long time, lasting up to 12 months after illness (Stavem et al., 2021; Townsend et al., 2020). However, to the best of our knowledge, there is no qualitative study on the perception of fatigue among patients after COVID-19. The present study sought to address these research gaps and contribute to the growing literature by exploring the post- COVID-19 participants' perception of fatigue, the change in their lives due to fatigue, and their individual coping styles. Understanding the nature of post-COVID-19 fatigue will be a guide for health professionals in providing assessment, management and effective support. This study aimed at exploring the fatigue perception among patients post-COVID-19 and addressed the following questions:

- How do post-COVID-19 participants perceive fatigue?
- How fatigue changed the lives of post-COVID-19 participants?
- How do post-COVID-19 participants cope with their fatigue?

3 | METHODS

3.1 | Study design

This study was conducted using a descriptive phenomenological design according to Husserl's philosophy to investigate the fatigue experiences of post-COVID-19 participants. The descriptive phenomenological design describes and investigates the experiences of individuals and their essence according to Husserl's philosophy (Creswell & Báez, 2020; Paley, 1997). This design aims to describe how individuals define a phenomenon, attribute a meaning to it, and sense it (Patton, 2014). Moreover, phenomenology explains the insufficiently understood aspects of a phenomenon by discovering the living experience of individuals (Giorgi, 1997). The phenomenon of the current study was specified as 'fatigue experience among patients post-COVID-19'. Owing to the deficient literature on how post-COVID-19 patients describe fatigue, the phenomenological design was considered essential to address the study purpose to understand the patients' experiences of the phenomenon. The COnsolidated criteria for REporting Qualitative research (COREQ) checklist were utilised for reporting in this study (Supplementary File 1).

3.2 | Research team

All authors of the research team are actively working in the nursing faculty. Two of the authors continue their doctoral education in internal medicine nursing and work as research assistants at the same university. In addition, one author works as a professor in the department of internal medicine nursing. All authors are female and experienced qualitative researchers with a background in research.

3.3 | Participants and setting

The inclusion criteria were participants (a) who had been diagnosed with COVID-19 according to the Ministry of Health criteria based on Polymerase Chain Reaction (PCR) test, and chest tomography results at least one month before, (b) aged at least 18 years old, (c) having a fatigue severity score of at least 12 based on the Chalder Fatigue Scale (CFS), (d) ability to connect using a smartphone, (e) having at least primary education and (f) not having any psychiatric or cognitive diseases (e.g., schizophrenia, bipolar illness and psychotic illness) based on own self-expression. Participants who did not agree to participate in the study and those who could not be connected using a smartphone were excluded from the study. Criterion sampling was utilised to select the participants for the study (Byrne, 2001). Criterion sampling involves constituting a study sample according to particular criteria found in the existing literature or defined by the authors (Suri, 2011). The criterion sample in this study was used to identify participants who experienced fatigue in order to better understand the fatigue. The criterion for determining the sample of this study is a fatigue severity score of at least 12. While criterion sampling was used to determine the participants to be included in the study, the snowball sampling method was utilised to reach the post-COVID-19 participants (Sedgwick, 2013). Considering the COVID-19 pandemic situation, conditions such as quarantine and isolation prevent access to post-COVID-19 participants. Therefore, snowball sampling method was one of the most suitable methods for this study (Sedgwick, 2013).

Recruitment was conducted via WhatsApp®, Facebook®, Instagram® and e-mail platforms by the authors. The participants were interviewed remotely through a smartphone. Interviews were continued until the data became repetitive and were concluded upon reaching data saturation, after interviewing 14 post-COVID-19 participants. Throughout the study period, 31 patients with snowball sampling were evaluated. Five participants with a CFS score of less than 12 were excluded because they did not meet the criterion sampling criteria. In addition, 12 participants could not be reached by smartphone (Figure 1).

