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Araştırma Makalesi

The Impact of COVID-19 on the People with Mental Illnesses: Health Anxiety, Coping Strategies, and Psychological Well-Being

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Makale Bilgisi

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Abstract

Although depression, anxiety, and stress were highly prevalent in the general population during the pandemic, some marginalized groups, including patients with mental disorders might have been overlooked in studies. This study examined the relationship between health anxiety, coping strategies, and mental health outcomes, particularly depressive symptoms, anxiety, and stress. The aim of the current study is to examine the mediator role of coping strategies between health anxiety and mental health outcomes in using data from 80 individuals with mental diagnosis. Also, using 168 healthy controls (N = 248 participants), we sought to investigate whether an individuals' mental diagnoses was associated with their scores on health anxiety, coping strategies, and mental health outcomes. Sociodemographic Information and Health Data Form, Health Anxiety Inventory – Short Form [SHAI], Ways of Coping Strategies [WCQ], and Depression, Anxiety, Stress Scale [DASS-42] were given to the participants. Results demonstrated that people with mental illnesses had moderate levels of depression, anxiety, and stress, in contrast to healthy controls. Furthermore, mediator analysis revealed that accepting responsibility significantly mediated the relationship between health anxiety, depression, anxiety, and stress in people with mental illnesses. The findings have suggested that individuals with psychological problems are at risk for adverse mental health outcomes. Furthermore, these findings highlight that therapists should prioritize intervention studies focusing on health anxiety, coping strategies, and mental health outcomes during COVID-19.

Anahtar kelimeler:

COVID-19,
sağlık kaygısı,
baş etme yolları,
ruh sağlığı,
psikiyatrik tanı almış
bireyler

Öz

COVID-19 pandemisinde depresyon, anksiyete ve stresdüzeyinde yüksek oranlar bilinmesine rağmen, yürütülen pek çok çalışmada ruh sağlığı açısından önceliklendirilmesi gereken psikiyatrik tanı almış bireylerin göz ardı edildiği dikkat çekmektedir. Bu çalışma, sağlık kaygısı, baş etme stratejileri ve psikolojik oluş değişkenlerini (depresyon, anksiyete ve stress) psikiyatrik tanı almış bireylerde incelemeyi amaçlamıştır. COVID-19 pandemisi öncesinde psikiyatrik tanı almış 80 birey ile sağlık kaygısı ve psikolojik iyi oluş arasında baş etme yollarının aracı etkisi araştırılmış, sağlıklı kontrol grubunu da içeren toplam 248 birey arasında da araştırma değişkenlerinin ortalama puanları karşılaştırılmıştır. Sosyodemografik Bilgi ve Sağlık Veri Formuna ek olarak, Sağlık Kaygısı Ölçeği-Kısa Form [SHAI-SF], Baş Etme Yolları Ölçeği [WCQ], ve Depresyon, Kaygı, Stres Skalası [DASS-42] katılımcılara sunulmuştur. Sonuçlar, sağlıklı kontrol grubunun depresyon, anksiyete ve stress puanlarının normal düzeyde olduğunu, ancak psikiyatrik tanı almış bireylerin orta düzeyde depresyon, anksiyete ve stres düzeyine sahip olduğunu göstermektedir. Ayrıca, sorumluluğu kabul etme baş etme stratejinin sağlık kaygısı ve depresyon, anksiyete, stres arasında aracılık gösterdiği bulunmuştur. Çalışmanın bulguları, COVID-19 pandemisinde, psikiyatrik tanısı olan bireylerin ruh sağlığı açısından risk altında olduğunu ve sağlık kaygısı, baş etme yolları ile psikolojik iyi oluş düzeylerine yönelik müdahalelerin önceliklendirilmesi gerektiğine işaret etmektedir.

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Introduction

The COVID-19 (*coronavirus* 2 or *SARS*-CoV-2) disease represents not only a risk to physical health but also a potential cause of psychological distress (Helmy et al., 2020) resulting in mental health symptoms. Research conducted on previous pandemics has yielded an increased prevalence of several mental disorders, including depression, anxiety, panic attack, suicidal thoughts, anxiety, and psychotic symptoms (Jeong et al., 2016; Xiang et al., 2020). Therefore, several international organizations (e.g., WHO) have highlighted the need to prevent the negative mental health consequences of COVID-19 and provided recommendations to prioritize research on mental health consequences and their predictors. Most of the researchers have so far focused on the mental health variables during the COVID-19 pandemic in general population (e.g., Guo et al., 2020) and different population groups, such as health workers (e.g., Bizri et al., 2020), the elderly (e.g., Vahia et al., 2020), pregnant women (López-Morales et al., 2021), and individuals with chronic pain (Zambelli et al., 2021). These studies have reported a high prevalence of mental health problems, particularly depression (Qiu et al., 2021; Wang et al., 2020), anxiety (Guo et al., 2020; Xiao et al., 2020), and stress (Liu et al., 2020; Pieh et al., 2020). A systematic review and meta-analysis of the psychological consequences of COVID-19 reported increased prevalence of symptoms of anxiety (28%), stress (27%), and depression (22%) in the general population (Arora et al., 2020).

