**Living with COVID-19: Depression, Anxiety and Life Satisfaction during the New Normal in Turkey**

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**Abstract**

*Background:* Current findings suggest that many people experience high levels of anxiety, depressive symptoms and life dissatisfaction due to the COVID-19 pandemic. However, the effects of the pandemic and life changes during the new normal of social restrictions in Turkey are yet to be examined. *Aim:* This study aimed to investigate the prevalence, correlates and predictors of life satisfaction, anxiety symptoms, and depressive symptoms during the new normal of ongoing social restrictions. *Methods:* This is a cross-sectional study conducted online with 352 participants living in Turkey. Measures included the Generalized Anxiety Disorder-7, Patient Health Questionnaire-9, and Satisfaction with Life Scales. Sociodemographic variables and questions relating to the COVID-19 were collected. *Results:* The results showed that low social communication and the sense of being restricted were significant predictors of life dissatisfaction, depressive symptoms and anxiety symptoms. Of the participants, 91.5% were dissatisfied with their lives during the new normal of social restrictions. In addition, nearly half of the participants showed depressive symptoms (55.7%) and anxiety symptoms (54.3%). *Conclusion:* The present study suggested that social communication might be a key factor to improve psychological wellbeing. Considering the long-term effects of the pandemic on public mental health, developing effective preventive measures and intervention strategies are crucial.

*Keywords:* COVID-19; new normal; depression; anxiety, life satisfaction; social communication

**Özet**

*Arka plan***:** Mevcut bulgular, birçok insanın COVID-19 salgını nedeniyle yüksek düzeyde kaygı, depresyon ve yaşam memnuniyetsizliği yaşadığını göstermektedir. Bununla birlikte, Türkiye'de yeni normalin getirdiği sosyal kısıtlamalar sırasında pandeminin ve yaşam değişikliklerinin etkileri henüz pek incelenmemiştir. *Amaç:* Bu çalışmanın amacı, yeni normal döneminde devam eden sosyal kısıtlamalarda yaşam doyumunun kaygı belirtilerinin ve depresif belirtilerin yaygınlığını incelemek, ilişkili faktörlerini ve yordayıcılarını araştırmaktır. *Yöntem:* Türkiye'de yaşayan 352 katılımcı ile çevrimiçi olarak yürütülen kesitsel bir çalışmadır. Ölçüm aracı olarak Yaygın Kaygı Bozukluğu-7, Hasta Sağlığı Anketi-9 ve Yaşam Memnuniyet Ölçeği kullanılmıştır. Ayrıca sosyodemografik değişkenler ve COVID-19 ile ilgili sorular da cevaplandırılmıştır. *Bulgular:* Düşük sosyal iletişim ve kısıtlanmış olma duygusunun yaşam memnuniyetsizliğinin, depresif belirtilerin ve kaygı belirtilerinin anlamlı yordayıcıları olduğu gösterilmiştir. Katılımcıların %91,5'i yeni normalin getirdiği sosyal kısıtlamalar sırasında hayatlarından memnun olmadığını belirtmiştir. Ayrıca, katılımcıların yaklaşık yarısının depresif belirtiler (%55,7) ve kaygı belirtileri (%54,3) gösterdiği bulunmuştur. *Sonuç:* Bu çalışma, sosyal iletişimin psikolojik iyilik halini iyileştirmede anahtar bir faktör olabileceğini öne sürmektedir. Pandeminin halkın ruh sağlığı üzerindeki uzun vadeli etkileri düşünüldüğünde, etkili önleyici tedbirler ve müdahale stratejileri geliştirmek çok önemlidir.

