Received: 30 June 2020 | Revised: 3 October 2020 | Accepted: 10 October 2020

DOI: 10.1111/ppc.12655

ORIGINAL ARTICLE

Perspectives in PSYCHIATRIC CARE WILEY

The effect of coronavirus (COVID-19) outbreak on the mental well-being and mental health of individuals

Adem Sümen PhD, RN | Derya Adibelli PhD, RN

Department of Public Health Nursing, Kumluca Faculty of Health Sciences, Akdeniz University, Antalya, Turkey

Correspondence
Adem Sümen PhD, RN, Department of Public Health Nursing, Akdeniz University Kumluca Health Science Faculty, 07350, Antalya, Turkey.
Email: ademsumen@akdeniz.edu.tr

Abstract

Aim: This study was conducted to examine the effect of COVID-19 pandemic on the mental well-being and mental health of individuals.

Design and Method: This cross-sectional questionnaire study was conducted with 614 individuals over the age of 18.

Findings: Regarding the coronavirus outbreak, it was found that 84.9% of the participants are afraid/anxious. The psychiatric problems of the individuals who fear/worry about coronavirus becoming a pandemic, who stated that staying at home because of the outbreak negatively affect their mental health and that domestic violence cases have increased due to the outbreak were found to be higher ($p < 0.05$).

Practice Implication: The coronavirus outbreak causes fear and anxiety in society. This triggers so many psychological symptoms.

KEYWORDS
coronavirus, COVID-19, mental health, mental well-being, psychology

1 | INTRODUCTION

Although it has been shown in some studies that the novel coronavirus which was first identified in Wuhan city in China toward the end of 2019 is similar to severe acute respiratory syndrome and the Middle East respiratory syndrome[1–3]; the novel coronavirus is thought to have the highest pathogenicity in human history.[2] The novel coronavirus is spreading around the world due to its high spreading capacity as well as high pathogenicity and fatality.[4] There is a wide consensus that the COVID-19 pandemic not only affects physical health, but also mental health and well-being.[5,6] From a psychopathological viewpoint, the current pandemic is a relatively new form of stressor or trauma.[7,8] The consequences of the COVID-19 pandemic are considered to be severe in mental health and psychosocial aspects especially following four groups: (a) those who have been directly or indirectly in contact with the virus; (b) those who are already vulnerable to biological or psychosocial stressors (including people affected by mental health problems); (c) health professionals (because of higher level of exposure); and (d) even people who are following the news through numerous media channels.[9]

The pandemic-related containment measures—namely quarantine, social distancing, and self-isolation—can threaten mental health. In particular, the increased loneliness and reduced social interactions are well-known risk factors for several mental disorders, including schizophrenia and major depression.[9] If the concerns about the pandemic are prolonged, they may increase the risk of disorders in adult males and females, including panic, obsessive compulsive, stress, and trauma-related disorders. As hand washing, which is the most important step to break the transmission chain become a continuous process and the thought that the hands are always dirty and not cleaned completely, may increase the risk of developing obsessive compulsive disorder.[10]

One of the major risks of social isolation, which is one of the measures implemented against the pandemic, is the increase in domestic violence. In the United Nations (UN) report, it is stated that violence against women and feminicide mostly takes place at home.[11] In most world countries, the necessity of staying at home as a precautionary measure against the pandemic may increase the risk of violence. According to the World Health Organization's (WHO)

 © 2020 Wiley Periodicals LLC

report, domestic violence has increased in many countries due to the COVID-19 pandemic.[12]

Older patients, which are one of the major risk groups of COVID-19, tend to experience panic and anxiety due to insufficient knowledge of the disease and lack of access to information.[13] Children, another sensitive group, are exposed to excessive information flow as a result of the stress and anxiety of the adults around them and this may lead to incomprehensibility in children.[14] Nurses are on the frontline of the public health crisis the world now knows as the COVID-19 pandemic. One of the most urgent public health problems is that people are at high risk for mental health.[15] This study was conducted to examine the effect of the COVID-19 pandemic on the mental well-being and mental health of individuals. We wanted to answer the following research questions:

- What are the Psychological Well-Being and Brief Symptom Inventory Scores of Participants?
- What are the Characteristics of regarding the Coronavirus Outbreak are most common of Participants?
- What are the Characteristics about the Coronavirus Outbreak affecting Psychological Well-Being and Brief Symptom Inventory Scores of Participants?
- What are the Sociodemographic and Disease-Related Characteristics affecting Psychological Well-Being and Brief Symptom Inventory Scores of Participants?

2 | METHODS

2.1 | Design and sample

This cross-sectional questionnaire study was conducted on May 01–31, 2020. The first novel coronavirus case was identified on March 11, 2020 in Turkey. Subsequently, a rapid spreading process started and social measures were identified. Following the announcement of the first case in the country, social isolation was initiated and panic occurred in the society.

As per COVID-19 pandemic measures, the study was conducted using the online data collection tool via social media. Thus, the whole country was the study population and the individuals who are accessible and capable of filling the data collection tools constituted the study sample. The group under the age of 18 was not included in the study. G-Power statistical analysis program was used in the power analysis of the study sample (G*Power 3.1.9.4). In the post-hoc analysis conducted to determine the sample power, it was found that the sample provided "a 99% power in 95% confidence interval with an effect size of 2.5%."

2.2 | Measures

As per COVID-19 pandemic measures, the study was conducted using the online data collection tool via social media. The sociodemographic form, Scale of Psychological Well-Being (SPWB), and Brief Symptom Inventory (BSI) were used to collect the data. The participants were informed that participation was voluntary, and they were free to decide whether they wanted to participate or not. The voluntary consent condition was specified at the beginning of the questionnaire and the participants who agreed to participate started to answer the questions after confirming that they were willing to volunteer electronically.

2.2.1 | Sociodemographic form

It consists of two parts. The form consisted of 18 questions in total; in the first part there were 10 questions about the sociodemographic characteristics of the participants and there were 8 questions about the coronavirus pandemic in the second part.

2.2.2 | SPWB

It is a self-assessment scale developed by Diener et al.[16] intended to measure the level of well-being of an individual and based on the individual giving information about oneself. The scale consists of eight items and one dimension. It is a 7-point Likert-type scale. This scale does not contain any reverse-scored item. The total score for well-being is obtained. The highest score that can be obtained from the scale is 56 while the lowest score is 8. The increase in the total score indicates a high level of well-being. The reliability and validity of the Turkish version were performed by Fidan and Usta,[17] and the Cronbach's alpha reliability coefficient was calculated as 0.83.[16,17] In this study, the Cronbach's alpha was found to be 0.97.