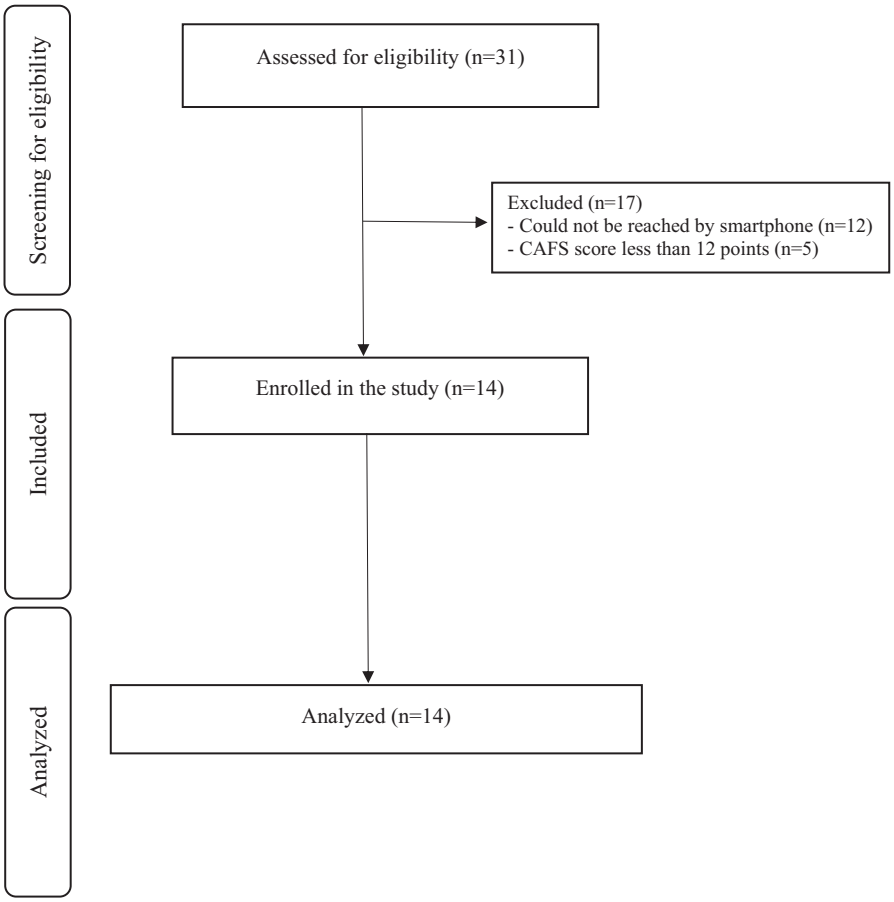
3.4 | Data collection tools

Patient identification form: This form was generated according to the existing literature (Garrigues et al., 2020; Huang et al., 2020; Mizrahi et al., 2020) and consisted of five questions on the age, gender, duration of COVID-19, hospitalisation and presence of chronic disease.

Chalder Fatigue Scale (CFS): The CFS was designed by Chalder et al. (1993) to evaluate the severity of fatigue perceived by an individual (Chalder et al., 1993). This practical scale evaluates the physical and mental fatigue experienced by the individual. This scale consists of 11 items and two sub-dimensions. The first seven items of the scale evaluate physical fatigue, and the last four items assess mental fatigue. The four-point Likert scale consists of 0 = less than usual, 1 = usual, 2 = more than usual and 3 = way more than usual. The general fatigue score was obtained by summing the scores given to the items in the scale, and the total score varied between 0 and 33. The cut-off point of the scale was determined as 12 points (Chalder et al., 1993). Moreover, an increase in the score obtained from the scale indicated that the severity of fatigue increased in individuals. In the Turkish validity and reliability study, Cronbach's alpha value ranged from 0.76 to 0.89, and the test–retest reliability varied between 0.73 and 0.81 (Adın, 2019).