*Anahtar Kelimeler:* COVID-19; yeni normal, depresyon; kaygı, yaşam doyumu; sosyal iletişim

**1.** **Introduction**

The coronavirus outbreak began in Wuhan, China at the end of December 2019 and led to approximately 116,521,281 confirmed cases and 2.589.548 deaths worldwide by the 8th of March 2021 (World Health Organization (WHO), 2021). In Turkey until the end of May 2020 strict legal restrictions, lockdown and quarantine were applied to individuals over 65 years and under 20. On June 1, 2020, the new normal begun with several changes in public life, such as the compulsory wearing of face masks outdoors, social distancing and restrictions of group events and occasions (Republic of Turkey Ministry of Interior, 2020a). In addition, all schools and universities transitioned to online learning (Republic of Turkey Ministry of National Education, 2020).

The spread of COVID-19 has brought with it many changes to daily routines, such as social distancing (Carvalho Aguiar Melo & de Sousa Soares, 2020), restrictions in movement, lockdown and quarantine (Brooks et al., 2020), which in turn has led to a global rise in mental health challenges such as anxiety, depression, insomnia, psychological fatigue, and post-traumatic stress disorder (Boyraz, Legros & Tigershtrom, 2020; Cao et al., 2020; Dubey et al., 2020; Morgul et al., 2020; Özdin & Bayrak Özdin, 2020; Torales et al., 2020; Wang et al., 2020; Zhang et al., 2020). Research indicates that factors such as the fear of being infected, economic status (Oosterhoff et al., 2020; Vindegaard & Eriksen Benros, 2020), gender (Fullana et al., 2020; Pieh, Budimir & Probst, 2020), social support (Vindegaard & Eriksen Benros, 2020), social media usage (Gao et al., 2020), family size (Chen et al., 2020b) and duration of isolation (Hawryluck et al., 2004) are found to be correlated with the development of psychological distress, depression, and anxiety during the COVID-19 pandemic. Different rates of anxiety symptoms have been reported across studies, ranging from 35.1% in China (Huang & Zhao, 2020), 21.6% in the UK (Shevlin et al., 2020) and 22.2% in the USA (Barzilay et al., 2020). Similarly, the rates of depressive symptoms have also been varied, with studies reporting prevalence rates of 20.1% in China (Huang & Zhao, 2020), 22.1% in the UK (Shevlin et al., 2020) and 16.1% in the USA (Barzilay et al., 2020). In Turkey, during the first couple of months of the pandemic, anxiety and depressive symptom rates were reported to be 45.1% and 23.6% respectively (Özdin & Bayrak Özdin, 2020) and 64.1% of 4,700 participants were reported to suffer psychological fatigue (Morgul et al., 2020).

Previous studies have shown that in the first months of the pandemic, as COVID-19 related stress, fear of contracting the illness and mental health problems such as anxiety increased, life satisfaction levels decreased (Satici et al., 2020; Trzebiński, Cabański & Czarnecka, 2020; Zhang et al., 2020). The initial shock of the pandemic has now given way to the new normal of ongoing restrictions, social distancing, physical disconnection from loved one’s and limited social engagement. The importance of social communication for maintaining optimal mental health and wellbeing is well documented (Ammar et al., 2020; Carvalho Aguiar Melo & de Sousa Soares, 2020; Usher et al., 2020). Preliminary research has demonstrated that the initial social restrictions have significantly contributed to a rise in depressive, anxiety and distress symptoms (Mækelæ et al., 2020; Van Rheenen et al., 2020). To the best of our knowledge, there has been no research related to the impact of the new normal of ongoing restrictions on the mental health and life satisfaction of people living in Turkey. The aim of the current study was to investigate the prevalence, correlates and predictors of anxiety, and depressive symptoms and life satisfaction during the new normal of ongoing social restrictions in order to contribute to the development of prevention and intervention programs.

**2.** **Method**

*2.1. Participants*

A total of 376 participants were recruited for the current study in September 2020. Inclusion criteria included being at least 18 years old and residing in Istanbul, Turkey. A total of 4 participants (1.1%) below the age of 18 and a further 20 participants (5.3%) with missing data were excluded from the study. Of the remaining 352 participants who participated in the study, 70 were male and 282 were female, ranging in age from 18 to 79 (mean age = 34.72).