2.2.3 | BSI

It is a 53-point Likert-type scale prepared to identify psychiatric problems in various medical cases. It consists of nine subscales, three global indexes, and additional points (APs). The more the value of the total scores obtained from the scale, the worse the individual's psychological symptoms. The nine subscales of the scale were determined to be Phobic Anxiety (PA), Psychoticism (P), Anxiety (A), Obsessive Compulsive Disorder (OCD), Somatization (S), Interpersonal Sensitivity (IS), Depression (D), Hostility (H), Paranoid Ideation (PI). APs contain complaints about eating and drinking disorders, sleep disorders, death and thoughts on death, and guilt feelings. A score between 0 and 4 is obtained for each point marked by individuals.

Global index scoring is performed as follows: Global Severity Index (GSI): It is obtained by dividing the sum of the subscales by 53: S + OCD + IS + D + A + H + PA + PI + P + AP/53. Positive Symptom Total (PST): It is the total score obtained assuming that all points (all positive values) are 1, except the points marked as 0. Positive Symptom Distress Index (PSDI): It is obtained by dividing the sum of the subscales by sum of the symptoms: S + OCD + IS + D + A + H + PA + PI + P + AP/Symptom

Score. The reliability and validity of the Turkish version of the scale were performed by Şahin & Durak[18] in three different sample groups. In three separate studies, the Cronbach alpha internal consistency coefficients obtained from the total score of the scale ranged between 0.96 and 0.95 while the coefficients obtained for the subscales ranged between 0.55 and 0.86. In this study, Cronbach's alpha coefficients were calculated as 0.97 for the total score, and ranged from 0.63 to 0.88 for the subscales.

2.3 | Data analysis

Data were evaluated in the IBM Statistical Package for the Social Sciences software and analyzed using descriptive statistics, Mann–Whitney *U* test, and Kruskal–Wallis variance analysis. Normal distribution was evaluated with the Kolmogorov–Smirnov test and nonparametric tests were used in the analysis of the numerical variables that did not show normal distribution. The cases where the type 1 error level was below 5% were evaluated as statistical significance.

3 | RESULTS

In total, 69.1% of the individuals who participated in the study were female, 48.2% were married and the average age was 31.80 ± 10.68. A total of 58.3% of the participants were identified to be undergraduate, and incomes of 53.6% were equal to their expenses. Also, 20.8% of the participants stated that he/she was a healthcare professional while 27.9% stated that there was one healthcare professional in their family. It was found out that more than half of the participants perceived their health as good (52.1%), and 14.8% had at least one chronic disease and 6.4% had at least one mental illness (Table 1).

Regarding the coronavirus outbreak, it was found that 84.9% of the participants are afraid/anxious while 65.3% follow the information provided by the Ministry of Health and other government agencies. Almost all of the participants (98.8%) stated that they considered and followed the warnings to be protected from the coronavirus while 35.3% stated that they did not work and 29.0% had a break from work. It was found that 3.6% of the individuals who participated in the study and their relatives were tested for coronavirus, and the tests were performed mostly for the first-degree (36.4%), second-degree (31.8%) and third-degree (18.2%) relatives and themselves (13.6%), respectively. The results of 31.6% of the coronavirus tests performed were found to be positive. In total, 60.9% of the participants stated that staying at home due to coronavirus outbreak negatively affected their mental health, 19.2% stated that domestic violence acts increased, and 20.7% stated that they needed psychological support (Table 2).

The average SPWB score of the individuals who participated in the study was determined as 38.06 ± 14.61 while the average BSI score was 47.98 ± 40.57. When the subdimensions of BSI are examined, the mean scores range between 3.66 ± 3.49 and 6.39 ± 5.40. Among the three global index average scores of BSI, GSI was found to be 0.90 ± 0.76, PST was 25.71 ± 15.73, and PSDI was 1.63 ± 0.72 (Table 3).

It was found that the individuals who fear/worry about coronavirus becoming a pandemic had higher average scores for BSI total, OCD, IS, D, A, H, and PA ($p < 0.05$). It was observed those who received information about the pandemic from official institutions such as the Ministry of Health had higher SPWB total average scores while those who received information from their friends had higher BSI total and all subdimension average scores ($p < 0.05$). The BSI

TABLE 1 Some sociodemographic and disease-related characteristics of participants ($N = 614$)

Characteristics	*n*	%
Age	(Min: 18; max: 63)	31.80 ± 10.68
Gender		
Female	424	69.1
Male	190	30.9
Marital status		
Married	296	48.2
Single	318	51.8
Educational status		
Literate	20	3.3
Primary education	31	5.0
High school	162	26.4
Undergraduate	358	58.3
Post-graduate	43	7.0
Income status		
Revenue is less than expenses	151	24.6
Revenue is equal to expenses	329	53.6
Revenue is more than expenses	134	21.8
Being a healthcare professional		
Yes	128	20.8
No	486	79.2
Having a family member who is a healthcare professional		
Yes	171	27.9
No	443	72.1
Health perception		
Poor	21	3.4
Moderate	273	44.5
Good	320	52.1
Having a chronic illness		
Yes	91	14.8
No	523	85.2
Having a mental illness		
Yes	39	6.4
No	575	93.6

TABLE 2 Some characteristics of participants regarding the coronavirus outbreak ($N = 614$)

Characteristics	*n*	%
Fear/anxiety about coronavirus becoming a pandemic		
Yes	521	84.9
No	93	15.1
Information source for the outbreak		
Social media	164	26.7
Friends	16	2.6
Healthcare professionals	19	3.1
Scientific journals and papers	14	2.3
The Ministry of Health and other government agencies	401	65.3
Considering and implementing the warnings for protection		
Yes	605	98.8
No	9	1.5
Continuation of working/business life		
Not working	217	35.3
Continues working	125	20.4
Started working from home	94	15.3
Had a break from work, does not continue	178	29.0
Being tested for coronavirus of oneself or relatives		
Yes	22	3.6
No	592	96.4
The person who was tested for coronavirus[a]		
Oneself	3	13.6
First-degree relatives (mother, father, and child)	8	36.4
Second-degree relatives (grandfather, grandmother, grandchild, sibling)	7	31.8
Third-degree relatives (maternal uncle, uncle, maternal aunt, aunt, niece/nephew)	4	18.2
Having positive coronavirus test result[a]		
Yes	7	31.8
No	15	68.2
Effect of staying at home due to outbreak on mental health		
Positive	52	8.5
Negative	374	60.9
No effect	188	30.6
Increase in domestic violence acts with the outbreak		
Yes	118	19.2
No	496	80.8
Needing psychological support due to outbreak		
Yes	127	20.7
No	487	79.3

[a]$n = 22$.

