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RESEARCH ARTICLE

Fatigue in long-COVID; frequency, severity and impact on quality of life

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ABSTRACT

Objective: The aim of our study was to investigate the frequency, severity, and impact on quality of life related to fatigue during the prolonged period of COVID-19.

Methods: The cross-sectional study consists of data of 266 participants aged 18 and above, all with confirmed diagnoses of COVID-19. Participants' fatigue severity was assessed using the Modified Fatigue Impact Scale (mFIS) and their quality of life using the Nothingham Health Profile (NHP).

Results: Of the 266 participants, 60 reported no fatigue complaints, 132 experienced fatigue during the acute illness that subsequently resolved and 74 (33.6%) noted persistent fatigue beyond the acute illness period. Participants with fatigue exhibited significantly lower quality of life scores compared to those without, particularly affecting the NHP Pain, Physical Activity, and Energy subscales. The NHP scores positively correlate with mFIS scores.

Conclusion: This study revealed that fatigue, which continues during the long-COVID period, impairs the quality of life in relation to its severity. Fatigue was notably associated with a reduced quality of life, particularly evident in the energy sub-dimension. These findings underscore the importance of addressing and managing post-COVID fatigue for improved overall well-being.

Keywords: COVID-19, Post-Acute COVID-19 Syndrome, fatigue, quality of life

ÖZET

Uzamış-COVID'de yorgunluk; sıklığı, şiddeti ve yaşam kalitesi üzerine etkisi

Amaç: Çalışmada, uzamış COVID-19 döneminde yorgunluk sıklığını, şiddetini ve yaşam kalitesi üzerindeki etkilerini araştırmak amaçlanmıştır.

Yöntem: Kesitsel desendeki bu çalışma, 18 yaş ve üzeri, tamamı kesin COVID-19 teşhisi konmuş 266 katılımcının verilerini içermektedir. Katılımcıların yorgunluk şiddeti, Modifiye Yorgunluk Etki Ölçeği (mFIS) kullanılarak değerlendirilmiş ve yaşam kaliteleri Nothingham Sağlık Profili (NHP) ile ölçülmüştür.

Bulgular: 266 katılımcıdan 60'ı herhangi bir yorgunluk şikayeti bildirmezken, 132'si akut hastalık sırasında yorgunluk yaşamış ve bu daha sonra çözülmüştür; 74'ü (%33.6) ise akut hastalık döneminin ötesinde süregelen bir yorgunluk belirtmiştir. Yorgunluğu olan katılımcılar, özellikle NHP Ağrı, Fiziksel Aktivite ve Enerji alt ölçeklerini etkileyerek, yorgunluk yaşamayanlara göre anlamlı düşük yaşam kalitesi skorları sergilemiştir. NHP skorları, mFIS skorları ile pozitif korelasyon göstermiştir.

Sonuç: Bu çalışma, uzamış COVID döneminde devam eden yorgunluğun, şiddetiyle orantılı olarak, özellikle enerji alt boyutunda azalmış yaşam kalitesi ile ilişkilendirildiğini ortaya koymuştur. Bu bulgular, post-COVID yorgunluğunun ele alınması ve yönetilmesinin genel yaşam kalitesini iyileştirmek açısından önemini vurgular.

Anahtar kelimeler: COVID-19, Post-Akut COVID-19 Sendromu, yorgunluk, yaşam kalitesi

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INTRODUCTION

The post-COVID period was characterized as the timeframe during which symptoms or findings, not attributable to an alternative diagnosis, persisted beyond 12 weeks, as per the World Health Organization's definition [1]. Furthermore, the term "prolonged COVID-19" (Long-COVID) encompasses both the ongoing subacute phase (4-12 weeks) and the post-COVID phase (lasting longer than 12 weeks).