Interview form: The interview form was designed by the authors to determine the fatigue experience of the post-COVID-19 participants. Accordingly, the interview form was conducted with open-ended questions, including the meaning of fatigue, factors that increased or decreased fatigue, the effect of fatigue on life, and mechanisms for coping with fatigue (Table 1). This form was used to ensure consistency in the questions and focus on a common theme. This was essential to enhance the reliability of the results. A qualitative expert reviewed all the open-ended questions in the interview form.

FIGURE 1 Study flow diagram



3.5 | Data collection procedure

Study data were collected from participants who had COVID-19 at least one month ago between February 10, 2021 and May 10, 2021. For the purpose of this study, firstly, potential participants were identified online and then data were collected by telephone interviews with eligible participants. The potential participants were reached online using social media platforms, including WhatsApp®, Facebook®, Instagram® and email. To evaluate the patients based on the inclusion criteria, a questionnaire was created through Google forms. Before participation in the online survey, the participants were required to provide consent to participate in the study by ticking the 'I have read the information, and I agree to voluntarily participate in the study' box. Thereafter, all the questions in the questionnaire were accessible to the volunteering patients, and answers were sought from them. The online survey took nearly 2–5 min to complete. The participants were also requested to share their phone numbers to contact them later. The participants who had met the inclusion criteria were evaluated by the researchers, and the appropriate day and time for the interview were determined. All interviews were conducted via telephone by the two authors, research assistants and doctoral students with experience in qualitative descriptive research. The participants were asked to be in a quiet room at home so that the interviews would not be interrupted. The consent was obtained from all the participants before voice recording. All interviews were recorded by the researcher who conducted the interview. The interviews lasted between 30 and 48 minutes, average 40 minutes.

TABLE 1 Interview guide

1. How would you describe your fatigue experiencing in COVID-19? What does it like?
2. What are the causes of your fatigue experiencing in COVID-19? Please could you share with me?
3. What are the factors that reduce/increase your fatigue experiencing in COVID-19?
4. What kind of problems other than fatigue do you experience due to COVID-19? How do they affect your fatigue experiencing in COVID-19?
5. How does fatigue experiencing in COVID-19 impact your life?
6. How do you cope with your fatigue experiencing in COVID-19? Which coping strategies do you use?

3.6 | Ethical consideration

Ethical approval was obtained from the Non-International Clinical Trials Ethics Committee of the Hacettepe University (Number: GO 21/182). The present study was conducted according to the standards of the Helsinki Declaration of 1975 as revised in 1986, and all the patients provided informed consent (Riis, 2003). Recordings of the interview were anonymously coded, randomly assessed and

hidden in an encrypted computer to ensure data security. Moreover, each patient was provided the choice to refuse participation or withdraw whenever they desired from the study, without presenting any reason.

3.7 | Data analysis

Qualitative data analysis was performed according to Colaizzi's seven-step method (Morrow et al., 2015). First, the authors exactly transcribed all voice recordings in Microsoft Word 2016®, and repeatedly checked them to ensure their correctness. After the transcription was complete, the files were transferred to the MAXQDA® software program (Version 20.0.6) to aid analysis. Each transcript was read and analysed independently by two authors. Second, all expressions were reviewed according to their connection with the phenomenon. Third, meanings related to the phenomenon that resulted from an attentive consideration of substantial expressions were defined. Fourth, the defined meanings were categorised into certain clusters of themes. Fifth, the findings were combined for a detailed description of the phenomenon, and a comprehensive description of the phenomenon was written. Sixth, the authors summarised the comprehensive description to a shorter explanation that included only the aspects that were deemed to be outstanding and important to the structure of the phenomenon. Finally, participants were asked whether the fundamental structure of the finding captured their experience and feedback was obtained from all participants with member checking technique (Table 2). Themes and sub-themes were determined in the data analysis. Two authors identified themes by extracting important meanings and expressions, further increasing the credibility of these results.

