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COVİD-19 Pandemisi Sırasında Erken Dönemde Psikiyatrik Bulgular ve Fonksiyonel Kapasite: COVİD-19 Hastaları ve Karantina Altındaki Temaslı Bireyler

Psychiatric Findings and Functional Capacity in the Early Period During the COVID-19 Pandemic: COVID-19 Patients and Individuals Under Quarantine

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ÖZ

Amaç: Bu çalışmanın amacı, COVİD-19 hastaları, temaslı bireyler ve sağlıklı bireylerde karantina sürecindeki erken dönem psikiyatrik bulguları karşılaştırmaktır.
Yöntem: Enine kesitsel gözlemsel çalışma tasarımı kullanıldı. Çalışma COVİD-19 tanısı almış ve ev karantinasında bulunan hastalar, COVİD-19 tanısı almamış ancak ev karantinasında bulunan temaslı bireyler ve karantina sınırlaması olmayan sağlıklı bireyler ile gerçekleştirildi. COVİD-19 hastaları ve temaslı bireyler için karantinanın ilk gününde ve 10 gün sonrasında ölçümler yapılırken; sağlıklı grup için ise 10 gün ara ile toplam iki ölçüm yapıldı. Bireyler 10 gün arayla Coronavirus-19 Phobia Scale, Coronavirus Anxiety Scale, Patient Health Questionnaire, 30-second sit-to-stand test ile değerlendirildi.
Bulgular: 10. günde COVİD-19 hastalarında sağlıklılara göre koronafobi ve koronavirüs anksiyetesi yüksek bulunurken($p<0.05$); anksiyete, depresyon ve fonksiyonel kapasitede farklılık görülmedi($p>0.05$). COVİD-19 hastalarında anksiyete ve depresyonun; temaslı bireylerde ise koronafobinin 10 günlük zaman içerisinde azaldığı görüldü($p<0.05$). 30 saniye otur kalk testi puanının ilk gün, 10. gün ve karantina sürecindeki değişim açısından üç grup arasında anlamlı bir farklılık yoktu ($p>0,05$). Üç grupta da karantina sürecinde anlamlı bir değişim yoktu ($p>0.05$).
Sonuç: COVİD-19 hastalarında hastalığa özgü uygulanan medikal tedaviyle birlikte; temaslı bireylerde ise karantina sürecinde psikiyatrik bulgular için erken dönemde önlemler alınmasını öneriyoruz.

Anahtar Kelimeler: COVİD-19, Karantina, Erken dönem, Psikiyatrik bulgular, Fonksiyonel kapasite.

ABSTRACT

Objective: The aim of this study is to compare the early psychiatric findings in the quarantine period in COVID-19 patients, under quarantine and healthy individuals.
Method: A cross-sectional observational study design was used. The study was conducted with patients diagnosed with COVID-19 and in home quarantine, contact individuals who were not diagnosed with COVID-19 but in home quarantine, and healthy individuals without quarantine restrictions. While measurements are made on the first day of quarantine and 10 days later for COVID-19 patients and contact individuals; For the healthy group, two measurements were made with an interval of

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10 days. Individuals were evaluated with Coronavirus-19 Phobia Scale, Coronavirus Anxiety Scale, Patient Health Questionnaire, 30-second sit-to-stand test.

Results: 10th day, coronaphobia and coronavirus anxiety were found to be higher in COVID-19 patients($p<0.05$). It was observed that anxiety and depression in COVID-19 patients; coronaphobia in under quarantine individuals decreased within 10 days($p<0.05$). There was no significant difference between the three groups in terms of the change in the 30-second sit-to-stand test score on the first day, on the tenth day, and in the quarantine period ($p>0.05$). No significant change was revealed in any groups in the quarantine period ($p>0.05$).

Conclusion: Precautions should be taken for psychiatric findings in early period during the quarantine period in COVID-19 patients and under quarantine individuals.

Key words: COVID-19, Quarantine, Early period, Psychiatric findings, Functional capacity.