Besides the general population, some of the disadvantaged groups such as individuals with mental health disorders are especially at greater risk (Radfar et al., 2021) due to increased isolation, lack of support, and decreased access to mental health services (Wasserman et al., 2020). A myriad of studies (e.g., Khan et al., 2021; Nakamura et al., 2021) have highlighted the changes in daily routines, including sleep, exercise, work, and access to treatment that might lead to mental health problems. Although higher depression, anxiety, and acute stress levels have been noted in the community samples (Qui et al., 2021), there is limited research on the psychosocial consequences of the COVID-19 pandemic among marginalized groups (Wright et al., 2020). Preliminary evidence has shown that individuals with mental problems are at risk of recurrence or worsening of their current mental health difficulties (Melamed et al., 2020). Thus, assessing mental health outcomes and investigating related psychosocial factors might help design intervention programs, particularly targeting the long-term effects of the COVID-19 pandemic on patients with psychological disorders.

Health anxiety is defined as excessive preoccupation and concern about one's health status (Abramowitz & Braddock, 2008, p. 16). More specifically, it refers to the overestimation of the likelihood of becoming sick and the exaggeration of the negative consequences of

developing a serious illness (Salkovskis et al., 2002; Wheaton et al., 2010). A large body of literature has focused on health anxiety regarding pandemic illnesses, such as H1N1/09, or swine flu (Wheaton, 2012), Ebola (Blakey et al., 2015), and Zika (Blakey & Abramowitz, 2017), with studies reporting significant anxiety in response to the swine flu outbreak (Rubin et al., 2009). Considering the close relationship between health anxiety and adverse mental health outcomes (Landi et al., 2020), research conducted on previous pandemics has focused on the relationship between health anxiety and psychological symptoms, including but not limited to depression, anxiety, and stress (e.g., Wheaton, 2012). Due to the high infection and mortality rates of COVID-19, it is assumed that the pandemic has resulted in higher levels of health anxiety (Ahorsu et al., 2020; Asmundson & Taylor, 2020; Rossi et al., 2020) and increased risk for depression, anxiety, and stress (Ahorsu et al., 2020; Rossi et al., 2020; Taylor, 2019; Wang et al., 2020). Although findings demonstrated a positive association between health anxiety and negative mental health outcomes (Blakey & Abramowitz, 2017; Wheaton et al., 2012), little is known about the health anxiety of individuals with mental illnesses during the COVID-19 pandemic.

It has been well-established that coping strategies are also closely related to mental health outcomes. Coping is defined by Lazarus and Launier (1978) as the process of managing and directing stressors beyond the individual's resources and spending cognitive and behavioral efforts to reduce psychological distress (Lazarus & Folkman, 1984, p.142). Coping is also known to reduce, terminate, or shorten the effects of the stressor (Harris et al., 2002). Even though some people cope well with psychological distress and return to their former functionality, others suffer from psychological symptoms due to not being able to cope effectively. Research on coping has demonstrated that even though some coping strategies are ineffective and lead to mental health problems, others are effective in reducing the intensity and impact of negative psychological responses (Mahmoud et al., 2012; Main et al., 2011). There is an extensive literature in health psychology on how people cope with specific situations, highlighting the prevalence of different coping methods influenced by intrapersonal, environmental, and disease-related variables (Lipowski, 1970).

People use distinct coping methods in crisis or disaster situations (Sharma & Kar, 2019). COVID-19 pandemic research has reported that coping, seeking social support, seeking alternatives (Stanislawski, 2019), and making positive assessments of the situation (Chew et al., 2020; Stanislawski, 2019) is often used among the general population and these positive coping strategies can reduce the negative effects of the pandemic on people (Xiang et al., 2020). By contrast, dyfcuntional coping strategies might be a risk factor for the development of health-related complications (Ogueji et al., 2021). A myriad of studies has been conducted on the

employment of coping strategies of patients in medical settings, such as cancer survivors (Galica et al., 2021), students (Baloran, 2020), and community samples (Gerhold, 2020; Gurvich et al. 2020) during COVID-19 pandemic. However, we have little information about coping strategies and their relation to mental health outcomes among individuals with mental illnesses.