3.8 | Validity and reliability/rigour

The rigorousness of this study was ensured according to the criteria of dependability, confirmability, credibility and transferability. To establish the dependability of the results, all interviews were consistently performed using the same interview form, and all audio recordings throughout the interview sessions were audible and clear. Moreover, all the audio recordings were transcribed by the same researcher and checked by the second author to ensure dependability. The third author validated the accuracy of the transcripts by listening to the audio recordings to ensure confirmability and avoid bias that may arise from the interviewer's prior information, thoughts and feelings. The MAXQDA® software program (Version 20.0.6), a computer-assisted data analysis software, was used to manage and store the data, and this enabled the provision of an audit trail. The third author, who speaks English as a native speaker, translated the quotes. The credibility of the results was verified from the interview data with a confirmation from the participants about the factual accuracy of the summary. Expressions were repeated and summarised to the participants to prevent possible misinterpretations throughout the interview process. Two authors analysed each transcript independently. All researchers participated in the discussion for member checking, investigating each other's perspectives and understanding interpretations throughout the analysis process. All authors discussed the results collectively and addressed any discrepancies after the first analysis to compare the study themes, and reached an agreement after a final discussion. All study procedures (criterion sampling, data collection procedure and data analysis) were presented in detail to ensure transferability. An audit trail was kept of all the relevant documents used during the data collection and analysis process.

4 | RESULTS

4.1 | Descriptive characteristics of the patients

Most of the patients were female (n = 8). The age of the patients varied from 24 to 67 years, and the duration of COVID-19 ranged from one to 11 months. Five patients were hospitalised due to COVID-19. Six patients had at least one chronic disease, including asthma (n = 2), chronic heart failure (n = 1), hypertension (n = 1), coronary artery disease (n = 1), heart valve disease (n = 1), vertigo (n = 1) and thyroid disease (n = 1). The CFS scores varied from 14 to 33 (Table 3).

TABLE 2 Stages of phenomenological analysis

Stage	Description
1. Transcribe & Familiarise	The researcher reads a description of each person participating in the study to gain a sense of the participants.
2. Extract Significant Statements	Significant statements that pertain to the phenomenon under study identify and label.
3. Formulate Meanings	Meanings formulate from the identified significant statements.
4. Cluster Themes	Meanings found throughout the data categorise into common themes.
5. Create Exhaustive Description:	The findings of the study are written an exhaustive description of the phenomenon under study.
6. Produce Fundamental Structure	Statement that describes the essential structure of the phenomenon.
7. Validate Findings	Present fundamental structure to participants and verify results with their experiences.

TABLE 3 Descriptive characteristics of patients

Patient code	Age	Gender	COVİD-19 duration (month)	Hospitalisation	Chronic disease	CFS score
P1	45	M	5	Yes	No	22
P2	34	F	1	No	No	27
P3	43	F	4	Yes	Asthma, thyroid disease	27
P4	33	M	6	No	No	24
P5	43	F	1	No	Hypertension	19
P6	51	M	2	Yes	Asthma, coronary artery disease	15
P7	53	M	2	No	Chronic heart failure	14
P8	24	F	3	No	Heart valve disease	28
P9	41	M	5	No	No	28
P10	49	F	7	No	No	26
P11	67	F	7	Yes	No	33
P12	25	M	2	No	No	29
P13	26	F	11	Yes	No	27
P14	65	F	6	No	Vertigo	15

Note: CAFS, Chalder Fatigue Scale.

4.2 | Outcomes of individual interviews

The analysis of the qualitative data revealed the following four key themes: (1) a new symptom beyond fatigue, (2) fatigue increases dependency in daily life, (3) fatigue impedes sociability and (4) a way to hold on to life's regular rhythms (Figure 2).

4.2.1 | Theme 1: A new symptom beyond fatigue

Sub-theme 1: Fatigue equal to death experience

When we asked the patients, what fatigue meant in real terms, they compared the fatigue experienced during COVID-19 to their previous experiences of fatigue? Patients with a history of COVID-19 found it difficult to define fatigue and considered it distinct from the fatigue experienced in their daily lives. The fatigue experienced by patients post-COVID-19 was an extraordinary situation that frustrated them in life and did not subside with rest.