1. INTRODUCTION

Coronavirus disease-2019 (COVID-19) is an infectious disease caused by SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) virus, which infects the respiratory tract (1). The COVID-19 outbreak first appeared in Wuhan, China, on December 31, 2019, and the World Health Organization declared it a global pandemic on March 11, 2020, due to its spread to many countries. As of February 10, 2022, more than 400 million COVID-19 cases and more than 5 million COVID-19-related deaths have been reported worldwide (2). In COVID-19 cases, the most common symptoms are shortness of breath, cough, fever, fatigue, and pain (3,4). The symptoms associated with the disease and the loss of lower extremity muscle strength lead to decreased functional capacity in COVID-19 cases (5,6). Quality of life and daily life activities decrease due to symptoms in COVID-19 cases and due to widespread home quarantine in healthy individuals (7–9).

Public health measures are implemented in many countries with widespread home quarantine and physical distance recommendations due to the rapid spread of coronavirus infection through droplets and at a distance of less than two meters from a person and due to its potentially harmful effects on physical health (10). Psychiatric complaints such as anxiety, fear, insomnia, and emotional exhaustion have been found to increase in people during the widespread quarantine periods of the COVID-19 pandemic (11,12). The financial problems experienced with the COVID-19 pandemic and an increase in social media use and the time spent with family members elevate the level of anxiety and stress and increase psychiatric findings (13–15). In the literature, it is reported that psychiatric findings increase in quarantine during the COVID 19 pandemic. However, the number of studies investigating whether the increase in psychiatric findings results from coronavirus infection or widespread home quarantine and the early change in these findings is insufficient. This study aims to determine whether COVID-19 disease and mandatory home quarantine lead to any change in psychiatric findings and functional capacity in individuals during the pandemic period, to compare psychiatric findings and functional capacity in patients diagnosed with COVID-19, individuals under quarantine without the diagnosis of COVID-19 but in mandatory home quarantine, and healthy individuals, and to examine their early changes.

2. METHOD

A cross-sectional observational study design was used. The study was conducted with patients diagnosed with COVID-19 and in home quarantine, individuals under quarantine without the diagnosis of COVID-19 but in home quarantine, and healthy individuals without

quarantine restrictions. Individuals were included in the study between March 2021 and June 2021. The study was carried out with COVID-19 patients and individuals under quarantine registered in Beşkavaklar, 12 Kasım and Tevfik Atay Family Health Centers in Bolu. Measurements were taken on the first day of quarantine and the 10th day after quarantine for those who tested positive for COVID-19 (PCR) and individuals in quarantine. In healthy individuals, two measurements were made, 10 days apart. The study found that at least 120 people (40 for each group) should be included with 80% power and 5% margin of error (w=0.25) (16). The sample size was calculated with the G-Power 3.0.10 software. COVID-19 patients between 18-75 years of age and individuals under quarantine were included in the study, whereas individuals with additional lung disease or severe symptoms were excluded from the study. Individuals without a diagnosed disease were included in the healthy group. Individuals diagnosed with COVID-19 or individuals with an additional disease were excluded from the healthy group. The study was initiated after obtaining the necessary permission from the Clinical Research Ethics Committee of Bolu Abant İzzet Baysal University (BAIBU) (Decision No: 2021/59 Number: 114). This study complied with the Declaration of Helsinki.

Measurements of the individuals were made by sending them a link address for an electronic form. For the 30-second sit-to-stand test, the participants were phoned to explain the test method, and an information video showing the test method was sent to the individuals before the evaluation. During the test, one person stood behind the individual to prevent loss of balance and movement of the chair. The participants were informed about the study, and their written consent was obtained.

Coronavirus-19 Phobia Scale

It was used to measure the phobia developing against coronavirus. It is a five-point Likert-type self-assessment scale with 20 items. The scale items are assessed between 1 "Strongly Disagree" and 5 "Strongly Agree." Items 1, 5, 9, 13, 17, and 20 measure the psychological subscale, items 2, 6, 10, 14, and 18 measure the somatic subscale, items 3, 7, 11, 15, and 19 measure the social subscale, and items 4, 8, 12, and 16 measure the economic subscale. The total score of the scale varies between 20-100. High scores indicate high levels in the subscales and general coronaphobia. Arpacı et al. Turkish made its validity and reliability (17).