Maladaptive coping strategies are not only associated with mental health outcomes, but also with health anxiety. Accordingly, existing research has indicated that health anxiety might be a determinant factor in the use of specific coping strategies (Görgen et al., 2013). Hadjistavropoulos et al. (2000) emphasized that health anxiety affects not only coping strategies but also their effectiveness. It is expected that the coping procedures that ought to be effective for individuals with and without health anxiety may differ. Research investigating the association between health anxiety and coping strategies has demonstrated the level of health anxiety to be associated with dysfunctional coping strategies (Görgen et al., 2013). A study conducted by Garbóczy and colleagues (2021) found that there is a positive relationship between health anxiety, perceived stress, and maladaptive coping strategies. Particularly, wishful thinking was associated with higher levels of health anxiety among international students in Hungary during COVID-19. However, coping strategies associated with health anxiety and mental health outcomes in individuals with mental illnesses during the COVID-19 pandemic have not been examined in Turkey, yet.

In Turkey, the first case infected with COVID-19 was reported on March 11, 2020. As of April 20, 2020, the country had the seventh-highest number of reported cases across the world (World Health Organization, 2020), with a total of 120.204 infected patients on April 30 (Turkish Health Ministry, April 30, 2020). Cases overview reports documented more than 15 million total cases and 98.900 deaths in mid-May 2022 (World Health Organization, 2022). With the increased numbers of reported cases and deaths, COVID-19 studies have gained increasing attention from researchers in Turkey, as elsewhere. Studies conducted during COVID-19 in Turkey have focused on various types of topics, including scale adaptation (e.g., Atak & Yalcinkaya-Alkar, 2022; Ay et al., 2022; Karaköse & Akçinar, 2021a), psychological resilience (e.g., Bilge & Bilge, 2020; Kocakaya & Harmancı, 2022), preventive health behaviors (Alper et al., 2021; Karaköse & Akçinar, 2021b), and psychological well-being (e.g., Bekaroğlu & Yılmaz, 2020; Yıldırım & Güler, 2022). A recent review has stated that it is important to investigate how people with mental illnesses are affected by the pandemic as a result of increases in health anxiety and fear of infection. Thus, it is suggested to conduct screening studies for preventing recurrence or increase in the severity of psychological symptoms during the pandemic (Bekaroğlu & Yılmaz (2020). However, to the author's knowledge, there is no

single study in Turkey examining the association between health anxiety, coping strategies, and the current mental health status using people diagnosed with mental illnesses.

Considering the highest number of reported cases in Turkey, and the gaps in the literature, the present study was designed to examine the relationship between health anxiety, coping strategies, and mental health outcomes. This study was conducted to compare the scores of health anxiety, coping strategies, and mental health outcomes between individuals with mental illnesses and healthy controls. In addition, we aimed to investigate the mediator role of coping strategies on the relationship between health anxiety and mental health outcomes in individuals with mental illnesses.

Method

Participants

The sample of this study consisted of 80 people with mental illness and 168 healthy controls (N = 248 participants) from Turkey. The participants were recruited from a part of a larger project conducted to examine the COVID-19 pandemic's effect on mental health outcomes. The inclusion criteria were (1) being aged above 18, (2) being volunteered to participate in the research, and (3) not having been diagnosed with COVID-19 so far. The exclusion criteria were having a chronic illness. Participants were divided into two groups, namely, healthy controls and individuals with mental illnesses. The majority of participants were diagnosed with anxiety (57.5%), followed by depression (33.8%), and the others (6.7%). Participants' characteristics were demonstrated in Table 1.

Measures

Demographics and Health Information Form. Participants were asked about their age, sex, education level, employment status, and income level. Income was assessed by a four-option rating scale: 1= low/low-middle, 2= middle, 3= middle-high, 4= high.

Health-related information included whether participants had ever been diagnosed with chronic illnesses and mental illnesses before. Also, the name of the mental illnesses was asked for the people who had mental illnesses.

The Short Health Anxiety Inventory (SHAI). The health anxiety of participants was measured using the SHAI. The Health Anxiety Inventory (HAI; 64 items) was originally developed with 64 items, and a shorter version of the scale (SHAI; 18 items) was later introduced by Salkovskis and colleagues (2002). SHAI measures health anxiety levels independent of physical health status, and each question is answered by four statements of which participants are requested to select the one which best fits their situation. The scale

consists of two subscales, namely illness likelihood, and negative consequences of illness. High scores demonstrated higher levels of health anxiety for each subscale and the total score. In this study, the Turkish version of SHAI was used (Aydemir et al., 2013) and the Cronbach's alpha of the adapted version was 0.91 and 0.89 in this study.

Table 1.