Fatigue is characterized as a state of diminished energy and a sense of exhaustion, whether experienced mentally, physically, or both, without an accompanying sense of weakness. In a broader sense, fatigue, as per dictionary definitions, refers to a reduction in an individual's productivity levels concerning mental and physical activities due to work-related or various other reasons. Given its prevalence in both the general population and among individuals seeking healthcare services, fatigue can result in a decline in functional abilities related to professional and daily activities. Consequently, it may contribute to a reduction in overall quality of life, impairment of interpersonal relationships, and a loss of workforce efficiency [2].

Given that fatigue is a subjective complaint, its evaluation poses challenges, and the perception of individuals serves as a crucial indicator in determining its severity.

Fatigue stands out as the most frequently reported symptom in patients with Long-COVID [3]. Notably, Huang et al. highlighted that during the post-COVID period, a majority of patients exhibited symptoms such as muscle pain, headache, weakness, fatigue, or myalgia [4]. In a large cohort study, significant effects of Long COVID on the quality of life have been identified Fatigue emerges as one of the predominant complaints, particularly impacting HRQoL. The reporting of higher levels of fatigue has been associated with an increase in HRQoL loss and after adjustment for fatigue, the reported loss in HRQoL due to long-term COVID appeared to decrease [5].

Psychological distress during the acute and subacute phases of viral infection emerges as a robust risk factor for prolonged fatigue. This association may be attributed either primarily to the illness itself or to other concurrent stressful life events. Notably, it is anticipated that the stress levels associated with COVID-19 infection are likely to be significantly higher compared to those linked with other infections [6].

The etiology of post-COVID fatigue is multifaceted and cannot be attributed to a singular source. Various factors contribute to this condition, including alterations in neurotransmitter levels such as dopamine and serotonin, inflammatory processes, psychological disorders, stress levels, cognitive dysfunction, neuronal excitability, and demyelination leading to changes in axonal conduction velocity. Each of these elements may play a role in the manifestation and persistence of post-COVID fatigue [7].

Environmental factors can also contribute to post-COVID fatigue. The virus may possess the capability to infect various tissues, potentially impacting skeletal muscle. Common symptoms of COVID-19, such as muscle aches and weakness, indicate the involvement of the virus in affecting muscle function, thereby contributing to post-COVID fatigue [8].

COVID-19 disease and the subsequent fatigue represent a form of post-infectious fatigue syndrome, sharing similarities with Chronic Fatigue Syndrome, typically instigated by an infectious agent [9]. While distressing life events, such as the loss of a relative to COVID-19 or unemployment, can be primary causes of fatigue, the COVID-19 infection itself acts as a precipitating factor, often in conjunction with other concurrent triggers [10]. The psychological factors at play during major epidemics are closely tied to how individuals cope with the perceived threat of infection. Fear of losing loved ones and the grieving process following a loss can elevate psychological stress levels. Furthermore, practices such as self-isolation, social distancing, heightened anxiety, and distress, coupled with reduced physical activity during the COVID-19 pandemic, can contribute to the acceleration of fatigue [10].

Fatigue exerts a profound influence on daily activities, physical functions, and professional life, consequently leading to a decline in overall quality of life. The COVID-19 pandemic has notably impacted the quality of life for individuals whose mental and physical health has been affected. Studies conducted one year after acute infection revealed a substantial decrease in quality of life for approximately one-fifth of the patients [11]. Across 34 studies examining quality of life in COVID-19 patients 12 weeks or more after diagnosis, a reduction in at least one dimension of quality of life was consistently reported [12]. These findings underscore the wide-ranging and lasting impact of COVID-19 on individuals' well-being and highlight the importance of addressing the multifaceted aspects of quality of life in the aftermath of the disease.

This study aimed to investigate the frequency and severity of fatigue and its correlation with quality of life during the long-COVID period. Distinguishing itself from numerous studies that primarily explore the association between disease symptoms and fatigue, this research sought to specifically ascertain the prevalence of fatigue in patients enduring long-COVID and assess its impact on the overall quality of life.