Coronavirus Anxiety Scale

It was used to evaluate coronavirus anxiety. The coronavirus anxiety scale comprises 5 different somatic anxiety and fear symptoms triggered when participants are exposed to opinions or information about coronavirus, and each question is scored between 0-4 (0: none, 4: almost every day for the last two weeks). On this scale, the lowest score is 0, and the highest score is 20. A score of 9 or higher reflects dysfunctional anxiety about coronavirus (Cronbach's α value was 0.92) (18). Biçer et al. Turkish made its validity and reliability (19).

Patient Health Questionnaire

The participants' anxiety and depression levels were evaluated with the Patient Health Questionnaire. The Patient Health Questionnaire consists of 4 questions, and each question is

scored between 0-3. The first two questions evaluate anxiety, and the third and fourth questions evaluate depression (20). Demirci et al. Turkish made its validity and reliability (21)

30-Second Sit-to-Stand Test

The 30-second sit-to-stand test was used to evaluate the participants' functional capacity. At the beginning of the test, individuals were requested to sit on a chair with back support and no armrests, with their hands crossed on their shoulders. Starting from this position, individuals sat and stood up as quickly as possible for 30 seconds. The number of times they sat and stood up correctly for 30 seconds was recorded as a test result (22).

Statistical Analysis

For descriptive statistics, mean and standard deviation or median and minimum-maximum values were given in numerical variables. Graphical (Q-Q plot, histogram, etc.) and statistical (Shapiro-Wilks and Kolmogorov-Smirnov) methods were used for normality assumption. Whether there was a difference between the three independent groups was investigated by the one-way analysis of variance or by the Kruskal-Wallis test. The two-way analysis of variance or the Wilcoxon test was used in repeated measurements to examine the change over time. Pairwise comparisons (post-hoc) test was used to identify the group/groups that created a difference. Analyses were performed using IBM SPSS v.21. The significance level was considered as $p<0.05$.

3. RESULTS

The age (year), height (cm), body weight (kg), and body mass index (kg/m^2) values of the participants are shown in Table 1. No significant difference was observed between the groups in terms of demographic characteristics ($p>0.05$).

Table 1. Distribution of Individuals' Demographic Characteristics by Group (n=128).

	COVID-19 Patients (n=48)	**Individuals Under Quarantine (n=40)**	**Healthy Individuals (n=40)**	**p**
	Mean ± SD	**Mean ± SD**	**Mean ± SD**	
Age (years)	35.65 ± 11.18	36.7 ± 10.55	37.9 ± 13.79	0.676
Height (cm)	167.39 ± 9.24	168.08 ± 10.15	171.3 ± 9.51	0.143
Weight (kg)	73.08 ± 15.43	73.83 ± 12.28	73.8 ± 15.57	0.963
BMI (kg/m²)	26.01 ± 4.68	26.14 ± 3.90	25.18 ± 5.14	0.597

*p<0.05; SD: Standard Deviation; BMI: Body Mass Index; COVID-19: Coronavirus Disease-19;
* One-way analysis of variance

The change in coronaphobia between the groups and in the quarantine period is presented in Table 2. While there was no significant difference between the groups in terms of the psychological, social, and economic subscale scores and the total score on the first day ($p>0.05$), there was a significant difference between COVID-19 patients and healthy individuals on the tenth day ($p<0.05$). There was a significant difference in the somatic subscale scores between COVID-19 patients and healthy individuals on the first day and on the tenth day ($p<0.05$). While there was a significant difference between COVID-19 patients and healthy individuals in the change of the psychological and social subscale scores and the total score in the quarantine period ($p<0.05$), there was no difference in the change of the somatic and economic subscale scores in the quarantine period ($p>0.05$).