TABLE 3 Scale of Psychological Well-Being and Brief Symptom Inventory average scores of participants ($N = 614$)

Scales and subscales	Possible min–max	Actual min–max	Mean ± *SD*
Scale of Psychological Well-Being	8–56	8–56	38.06 ± 14.61
Brief Symptom Inventory	0–212	0–200	47.98 ± 40.57
Somatization	0–28	0–28	4.63 ± 5.44
Obsessive Compulsive Disorder	0–24	0–23	6.39 ± 5.40
Interpersonal Sensitivity	0–16	0–16	3.98 ± 3.72
Depression	0–24	0–23	5.82 ± 5.43
Anxiety	0–24	0–24	5.15 ± 5.10
Hostility	0–20	0–20	4.24 ± 4.37
Phobic Anxiety	0–20	0–19	4.88 ± 4.53
Paranoid Ideation	0–20	0–19	5.51 ± 4.66
Psychoticism	0–20	0–19	3.68 ± 3.90
Additional points	0–16	0–16	3.66 ± 3.49
Global Severity Index	0–4	0–3.77	0.90 ± 0.76
Positive Symptom Total	0–53	0–43	25.71 ± 15.73
Positive Symptom Distress Index	0–4	0–3.62	1.63 ± 0.72

total, IS, H, PA, and P average scores of those who considered and followed the protection warnings were found to be higher ($p < 0.05$). The SPWB total average scores of the individuals who started to work from home due to the outbreak were found to be higher while the BSI total, S, OCD, IS, A, H, and PA average scores were lower ($p < 0.05$). It was determined that individuals who were or whose relatives were tested for coronavirus had lower SPWB total average scores while BSI total and all subdimension average scores were higher ($p < 0.05$). It was observed that the SPWB total average scores of the individuals whose test results were positive were lower while their D and PA were higher ($p < 0.05$). It was observed those who stated that domestic violence cases increased with the coronavirus outbreak and those stated that they needed psychological support had lower SPWB total average scores while their BSI total and all subdimension average scores were higher ($p < 0.05$; Table 4).

Given the scale scores of the participants by certain characteristics, the total SPWB scores of the individuals aged 31 and below, those who had higher income, those who perceived their health as good, and those who had no chronic disease were higher ($p < 0.05$). It was determined that the individuals aged 31 and below, women, those who are single, the individuals whose educational status was literate, those who had lower income, those who perceived their health as poor, those who had at least one chronic disease, and those who had mental illness had higher BSI total scores and their GSI, PST, and PSDI values, which were the averages of the three global indexes of the inventory, were higher ($p < 0.05$). The BSI total, GSI, and PST average scores of those who work as healthcare professionals were found to be higher ($p < 0.05$). It was seen that having a family member who works as a healthcare professional did not have any significant effect on any variable ($p > 0.05$; Table 5).

TABLE 4 Comparison of Scale of Psychological Well-Being and Brief Symptom Inventory Scores of participants by some characteristics about the coronavirus outbreak ($N = 614$)