MATERIALS and METHODS

This is a descriptive study in a cross-sectional design. Study data were collected from March 1 to June 1, 2022. Adult patients (18 years and older) who applied to University Hospital due to COVID-19 and whose diagnosis were confirmed by real-time Polymerase Chain Reaction (rt-PCR) test were invited to participate.

Patients selected for the study were contacted by phone and invited to participate. Those patients who

provided consent to participate were then requested to complete the study's data form. The data form was electronically transmitted to the patients' mobile phones, where they proceeded to respond to the questions. Additionally, details regarding the COVID-19 disease progression of the participants were extracted from the hospital registry system.

The data form was developed by the researchers specifically for this study. The initial segment encompasses sociodemographic data, the second part includes questions about the fatigue complaint, the third part includes questions regarding the persistence of prevailing symptoms during the long-COVID period, and the fourth part incorporates various scales for assessment purposes.

The assessment of fatigue in this study was conducted using the Modified Fatigue Impact Scale (mFIS). Self-report questionnaires are commonly employed to examine fatigue, and the mFIS stands out as one of the most widely utilized scales. It offers a multidimensional evaluation of fatigue, encompassing physical, cognitive, and psychosocial aspects [13]. The scale comprises 21 items, with 10 items related to cognitive (maximum score 40), 9 items to physical (maximum score 36), and 2 items to psychosocial aspects (maximum score 8) of fatigue. Each item is scored on a 5-point Likert-type scale ranging from “never” (0 points) to “often” (4 points). The maximum score achievable is 84, with higher values indicating a more pronounced impact of fatigue. A recommended cut-off score of >38 is utilized to classify patients as severely fatigued [13]. In a Turkish adaptation study, the mFIS was found to be both valid and reliable in assessing fatigue in multiple sclerosis (MS) disease [14].

The Notthingham Health Profile (NHP) was used to assess the participants' quality of life. The NHP is a general quality of life questionnaire that measures the perceived health problems and the extent to which these problems affect routine daily activities. The questionnaire comprises a total of 38 items categorized into 6 sub-parameters: Energy Level (E), Emotional Reactions (ER), Physical Activity (PA), Pain (P), Sleep (S) and Social Isolation (SI). Participants respond to the questions with either "yes" or "no," based on their current perception of the situation. The total score on the NHP ranges from 0 to 600, with a higher score indicative of a lower perception of quality of life [15].

Statistical Analysis

Following the collection and digitization of the data, a meticulous correction process was applied. Descriptive information was then presented, utilizing frequency and percentage for categorical data, and mean and standard deviation for continuous data. The analysis of scale scores was conducted with respect to COVID-19 disease outcomes and demographic characteristics, employing hypothesis tests selected based on the variable characteristics of the patients. For variables meeting the assumptions of parametric tests, independent samples t-tests and Pearson correlation tests were employed. In cases where the assumptions were not met, Spearman correlation tests and the Kruskal-Wallis test were utilized. The statistical constants and absolute p-values were reported, with a general significance limit of $p<0.05$ accepted for hypothesis testing.

RESULTS

The study encompassed data from a total of 266 participants, among whom 103 (38.7%) were male and 163 (61.3%) were female. The participants had a mean age of 41.24±11.81 years, ranging from 20 to 78 years.

Out of the total participants, 46 (17.3%) reported being without any complaints during the COVID-19 disease processes. The remaining 220 (82.7%) participants experienced various complaints during the acute phase of the disease, with an average duration of 6.14±2.61 days (ranging from 1 to 9 days). Regarding treatment, 12 participants (4.5%) did not undergo any specific treatment, 238 (89.5%) were treated at home, 15 (5.6%) received treatment in a hospital, and 1 (0.4%) in an intensive care unit. Following the completion of treatment, an average of 196.28±160.30 days had elapsed, with a minimum of 5 days and a maximum of 750 days since the treatment was administered.

