








## Research Article

DOI: 10.36959/545/417

# Determination of the Psychological Care and Information Needs of Patients during the Active Covid-19 Disease

Gonul DUZGUN, PhD<sup>1\*</sup> , Burcak SAHIN KOZE, PhD<sup>2</sup> , Duygu GULECSATIR, PhD<sup>3</sup> , Pinar ONGUN, PhD<sup>4</sup>  and Nazlı Sebnem CARKCI, CNS<sup>5</sup> 

<sup>1</sup>First and Emergency Department, Vocational Health High School, Tınaztepe University, Turkey

<sup>2</sup>Department of Surgical Diseases Nursing, Faculty of Nursing, Ege University, Turkey

<sup>3</sup>Department of Women's Health and Gynecological Nursing, Faculty of Nursing, Ege University, Turkey

<sup>4</sup>Department of Nursing, Faculty of Health Sciences, Balıkesir University, Turkey

<sup>5</sup>Buca Omer Seyfettin Vocational and Technical Anatolian High School, Turkey



## Abstract

**Purpose:** To determine the psychological care and information needs of individuals with COVID-19 during the disease process.

**Design and methods:** Descriptive and cross-sectional type of research.

**Findings:** During the active COVID-19 disease, fatigue/weakness was the most common symptom. There was a statistically significant relationship between the participants' information needs and difficulties in meeting their daily care needs, feeling unwell, and feeling lonely during the COVID-19 disease process.

**Practice implications:** The majority felt emotionally unwell or lonely and felt the need to have a test concerning their post-disease status and obtain information about the prognosis of the disease and medication use.

## Keywords

COVID-19 virus, Nursing care, Information needs

## Summary Statement

What is already known about this topic?

While most cases of COVID-19 show mild to moderate symptoms, some patients present with severe and fatal symptoms and are hospitalized due to the need for special treatment and care.

What needs to be considered in the care of COVID-19 admitted to intensive care units and clinics of hospitals is known.

What this paper adds?

This study determined the information and care needs of individuals who were quarantined at home due to COVID-19.

The implications of this paper:

Healthcare professionals are expected to take action to meet the information and care needs of that patients with COVID-19.

## Introduction

The coronavirus disease started with a pneumonia epidemic in Wuhan, China in December 2019. Later, the causative agent of the disease was identified as severe acute respiratory syndrome (SARS-CoV)-2, and the disease was named COVID-19 [1]. As a global public health problem, COVID-19 infection continues to affect the whole world with its fatal and contagious nature. According to the latest global data, more than 247 million cases have been detected, and 5.01 million people have died due to COVID-19 [2].

**\*Corresponding author:** Gonul DUZGUN, First and Emergency Department, Vocational Health High School, Tınaztepe University, Turkey

**Accepted:** May 11, 2022

**Published online:** May 13, 2022

**Citation:** DUZGUN G, KOZE BS, GULECSATIR D, et al. (2022) Determination of the Psychological Care and Information Needs of Patients during the Active Covid-19 Disease. J Nurs Pract 5(1):443-449

Coronaviruses can cause deadly diseases from the common cold to Middle East respiratory syndrome and SARS-CoV [3]. The most common signs of infection are respiratory symptoms, fever, cough, dyspnea, headache, sore throat, runny nose, muscle and joint pain, fatigue, loss of sense of smell and taste, and diarrhea [4].

The disease process of each individual who has contracted COVID-19 can follow a different course. While most cases of COVID-19 show mild to moderate symptoms, some patients present with severe and fatal symptoms and are hospitalized due to the need for special treatment and care. It has been reported that after the onset of symptoms, a period of seven to 12 days passes until the development of severe hypoxemia and requirement of intensive care. Approximately 5% of infected patients experience severe pulmonary dysfunction, require mechanical ventilation, and suffer from shock or extrapulmonary organ dysfunction [5]. Serious functional losses further increase the importance of meeting these patients' care needs.