Participants' characteristics

	Individuals with mental illnesses			Individuals without mental illnesses		
Variable	N	*%*		N	*%*	
Gender						
Women	61	76.3		105	62.5	
Men	19	23.7		63	37.5	
Employment status						
Working	68	85.1		120	71.4	
Non-working	12	14.9		43	28.6	
Education						
High school and below	39	40.7		66	29.8	
University and above	41	51.3		118	70.2	
Marital Status						
Married	63	78.8		105	62.5	
Single	32	20.2		63	37.5	
	Mean	SD	Min.-Max	Mean	SD	Min.-max.
Age	32.7	11.37	19-73	32.10	11.55	18-75
Income	2.32	1.67	1-5	2.25	1.94	1-5

Ways of Coping Questionnaire (WCQ). Ways of coping strategies were measured using the WCQ. Revised many times over the years, with varying item numbers and subscales, the WCQ was originally developed by Folkman and Lazarus (1985) to measure coping styles in both clinical and non-clinical populations. The version consisting of 74 items was adapted into Turkish by Siva (1991), and a short version consisting of 32 items was adapted by Senol-Durak et al. (2011). The short version (WCQ-32) consists of seven factors, namely planful problem-

solving, keeping to oneself, seeking social support, escape/avoidance, accepting responsibility, seeking refuge in fate, and seeking refuge in supernatural forces. Each item was rated on a 5-point Likert-type scale (1 = never, 5 = always), higher scores indicating greater use of coping domains for each factor. The Cronbach's alphas of the original study ranged from 0.67 to 0.84 and 0.60 to 0.87 respectively in this study.

Depression, Anxiety, and Stress Scale (DASS-42). Depressive symptoms, anxiety, and stress levels of participants were measured using the DASS-42. The DASS-42 is a self-report measure developed by Lovibond and Lovibond (1995) to assess current symptoms of depression, anxiety, and stress. The scale assesses the depression, anxiety, and stress levels for the past week, higher scores reflecting more symptoms. Responses are measured through a 4-point- Likert-type format (1=never, 4=always) This study used the Turkish version of the DASS-42 (Bilgel & Bayram, 2010). The coefficient alpha was 0.92 for depression, 0.86 for anxiety, and 0.88 for stress in the Turkish version. In this study, the coefficient alphas were 0.94 for depression, 0.89 for anxiety, and 0.92 for stress.

Procedure

The data were collected as a part of the COVID-19 project. The project was supported by TÜBİTAK (The Scientific and Technological Research Council of Turkey. The ethical approval was obtained from The Scientific Research and Publication Ethics Committee of FMV Isik University. To recruit participants, an announcement was shared on social network sites. Also, snowball sampling was applied. Participants were informed about the inclusion criteria, and at the end of the study, given a 50-Turkish Lira (1 Turkish Lira = .13 USD) grocery gift card. The survey link including personalized ID codes was shared with participants' contact information which was required to enroll in the study participant receives a personalized link that can only be used once. The data were collected between June and October 2020 during COVID-19 restrictions were partially lifted because of a low number of COVID-19 cases and deaths in Turkey.

Data analysis

First, all the scales were examined for missing values and the fit between their distributions and multivariate analysis assumptions. Scores lower or greater than two standard deviations from the mean were considered outliers (Byrne, 2016). In addition to univariate outliers ($N = 7$), 35 participants were excluded for not completing the survey.

The primary analysis was conducted using data consisting of 80 participants with mental illnesses and 168 healthy controls. Mental illnesses diagnosed before COVID-19 was

categorized as follows: *0 = No diagnosed 1 = diagnosed with mental illnesses*. The Statistical Package for Social Science (SPSS-25) released in 2017 (IBM, Armonk, NY, USA) was performed for descriptive statistics, correlational analyses, and independent-sample t-test. To test the mediator role of coping strategies on the relationship between health anxiety and depression, anxiety, and stress among people with mental illnesses, the Mediational Model Analysis (PROCESS, Model 4) was conducted. The analysis was performed through an SPSS macro with 5000 bootstrap re-samples provided by Hayes (2013). Hayes (2013) suggested that even if the effect is not significant, the mediating variable can mediate the indirect effect of the independent variable on the dependent variable.

Results

Preliminary Analyses

The descriptive statistics of the study variables were presented in Table 2. Independent-sample *t*-tests indicated that individuals with mental illnesses and healthy controls differed significantly on their average health anxiety, $t(244) = 5.24$, $p = .000$, accepting responsibility, $t(244) = 2.87$, $p = .004$, seeking in refuge in fate $t(244) = 2.70$, $p = .007$, seeking in supernatural forces, $t(244) = 3.57$, $p = .000$, depression, $t(244) = 3.66$, $p = .000$, anxiety, $t(244) = 6.43$, $p = .000$, and stress $t(202) = 4.22$, $p = .000$, with people diagnosed with mental illnesses reporting greater levels than healthy controls. In addition, results demonstrated that individuals with mental illnesses differed significantly on their average planful-problem solving, $t(244) = -1.89$, $p = .05$, and reported lower levels than healthy controls. In contrast, no significant differences were found between two groups in terms of keeping to self, $t(244) = -1.41$, $p = .15$, seeking in social support $t(244) = 1.19$, $p = .23$, and escape/avoidance $t(244) = -.43$, $p = .66$.