Among the participants, 60 (22.6%) reported no complaints of fatigue during the COVID-19 disease processes. On the other hand, 132 (49.6%) experienced fatigue during the acute phase of the illness, which subsequently resolved, 74 participants (27.8%) indicated that their fatigue complaints persisted beyond the acute illness period. Among these individuals, 21 (28.4%) reported fatigue persisting up to one month, 28 (37.8%) from one to three months, and 25 (33.8%) for a duration exceeding three months. The distribution of patients reporting fatigue across different periods of COVID-19 is presented in Figure 1.

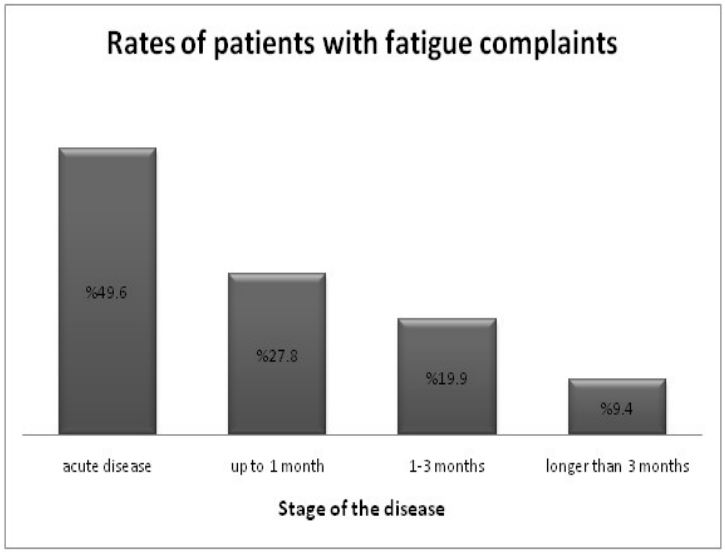

Figure 1: Rates of patients presenting fatigue according to COVID-19 disease stages

The participants' mean Modified Fatigue Impact Scale (mFIS) scores were calculated as 20.11±21.15, ranging from 0 to 82. The mean mFIS physical subscale (mFIS_P) scores were 8.69±9.25, with a range of 0 to 36, mFIS cognitive subscale (mFIS_C) scores were 9.46±10.69, ranging from 0 to 39 and mFIS social subscale (mFIS_S) scores were 1.96±2.32, ranging from 0 to 8.

Women exhibited significantly higher mFIS scores (24.57±22.08) compared to men (12.91±17.38) (t=4.768; p<0.001).

The participants' mFIS scores had significant negative correlation with their age (r=-0.128, p=0.038). No significant correlation was observed between the participants' mFIS scores and their educational status (r=0.102, p=0.097). The vaccination status for COVID-19 did not result in a significant difference in the participants' mFIS scores (t=0.400; p=0.753). The participants' mFIS scores did not differ significantly based on their COVID-19 treatment status (H=4.341; p=0.114). The participants' mFIS scores displayed a significant positive correlation with the duration of their complaints in the acute period (r=0.201; p=0.003). During the acute illness, participants without fatigue exhibited significantly lower mFIS scores and subscale scores compared to those experiencing fatigue (Table 1).

	Patients feeling no fatigue (n=60)	**Patients feeling fatigue (n=206)**	**Statistical significance***
mFIS _P	**4.40±6.15**	**9.95±9.64**	**t=5.330; p<0.001**
mFIS _C	**5.92±8.34**	**10.50±11.10**	**t=3.453; p=0.001**
mFIS _S	**1.07±1.69**	**2.23±2.41**	**t=4.256; p<0.001**
mFIS	**11.38±14.98**	**22.68±22.02**	**t=4.566; p<0.001**
NHP_P	**2.38±6.50**	**15.20±25.86**	**t=6.424; p<0.001**
NHP_ER	13.06±26.57	18.84±28.67	t=1.396; p=0.164
NHP_S	17.94±28.06	22.71±29.69	t=1.109; p=0.268
NHP_SI	9.13±22.59	14.80±27.16	t=1.631; p=0.106
NHP_PA	**2.99±7.06**	**10.98±15.57**	**t=5.627; p<0.001**
NHP_E	**15.99±31.02**	**37.04±40.35**	**t=4.300; p<0.001**
NHP	**61.48±95.74**	**119.58±126.13**	**t=3.828; p<0.001**