Patients have many complex needs during the COVID-19 disease process, and they need to be informed to meet these needs at all stages of the process. Since the first detection of the disease, there have been continuous new developments in areas such as transmission routes, treatment methods, care practices that facilitate healing, and diet modification to fight against the disease, and therapeutic strategies have also been altered as the course of the disease has changed [4]. During the active disease process, when patients experience the most intense symptom burden, it is seen that meeting their psychological and social needs are as important as their physical needs.

In addition to the medical care needs of patients with COVID-19, their exposures to social and medical isolation have emotional and social effects. In particular, the need for information and social support when implementing care and medical practices on their own control during quarantine at home, such as infection control to prevent transmission to another patient at home, oxygen saturation control to ensure respiratory follow-up, and regular medication use to achieve a positive disease course have brought about a different dimension to this process [5]. However, in the literature, there is no study to determine the needs of patients with COVID-19 on home care; therefore, this study aimed to determine the psychological care and information needs of individuals during the COVID-19 disease process.

## Methods

### Study design and participants

This is a descriptive and cross-sectional type of research. This study aimed to determine the psychological care and information needs of individuals with COVID-19 during the disease process. The population of the study consisted of individuals with a recent history of COVID-19, and 260 individuals that agreed to participate in the research were selected for the sample using the snowball sampling method. Power analysis calculation was done using 90% power ratio, 95% confidence limit and 0.2 effect level.

**Inclusion criteria:** Using the internet, being literate, not having a clinical diagnosis of dementia or a psychological disease, being aged 18 years or older, having a history of COVID-19 disease within the last six months, and agreeing to participate in the research.

**Exclusion criteria:** Refusing to participate in the research, being under 18 years of age, having a diagnosis of dementia or psychological disease, being illiterate, and not using the internet.

### Instruments

A survey was prepared by the researchers in light of the literature [6,7]. This survey consisted of a total of 31 questions presented in three parts: Sociodemographics (age, gender, educational level, place of residence, social security, occupation, perceived income, marital status, and living with family or alone), health history (smoking, presence of chronic disease, regularly used medication, allergy history, exercise habits), and COVID-19 disease (symptoms experienced, isolation, and information and care needs). The survey used to collect data was created using the surveeey.com website. The survey link was shared on instant messaging/communication (WhatsApp) and social media (Facebook and Instagram) platforms. Prior to the main research, a pilot study was conducted with ten individuals who had a history of COVID-19. In the pilot study, the comprehensibility of the survey items was evaluated with the feedback received from the individuals, and the final version was obtained after making the necessary revisions. The pilot study data were excluded from the research analysis. The access link to the final version of the survey was shared on the same platforms (WhatsApp, Facebook, and Instagram), and individuals who had a recent history of COVID-19 were invited to participate in the research. Upon clicking the access link, each individual was presented with an informed consent form, and once they provided consent, they were directed to the survey page.

Data were collected online from individuals with a history of COVID-19 between March 1, 2021 and June 1, 2021.

### Data analysis

The Statistical Package for the Social Sciences v. 26 was used for the analyses of the data. While analyzing the study data, in addition to descriptive statistics (mean, standard deviation, median, frequency, ratio and minimum-maximum values), the chi-square test was conducted to determine differences between independent groups, and Pearson's or Spearman's correlation analysis was used to evaluate relationships between variables. The results were evaluated at the 95% confidence interval, and the significance level was taken as  $p < 0.05$ .

### Ethical considerations

Ethical approval was obtained from the Ethics Committee of Izmir Tinaztepe University. All the participants provided informed consent as explained in the previous section.

### Results

Table 1 presents the data on the sociodemographic

**Table 1:** Sociodemographic distribution of the participants.

Mean age, years 35.32 ± 10.83 (min: 18, max: 68)		
Sociodemographic variable	Number (n)	Percentage (%)
<b>Gender</b>		
Female	182	70
Male	78	30
<b>Marital status</b>		
Married	169	65
Single	91	35
<b>Educational level</b>		
Primary school	15	5.8
High school	49	18.8
University	151	58.1
Higher education	45	17.3
<b>Region of residence</b>		
Aegean	118	45.4
Marmara	72	27.7
Central Anatolia	30	11.5
Mediterranean	15	5.8
Southeast Anatolia	11	4.2
Black Sea	10	3.8
East Anatolia	4	1.5
<b>Income level</b>		
Income below expenses	60	23.1
Income equal to expenses	148	56.9
Income above expenses	52	20.0
<b>Health insurance</b>		
Turkish Social Security Institution health insurance	237	91.2
Private insurance	11	4.2
No insurance	12	4.6
<b>Occupation</b>		
Healthcare personnel	93	35.77
Unemployed	59	22.69
Other occupational groups	108	41.54
<b>Living with family or alone</b>		
Family	235	90.4
Alone	25	9.6
<b>Total</b>	<b>260</b>	<b>100</b>