> I have never seen such fatigue. This is not common fatigue. This is not tiredness due to physical work. This is another fatigue. There's no recipe. It's like extraordinary. (P6)

> People feel fresh when they wake up, but I cannot get out of bed after COVID-19. This happened after COVID-19. Fatigue is persistent. (P10)

Patients defined fatigue as a weakness and emphasised that their physical energy was low and their bodies prevented them from continuing a job. Some patients described fatigue as burnout and felt physically worn out. Patients also perceived fatigue as a condition that would never go away.

> Burnout. As if I am unable to do anything. It feels like I will not be able to regain my former strength. (P2)

> My brain wants to do something, but my body cannot. My body does not want to do it. The body seems to have no life… (P3)

> I am 30-years-old, but my body is like a 70-year-old. A feeling of lassitude, like an 80-year-old… (P4)

> Weakness. I'm so tired. I am weak both while lying down and working. Fatigue is more of a weakness for me. Deadness… (P8)

> I think I'm pretty exhausted. I feel like I have run out of steam. (P9)

Sub-theme 2: Fatigue is a mystery puzzler

When the patients were asked open-ended questions about the factors that increase fatigue and the effects of their experienced problems on fatigue, the patients had difficulty in describing the exact cause of fatigue. The cause of the fatigue was unclear to them. However, patients tried to relate to some factors. Most patients associated fatigue with the changes experienced during the COVID-19 process.

> I think the disease causes fatigue. I think it originates from the areas affected by the virus. (P2)

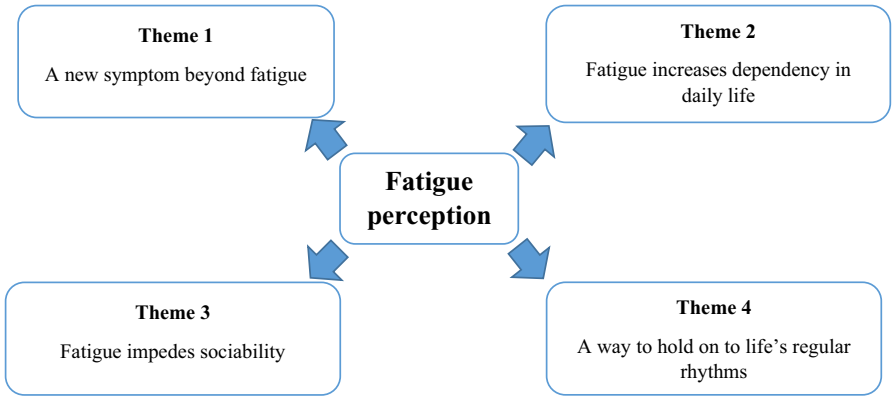


FIGURE 2 Key themes of the study [Colour figure can be viewed at wileyonlinelibrary.com]

The patients stated that their lungs are no longer sufficient to provide oxygen to the body, resulting in oxygen shortage and that they could not breathe due to COVID-19.

> 'The lungs take oxygen and give it to all the cells. When the lungs are not working, they do not provide the necessary energy. For example, if the car engine does not run well, the car always overheats. Then, only then, you get tired'. (P1)

Patients emphasised that their bodies had to constantly fight against COVID-19 and their immunity decreased, thus increasing fatigue.

> The body may be tired of fighting the virus. (P3)

COVID-19 patients stated that they experienced severe headache, chest pain and back pain during the COVID-19 period and that their bodies were tired due to severe pain. They described it as a vicious cycle by expressing that they had difficulty in sleeping, especially due to the pain experienced.

> Chest pain may have increased my fatigue because I feel more tired when I have pain in my body. I do not want to get up at all, I want to sleep more. It's like a vicious circle. (P10)

Some patients thought that they could not consume enough food due to the loss of appetite during the COVID-19 process and therefore experienced fatigue.