Table 2. Comparison of the Coronavirus-19 Phobia Scale Between the Groups and Its Change Over Time

		Group			
		COVID-19 Patients (n=48)	**Individuals Under Quarantine (n=40)**	**Healthy Individuals (n=40)**	**p***
Psychological	**1. day**	14.5 (6 – 30)	13.0 (6 – 30)	13.5 (6 – 30)	0.658
	10. day	14.0 (6 – 30)[a]	12.0 (6 – 30)[a,b]	10.5 (6 – 22)[b]	**0.005**
	Difference	0.0 (-16; 11)[a]	0.0 (-9; 11)[a,b]	3.0 (-5; 17)[b]	**0.007**
	p**	0.665	**0.048**	**<0.001**	
Somatic	**1. day**	10.0 (5 – 22)[a]	7.0 (5 – 20)[a,b]	6.0 (5 – 19)[b]	**0.043**
	10. day	9.0 (5 – 25)[a]	6.0 (5 – 24)[a,b]	5.0 (5 – 13)[b]	**0.004**
	Difference	0.0 (-13; 9)	0.0 (-11; 7)	0.0 (-4; 9)	0.583
	p**	0.900	0.267	**0.027**	
Social	**1. day**	11.0 (5 – 24)	10.0 (5 – 23)	9.5 (5 – 25)	0.366
	10. day	10.0 (5 – 25)[a]	9.0 (5 – 23)[a,b]	8.0 (5 – 19)[b]	**0.007**
	Difference	0.0 (-11; 10)[a]	0.0 (-9; 9)[a,b]	2.0 (-4; 11)[b]	**0.008**
	p**	0.916	**0.029**	**<0.001**	
Economic	**1. day**	8.0 (4 – 20)	7.0 (3 – 13)	6.5 (4 – 12)	0.116
	10. day	7.0 (4 – 20)[a]	5.0 (3 – 11)[a,b]	5.0 (4 – 9)[b]	**0.016**
	Difference	0.0 (-12; 7)	0.0 (-5; 8)	0.0 (-3; 7)	0.622
	p**	0.459	0.136	**0.008**	
Total	**1. day**	41.5 (20 – 96)	40.0 (19 – 81)	37.0 (20 – 74)	0.313
	10. day	40.0 (20 – 99)[a]	36.0 (20 – 85)[a,b]	29.0 (20 – 55)[b]	**0.003**
	Difference	0.0 (-52; 37)[a]	0.0 (-27; 23)[a,b]	4.0 (-14, 32)[b]	**0.007**
	p**	0.795	**0.035**	**<0.001**	

The median (min – max) is given for the descriptive statistics.
* Kruskal Wallis test ** Wilcoxon test
Lettering are post-hoc test results. Same letters show no difference between groups, different letters show difference.

There was no significant change in the psychological and social subscale scores and the total score during the quarantine period in COVID-19 patients ($p>0.05$), whereas there was a significant decrease in individuals under quarantine in the quarantine period ($p<0.05$). There was no significant change in the quarantine period of the somatic and economic subscale scores in COVID-19 patients and individuals under quarantine ($p>0.05$).

While there was a difference between COVID-19 patients and individuals under quarantine in the coronavirus anxiety score on the first day, there was a significant difference between COVID-19 patients and the healthy group on the tenth day ($p<0.05$). The change in coronavirus anxiety during the quarantine period was similar in all three groups ($p>0.05$). When the change in each group over time was examined, no significant change was observed in the quarantine period ($p>0.05$). (Table 3)

Table 3. Comparison of the Coronavirus Anxiety Scale Between Groups and Its Change Over Time

		COVID-19 Patients (n=48)	**Individuals Under Quarantine (n=40)**	**Healthy Individuals (n=40)**	**p***
Coronavirus Anxiety	**1. day**	0.0 (0 – 12)[a]	0.0 (0 – 14)[b]	0.0 (0 – 11)[a,b]	**0.044**
	10. day	0.0 (0 – 21)[a]	0.0 (0 – 13)[a,b]	0.0 (0 – 7)[b]	**0.008**
	Difference	0.0 (-11; 9)	0.0 (-10; 5)	0.0 (-2; 9)	0.190
	p**	0.631	0.673	0.120	

The median (min – max) is given for the descriptive statistics. For comparison, mean rank values are shown with [.].
* Kruskal Wallis test ** Wilcoxon test
Lettering are post-hoc test results. Same letters show no difference between groups, different letters show difference.