characteristics of the individuals participating in the research. The mean age of the participants was 35.32 ± 10.83 (min: 18, max: 68) years, 65% were married, 58.1% were university graduates, 45.4% lived in the Aegean Region, 56% had an income level equal to expenses, 91.2% had health insurance from the Turkish Social Security Institution, 41.54% worked in areas other than healthcare, and 90.4% lived with their

families.

No statistically significant relationship was found in the chi-square analysis performed to test the relationship between age, gender, marital status, educational level, income status, region of residence and information needs during the COVID-19 disease ( $p > 0.05$ ). It was determined that 79.7% of the individuals did not have any chronic disease, 75.8% did

**Table 2:** Distribution of participants according to COVID-19 characteristics and information needs.

	Number (n)	Percentage (%)
<b>Symptoms during active disease*</b>		
Fatigue	207	79.1
Muscle pain	191	73.5
Loss of smell	153	58.8
Back pain	151	58
Headache	149	57.3
Loss of taste	128	49.2
Fever	106	40.7
Cough	105	40.4
Sore throat	90	34.6
Difficulty breathing	67	25.8
Weight loss	48	18.5
Diarrhea	39	15
Abdominal pain	30	11.5
Other (hearing loss, nose burning sensation, kidney pain, pericarditis, nausea, loss of appetite, memory loss, bone pain, eye pain, oral ulcers, feeling of tightness in the chest, bradycardia, dizziness, joint pain, and palpitation)	20	7.7
Vomiting	18	6.9
Asymptomatic	5	1.9
<b>Whether the patient received support from someone for care during active disease</b>		
Yes	145	55.8
No	115	44.2
<b>Whether healthcare teams contacted the patient during active disease</b>		
Yes		
No	221	85
	39	15
<b>Information needs during active disease*</b>		
Post-disease test	128	26.9
Disease course	116	24.4
Medication use	113	23.8
Follow-up	57	12
No information need	57	12
Other (fear of transmitting the disease to children)	1	0.2
<b>Total</b>	<b>260</b>	<b>100</b>

\*More than one response was allowed.

not have any allergies, and 86.2% did not smoke. According to the chi-square analysis performed to test the relationship between the presence of chronic diseases and information needs during the COVID-19 period, there was no statistically significant relationship between the two variables ( $p > 0.05$ ).

During the active disease period, the most common symptom was fatigue/weakness at 79.1% and the least common symptom was vomiting at 6.9%. Of the participants, 55.8% had someone helping with care, and 85% were

contacted by healthcare teams. During the active disease period, the participants mostly needed information concerning post-disease testing (26.9%) (Table 2).

The mean quality of life score of the individuals was  $6.78 \pm 2.58$  (min: 1, max: 10). Of the participants, 58.4% had decreased appetite, 52.3% had no weight change, 70.8% had impaired sleep quality, 49.6% had difficulties meeting their daily care needs, and 49.5% felt lonely. The most common symptom related to bowel habits was diarrhea (24.23%), and