	Mean ± *SD*										
	SPWB	BSI	S	OCD	IS	D	A	H	PA	PI	P
Fear/anxiety about coronavirus becoming a pandemic											
Yes	37.88 ± 14.40	49.15 ± 39.44	4.70 ± 5.33	6.60 ± 5.36	4.09 ± 3.65	5.93 ± 5.31	5.28 ± 4.92	4.31 ± 4.27	5.16 ± 4.48	5.53 ± 4.51	3.73 ± 3.87
No	39.03 ± 15.81	41.40 ± 46.06	4.25 ± 6.02	5.19 ± 5.48	3.35 ± 4.05	5.18 ± 6.09	4.46 ± 6.00	3.81 ± 4.91	3.30 ± 4.50	5.41 ± 5.43	3.40 ± 4.11
z	−1.637	−2.906	−1.245	−2.884	−2.649	−2.300	−3.141	−2.261	−4.684	−1.178	−1.397
p	0.102	0.004**	0.213	0.004**	0.008**	0.021*	0.002**	0.024*	0.000***	0.239	0.162
Information source for the outbreak											
Social media	36.13 ± 15.29	47.95 ± 39.81	4.56 ± 5.25	6.46 ± 5.20	3.93 ± 3.64	6.07 ± 5.46	4.82 ± 5.19	4.47 ± 4.62	4.42 ± 4.28	5.88 ± 4.64	3.60 ± 3.82
Friends	25.93 ± 9.32	96.31 ± 41.42	11.31 ± 7.70	12.25 ± 4.38	7.25 ± 4.15	13.43 ± 5.35	10.1 ± 5.74	7.93 ± 5.20	8.75 ± 4.05	10.12 ± 4.14	8.31 ± 3.47
Healthcare professionals	38.73 ± 6.85	49.26 ± 35.55	4.15 ± 4.75	7.78 ± 4.55	3.68 ± 3.03	5.42 ± 4.69	5.57 ± 3.71	3.94 ± 3.89	5.00 ± 3.69	5.21 ± 4.03	4.78 ± 4.13
Scientific journals and papers	38.57 ± 15.19	4.00 ± 37.95	5.35 ± 5.40	5.64 ± 5.24	2.71 ± 2.55	5.71 ± 5.28	3.57 ± 3.39	2.64 ± 4.21	3.14 ± 4.45	4.00 ± 3.76	4.00 ± 4.83
The Ministry of Health	39.28 ± 14.61	46.28 ± 40.12	4.39 ± 5.29	6.08 ± 5.44	3.92 ± 3.74	5.44 ± 5.26	5.12 ± 5.06	4.06 ± 4.20	4.97 ± 4.61	5.25 ± 4.65	3.47 ± 3.90
χ^2	21.448	20.884	14.116	23.531	11.209	24.617	15.732	12.929	17.525	20.164	25.068
p	0.000***	0.000***	0.007**	0.000***	0.024*	0.000***	0.003**	0.012*	0.002**	0.000***	0.000***
Considering and implementing the warnings for protection											
Yes	37.95 ± 14.65	48.35 ± 40.62	4.67 ± 5.44	6.42 ± 5.42	4.01 ± 3.72	5.86 ± 5.45	5.19 ± 5.11	4.28 ± 4.38	4.92 ± 4.53	5.56 ± 4.67	3.72 ± 3.91
No	45.33 ± 9.61	22.88 ± 29.23	2.33 ± 4.76	4.22 ± 2.99	1.66 ± 2.23	3.33 ± 3.96	2.66 ± 3.80	1.55 ± 2.55	1.77 ± 3.19	2.66 ± 2.54	1.33 ± 2.64
z	−1.443	−2.252	−1.430	−1.037	−2.085	−1.431	−1.812	−2.190	−2.452	−1.896	−2.379
p	0.149	0.024*	0.153	0.300	0.037*	0.153	0.070	0.029*	0.014*	0.058	0.017*
Continuation of working/business life											
Not working	35.38 ± 15.23	52.59 ± 40.41	5.25 ± 5.68	6.65 ± 5.17	4.59 ± 3.95	6.05 ± 4.83	5.60 ± 5.49	4.68 ± 4.44	5.56 ± 4.75	6.11 ± 4.80	4.00 ± 3.91
Continues working	36.69 ± 15.20	47.59 ± 42.60	4.99 ± 6.34	6.63 ± 5.11	3.69 ± 3.81	5.88 ± 5.78	5.06 ± 5.26	4.01 ± 4.49	4.57 ± 4.47	5.35 ± 4.68	3.82 ± 4.16
Started working from home	43.21 ± 12.47	35.71 ± 31.36	2.70 ± 4.07	4.64 ± 4.26	3.09 ± 2.75	4.56 ± 4.68	3.70 ± 3.93	2.97 ± 3.63	4.31 ± 4.43	4.46 ± 3.87	2.64 ± 2.83
Had a break from work	39.56 ± 13.64	49.11 ± 42.57	4.65 ± 4.85	6.81 ± 6.22	3.90 ± 3.70	6.17 ± 6.15	5.44 ± 4.95	4.52 ± 4.45	4.56 ± 4.26	5.46 ± 4.77	3.75 ± 4.13
χ^2	21.627	12.549	21.221	11.232	9.398	6.516	10.789	13.966	8.483	7.636	6.635
p	0.000***	0.006**	0.000***	0.011*	0.024*	0.089	0.013*	0.003**	0.037*	0.054	0.084
Being tested for coronavirus of oneself or relatives											
Yes	34.04 ± 11.11	104.72 ± 51.49	13.22 ± 6.89	12.63 ± 5.79	7.00 ± 5.07	13.40 ± 5.59	11.81 ± 7.21	9.68 ± 6.57	9.68 ± 5.46	1.09 ± 4.81	9.86 ± 5.57
No	38.20 ± 14.71	45.87 ± 38.58	4.31 ± 5.11	6.15 ± 5.25	3.86 ± 3.61	5.54 ± 5.22	4.90 ± 4.84	4.03 ± 4.14	4.70 ± 4.39	5.34 ± 4.57	3.45 ± 3.64
z	−2.124	−5.222	−5.652	−4.830	−2.834	−5.485	−4.677	−3.983	−4.147	−4.334	−5.518
p	0.034*	0.000***	0.000***	0.000***	0.005***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
The person who was tested for coronavirus[¥]											
Oneself	38.00 ± 10.39	94.66 ± 23.09	13.00 ± 5.19	10.33 ± 4.61	6.66 ± 4.04	1.00 ± 3.46	13.66 ± 2.30	9.00 ± 3.46	7.66 ± 1.15	10.66 ± 2.30	6.66 ± 1.15
First-degree relatives	35.37 ± 13.40	116.37 ± 49.03	12.12 ± 6.17	17.87 ± 6.12	7.75 ± 5.17	17.25 ± 2.12	12.25 ± 8.58	11.00 ± 7.44	9.00 ± 6.41	12.50 ± 2.07	12.00 ± 4.65

(Continues)

TABLE 4 (Continued)