*2.2. Measures*

*2.2.1. Socio-demographic Information Form*

The sociodemographic information form which developed by the researchers consisted of questions relating to age (open-ended), gender (open-ended), self-evaluation of income level (0 = very bad and 4 = very good), education (primary, secondary, high school or university), presence of a chronic illness (Yes/No) and previous and current psychological history (Yes/No).

*2.2.2 Questions about the impact of COVID-19*

The main purpose of these questions was detecting the impact of COVID-19 in people’s lives. Participants were asked questions related to the impact of COVID-19 on their monthly income (e.g., favorably, unfavorably, no impact), psychology, social outings, sense of being restricted, social communication with family, relatives and friendships and written/visual/social media use as a result of COVID-19. In addition, participants answered questions relating to whether they had experienced COVID-19, knew anybody in their close circle who had experienced or died from COVID-19 or had anxiety about loved one’s or themselves being infected with COVID-19 and infecting others. Responses to questions were either a Yes/No or rated on a 5-point Likert scale, where 0 = not at all and 4 = always or 0 = very bad and 4 = very good.

*2.2.3. Patient Health Questionnaire - 9 (PHQ-9)*

The Patient Health Questionnaire - 9 (PHQ-9; Kroenke et al., 2001) (Kroenke et al., 2001) is a self-report measure of depressive symptoms and is comprised of a total of 9 items. Each item was rated on a 4-point Likert scale, where 0 = not at all and 3 = nearly every day. The total score ranged between 0-27, with higher scores reflecting more severe depressive symptoms. The cut-off scores for depressive symptoms was noted to be 10 (Liu et al., 2021). The Turkish adaptation of the scale was conducted by Sari and colleagues (2016), with a Cronbach alpha coefficient of 0.84.

*2.2.4. Generalized Anxiety Disorder - 7 (GAD-7)*

The Generalized Anxiety Disorder - 7 (GAD-7; Spitzer et al., 2006) was used as a self-report measure of anxiety and is comprised of 7 items. Each item was rated on a 4-point Likert scale, with 0 = not at all and 3 = nearly every day. The total score between 0-21, with higher scores reflecting more severe anxiety symptoms. The operating characteristics of the scale were appropriate since most of the patients with chronic symptoms received higher scores, and the chosen scale has items mostly measuring the chronic symptoms of anxiety rather than acute-state anxiety (Spitzer et al., 2006). The Turkish adaptation of the scale was conducted by Konkan and colleagues (2013) and the cut-off score for anxiety was noted to be 8. The scale has high internal consistency and construct validity, with a Cronbach alpha coefficient of 0.85 (Konkan et al., 2013).

*2.2.5. Satisfaction with Life Scale - 5 (SWLS-5)*

The Satisfaction with Life Scale (SWLS-5; Diener et al., 1985) is a self-report scale used to measure participants’ life satisfaction. It consists of 5 items rated on a 5-point Likert scale, with 1 = strongly disagree and 5 = strongly agree. Minimum and maximum scores of the scale are 5 and 35 respectively. Higher score indicates higher levels of life satisfaction. The cut-off score for satisfaction with life was noted to be 20 (Pavot & Diener, 1993). Turkish adaptation of the scale was conducted by Yetim (1993). Cronbach alpha coefficient for the scale is .86 and test-retest reliability is .73 (Yetim, 2003).

*2.3 Procedure*

This study was approved by Ibn Haldun University’s ethics committee (14/09/2020-689) and conducted as a part of a larger project. Using a convenience sampling method, participants were recruited through social media networks and informed that there would be subsequent opportunities for both group and individual psychological support groups. Participation was voluntary and informed consent was obtained. The survey was completed online through SurveyMonkey and took approximately 10 minutes.