The total depression score was divided into five categories, namely, normal (0 – 9), mild (10 - 13), moderate (14 - 20), severe (21 - 27), and extremely severe (28 +). Similarly, anxiety was categorized as normal (0 – 7), mild (8 - 9), moderate (10 - 14), severe (15 - 19), and extremely severe (20 +). Also, the stress scale was divided into five categories, namely, normal (0 – 14), mild (15 - 18), moderate (19 - 25), severe (26 - 33), and extremely severe (34+). Considering these categories (Lovibond & Lovibond, 1995), individuals with mental illnesses who had scores greater than the cutoff threshold were categorized as having moderate depression ($M = 16.39$, $SD = 10.39$), anxiety ($M = 14.23$, $SD = 8.15$), and stress ($M = 19.85$, $SD = 9.35$) whereas healthy group's scores were within the normal range ($M = 12.13$, $SD = 9.13$ for depression, $M = 7.98$, $SD = 6.47$ for anxiety, and $M = 14.81$, $SD = 8.29$ for stress). Furthermore, considering the norms of health anxiety [control patients (12.2), anxious patients (18.5), and hypochondriac patients (37.9)] (Salkovskis et al., 2002), while individuals with mental

illnesses were characterized as anxious patients (M = 23.51, SD = 10.05), the healthy groups were characterized as normal (M = 17.65, SD = 7.09).

Table 2.

Descriptive statistics of the study variables

	Individuals with mental illnesses		Individual without mental illnesses		t	p
Variable	Mean	*SD*	Mean	*SD*		
Health anxiety	23.51	10.05	17.65	7.09	5.24	0.00
Planful Problem Solving	23.44	4.15	24.47	3.87	-1.89	0.05
Keep to oneself	10.35	3.82	11.11	3.95	-1.41	0.15
Seeking Social Support	13.21	3.45	12.68	3.15	1.19	0.23
Escape/Avoidance	14.45	3.36	14.67	3.91	-0.43	0.66
Accepting Responsibility	11.35	3.6	10.41	3.64	2.87	0.00
Seeking Refuge in Fate	11.77	4.33	10.16	4.34	2.7	0.01
Seeking in Supernatural Forces	7.41	3.04	6.07	2.55	3.57	0.00
Depression	16.39	10.49	12.13	9.13	3.66	0.00
Anxiety	14.23	8.15	7.98	6.47	6.43	0.00
Stress	19.85	9.35	14.81	8.29	4.22	0.00

Mediation Analyses

Before mediation analyses, inter-correlations between the study variables for individuals diagnosed with mental problems were performed. The results of the inter-correlations were demonstrated in Table 3. To test the specific mediator roles of seven coping subscales (i.e., planful problem-solving, keeping to oneself, seeking social support, escape/avoidance, accepting responsibility, seeking refuge in fate, and seeking refuge in supernatural forces) on the relationships between health anxiety-depression, health anxiety-anxiety, and health anxiety-stress, three mediation analyses were performed in total.

Table 3.

Correlations of the study variables in people with mental illnesses

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Health anxiety	-	-.14	-.03	.16	-.03	.32***	.01	.26*	.42***	.58***	.54***
2. Planful problem solving		-	-.05	.35**	.28*	-.17	.30**	-.13	-.06	-.06	.06
3. Keep to self			-	.59**	.02	.11	-.10	-.02	.22*	.11	.19
4. Seeking social support				-	.22*	.04	.12	-.03	-.19	-.04	-.06
5.Escape/Avoidance					-	.03	.01	.01	.03	.12	.08
6.Accepting responsibility						-	-.13	0.08	.44***	.42***	.44***
7.Seeking refuge in fate							-	.46***	.02	.04	-.03
8.Seeking in supernatural forces								-	.10	.32**	0.11
9.Depression									-	.73***	.81***
10.Anxiety										-	.79***
11.Stress											-

Note. **p* < .05. ***p* < .01. *** *p* < .001 (two-tailed)

The results of the first mediation analysis revealed that the hypothesized model was significant [*F* (1,77) = 16.23, *p* <.001], and predicted %42 of the variance in depressive symptoms from health anxiety through coping strategies. In this model, health anxiety was significantly associated with accepting responsibility (*B* = .12, *SE* =. 03, *p* <.001, CI [.19, .04]), and refuge in supernatural forces (*B* = .08, *SE* =. 03, *p* <.05, CI [.15, .01]). According to the b path, only accepting responsibility (*B* = 1.06, *SE* =. 31, *p* <.001, CI [1.69, .43]) was significantly associated with depressive symptoms. Direct effect between health anxiety and depression (c′ path; *B* = .39, *SE* =. 11, *p* < .001, CI [-.62, .16]) were significant. In addition to direct effect, the total of effect (c path; *B* = .44, *SE* =.11, *p* < .001, CI [.66, .22]) were significant. After all mediators were kept constant, bias-corrected bootstrap with 95% confidence level indicated that health anxiety influenced depression through accepting responsibility (a_1b_1 path; 95% CI [.25, .03]).