	Mean ± *SD*										
	SPWB	**BSI**	**S**	**OCD**	**IS**	**D**	**A**	**H**	**PA**	**PI**	**P**
Second-degree relatives	28.85 ± 7.62	125.57 ± 55.34	17.00 ± 7.97	13.42 ± 4.68	9.00 ± 5.53	14.57 ± 4.82	13.57 ± 7.43	12.71 ± 5.29	5.31 ± 2.01	11.00 ± 5.65	12.57 ± 5.62
Third-degree relatives	37.50 ± 12.55	52.50 ± 36.78	9.00 ± 6.16	8.50 ± 6.80	2.25 ± 2.06	6.25 ± 5.61	6.50 ± 5.44	2.25 ± 2.06	7.75 ± 5.25	3.25 ± 2.21	3.25 ± 2.21
χ^2	3.489	4.887	3.115	3.195	4.605	12.832	3.389	6.523	2.942	10.928	11.596
p	0.322	0.180	0.374	0.362	0.203	0.005**	0.335	0.089	0.401	0.012*	0.009**
Having positive coronavirus test result[¥]											
Yes	42.28 ± 8.17	81.14 ± 44.09	10.28 ± 5.55	10.71 ± 5.76	6.42 ± 4.46	9.00 ± 6.02	8.28 ± 5.55	8.57 ± 4.64	6.42 ± 3.20	8.85 ± 5.61	7.28 ± 5.18
No	30.20 ± 10.33	115.73 ± 52.30	14.60 ± 7.18	13.53 ± 5.78	7.26 ± 5.45	15.46 ± 4.13	13.46 ± 7.46	10.20 ± 7.39	11.20 ± 5.70	10.66 ± 4.49	11.06 ± 5.49
z	−2.369	−1.308	−1.563	−0.817	−0.358	−2.306	−1.417	−0.744	−2.341	−0.391	−1.494
p	0.018*	0.191	0.118	0.414	0.721	0.021*	0.156	0.457	0.019*	0.696	0.135
Effect of staying at home due to outbreak on mental health											
Positive	37.36 ± 15.89	41.48 ± 39.33	3.50 ± 4.56	6.21 ± 6.00	3.48 ± 3.80	5.32 ± 6.25	3.75 ± 4.64	3.38 ± 3.96	3.57 ± 3.96	6.17 ± 5.76	3.38 ± 3.13
Negative	37.62 ± 14.27	56.59 ± 40.67	5.44 ± 5.45	7.36 ± 5.43	4.69 ± 3.78	6.99 ± 5.22	6.22 ± 5.21	5.11 ± 4.66	5.87 ± 4.59	6.24 ± 4.56	4.31 ± 4.09
No effect	39.11 ± 14.93	32.65 ± 35.74	3.34 ± 5.35	4.51 ± 4.63	2.69 ± 3.18	3.63 ± 4.92	3.42 ± 4.41	2.73 ± 3.33	3.27 ± 3.99	3.88 ± 4.11	2.52 ± 3.44
χ^2	4.227	61.897	33.243	41.403	46.954	74.774	60.636	44.084	58.767	39.916	36.134
p	0.121	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
Increase in domestic violence acts with the outbreak											
Yes	35.11 ± 13.85	78.81 ± 44.92	8.72 ± 6.44	9.67 ± 5.58	6.11 ± 3.64	9.33 ± 5.80	8.72 ± 5.66	7.87 ± 4.76	7.28 ± 4.95	8.36 ± 4.42	6.73 ± 4.79
No	38.76 ± 14.71	40.65 ± 35.79	3.66 ± 4.67	5.60 ± 5.06	3.47 ± 3.55	4.98 ± 5.00	4.30 ± 4.58	3.37 ± 3.80	4.31 ± 4.23	4.84 ± 4.46	2.96 ± 3.27
z	−3.172	−8.658	−8.475	−7.323	−7.487	−7.725	−8.416	−9.789	−6.361	−7.734	−8.407
p	0.002**	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
Needing psychological support due to outbreak											
Yes	35.11 ± 14.65	81.95 ± 44.80	8.71 ± 6.35	10.27 ± 6.10	6.60 ± 4.04	9.80 ± 5.72	9.75 ± 5.67	7.20 ± 4.87	8.35 ± 5.40	8.36 ± 4.63	6.34 ± 4.94
No	38.82 ± 14.52	39.12 ± 34.29	3.57 ± 4.62	5.37 ± 4.71	3.29 ± 3.31	4.78 ± 4.85	3.95 ± 4.19	3.46 ± 3.88	3.97 ± 3.78	4.77 ± 4.38	2.99 ± 3.25
z	−2.895	−9.874	−9.065	−8.260	−8.464	−8.943	−10.987	−8.548	−8.427	−7.927	−7.437
p	0.004**	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***

Note: [¥]*n* = 22; *z*, Mann–Whitney *U* test; χ^2, Kruskal–Wallis *H* test.

Abbreviations: A, Anxiety; BSI, Brief Symptom Inventory; D, Depression; H, Hostility; IS, Interpersonal Sensitivity; OCD, Obsessive Compulsive Disorder; P, Psychoticism; PA, Phobic Anxiety; PI, Paranoid Ideation; S, Somatization; SPWB, Scale of Psychological Well-Being.

*$p < 0.05$.

**$p < 0.01$.

***$p < 0.001$.

TABLE 5 Comparison of Scale of Psychological Well-Being and Brief Symptom Inventory Scores of participants by some sociodemographic and disease-related characteristics ($N = 614$)

	Mean ± *SD*				
Characteristics	**SPWB**	**BSI**	**GSI**	**PST**	**PSDI**
Age					
31 and below	40.67 ± 12.37	55.40 ± 41.50	1.04 ± 0.78	28.33 ± 14.97	1.76 ± 0.69
32 and above	34.77 ± 16.46	38.65 ± 37.41	0.72 ± 0.70	22.41 ± 16.06	1.48 ± 0.73
z	−3.468	−5.745	−5.745	−4.790	−5.142
p	0.001**	0.000***	0.000***	0.000***	0.000***
Gender					
Female	38.20 ± 14.09	52.20 ± 41.52	0.98 ± 0.78	27.55 ± 15.07	1.71 ± 0.67
Male	37.73 ± 15.74	38.55 ± 36.76	0.72 ± 0.69	21.06 ± 16.42	1.47 ± 0.79
z	−0.611	−4.243	−4.243	−4.385	−3.068
p	0.541	0.000***	0.000***	0.000***	0.002**
Marital status					
Married	36.40 ± 16.05	39.69 ± 37.04	0.74 ± 0.69	23.16 ± 15.68	1.50 ± 0.71
Single	39.60 ± 12.96	55.69 ± 42.22	1.05 ± 0.79	28.08 ± 15.43	1.75 ± 0.71
z	−1.238	−5.274	−5.274	−3.975	−5.342
p	0.216	0.000***	0.000***	0.000***	0.000***
Educational status					
Literate	30.70 ± 17.31	92.15 ± 55.43	1.73 ± 1.04	36.50 ± 16.58	2.30 ± 0.80
Primary education	31.58 ± 15.40	52.67 ± 45.32	0.99 ± 0.85	26.93 ± 17.05	1.70 ± 0.67
High school	38.29 ± 14.50	54.39 ± 41.33	1.02 ± 0.77	27.78 ± 15.31	1.80 ± 0.69
Undergraduate	38.72 ± 14.28	42.31 ± 37.93	0.79 ± 0.71	23.93 ± 15.59	1.51 ± 0.72
Post-graduate	39.76 ± 14.42	47.16 ± 31.82	0.88 ± 0.60	26.83 ± 14.56	1.65 ± 0.54
χ^2	7.952	25.586	25.586	17.310	33.345
p	0.093	0.000***	0.000***	0.002**	0.000***
Income status					
Revenue is less than expenses	35.01 ± 14.58	62.43 ± 42.52	1.17 ± 0.80	30.43 ± 14.41	1.87 ± 0.77
Revenue is equal to expenses	37.85 ± 14.73	46.13 ± 39.34	0.87 ± 0.74	25.70 ± 15.68	1.59 ± 0.65
Revenue is more than expenses	42.00 ± 13.52	36.23 ± 36.69	0.68 ± 0.69	20.41 ± 15.57	1.46 ± 0.78
χ^2	22.251	38.411	38.411	28.877	21.745
p	0.000***	0.000***	0.000***	0.000***	0.000***
Being a healthcare professional					
Yes	39.00 ± 12.64	56.25 ± 45.06	1.06 ± 0.85	28.67 ± 15.17	1.75 ± 0.74
No	37.81 ± 15.09	45.80 ± 39.06	0.86 ± 0.73	24.93 ± 15.79	1.60 ± 0.71
z	−0.563	−2.603	−2.603	−2.452	−1.868
p	0.574	0.009**	0.009**	0.014*	0.062
Having a family member who is a healthcare professional					
Yes	38.21 ± 15.17	51.09 ± 42.43	0.96 ± 080	26.50 ± 16.12	1.72 ± 0.74
No	38.00 ± 14.41	46.78 ± 39.81	0.88 ± 0.75	25.40 ± 15.58	1.60 ± 0.71
z	−0.564	−1.065	−1.065	−0.832	−1.370
p	0.573	0.287	0.287	0.405	0.171
Health perception					
Poor	22.85 ± 15.88	103.04 ± 51.11	1.94 ± 0.96	42.04 ± 16.05	2.38 ± 0.92
Moderate	36.16 ± 13.61	62.05 ± 4.05	1.17 ± 0.75	31.31 ± 14.21	1.82 ± 0.68
Good	40.67 ± 14.53	32.37 ± 31.91	0.61 ± 0.60	19.71 ± 14.43	1.42 ± 0.66
χ^2	42.262	120.391	120.391	100.211	66.919
p	0.000	0.000***	0.000***	0.000***	0.000***