*2.4 Statistical analysis*

RStudio 1.3.1093 (R Core Team, 2016) program was used to analyze the data. First of all, distribution of the data was tested. Skewness of data is between 1 and -1; therefore, parametric tests can be used (Hair el al., 2013). T tests were used to examine the differences between dependent variables such as life satisfaction, depressive and anxiety symptoms in terms of categorical variables. Pearson correlation analysis was performed to see the relationship between the dependent variables and the other socio-demographic and COVID-19 related variables. Stepwise hierarchical regression analysis was used to determine the predictors of dependent variables. In Step 1, gender, age and income variables were entered to examine whether the socio-demographic variables predicted life satisfaction, depressive and anxiety symptoms. In Step 2, the presence of a psychological disorder during the pandemic, the sense of being restricted and social communication variables were added to compare socio-demographic and social-life related variables in predicting life satisfaction, depressive and anxiety symptoms during the new normal. The estimates of the strengths of predictors were demonstrated by Beta (Co-efficient) with a 95% confidence interval (CI). A p-value of ≤ .05 was considered to be significant.

**3.** **Results**

*3.1 Descriptive Statistics*

Approximately half of the participants showed depressive symptoms (55.7%, *n* = 196) and anxiety symptoms (54.3%, *n* = 191). The average score of the PHQ-9 was 11.29 (*SD* = 6.15), whilst the average score of the GAD-7 was 8.44 (*SD* = 5.63). The vast majority of the participants were dissatisfied with their life in the new normal (91.5%, *n* = 322) The average score in the life satisfaction scale was 14.26 (*SD* = 4.01).

The majority of the participants declared their social communication with their family, friends and others during the COVID-19 as being average (42.2 %, *n* = 149). Approximately one fourth of the participants (23.6 %, *n* = 83) reported to have bad or very bad social communications during COVID-19. Almost one third of the participants (34.1 %, *n* = 120) reported having good or very good social communications during COVID-19. The average score of social communication was 2.96 (*SD* = 0.91).

The majority of the participants (61.1 %, *n* = 215) stated that they felt much or very much restricted as a result of COVID-19. One fourth of the participants (25.3 %, *n* = 5) reported that their sense of being restricted was on average. A smaller number of participants (13.6 %, *n* = 48) reported that they felt not at all restricted by COVID-19 or felt very little restriction. The average score of sense of being restricted was 3.11 (*SD* = 1.05). The descriptive statistics for the other ordinal level of variables are presented in Table 1.

**\*\*Table 1 \***

*3.2 The profile of sociodemographic and COVID-19 variables of participants in terms of life satisfaction, depressive symptoms and anxiety symptoms*

Statistical analysis indicated that there were no statistically significant differences between being infected, having an infected relative or having a relative who died from Covid-19, in terms of the development of depressive symptoms, anxiety symptoms and life satisfaction. As illustrated in Table 2, males showed higher levels of life satisfaction (*t*(350) = 2.36, *p* = .02), lower levels of depressive symptoms (*t*(350) = –4.48, *p* < .001), and anxiety symptoms (*t*(350)= –4.01, *p* = .002). Individuals who had a psychological disorder before the pandemic or had a psychological disorder that continued during the pandemic had higher levels of depressive symptoms (*t*(350) = 5.74, *p* < .001; *t*(350) = 7.08, *p* < .001), higher levels of anxiety symptoms *t*(350) = 7.06, *p* < .001; *t*(350) = 8.23, *p* < .001) and decreased levels of life satisfaction (*t*(350) = –3.67, *p* < .001; *t*(350) = –3.73, *p* < .001).