The results of the second mediation analysis revealed that the hypothesized model was significant [F (1,77) = 37.59, *p* <.001], and predicted %33 of the variance in anxiety symptoms from health anxiety through coping strategies. In this model, health anxiety was significantly associated with accepting responsibility (*B* = .12, *SE* =. 03, *p* <.001, CI [.19, .04]), and refuge in supernatural forces (*B* = .08, *SE* =. 03, *p* <.05, CI [.15, .01]). According to the b path, only

accepting responsibility (*B* = .61, *SE* =. 22, *p* <.001, CI [1.06, .16]) was significantly associated with anxiety symptoms. C' path showed that direct effect between health anxiety and anxiety scores (c′ path; *B* = .38, *SE* =. 08, *p* < .001, CI [.55, -.22]) were significant. Also, total effect (c path; *B* = .47, *SE* =.07, *p* < .001, CI [.62, .31]) was significant. After all mediators were kept constant, bias-corrected bootstrap with 95% confidence level indicated that health anxiety influenced anxiety through accepting responsibility (a_1b_1 path; 95% CI [.16, .01]).

The results of the third mediation analysis revealed that the hypothesized model was significant [F (1,77) = 30.78, *p* <.001], and predicted %54 of the variance in anxiety symptoms from health anxiety through coping strategies. In this model, health anxiety was significantly associated with accepting responsibility (*B* = .12, *SE* =. 03, *p* <.001, CI [.19, .04]), and refuge in supernatural forces (*B* = .08, *SE* =. 03, *p* <.05, CI [.15, .01]). According to the b path, only accepting responsibility (*B* = .82, *SE* =. 25, *p* <.001, CI [1.33, .30]) was significantly associated with stress symptoms. Both direct effect between health anxiety and stress (c′ path; *B* = .47, *SE* =. 09, *p* < .001, CI [.65, -.28]), and total effect (c path; *B* = .50, *SE* =.09, *p* < .001, CI [.68, .32]) were significant. After all mediators were kept constant, bias-corrected bootstrap with 95% confidence level indicated that health anxiety influenced stress through accepting responsibility (a_1b_1 path; 95% CI [.19, .01]).

Discussion

The present study aimed to compare levels of health anxiety, coping strategies, and mental health outcomes between people with mental problems and healthy controls. Furthermore, the mediator roles of coping strategies on the relationship between health anxiety and different mental health outcomes (i.e., depression, anxiety, and stress) were investigated. Although a large body of literature has examined the associations among health anxiety, use of coping strategies, and mental health outcomes in several populations, this is the first study particularly focusing on the associations of these variables among individuals with mental illnesses during the COVID-19 pandemic.

The findings highlighted individuals with mental illnesses demonstrated higher health anxiety, accepting responsibility, seeking refuge in fate, and seeking in supernatural forces. Besides, their depression, anxiety, and stress scores were greater than the healthy controls. Also, individuals with mental illnesses demonstrated lower planful-problem solving than healthy controls. These results were consistent with the existing literature demonstrating that negative mental health outcomes are associated with higher levels of health anxiety (Blakey & Abramowitz, 2017; Wheaton et al., 2012). According to norms of health anxiety scores (Salkovskis et al., 2002), findings revealed that the individuals with mental illnesses are

categorized as anxious patients with health anxiety Similarly, while the healthy group was categorized as normal, individuals with mental illnesses were categorized as having moderate depression, anxiety, and stress. A possible explanation for this difference might be closely related to comorbidity of mental problems. These results are also consistent with the pandemic studies that stated individuals with mental illnesses are at risk of recurrence or worsening of their current mental health difficulties (Melamed et al., 2020).

Other group differences were obtained in coping strategies, namely planful-problem focusing, accepting responsibility, seeking refuge in fate, and seeking supernatural forces. According to Lazarus and Folkman (1984), coping strategies may be classified as problem-oriented and emotion-oriented. Planful problem-solving was categorized as problem-focused coping and refers to dealing with the problem directly that causes the distress (Folkman et al., 1986). It has been suggested that the use of the problem- and emotion-focused strategies may be determined by the nature of the illness (Tuncay, 2009). Here, it was found that people with mental illnesses applied less problem-oriented, and more emotion-oriented strategies during the COVID-19 pandemic.