(Continues)

TABLE 5 (Continued)

Characteristics	Mean ± *SD*				
	SPWB	BSI	GSI	PST	PSDI
Having a chronic illness					
Yes	33.27 ± 16.77	60.58 ± 44.51	1.14 ± 0.83	29.48 ± 17.38	1.91 ± 0.75
No	38.89 ± 14.05	45.79 ± 39.48	0.86 ± 0.74	25.05 ± 15.35	1.58 ± 0.71
z	−2.204	−3.048	−3.048	−2.466	−4.095
p	0.027	0.002**	0.002**	0.014*	0.000***
Having a mental illness					
Yes	35.12 ± 15.01	94.51 ± 49.98	1.78 ± 0.94	40.38 ± 12.47	2.23 ± 0.82
No	38.25 ± 14.57	44.82 ± 37.89	0.84 ± 0.71	24.71 ± 15.44	1.59 ± 0.70
z	−1.139	−6.112	−6.112	−5.993	−4.611
p	0.255	0.000***	0.000***	0.000***	0.000***

Note: *z*, Mann–Whitney *U* test; χ^2, Kruskal–Wallis *H* test.

Abbreviations: BSI, Brief Symptom Inventory; GSI, Global Severity Index; PSDI, Positive Symptom Distress Index; PST, Positive Symptom Total; SPWB, Scale of Psychological Well-Being.

*$p < 0.05$.

**$p < 0.01$.

***$p < 0.001$.

4 | DISCUSSION

In this study, the effect of the coronavirus outbreak on the mental well-being and mental health of individuals was examined. It was revealed that home quarantine due to coronavirus outbreak negatively affected mental health, that domestic violence acts increased during this period and psychological support was needed. WHO stated that domestic violence cases in many countries have increased due to the COVID-19 pandemic and some countries have increased the number of shelters to support domestic violence victims.[12] Although there are many factors playing a role in the occurrence of domestic violence, closure of so many workplaces due to pandemic, becoming unemployed and the poverty it brings, being unable to meet the basic needs, the unconscious feeling of not being free, and several reasons may have triggered the domestic violence. However, the information provided by government agencies should be relied on, and social isolation should be limited communicating remotely with the family members and friends to reduce the risk of developing mental disorders. Maintaining the biological rhythm is very crucial during this period. Adequate and regular sleep and nutrition should be provided. One should know that this pandemic is a transient period and that this isolation is needed as we are not only saving our health, but also protecting all others.[9]

In the study, the well-being of the participants was found to be moderate but higher in studies conducted with healthy individuals.[19,20] The concept of well-being involves social relationships, having supportive and satisfying relationships, showing efforts to make others happy, being respected by others, having a purposeful and meaningful life, engaging in activities that are of interest, having self-esteem, and being optimistic.[16] The participants' BSI score, which measures psychological symptoms, was found to be 47.98 ± 40.57. It was found to range between 17.14 ± 13.07 and 33.67 ± 28.53 in various studies in the literature.[21–23] It is believed that the outbreak exacerbates the anxiety of individuals as staying at home limits socialization thus affecting their well-being negatively as well as worsening psychological symptoms.

The fears/worries about the coronavirus pandemic, obsessive compulsive disorder, interpersonal sensitivity, depression, anxiety, hostility, and phobic anxiety levels were found to be high. It is believed that the fear, anxiety, and concern caused by the coronavirus outbreak are as effective as the outbreak itself; therefore, this will have many psychological and social consequences.[9] This fear and anxiety lead to stock food and hygiene products and even wearing socks on hands at home in fear that the virus will be transmitted. One of the groups exposed to the fear and anxiety of something unknown and invisible is children. The uncertainty about the personal and global effects of COVID-19 is creating great concern, in addition to the specific psychological effect of quarantine.[6] Normalizing their emotional reactions and reassuring children about how the family will look after each other helps to contain anxiety and provides a shared focus.[24]

It was found that the mental well-being of the individuals who received information about the outbreak from government agencies such as the Ministry of Health was high while the somatization, obsessive compulsive disorder, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism levels of those who received the information from their friends were higher. Exposure to continuous and variable information on the etiology, pathology, progress of the pandemic, virus gene mutation, protection measures, and so many other matters causes fear and anxiety in the society. However, Internet network spreads a huge amount of uncontrolled news. This information overload has been

defined "infodemic," with the risk of fake news running faster than the virus itself, and creating uncertainties and worries.[9] This should be regulated through publishing daily international and national reports and informing the society by WHO and the Ministry of Health of the relevant countries. Older patients, which are one of the major risk groups of COVID-19, tend to experience panic and anxiety due to insufficient knowledge of the disease and lack of access to information. Explaining COVID-19 information in a simple and understandable way and providing continuous information support is extremely important for the psychological well-being of the elders during this period.[13] It was determined that the mental well-being scores of those who started to work from home were higher while somatization, obsessive compulsive disorder, interpersonal sensitivity, anxiety, hostility, and phobic anxiety scores were lower. The healthiest way in COVID-19 pandemic is to work from home, if possible. The lower psychological symptoms scores of the participants in the study show that working from home relieves the coronavirus risk perception of individuals making them feel better.