There was no significant difference between the three groups in terms of the change in the anxiety and depression subscale scores and the total score of the Patient Health

Questionnaire on the first day, on the tenth day, and in the quarantine period (p>0.05). When the change in each group in the quarantine period was examined, a significant decrease was observed in COVID-19 patients over time (p<0.05). However, there was no significant change in individuals under quarantine and healthy individuals (p>0.05) (Table 4).

Table 4. Comparison of the Patient Health Questionnaire Between Groups and Its Change Over Time

		COVID-19 Patients (n=48)	**Individuals Under Quarantine (n=40)**	**Healthy Individuals (n=40)**	**p***
Anxiety	**1. day**	1.0 (0 – 6)	1.0 (0 – 6)	1.0 (0 – 6)	0.393
	10. day	1.0 (0 – 5)	1.0 (0 – 6)	1.0 (0 – 5)	0.276
	Difference	0.0 (-2; 5)	0.0 (-2; 5)	0.0 (-2; 3)	0.698
	p**	**0.027**	0.231	0.207	
Depression	**1. day**	2.0 (0 – 6)	1.5 (0 – 6)	1.5 (0 – 5)	0.897
	10. day	1.0 (0 – 4)	1.0 (0 – 6)	1.5 (0 – 6)	0.938
	Difference	0.0 (-3; 6)	0.0 (-6; 3)	0.0 (-2; 3)	0.524
	p**	**0.047**	0.313	0.338	
Total	**1. day**	3.0 (0 – 12)	2.0 (0 – 12)	3.0 (0 – 11)	0.659
	10. day	3.0 (0 – 9)	1.0 (0 – 12)	2.5 (0 – 11)	0.671
	Difference	1.0 (-4; 11)	0.0 (-6; 8)	0.0 (-3; 5)	0.669
	p**	**0.026**	0.233	0.225	

The median (min – max) is given for the descriptive statistics. For comparison, mean rank values are shown with [.].
* Kruskal Wallis test ** Wilcoxon test

There was no significant difference between the three groups in terms of the change in the 30-second sit-to-stand test score on the first day, on the tenth day, and in the quarantine period (p>0.05). No significant change was revealed in any groups in the quarantine period (p>0.05) (Table 5).

Table 5. Comparison of Functional Capacity Between Groups and Its Change Over Time

		Group			
		COVID-19 Patients (n=48)	**Individuals Under Quarantine (n=40)**	**Healthy Individuals (n=40)**	**p***
30 second sit-stand test (pcs/30 seconds)	**1. day**	17.0 (8 – 32)	18.5 (10 – 40)	17.0 (6 – 28)	0.257
	10. day	17.0 (7 – 33)	18.5 (10 – 29)	19.0 (6 – 28)	0.335
	Difference	0.0 (-7; 8)	0.0 (-11; 10)	0.0 (-6; 13)	0.697
	p**	0.803	0.838	0.171	

The median (min – max) is given for the descriptive statistics.
* Kruskal Wallis test ** Wilcoxon test

4. DISCUSSION

In this study, which investigated the change in mental health and functional capacity during the home quarantine period of the COVID-19 pandemic, no difference was determined between the groups in terms of the participants' anxiety, depression, and functional capacity levels on the first day of the quarantine period. Coronaphobia and coronavirus anxiety were higher in COVID-19 patients on the tenth day compared to healthy patients. On the other hand, anxiety and depression decreased in COVID-19 patients, and coronaphobia decreased in individuals under quarantine within a 10-day period.