Table 1. mFIS and NHP subscale scores according to the presence of fatigue in the acute COVID-19 period
* independent samples t test, mFIS: The Modified Fatigue Impact Scale, mFIS_P: mFIS physical subscale, mFIS_C: mFIS cognitive subscale, and mFIS_S: mFIS social subscale, NHP: The Notthingham Health Profile, E: Energy Level, ER: Emotional Reactions, PA: Physical Activity, P: Pain, S: Sleep and SI: Social Isolation subscales.

In relation to the persistence of fatigue after the acute phase of COVID-19 disease, the mFIS scores exhibited significant differences, with a correlation coefficient of r=0.363 (p<0.001). Similarly, all subscale scores showed significant differences: mFIS_P with r=0.404 (p<0.001), mFIS_C with r=0.293 (p<0.001), and mFIS_S with r=0.347 (p<0.001) (Table 2). Notably, the highest correlation was identified with mFIS_P.

	mFIS	**mFIS_P**	**mFIS_C**	**mFIS_S**
Acute disease (<10 days) (n=131)	18.34±20.18	7.68±8.70	8.95±10.26	1.72±2.18
Continuation of acute period (<4 weeks) (n=21)	22.00±16.24	10.38±7.61	9.10±9.25	2.52±1.78
Subacute disease (4-12 weeks) (n=28)	28.50±23.19	13.75±9.84	11.89±12.15	2.86±2.64
Post-COVID (>12 weeks) (n=24)	40.13±25.54	17.54±10.96	18.58±12.56	4.00±2.89
Statistical significance*	H=21.489 p<0.001	H=26.517 p<0.001	H=15.478 p=0.001	H=20.290 p<0.001

Table 2. mFIS and subscale scores according to the duration of fatigue complaints in acute disease and subsequent COVID-19 disease stages
* Kruskal Wallis test, mFIS: The Modified Fatigue Impact Scale, mFIS_P: mFIS physical subscale, mFIS_C: mFIS cognitive subscale, and mFIS_S: mFIS social subscale

The mean NHP scores of the participants were calculated as 106.42±122.21 ranging from 0 to 541.86. Women had significantly higher NHP scores (131.01±126.88) compared to men (67.75±103.81) (t=4.429; p<0.001). The participants' NHP scores displayed a significant negative correlation with age (r=-0.140, p=0.023). No significant correlation was found between the participants' NHP scores and their educational status (r=-0.057, p=0.356). Vaccination status for COVID-19 did not result in a significant difference in the NHP scores of the participants (t=0.706; p=0.481). NHP scores of the participants demonstrated a significant positive correlation with the duration of complaints in the acute period (r=0.229; p=0.001).

The NHP scores of the participants who did not experience fatigue during the acute period of COVID-19 (61.48±95.74) were significantly lower than those who reported fatigue (119.58±126.13) (t=3.828; p<0.001).

Detailed NHP and subscale scores, categorized based on the presence or absence of fatigue complaints during the acute illness, are presented in Table 1.

In relation to the presence of fatigue during COVID-19 disease processes, there were significant differences observed in Nottingham Health Profile (NHP) scores, as well as in all subscale scores, except for NHP_SI (Table 3)

Participants' mFIS scores showed a significant positive correlation at the p<0.001 level with NHP scores (r=0.719) and all subscale scores: NHP_P (r=0.412), NHP_ER (r=0.643), NHP_S (r=0.394), NHP_SI (r=0.550), NHP_PA (r=0.427), and NHP_E (r=0.569).