> Nausea, loss of appetite also cause fatigue due to lack of nutrition. I've never vomited. But the nausea was very frequent. When I cannot eat, I feel weak and tired. (P2)

The patients stated that they had to cope with additional diseases such as tinnitus, hypertension and diabetes after COVID-19, and this process tired them. These statements indicated that the problems associated with COVID-19 were the aggravating factors for fatigue.

> My sugar level and blood pressure went up and down. My body got sluggish. Maybe this disease decreased my sugar levels and triggered sluggishness. *(P3)*

> There was tinnitus. I do not know if it is sending a signal to my brain or what it's doing. I have never had such a complaint before. That sound is making me tired. (P4)

Some patients associated the main source of fatigue with uncertainty, the thought of getting the disease again, a fear of death and negative news from the environment. Patients thought that the psychological burden and fear caused by these negative impressions were the main factors that increased fatigue.

> I have read so much to learn about the disease that I am mentally depressed. I read different things from everywhere. Sometimes I get scared and tired when I see bad news. (P3)

> Fear. Fear is what increases fatigue. Fear of the unknown. None of us knows this disease. We do not know what we will encounter. (P5)

4.2.2 | Theme 2: Fatigue increases dependency in daily life

As we tried to determine the correlation between daily life activities and fatigue, we could come up with striking answers from the patients. The participants stated that the fatigue experienced after COVID-19 heavily affected their daily living activities. Patients with COVID-19 revealed that fatigue made them postpone even the mundane activities, such as bathing and changing clothes.

> I do not even want to take a bath anymore. I used to take a bath every day, but now I do not want to. I used to change my clothes often, now I change them every 3–4 days. The habits such as self-care and hygiene have completely disappeared. (P1)

Patients added that they got tired while performing basic tasks such as drinking water and going to the toilet, which they used to do easily before. Moreover, the patients stated that they often experienced forgetfulness in their daily lives. These findings demonstrated a heavy burden of fatigue on the physical functions of patients with COVID-19, which increased their dependency on others daily.

> For example, even going to the toilet makes me tired. I get tired even while drinking water. I cannot read anything. I feel tired immediately after reading anything. I am always dependent on someone. (P2)

> I always forget. I say something, then forget it. I do something, then forget it. For example, I go to the kitchen to fill a jug with water, then I come to the living room with an empty jug. I forget to fill the water. (P1)

Besides the effect of fatigue on the day-to-day activities, the patients complained of being unable to perform their physical activities. Particularly, most of the patients stated that they did their physical activities very slowly, felt the need to rest constantly and had to leave their work unfinished.

> Under normal circumstances, I would not sit at home much. Now my family says that "you do not get up from the sofa like a corner pillow" (P6)

> I cannot perform any of my old moves. I did some exercise today, but had to leave it incomplete. I'm so tired (P2)

The patients stated that they avoided physical activities on purpose due to fatigue and even forbade them to themselves.

> I have banned myself from physical activity. I do not do anything that can make me tired. (P4)

4.2.3 | Theme 3: Fatigue impedes sociability

Regarding socialisation in daily living, patients stated that they were reluctant to go out and meet their friends or even their families. Some patients did not even want to talk to other individuals due to shortness of breath and a lack of willingness.

> I feel like I have no social life at all. As I said, when I have work and housework, I do not want to do anything else. I do not want to go out when I'm called, nor do I want anyone to come home.

> You know, there is a different reluctance to go out. But it's about fatigue. Because I feel very tired and my arms and legs feel so weak. (P6)

> I wanted to be separated from my children. Even conversations with them were very tiring, and it was overwhelming for me. Because I was tired and restless due to the lack of sleep. (P4)

> I cannot go outside. I'm talking on my phone with my friends. I'm video chatting. I would like to go out and get some air with the kids. But, I get tired of even talking. That's why this reluctance. (P2)

Some patients stated that they had started to stay away from people because they were approached as plagued and made to feel as if it was their fault.