The items related to fatalism and supernatural forces were not included in the original version of WCQ but were added by Siva (1994) for the Turkish adaptation due to these items' relevance in Islamic culture. It is known that some coping strategies, such as religious initiatives, can differ from one culture to another, especially during uncertain, uncontrollable, and threatening stressful events (Case et al., 2004; Keinan, 2002). Religious believers in Islamic cultures tend to believe that uncontrollable events occur with the permission of God (Allah) (Senol-Durak et al., 2011). Therefore, when individuals experience uncontrollable events, they tend to apply religious coping styles to decrease the impacts of the challenging event (Göral et al., 2006). Also, it has been reported that seeking refuge in supernatural forces helps people to find and understand the meaning of unfortunate events (Göral et al., 2006) and increases assurance (Carone & Barone, 2001). As with other uncontrollable and threatening events, it is not surprising that people with mental illnesses tend to use religious coping during the pandemic. In other words, people with mental illnesses might see the COVID-19 pandemic as an uncertain, uncontrollable, threatening experience for which they needed God's help.

Our findings also demonstrated that accepting responsibility was a common mediator for depression, anxiety, and stress in people with mental illnesses. More specifically, higher levels of health anxiety were associated with increased levels of accepting responsibility resulting in higher depression, anxiety, and stress. Although a myriad of studies has shown that dysfunctional coping strategies are associated with health anxiety (Görgen et al., 2013),

our findings highlighted the importance of one of the dysfunctional coping strategies, namely accepting responsibility. Folkman et al. (1986) categorized accepting responsibility as an emotion-focused form of coping. Considering the items of the accepting responsibility subscale (e.g., I blame myself that it was always because of me), it could be categorized as passive acceptance, instead of confrontation of consequences. More specifically, higher health anxiety increased passive acceptance instead of confrontation, and it might have led to depression, anxiety, and stress. Consistent with our findings, it has been shown in a Turkish sample that greater levels of accepting responsibility are significantly related to depressive symptoms and negative affect (Senol-Durak et al., 2011).

This study has some limitations. Firstly, a self-report measurement and online data collection were used. Participants were limited to those volunteering to give their time with a small incentive. Secondly, this study is limited to a cross-sectional design. We examined the study variables at the same time which didn't allow us to a make comparison with pre-pandemic. This could limit the longitudinal implications. Thirdly, most of the participants were young, female, and had higher education. The significance of gender with respect to health anxiety (MacSwain et al., 2009), coping styles (Matud, 2004), and mental health (Riecher-Rössler, 2017) has been found in the literature. Future studies replications of the present research including a more heterogeneous sample from outside of western countries, using objective assessment tools,to and conducting with longitudinal design are encouraged.

Notwithstanding these limitations, the strength of this study was its focus on mediating role of coping strategies between health anxiety and several mental health outcomes among people with mental illnesses. Furthermore, this study compared these variables between people with mental illness and healthy controls. It also has provided preliminary evidence on how accepting responsibility is associated with health anxiety and mental health outcomes in people experiencing psychological symptoms. Last but not least, the results provided valuable insight into the sense that individuals with mental illnesses might be at a greater risk for moderate depression, anxiety, and stress.

This study has highlighted that individuals with mental illness are particularly at risk. Furthermore, findings have presented significant information about which coping styles are maladaptive for individuals with mental illnesses during the pandemic. The result of this study emphasized the importance of enhancing functional coping strategies and managing health anxiety to prevent negative mental health outcomes in individuals with mental problems. Also, the findings of this research might provide ground for psychosocial intervention programs aiming to decrease individuals' attempts to seek refuge in fate, seek refuge in supernatural forces, and accept responsibility. It is recommended to focus on improve problem-solving and

increasing their confrontation with their problems instead of passively accepting their consequences.

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COVID-19 Pandemisinin Psikiyatrik Tanı Almış Bireyler Üzerindeki Etkisi: Sağlık Kaygısı, Baş Etme Stratejileri ve Psikolojik İyi Oluş

Özet

COVID-19 (*koronavirus* 2 ya da *SARS*-CoV-2) tanısının sadece bir hastalık için değil, aynı zamanda psikolojik stres ile ilişkili olarak (Helmy ve diğerleri, 2020; Torales ve diğerleri., 2020; Xiang ve diğerleri., 2020) ruh sağlığı alanında etkileri olduğu bilinmektedir. Yapılan araştırmalar özellikle depresyon (Qiu ve diğerleri, 2020; Wang ve diğerleri, 2020), anksiyete (Guo ve diğerleri, 2020; Xiao ve diğerleri, 2020), ve stres (Liu ve diğerleri, 2020; Pieh ve diğerleri, 2020) semptomlarının yaygınlığı ve şiddetine dikkat çekmektedir. COVID-19 pandemisinde artan izolasyon, sosyal destek azlığı, ruh sağlığı merkezlerine erişimde azalma (Wasserman ve diğerleri, 2020) nedenlerine ek olarak, değişken uyku, egzersiz, çalışma ve medikal tedavi rutinlerinde yaşanan değişiklikler nedeniyle (Khan ve diğerleri, 2021; Nakamura ve diğerleri, 2021) nedeniyle, psikiyatrik tanıya sahip bireylerin ruh sağlığı açısından risk altında olduğu belirtimiştir (Radfar ve diğerleri, 2021).