**Table 3:** Distribution of participants according to their COVID-19 symptoms.

Mean quality of life score: 6.78 ± 2.58 (min: 1, max: 10)		
	Number (n)	Percentage (%)
<b>Appetite during active disease</b>		
Loss of appetite	152	58.4
No change	93	35.8
Increased appetite	15	5.8
<b>Weight during active disease</b>		
No change	136	52.3
Weight loss	97	37.3
Increased weight	27	10.4
<b>Bowel habits during active disease*</b>		
Diarrhea	63	24.23
Pollakiuria	49	18.84
Abdominal pain, bloating, and feeling of tightness	40	15.38
Nocturia	17	6.53
Constipation	16	6.15
Urinary retention	4	1.53
Urinary incontinence	4	1.53
Fecal incontinence	1	0.38
No change	139	53.46
<b>Difficulty in meeting daily care needs during active disease</b>		
Yes	129	49.6
No	131	50.3
<b>Impaired sleep quality during active disease</b>		
Yes	184	70.8
No	76	29.2
<b>Feeling emotionally unwell during active disease</b>		
Yes	215	82.7
No	45	17.3
<b>Feeling lonely during active disease</b>		
Yes	126	48.5
No	134	51.5
<b>Total</b>	<b>260</b>	<b>100</b>

\*More than one response was allowed.

the least common symptom was fecal incontinence (0.38%) (Table 3).

It was determined that there was a statistically significant relationship between information needs during the active COVID-19 disease and feeling unwell, feeling lonely, and difficulty in meeting daily care needs ( $p < 0.05$ ). A statistically significant relationship was also observed between gender and difficulty in meeting daily care needs ( $p < 0.05$ ), feeling lonely ( $p < 0.05$ ), and feeling emotionally unwell during the active disease ( $p < 0.000$ ). Lastly, feeling emotionally unwell during the active disease was associated with impaired sleep quality, difficulty in meeting the daily care needs, and feeling lonely ( $p < 0.000$  for all).

## Discussion

This study investigated the psychological care and

information needs of patients with COVID-19 during the active disease and determined that the patients mostly experienced fatigue, muscle pain, and loss of smell. WHO listed the most common symptoms of COVID-19 as fever, cough, and fatigue [8]. In studies conducted with patients with COVID-19 in the literature, cough, fever and fatigue are generally stated as the three most common symptoms [9-12]. In the current study, fever and cough were reported at a lower frequency. However, we questioned the symptoms of the patients retrospectively. Considering the time that passed since the active disease, the participants may have focused on the symptoms that were most problematic or still continued. Fatigue, muscle pain and loss of smell have been reported as long-term symptoms that persist after the active disease period [13,14].

In this study, the participants stated that during the

active disease period, they most needed information concerning post-disease testing, prognosis of the disease, and medication use. Similarly, in studies conducted in different countries, individuals are reported to seek information on medical treatment, maintaining quarantine, social policies (quarantine, school closures, testing, etc.) or personal health products (mask use, grocery delivery, over-the-counter medication, etc.) [1,15]. It is expected that individuals need more information than other known diseases due to the uncertainty brought about COVID-19 being a relatively new disease. The findings of our study indicate that individuals in Turkey experience uncertainty about retesting, disease prognosis, and medication use during the COVID-19 disease process, and they mostly need information about these topics.

The majority of our participants described feeling emotionally unwell and approximately half feeling lonely during the active disease. The COVID-19 pandemic has led to unprecedented quarantine and social distancing measures to limit the spread of the disease. In pre-pandemic studies, it was stated that isolation was associated with negative health experiences of patients [16]. Similarly, patients with COVID-19 experience high levels of anxiety and concerns about the pandemic due to the nature of the disease and quarantine measures implemented [17-19].

When gastrointestinal problems experienced by the individuals were examined, it was determined that they mostly described a decrease in appetite and weight loss. Similarly, Lawrence, et al. reported that their patients experienced loss of appetite [20]. In another study evaluating appetite using the Nutritional Appetite Questionnaire, Zeng, et al. determined that all patients with COVID-19 suffered from loss of appetite [21]. Symptoms of loss of appetite and taste loss can also explain weight loss in our participants. Therefore, during the disease process, recommendations such as eating smaller and more frequent meals rich in calories and protein and taking supplements may be beneficial for patients [22].

Bowel problems were reported by the majority of our participants, with diarrhea being the most common. It has been suggested that diarrhea is not a rare symptom of COVID-19 disease and may even be the first symptom in some cases [23]. It has been emphasized that it is important for individuals with diarrhea to maintain good hygiene practices at home against the transmission of infection to others [24]. Therefore, in the presence of diarrhea, both individual interventions, such as increasing fluid intake and hygiene training for other family members should be offered to prevent the spread of infection.