Participants' NHP scores showed a positive correlation with mFIS subscale scores at the p<0.001 level: mFIS_P (r=0.693), mFIS_C (r=0.676), and mFIS_S (r=0.678).

	NHP	NHP_P	NHP_ER	NHP_S	NHP_SI	NHP_PA	NHP_E
Acute disease (<10 days) (n=131)	91.33±107.28	10.33±20.85	15.09±24.67	17.40±25.56	12.42±25.11	8.52±12.74	25.58±36.99
Continuation of acute period (<4 weeks) (n=21)	111.87±107.36	9.60±15.51	18.02±31.23	28.25±36.84	13.18±21.65	6.70±11.01	36.12±39.36
Subacute disease (4-12 weeks) (n=28)	167.22±148.71	25.88±32.47	22.26±32.57	33.84±33.96	17.73±30.80	13.74±16.37	53.77±39.66
Post-COVID (>12 weeks) (n=24)	221.50±143.17	33.49±36.00	35.45±36.38	33.88±33.14	25.43±35.07	24.26±23.18	68.99±38.63
Statistical significance*	H=24.166 p<0.001	H=19.598 p<0.001	H=7.940 p=0.047	H=8.621 p=0.035	H=4.547 p=0.208	H=18.298 p<0.001	H=27.413 p<0.001

Table 3. NHP and subscale scores according to the duration of fatigue complaints in acute disease and subsequent COVID-19 disease stages
* Kruskal Wallis test, NHP: The Notthingham Health Profile, E: Energy Level, ER: Emotional Reactions, PA: Physical Activity, P: Pain, S: Sleep and SI: Social Isolation subscales.

DISCUSSION

Fatigue represents a subjective symptom that poses challenges in terms of quantification. Various scales have been developed and used across various studies; however, the absence of a universally acknowledged "gold standard" complicates standardization. The intricate nature of fatigue, coupled with its frequent association with other medical conditions, renders it arduous to ascertain whether it emanates from these underlying diseases. Evidently, the comprehensive understanding of fatigue remains elusive, given its multifaceted etiology. [16]

Fatigue is a very common subjective complaint, even in healthy individuals. Existing literature indicates a reported prevalence of fatigue ranging from 15% to 30% in studies focused on the well-being of healthy individuals. [17-18]

Fatigue has emerged as a prevalent and noteworthy complaint during the COVID-19 pandemic. The frequency of fatigue has been documented to range from 44% to 70% in the initial stages of infection among patients [4,19]. Rio and Malani's observations highlight the persistence of fatigue beyond the acute phase of COVID-19, indicating its enduring nature even after the resolution of the primary infection [20]. A comprehensive meta-analysis, encompassing 18 studies with a follow-up duration of at least 12 months and diverse sample sizes ranging from 51 to 2433 individuals (totaling 8591 participants), revealed that 28% of the study participants reported experiencing fatigue [21].

Fatigue continues to manifest even 100 days following the onset of the initial symptom in individuals who have experienced acute COVID-19. Clinicians have long made reference to a contentious disorder historically denoted as 'post-viral fatigue syndrome' [22]. The symptoms observed in individuals recovering from COVID-19 bear partial resemblance to those associated with Chronic Fatigue Syndrome, characterized by manifestations indicative of substantial debilitation, fatigue, pain, neurocognitive impairment, sleep disturbances, and autonomic dysfunction [23]. The persistence of fatigue subsequent to infections may be attributed to a complex interplay of biological, behavioral, and environmental factors [24].