Türkiye'de görülen yüksek vaka ve ölüm sayısı göz önüne alınarak, alan yazında olan bu boşluğu gidermek adına, bu çalışma psikiyatrik tanı almış bireylerde sağlık kaygısı, baş etme stratejileri ve psikolojik iyi oluş değişkenlerini araştırmayı amaçlamıştır. Bu kapsamda, COVID-19 pandemisi öncesinde psikiyatrik tanı almış 80 bireyde sağlık kaygısı ve psikolojik iyi oluş değişkenleri (depresyon, anksiyete, ve stres) arasında baş etme yollarının aracılık rolü araştırılmıştır. Buna ek olarak, bu değişkenlerin psikiyatrik tanı almış bireyler ile psikiyatrik tanı almamış bireylerde farklılaşıp farklılaşmadığını incelemek için sağlıklı kontrol grubu çalışmaya dahil edilmiştir. Sosyodemografik Bilgi ve Sağlık Veri Formu dışında, Sağlık Kaygısı Ölçeği-Kısa Formu [SKÖ-KF], Baş Etme Yolları Ölçeği [BYÖ], ve Depresyon, Anksiyete, Stres Skalası [DASS-42] kullanılarak elde edilen veri sonuçları, psikiyatrik tanı almış bireylerde sağlık kaygısı, sorumluğu kabul etme, kadercilik ve doğa üstü güçlere inanış ortalama puanları psikiyatrik tanı almamış bireylere göre istatistiksel olarak anlamlı düzeyde yüksek ve planlı problem çözme davranışı ortalama puanı istatistiksel olarak anlamlı düzeyde düşüktür. Ayrıca, psikiyatrik tanı almış bireylerin orta düzeyde depresyon, anksiyete ve stres semptomları gösterdiği bulunmuştur. Bunun aksine, sağlıklı kontrol grubunun depresyon, anksiyete ve stres semptom düzeyleri herhangi bir belirti düzeyine işaret etmeyerek, normal puan aralığındadır. Psikiyatrik tanı almış örneklem grubunda yürütülen aracılık etkisi sonuçlarına göre, sorumluluğu kabul etme baş etme stratejisi, sağlık kaygısı ve depresyon, anksiyete, stres arasında aracılık rolü göstermiştir.

Bu çalışmanın bazı kısıtlılıkları bulunmaktadır. İlk olarak öz bildirime dayalı ölçüm araçları kullanılmıştır. İkinci olarak, bu çalışma COVID-19 öncesinde katılımcıların bu çalışma kapsamında ölçümlenen değişkenlerine dair bir bilgiye sahip değildir ve pandemi sürecine yönelik bir karşılaştırma sunmaktadır. Üçüncü olarak, bu çalışma Türk örneklem grubundan oluşmaktadır. Sonuçların genellenebileceği düşünülse de, farklı kültürlerde değişiklik gösteren baş etme mekanizmalarının varlığı ve değişen sağlık politikaları uygulamalarının sunulan değişkenlere etki edeceği düşünülmektedir. Tüm bu kısıtlılıklar dahilinde, ileride yürütülecek çalışmaların pandemi öncesi verisine sahip olamasa da, pandeminin farklı seyrinde ilgili değişkenleri öz-bildirime dayalı ölçüm araçlarına ek olarak klinik değerlendirmeler ile yürütmesi önerilmektedir. Sunulan kısıtlılıklara rağmen, bu çalışmanın sağlıklı kontrol grubu ile psikiyatrik tanıya sahip bireyleri karşılaştırması ve psikiyatrik tanı almış bireylerde sağlık kaygısı ve psikolojik iyi oluş değişkenleri arasından baş etme yollarının aracı etkisini araştırması ile güçlü yanıdır.

Bulgular, sorumluluğu kabul etme baş etme mekanizmasının sağlık kaygısı ve psikolojik iyi oluş değişkenleri arasındaki aracılık rolünü göstermektedir. Ayrıca, bu çalışmanın bulguları psikiyatrik tanıya sahip bireylerin COVID-19 pandemisinde göstermiş oldukları orta düzeyde depresyon, anksiyete ve stres semptomları ile ruh sağlığı politika yapıcıları tarafından önceliklendirilmesi gerektiğine işaret etmektedir. COVID-19 pandemisinde ruh sağlığı açısından önleyici programlarda, etkin olmayan baş etme yöntemlerinden kadercililik, doğa üstü güçlere inanış ve sorumluluğu kabul etme baş etme yöntemlerinin azaltılmasına ve bireylerin pasif şekilde sorunların sonuçlarını kabul etmek yerine onlarla yüzleşerek baş etmeleri için problem odaklı baş etme yöntemlerinin arttırılması önerilmektedir.