Most of the participants in this study stated that their sleep quality was impaired. Pinto, et al. found that 69.7% of the participants experienced at least one sleep problem, and Yadav, et al. reported that 62% of the patients had sleep disorders [24]. Being in quarantine during the active COVID-19 disease and being isolated in a room to prevent the spread of infection if living with others can change the sleep-wake rhythms of the body. As individuals spend more time in bed, their sleep quality decreases [25]. Considering that most of the participants in our study felt emotionally unwell

during the active disease, it is expected that their sleep patterns were also affected. Ensuring regular and high-quality sleep in these patients is important for the strengthening of the immune system. Therefore, sleep problems should be questioned while providing care for patients with COVID-19, and effective interventions should be planned to increase their sleep quality.

This study revealed that nearly half of the participants had difficulties in meeting their daily care needs during the active COVID-19 disease, and those that experienced these difficulties also had greater information needs. In Turkey, similar to other countries, not all patients with COVID-19 are treated in hospitals. Patients with moderate disease are quarantined at home where they continue their treatment. WHO also recommends home management of individuals without risk factors and those with moderate disease [7]. In Turkey, patients treated at home are contacted by family physicians for symptom follow-up. In the current research, 85% of the participants stated that they were contacted by healthcare personnel during the COVID-19 disease period. Despite this, the participants still reported having care needs and experiencing difficulties in meeting these needs. It may be beneficial to develop supportive interventions with software-based programs, such as medical software applications, telemedicine, and virtual software to meet the care needs of patients with COVID-19. This can reduce nutrition and bowel problems, improve sleep quality, or develop behaviors that can help individuals cope with stress. The information and care needs of individuals can be met with these interventions.

## Conclusion

According to the results of this research, individuals with COVID-19 mostly had fatigue, muscle pain and loss of smell symptoms, experienced gastrointestinal and bowel problems, such as decreased appetite, weight loss, and diarrhea, felt the need to seek information concerning post-disease testing, prognosis of the disease and medication use, and had impaired sleep quality. It was determined that the majority of the participants felt emotionally unwell or lonely during the active disease, they had difficulty in meeting their daily care needs, and those with such difficulties also had greater information needs.

## Implication for Nursing Practice

In this context, the following recommendations are made:

- Providing supportive interventions with telemedicine and virtual medical software-based systems to meet the care needs of patients, reduce nutritional and bowel problems, improve sleep quality, and develop behaviors that can help patients cope with stress,
- Offering psychological support online or by telephone to identify individuals who feel emotionally unwell or lonely and providing them with better care and support to develop coping skills.
- Encouraging patients to engage in routine exercises at home to maintain their mental and physical well-being during quarantine,

- Creating online information videos on subjects about which patients most need information,
- Conducting similar studies with a larger sample group.

## Authorship Statement

G.D., B.S.K., D.G.S., P.O. and N.S.C. designed the study. G.D., B.S.K., D.G.S., P.O. and N.S.C. collected the data. G.D., B.S.K., D.G.S., P.O. and N.S.C. analyzed the data. G.D., B.S.K., D.G.S., P.O. and N.S.C. prepared the manuscript.

All authors approved the final version for submission.

## Author Contributions

**Study design:** G.D., B.S.K., D.G.S., P.O. and N.S.C; **Data collection:** G.D., B.S.K., D.G.S., P.O. and N.S.C; **Data analysis:** G.D., B.S.K., D.G.S., P.O. and N.S.C; **Manuscript writing and revisions for important intellectual content:** P G.D., B.S.K., D.G.S., P.O.

## Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Acknowledgment

No external or intramural funding was received.