> Everyone has suddenly stigmatized us like the plague and have begun to avoid us. (P3)

Patients stated that their social life was almost completely over, and they mostly used social media to communicate.

> So, social life is over. I cannot go outside properly. I am staying at home. I hang out on social media with my cell phone to socialize. (P1)

4.2.4 | Theme 4: A way to hold on to life's regular rhythms

Patients emphasised that as their fatigue did not disappear completely, they tried to live with it. Some patients stated that they took rest just to decrease the feeling of fatigue.

> I just go to bed when I feel tired. I go straight to bed. I think it will pass. (P10)

Furthermore, most of them expressed that they used complementary and traditional strategies to reduce fatigue. These strategies included a protein-rich diet, vitamin supplements and herbal teas.

> I do nothing but take vitamins B12, D, and C regularly. (P11)

> As conscious people; we all believe in the necessity of getting good food. In other words, foods such as meat, meatballs, chicken, eggs, cheese, which are more protein-rich. (P7)

> Since the COVID-19 pandemic started, I have been drinking a mixture of linden, sage, and lemon every evening. I also take vitamin C for fatigue. (P6)

Besides, some patients underlined the importance of psychological well-being in coping with fatigue. Patients also tried to adapt to living

with fatigue and performed activities that could psychologically relax them and daydream. These findings indicated that the patients tried different ways to live with the fatigue, and the effort was ongoing even if they could not eliminate it.

> Everyone recommended traditional strategies. We are trying to make use of fresh air. I love shopping; I try to do things that will be good for me psychologically. (P3)

> I'm dreaming. Summer will come, we will wear our t-shirts, go out, take a walk, we will go to our beautiful village. We will have a picnic, walk, we will go to my grandfather's gardens that we have not been to for a long time. (P14)

5 | DISCUSSION

This qualitative study provided specific insights into the nature of the experience of fatigue in patients with COVID-19. One of the most striking findings of this study was that the patients reported that they continued to experience intense fatigue even after recovering from COVID-19. The fatigue experienced by patients during the post-COVID-19 stage was a novel situation that was very different from their previous experiences. The patients defined fatigue as a feeling of burnout and a loss of motivation, as well as a physical limitation. They stated that even simple tasks that could be easily performed before COVID-19 exacerbated fatigue after the disease. Most patients underlined that this fatigue affected their lives in several ways. Fatigue was considered equivalent to 'running out of stream', 'having no life' and 'feeling like a 70-year-old' by the patients. These metaphors indicated that fatigue was perceived as a significant challenge, especially in patients post-COVID-19. There is no qualitative study that dealt with the fatigue experienced by COVID-19 patients. However, in a qualitative study on the experiences of patients with COVID-19 by Kingstone et al. (2020), it was reported that the patients felt extremely tired and described the fatigue as if they were being crushed. In the literature, it has been stated that symptoms such as fatigue after COVID-19 can persist for a long time (Carfì et al., 2020; Townsend et al., 2020). It has been reported that fatigue may continue for a long time due to the deterioration in lung capacity and hypoxia in patients with COVID-19 (Carfì et al., 2020; Daynes et al., 2021; Townsend et al., 2020).

Another striking finding of this study was that the patients underlined that the cause of the fatigue was unclear. Moreover, the patients who tried to relate to fatigue thought that it was not only related to the disease but also the psychological burden caused by it. Patients emphasised that pain, loss of appetite, shortness of breath, lack of energy and secondary diseases after COVID-19 were exacerbating factors for fatigue. Particularly, patients who had to cope with these problems stated that their bodies were tired. Apart from these physical factors, the patients stated that they experienced fear due to the unknown, bad news and the thought of being infected again and said that the fear exacerbated fatigue. Studies in the literature have reported that negative psychological consequences, including stress, anxiety, fear and depression, exacerbated fatigue in recovering COVID-19 patients (Rudroff et al., 2020). In a qualitative study on the mental effects of COVID-19 by Ali et al. (2021), some patients stated that they were restless, unable to sleep and fatigued due to fear. Given the multidimensional nature of fatigue, it is natural for patients to also associate fatigue with psychosocial factors such as fear.