While fatigue exhibits a higher prevalence among women compared to men in the general population, its correlation with age demonstrates inconsistency [25]. In this study, fatigue was found to be more prevalent in women and had a more pronounced impact on the overall quality of life. It is noteworthy that the manifestation of fatigue and its influence on quality of life remains independent of variables such as the duration of the acute phase of COVID-19, vaccination status, and the type of treatment received. Furthermore, the duration of fatigue symptoms appears to extend beyond the initial acute illness period in COVID-19 cases. More than half of individuals exhibited symptoms of severe fatigue approximately 10 weeks post their initial illness, leading to a noteworthy percentage of workers not returning to work. Intriguingly, fatigue does not demonstrate a correlation with the baseline severity of the underlying disease [26].

Post-COVID patients requiring hospitalization exhibited a diminished quality of life, with factors most strongly associated with this decline being female gender and advanced age. Additionally, other contributory factors encompassed the presence and number of comorbidities, high body mass index, low education levels, and unemployment. Notably, these associ-

ations persisted regardless of the duration elapsed since discharge. Even over time, the most consistently reported factors linked to a compromised quality of life included female gender, advanced age, and the presence of comorbidities [27].

There appears to be a heightened susceptibility of women to the enduring consequences of COVID-19. This susceptibility aligns with the observed lower immune response in women to milder forms of COVID-19 when compared to men, who tend to experience more severe clinical outcomes directly correlated with a robust immune response [28].

The term "quality of life" is elucidated as the 'subjective well-being' or 'the state of being satisfied with one's own life.' This concept is contingent upon how individuals perceive their circumstances within the framework of the cultural and value judgments inherent in their lives. It is crucial to acknowledge that this perceptual framework can vary based on the individual's goals, expectations, standards, and interests.

In this study, an observable trend was noted: with the prolonged duration of participants' fatigue complaints, there was a concurrent significant increase in both the mFIS (Modified Fatigue Impact Scale) scores and their respective subscale scores. Furthermore, a noteworthy positive correlation was identified between the mFIS scores and the total, as well as subscale scores, of the NHP (Nottingham Health Profile). This association underscores that fatigue, whether experienced during the acute phase or persisting into the prolonged periods of COVID-19, detrimentally affects the overall quality of life for the affected patients.

Diverging from others, this study not only scrutinized fatigue during the course of the disease but also delved into the correlation of this manifestation with the overall quality of life. The outcomes of this research revealed that fatigue was one of the most common persistent complaints during post-COVID period, often accompanied by a consequential decline in the quality of life. Particularly noteworthy is the observation that the impact on both fatigue and quality of life is more pronounced in women.

It is imperative to acknowledge several limitations inherent in this study. Notably, the absence of a population-based sample introduces a cautionary note regarding the generalizability of the findings to the broader population. Additionally, the temporal gap between the response time of the questionnaires and the periods of illness may have potentially attenuated the associations reflected in the results obtained.

Conclusion

Fatigue emerges as a prevalent symptom during the acute phase of COVID-19 disease. Notably, COVID-19 induces symptoms of severe fatigue that extend beyond the initial acute illness, persisting into the prolonged period of recovery. The persistence of fatigue during this extended period appears to be independent of the duration of the acute phase of the disease. This highlights the enduring and distinctive nature of fatigue as a symptom in the context of COVID-19.

In this study, we observed a notable correlation between the prolonged duration and heightened intensity of fatigue experienced by participants with COVID-19 and a subsequent decline in their quality of life. The assessment of quality of life using the Nottingham Health Profile (NHP) revealed a discernible deterioration across all dimensions, with the energy sub-dimension being particularly affected. These findings underscore the adverse impact of COVID-19-induced fatigue on the overall well-being of individuals, as reflected in various facets of their quality of life.

Fatigue not only imposes limitations and reduces individuals' engagement in daily activities but also exacerbates the overall deterioration of their quality of life. Gaining insights into the quality of life experienced by individuals post-COVID-19 can offer valuable prognostic information, shedding light on the potential benefits and risks associated with disease management. This study underscores the importance of screening all COVID-19 diagnosed patients for fatigue throughout the post-acute illness period. Additionally, monitoring the consequential impact on patients' quality of life is crucial for comprehensive and effective healthcare management.

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