## References

1. Zhou F, Yu T, Du R, et al. (2020) Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: A retrospective cohort study. *The Lancet* 395: 1054-1062.
2. (2021) COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU). Johns Hopkins University & Medicine.
3. WHO (2021) Novel Coronavirus (2019-nCoV).
4. Turkish Ministry of Health (2020) Covid-19 Genel bilgiler, epidemiyoloji ve tanı.
5. WHO (2020) Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19). In *The WHO-China Joint Mission on Coronavirus Disease 2019 (Vol. 1)*. WHO.
6. Çelebi C (2020) Cilt /No: 58 Sayı /No: 1 Nisan /April 2020 Ek / SUPPLEMENT. *Ege Klin Tıp Dergisi*, 58: 35-40.
7. Wilkinson J, Barcus L (2018) PEARSON Hemşirelik Tanıları El Kitabı. Pelikan Yayınevi.
8. WHO (2020) Home care for patients with suspected or confirmed COVID-19 and management of their contacts. World Health Organization.
9. Alimohamadi Y, Sepandi M, Taghdir M, et al. (2020) Determine the most common clinical symptoms in COVID-19 patients: A systematic review and meta-analysis. *J Prev Med Hyg* 61: E304-E312.
10. Fu L, Wang B, Yuan T, et al. (2020) Clinical characteristics of coronavirus disease 2019 (COVID-19) in China: A systematic review and meta-analysis. *J Infect* 80: 656-665.
11. Pullen MF, Skipper CP, Hullsiek KH, et al. (2020) Symptoms of COVID-19 outpatients in the United States. *Open Forum Infect Dis* 7: 2-5.
12. Zhu J, Ji P, Pang J, et al. (2020) Clinical characteristics of 3062 COVID-19 patients: A meta-analysis. *J Med Virol* 92: 1902-1914.
13. Carfi A, Bernabei R, Landi F (2020) Persistent symptoms in patients after acute COVID-19. *JAMA* 324: 603-605.
14. Goërtz YMJ, Van Herck M, Delbressine JM, et al. (2020) Persistent symptoms 3 months after a SARS-CoV-2 infection: The post-COVID-19 syndrome? *ERJ Open Res* 6: 00542-02020.
15. Bento AI, Nguyen T, Wing C, et al. (2020) Evidence from internet search data shows information-seeking responses to news of local COVID-19 cases. *Proceedings of the National Academy of Sciences of the United States of America*, 117: 11220-11222.
16. Brooks SK, Webster RK, Smith LE, et al. (2020) The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet* 395: 912-920.
17. Dorman-Ilan S, Hertz-Palmor N, Brand-Gothelf A, et al. (2020) Anxiety and depression symptoms in COVID-19 isolated patients and in their relatives. *Frontiers in Psychiatry* 11: 581598.
18. Losada-Baltar A, Jiménez-Gonzalo L, Gallego-Alberto L, et al. (2020) "We're staying at home". Association of self-perceptions of aging, personal and family resources and loneliness with psychological distress during the lock-down period of COVID-19. *J Gerontol B Psychol Sci Soc Sci* 76: 10-16.
19. Sun N, Wei L, Shi S, et al. (2020) Qualitative study: Experienced of caregivers during Covid19. *Am J Infect Control* 48: 592-598.
20. Lawrence V, Hickson M, Weekes CE, et al. (2021) A UK survey of nutritional care pathways for patients with COVID-19 prior to and post-hospital stay. *J Hum Nutr Diet* 34: 660-669.
21. Zeng Q, Cao H, Ma Q, et al. (2021) Appetite loss, death anxiety and medical coping modes in COVID-19 patients: A cross-sectional study. *Nurs Open* 8: 3242-3250.
22. Jiménez-Martínez E, Cuervo G, Carratalà J, et al. (2021) A Care Bundle Intervention to Prevent Surgical Site Infections After a Craniotomy. *Clin Infect Dis* 73: e3921-e3928.
23. Li XY, Dai WJ, Wu SN (2020) The occurrence of diarrhea in COVID-19 patients. *Clin Res Hepatol Gastroenterol* 44: 284-285.
24. Yadav R, Yadav P, Kumar SS, et al. (2021) Assessment of depression, anxiety, and sleep disturbance in COVID-19 patients at tertiary care center of North India. *J Neurosci Rural Pract* 12: 316-322.
25. Akinci T, Bas HM (2021) Relationship between sleep quality and the psychological status of patients hospitalised with COVID-19. *Sleep Medicine* 80: 167-180.

**DOI: 10.36959/545/417**