It was noteworthy that the majority of the patients mentioned having difficulty in doing daily activities after the illness and were dependent on others. Most of the participants emphasised that they were restricted after surviving this disease and that they were rendered far from their old daily performances. Similarly, Daynes et al. stated that COVID-19 might cause patients to have difficulty in daily activities due to fatigue (Belli et al., 2020; Daynes et al., 2021). In this study, it was remarkable that the patients had difficulties in performing their daily roles and responsibilities and that they had to avail themselves of support from their relatives from time to time. The aforementioned physical effects result in a social dimension to fatigue. When the effects of fatigue on social life were examined, it was observed that the socialisation of the patients decreased. The patients stated that they isolated themselves due to the physical and psychological effects of fatigue and that they meet their socialisation needs via mobile phones or social media. According to the statements of the patients in this study, it can be argued that post-COVID-19 fatigue may cause social isolation, loneliness and spending more time on social media. Likewise, Bartoszek et al. (2020) highlight the effects of the COVID-19 pandemic on social isolation in patients (Bartoszek et al., 2020). Because of the COVID-19 pandemic, social media has become a 'psychological necessity', thereby helping people address their needs for human interaction and coping with social isolation (Singh et al., 2020).

Despite the negative perceptions related to fatigue and its burden on all aspects of daily life, patients searched for ways to maintain their daily lives. Regarding fatigue-coping behaviours, patients in this study appeared to follow practices of good nutrition, as well as intake of supplements such as vitamins and immunity boosters such as herbal tea. Besides, some patients stated that they rested frequently, did not stretch their capacity and avoided strenuous activities, as also highlighted in earlier reports. Moreover, developing a positive attitude with dreaming or being involved in activities that made them feel good were some psychological coping strategies followed by the patients. Studies have reported that the physical and psychosocial problems caused by COVID-19 were reduced by positive thinking (Alhempi et al., 2021). Nursing interventions also come to the fore in the management of long-term fatigue in COVID-19 patients. The literature strongly emphasises the psychosocial aspect of fatigue and states that nursing interventions, including educational interventions, cognitive-behavioural therapy, relaxation training and supportive group therapy, play a key role in the management of fatigue (Javadi et al., 2020; Sunder et al., 2020).

6 | CONCLUSION

This study highlighted that fatigue was unusual and perceived as a new symptom. It is concluded that patients with COVID-19 suffered from severe fatigue that adversely affected their physical and psychosocial aspects of life. Patients who had COVID-19 expressed that they were no longer at their former body capacity, even though they had recovered from the disease. Another important outcome of the study was that the patients made an effort to cope with fatigue, despite all restrictions imposed by fatigue on the patients' lives. Consequently, the multifaceted nature of fatigue in post-COVID-19 participants requires comprehensive nursing care. There is a need to better understand the management of symptoms after COVID-19, especially to develop evidence-based nursing practices in the assessment and management of post-COVID-19 fatigue. It is recommended to design nursing studies with large sample sizes and a high level of evidence for post-COVID-19 fatigue.

7 | RELEVANCE TO CLINICAL PRACTICE

Considering these outcomes, health professionals should assess fatigue with a holistic approach, covering its physical, social, emotional and spiritual aspects. Moreover, they should structure the education and counselling programmes, including preparedness for changes in the COVID-19 process, energy conservation techniques and other coping strategies for fatigue.

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CONFLICT OF INTEREST STATEMENT

The authors declare that they have no conflict of interest.

AUTHOR CONTRIBUTIONS

All authors approve the content of the manuscript and have contributed significantly to research involved/the writing of the manuscript.

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of the article at the publisher's website.

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