In a study comparing individuals who stayed in home quarantine for 3 months and who continued working, Celenay et al. revealed that coronaphobia, which included psychological, psychosomatic, social, and economic factors, was higher in individuals who stayed in home quarantine (23). In their study conducted in Egypt, Abdelghani et al. reported that coronaphobia

was observed at high rates among doctors. In the study, female gender, dissatisfaction with personal protective equipment measures, being a colleague of a COVID-19 patient, and insufficient knowledge about the pandemic were seen to be important risk factors for coronaphobia. It was also stated that coronaphobia could lead to and increase anxiety and depression (24). In a study on 514 elderly adults, Gaeta et al. found that the feeling of isolation and loneliness became common in the COVID-19 pandemic. In the study, social media use, household size, and marital status were found to be associated with coronavirus anxiety, whereas loneliness and coronavirus anxiety were not correlated. Therefore, it was recommended to reduce objective and perceived isolation in the pandemic environment (25). Taha et al. reported that anxiety might become common in individuals who stayed in quarantine at the beginning of the COVID-19 pandemic due to uncertainty about COVID-19, lack of access to information, decrease in social support and decrease in communal life (26). In their study comparing individuals affected and not affected by the quarantine process, Lei et al. found that the level of anxiety and depression was higher in the quarantine group. On the other hand, it was seen that common anxiety and depression in the group affected by the quarantine process resulted from financial problems, and the low level of anxiety was associated with the high level of knowledge in the unaffected group (27). In another study conducted in Greece during the period of full quarantine, depression, suicidal thoughts, and sadness were observed to increase in the general population. Family responsibility, general health status, previous depression history, young age, and economic change were found to be important risk factors in the development of depression, whereas maintaining a daily routine, believing in conspiracy theories, and religiosity were stated among the protective factors in the study (28). Peng et al. revealed that the prevalence of depression increased in individuals who did not have COVID-19 and stayed in home quarantine for 14 days (29). In a study conducted in Argentina, it was observed as a result of consecutive evaluations made in four separate uninterrupted quarantine prolongations following mandatory quarantine that quarantine had negative mental health effects and the prolongation of the quarantine period exacerbated these effects (30). A similar study conducted in Brazil emphasized that the perception of stress, depression, and anxiety increased during the quarantine period in measurements performed on the start day of and one month after the countrywide mandatory quarantine. However, less exercise, worsening diet, and low education were shown to be important risk factors (31). In the study conducted 2 weeks after the quarantine applied at the beginning of the COVID-19 outbreak in China, individuals living in Wuhan city and staying in mandatory quarantine, individuals who had a history of travel to Wuhan but did not live there and stayed in quarantine, and individuals who did not stay in quarantine were compared. In this study, individuals who were quarantined had higher levels of mental illness compared to those who were not, while individuals who were quarantined in unaffected areas had twice more anxiety and depression compared to individuals who were quarantined in affected areas (32). Kesgin et al. compared anxiety levels in hospitalized COVID-19 patients, individuals coming to Turkey from abroad and staying in mandatory home quarantine for 14 days, and healthy individuals in social isolation (expected to stay at home except for basic needs). In the study, the anxiety level was observed to be higher in COVID-19 patients and individuals in social isolation (33).

In this study, no difference was seen between the groups in terms of anxiety and depression on the first day of mandatory home quarantine. These results may show that

financial difficulties experienced during the pandemic process, uncertainties about COVID-19, inactivity and loneliness can lead to psychiatric symptoms and affect all individuals. Thus, the effects of COVID-19 infection and quarantine cannot be seen on the first day (25–27). The results obtained in this study are in parallel with the literature. Moreover, no change in the anxiety and depression levels and coronavirus anxiety in individuals under quarantine during the quarantine period may result from the widespread quarantine implementation during the pandemic period before the mandatory home quarantine. The decrease in coronaphobia in individuals under quarantine during the quarantine period may be due to negative PCR test results. The decrease in anxiety and depression levels during the 10-day quarantine period of COVID-19 patients may be due to the mild course of the disease and the low number of symptoms experienced by the individuals included in the study.