It was found that the well-being scores of individuals who were or whose relatives were tested for coronavirus and whose test results were positive were lower while somatization, obsessive compulsive disorder, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism scores were higher. The persons who are tested for coronavirus are those who have signs or suspicions of illness. Regardless of the result, having a test can cause panic in both the person and the persons who are in contact with this person. This is parallel with the lower mental well-being scores of these persons as a result of the study. However, the fear of spreading the virus also triggers several psychological symptoms.

It was determined that the somatization, obsessive compulsive disorder, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism scores of the individuals who stated that staying at home due to the outbreak negatively affected their mental health were higher. It was found that the well-being scores of individuals who stated that domestic violence cases increased with the coronavirus outbreak and those stated that they needed psychological support were lower while somatization, obsessive compulsive disorder, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism scores were higher. Reports from China, the United Kingdom, the United States, and many other countries show that domestic violence has increased with the COVID-19 pandemic.[25,26] Domestic violence increases during the pandemic as social and protective networks have disrupted, and quarantine measures encourage people to stay home.[12] Potential economic and job losses and increasing burden of care on women with the closure of the schools trigger the violence. Being unable to meet basic needs since the source of living of women who work informally/as wageworker have been disrupted can increase the potential of violence and economic abuse of women.[27] Furthermore, staying at home measures can increase sexual violence against women, which is characterized by the woman's forced sex, and as a result, undesired pregnancies.

In the study, the individuals aged 31 and below, those with high-income level, those who perceive their health good and have no chronic disease were found to have higher mental well-being levels. As no one is immune to the novel coronavirus, there is a risk of virus transmission for everyone. Individuals over the age of 60, those with lung and heart diseases, diabetic patients, cancer patients, those undergoing immunosuppressive therapy, and those with immune deficiency are referred to as serious risk groups.[28] As the information about the risk group has been shared in the international reports, media, and in the information provided by the health institutions of the countries, those included in the young-adult age group and those who do not have any chronic disease feel better. The results obtained in this study support this data.

It was determined that women, those who are single, the individuals whose educational status was literate, those who had lower income, those who perceived their health as poor, those who had at least one chronic disease, and those who had mental illness had higher BSI total scores and their GSI, PST, and PSDI values, which were the averages of the three global indexes of the inventory, were higher. Poor health perception and having at least one chronic disease can trigger psychological symptoms due to the fear of being infected with coronavirus. Those with low income may exhibit psychological symptoms due to economic concerns and fear of being unable to meet the basic needs. Many pandemic-related factors such as economic losses, care of children and elders, social support systems shortage, and isolation measures may have negatively affected the mental health of women and triggered psychological symptoms supporting the results of the current study.

Healthcare professionals were found to have higher BSI total, GSI, and PST scores. Healthcare professionals working with infected patients in emergency services, intensive care units, and resuscitation departments are the high-risk group. The ethical dilemma between intervening in patients with severe condition and new cases, moral injury, and ethical decision-making poses a psychological risk for healthcare professionals in post-pandemic period. Many healthcare professionals may face with the risk of experiencing serious psychological problems and not being able to continue their professions due to post-traumatic stress disorder in the post-pandemic period and a shortage of healthcare professionals may be experienced worldwide.[29]

4.1 | Limitations

A long-period design model shall reinforce the validity of the variables. Some findings in this study are based on participants' self-reports. The use of WhatsApp barriers were significant limitations to a survey study in this population. Future research with this population should consider data collection methods that allow for the participation of individuals with lower reading skills.

4.2 | Implications for nursing practice

The coronavirus outbreak causes fear and anxiety in society and this triggers so many psychological symptoms. Receiving up-to-date information about pandemic from government agencies and working from home enhance the state of well-being and relieve psychological symptoms. The measure of staying at home due to pandemic affects mental health negatively and exacerbates domestic violence. Women, those with low income, those with poor health perception, who have at least one chronic disease, and healthcare professionals experience many psychological symptoms. However, some of the measures for society to reduce the risk of developing mental health problems include:

- Official information sources should be relied on rather than unofficial channels and uncontrolled sources.
- Friends, family members, and friends should be contacted more frequently even remotely.
- Psychiatric help or consultation, if the effects of stress are becoming too invasive, is always possible.
- It is extremely important that governments and policymakers to address domestic violence in the preparedness and response plans for COVID-19 as well as to provide sources.

CONFLICT OF INTERESTS

The authors declare that there are no conflict of interests.

ETHICS STATEMENT

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the Declaration of Helsinki principles (revised in Brazil in 2013) and its later amendments or comparable ethical standards. The participants gave informed consent before the study. The Minister of Health gave permission for research (2020-05-05T17_15_50). Ethics committee approval was received for this study from the Akdeniz University Medical Faculty Clinical Research Ethics Committee.

AUTHOR CONTRIBUTIONS

Concept, *Design*, *Resources*, *Materials*, *Analysis and/or interpretation*, *Literature search*, *and Critical review*: Adem Sümen and Derya Adıbelli. *Supervision*: Derya Adıbelli. *Data collection and/or processing*: Adem Sümen. *Writing manuscript*: Adem Sümen.