Depression is assumed to develop in COVID-19 patients due to the increase in proinflammatory cytokines, especially IL-6, caused by Sars-Cov2 infection, high cortisol levels, mitochondrial damage, changes in the HPA (hypothalamic pituitary adrenal) axis, vitamin D deficiency and malnutrition (34). In the one-month follow-up after hospital treatment, inflammation was observed to play a role in anxiety and depression in individuals who survived COVID-19 (35). In another study on hospitalized COVID-19 patients, depression and anxiety were found to be more common in these patients than in the control group. In the study, the relationship between depression symptoms and peripheral inflammation measured by C-reactive protein (CRP) was explained by the effect of the virus on the central nervous system and the emergence of neuropsychiatric symptoms with the activation of the immune-inflammatory response (36). In another study, the relationship between COVID-19 disease and depression was explained by the role of inflammatory cytokines and the presence of ACE-2 receptors on the cell surface (37). In this study, coronaphobia and coronavirus anxiety were found to be higher in COVID-19 patients than in healthy individuals on the tenth day. Moreover, being diagnosed with COVID-19 and the process and symptoms related to the disease can also cause this condition. However, the reason why no difference was observed between the groups in anxiety and depression levels on the tenth day can be explained by the fact that the general difficulty caused by the pandemic came before the COVID-19 infection.

Severe or critical patients hospitalized due to COVID-19 were seen to have reduced functional exercise capacity, which was evaluated with the 1-minute sit-to-stand test during discharge (38). In their study, Cortes-Telles et al. reported that functional capacity decreased with higher tidal volume limitation and exercise hypoxemia in individuals with permanent dyspnea who survived COVID-19 disease compared to individuals without dyspnea (6). Zampogna et al. revealed that individuals who survived COVID-19 could experience exercise limitation 3-5 weeks after being discharged from the acute care hospital, but their exercise capacity returned to normal after 3 months (39). However, in another study evaluating exercise capacity in the 3-month follow-up of patients with non-severe COVID-19 using Cardiopulmonary Exercise Testing (CPET), cardiopulmonary causes were found to be effective in the decreased exercise capacity, but this was mainly due to the decrease in peripheral muscle strength (5). A similar study elucidated that VO_2peak decreased in one-third of individuals 3 months after surviving COVID-19 and being discharged from the hospital, and circulation limitations were higher than respiratory limitations. On the other hand, individuals with dyspnea had lower V′O2peak/kg and ventilation efficiency (40). In another study, physical

deconditioning was demonstrated to be the most important cause of impaired VO2max in patients after severe COVID-19 pneumonia (41). The fact that there is no change in functional capacity in COVID-19 patients during the quarantine period and the average age of the groups is not advanced may be due to the mild disease. The lack of change in functional capacity in COVID-19 patients and individuals under quarantine during the quarantine period may not be affected by the shortness of the quarantine period.

Limitation of the Study

Our study has some limitations. First, the long-term effect has not been evaluated in COVID-19 patients and quarantined individuals. Secondly, keeping the age range wide revealed the problem of age-related influence in the 30-second sit and stand test results.

5. CONCLUSION

In this study, it was determined that higher education level had a positive effect on knowledge and attitude toward HIV/AIDS. Level of knowledge was found to be higher in those who reported to have knowledge about HIV/AIDS. The results of this study indicate the need for educating women with low education levels about HIV/AIDS and providing them with appropriate education programs. HIV/AIDS. awareness training programs can be organized by public health nurses for women with low education levels. An analysis of the sources of participating women's knowledge about HIV/AIDS showed that the proportion was high in women who obtained information from the media. For this reason, media could be utilized as a tool to raise women’s awareness. It may also be recommended to include information about HIV/AIDS and sexually transmitted diseases within the scope of premarital counseling services.

Ethical Consideration of the Study

The study was initiated after obtaining the necessary permission from the Clinical Research Ethics Committee of Bolu Abant İzzet Baysal University (BAIBU) (Decision No: 2021/59 Number: 114).

Conflict of Interest Statement

The author declare that there is no direct or indirect conflict of interest.

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