ORCID

Adem Sümen http://orcid.org/0000-0002-8876-400X
Derya Adibelli https://orcid.org/0000-0001-9320-7083

REFERENCES

1. Huang C, Wang Y, Li X, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *The Lancet*. 2020;395(10223):497-506. https://doi.org/10.1016/S0140-6736(20)30183-5
2. Zhao D, Yao F, Wang L, et al. A comparative study on the clinical features of COVID-19 pneumonia to other pneumonias. *Clin Infect Dis*. 2020;71:756-761. https://doi.org/10.1093/cid/ciaa247
3. Zhu N, Zhang D, Wang W, et al. A novel coronavirus from patients with pneumonia in China, 2019. *N Engl J Med*. 2020;382:727-733. https://doi.org/10.1056/NEJMoa2001017
4. World Health Organization. Coronavirus disease 2019 (COVID-19), Situation Report–74; 2020. https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200403-sitrep-74-covid-19-mp.pdf?sfvrsn=4e043d03_10. Accessed April 3, 2020.
5. Shigemura J, Ursano RJ, Morganstein JC, Kurosawa M, Benedek DM. Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: mental health consequences and target populations. *Psychiatry Clin Neurosci*. 2020;74(4):281-282. https://doi.org/10.1111/pcn.12988
6. Brooks SK, Webster RK, Smith LE, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *The Lancet*. 2020;395(10227):912-920. https://doi.org/10.1016/S0140-6736(20)30460-8
7. Bo HX, Li W, Yang Y, et al. Posttraumatic stress symptoms and attitude toward crisis mental health services among clinically stable patients with COVID-19 in China. *Psychol Med*. 2020:1-2. https://doi.org/10.1017/S0033291720000999
8. Kang L, Li Y, Hu S, et al. The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus. *Lancet Psychiatry*. 2020;7(3):e14. https://doi.org/10.1016/S2215-0366(20)30047-X
9. Fiorillo A, Gorwood P. The consequences of the COVID-19 pandemic on mental health and implications for clinical practice. *Eur Psychiatry*. 2020;63(1):e32. https://doi.org/10.1192/j.eurpsy.2020.35
10. Chaturvedi SK. Covid-19, coronavirus and mental health rehabilitation at times of crisis. *J Psychosoc Rehabil Ment Health*. 2020;7:1-2. https://doi.org/10.1007/s40737-020-00162-z
11. United Nations. Progress of the World's Women 2019-2020: Families in a Changing World; 2019. https://www2.unwomen.org/-/media/field%20office%20arab%20states/attachments/publications/2020/01/family%20report/family%20flagship%20full%20report%20en.pdf?la=en&vs=4339. Accessed June 25, 2019.
12. World Health Organization. Coronavirus disease 2019 (COVID-19), Situation Report–51; 2020. https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200311-sitrep-51-covid-19.pdf. Accessed March 11, 2020.
13. Xia W, Chao S, Hui-xiu H, et al. Expert consensus on the nursing management of critically ill elderly patients with coronavirus disease 2019. *Aging Medicine*. 2020;3:74-81. https://doi.org/10.1002/agm2.12107
14. Dalton L, Rapa E, Ziebland S, et al. Communication with children and adolescents about the diagnosis of a life-threatening condition in their parent. *Lancet*. 2019;393(10176):1164-1176. https://doi.org/10.1016/S0140-6736(18)33202-1
15. Edmunds JK, Kneipp SM, Campbell L. A call to action for public health nurses during the COVID-19 pandemic. *Public Health Nurs*. 2020;37:323-324. https://doi.org/10.1111/phn.12733
16. Diener E, Wirtz D, Tov W, et al. New well-being measures: short scales to assess flourishing and positive and negative feelings. *Soc Indic Res*. 2010;97(2):143-156. https://doi.org/10.1007/s11205-009-9493-y
17. Fidan M, Usta F. The validity and reliability of the Turkish version of the flourishing scale. *J Res Educ Teach*. 2013;2(3):265-269.
18. Sahin NH, Durak A. A study of the Brief Symptom Inventory in Turkish youth. *Turkish J Psychol*. 1994;9(31):44-56.
19. Sado M, Kosugi T, Ninomiya A, et al. Effectiveness and cost effectiveness of Mindfulness-Based Cognitive Therapy for improving subjective well-being among healthy individuals: study protocol for

a randomised controlled trial. *JMIR Res Protoc*. 2020;9:e15892. https://doi.org/10.2196/15892
20. Feicht T, Wittmann M, Jose G, Mock A, Von Hirschhausen E, Esch T. Evaluation of a seven-week web-based happiness training to improve psychological well-being, reduce stress, and enhance mindfulness and flourishing: a randomized controlled occupational health study. *Evid Based Complementary Altern Med*. 2013;2013:1-14. https://doi.org/10.1155/2013/676953
21. Sahin NH, Batigun AD. Testing the probability of a model to predict suicide risk in high school and university students. *Turkish J Psychiatry*. 2009;20(1):28-36.
22. Yasak Y, Batigun AD. The role of psychological self-report scales in selection and evaluation of drivers. *Turkish J Psychol*. 2010;11(3):235-241.
23. Yuksel O, Dag I. The relationship between marital adjustment and psychological symptoms in women: the mediator roles of coping strategies and gender role attitudes. *Turkish J Psychiatry*. 2014;26(3):181.
24. Dalton L, Rapa E, Stein A. Protecting the psychological health of children through effective communication about COVID-19. *Lancet Child Adolesc Health*. 2020;4:346-347. https://doi.org/10.1016/S2352-4642(20)30097-3
25. Godin M. As Cities Around the World Go on Lockdown, Victims of Domestic Violence Look for a Way Out. *Time*. 2020. https://time.com/5803887/coronavirus-domestic-violence-victims/. Accessed March 18, 2020.
26. Women's Aid. The Impact of COVID-19 on Women and Children Experiencing Domestic Abuse, and the Life-Saving Services that Support Them; 2020. https://www.womensaid.org.uk/the-impact-of-covid-19-on-women-and-children-experiencing-domestic-abuse-and-the-life-saving-services-that-support-them/. Accessed March 17, 2020.
27. Gupta J. What does coronavirus mean for violence against women? *Women's Media Centre*; 2020. http://womensmediacenter.com/news-features/what-does-coronavirus-mean-for-violence-against-women. Accessed March 19, 2020.
28. World Health Organization. COVID-19 and Violence Against Women, What The Health Sector/System Can Do; 2020. https://www.who.int/reproductivehealth/publications/emergencies/COVID-19-VAW-full-text.pdf. Accessed March 26, 2020.
29. Panagioti M, Geraghty K, Johnson J, et al. Association between physician burnout and patient safety, professionalism, and patient satisfaction: a systematic review and meta-analysis. *JAMA Intern Med*. 2018;178(10):1317-1331. https://doi.org/10.1001/jamainternmed.2018.3713

How to cite this article: Sümen A, Adibelli D. The effect of coronavirus (COVID-19) outbreak on the mental well-being and mental health of individuals. *Perspect Psychiatr Care*. 2021;57:1041–1051. https://doi.org/10.1111/ppc.12655