**\*\* Table 2 \*\***

*3.3 Relationships between life satisfaction, depressive symptoms and anxiety symptoms and sociodemographic and COVID-19 variables*

Table 3 displays the correlation matrix of the relationship between life satisfaction, depressive symptoms, anxiety symptoms and sociodemographic and COVID-19 variable. Life satisfaction had a significant positive correlation with income status (*r* = .44, *p* = .00), social communication with people (family, friends, relatives and others) (*r* = .35, *p* = .00) and age (*r* = .17, *p* < .05). On the other hand, life satisfaction was negatively correlated with sense of being restricted (*r* = -.34, *p* < .01), effect of COVID-19 on psychological status (*r* = -.32, *p* < .01) and effect of COVID-19 on income (*r* = -.24, *p* < .05), and anxious about infecting loved ones with COVID-19 (*r* = -.18, *p* < .05).

When the psychological health status of the participants was examined, depressive symptoms were positively correlated with effect of COVID-19 on psychological status (*r* = .54, *p* < .001), sense of being restricted (*r* = .50, *p* < .001), decreased frequency of leaving house (*r* = .21, *p* < .05), anxious about contracting COVID-19 (*r* = .26, *p* < .01), anxious about infecting loved ones with COVID-19 (*r* = .31, *p* < .01) and anxious about infecting others (*r* = .25, *p* < .01). On the other hand, depressive symptoms had a significant negative correlation with age (*r* = -.36, *p* < .01), income (*r* = -.33, *p* < .01), and social communication with people (family, friends, relatives and others) (*r* = -.32, *p* < .01). In addition, there were positive significant relationships between anxiety symptoms and effect of COVID-19 on psychological status (*r* = .57, *p* < .001), sense of being restricted (*r* = .52, *p* < .001), decreased frequency of leaving house (*r* = .18, *p* < .05), anxious about contracting COVID-19 (*r* = .31, *p* < .01), anxious about infecting loved ones with COVID-19 (*r* = .38, *p* < .001) and anxious about infecting others (*r* = .24, *p* < .05). Anxiety symptoms had a significant negative correlation with age (*r* = -.34, *p* < .01), income (*r* = -.28, *p* < .01), and social communication with people (family, friends, relatives and others) (*r* = -.28, *p* < .01).

**\*\* Table 3\*\***

*3.4 Predictors of life satisfaction, depressive symptoms and anxiety symptoms*

Two-step hierarchical regression analyses tested the unique contributions of the investigated sociodemographic variables (gender, age, economic condition) and social-life related variables (a psychological disorder that continued during the pandemic, the sense of being restricted, social communication) in predicting the level of life satisfaction, and depressive and anxiety symptoms. The results are presented in Table 4. The strongest indicator of high life satisfaction was, high income level (*β* = 1.80, *p* < .001), followed by not having a psychological disorder present during the pandemic and good social communication with family, friends and others as the second and third predictors (*β* = 1.29, *p* < .01 and *β* = 0.97, *p* < .001 accordingly). Age was not a significant predictor of life satisfaction (*β* = .02, *p* = .21). In addition, being female (*β* = -1.15, *p* < .05) and the sense of being restricted (*β* = -0.55, *p* < .01) reduced life satisfaction during the new normal conditions. While sociodemographic variables explained 22% of the variance of life satisfaction, additions of social-life related variables explained 33% of the variance of life satisfaction (*Δ R2* = 0.11, *p* < .001) and sociodemographic variables remained significant to predicting life satisfaction.

As demonstrated in Table 4, the strongest predictor of high level anxiety and depressive symptoms was having a psychological disorder present during the pandemic (*β* = -2.72, *p* < .001 and *β* = -3.15, *p* < .01 accordingly), followed by being female (*β* = 2.52, *p* < .001 and *β* = 1.46, *p* < .05 accordingly) and having a sense of being restricted (*β* = 1.79, *p* < .001 and *β* = 1.84, *p* < .001 accordingly). Also, lower income level (*β* = -1.35, *p* < .001 and *β* = -0.83, *p* < .05 accordingly), bad social communication with family, friends and others (*β* = -1.14, *p* < .001 and *β* = -0.79, p < .001 accordingly) and being younger in age (*β* = -0.11, *p* < .001 and *β* = -0.09, *p* < .001 accordingly) significantly predicted depressive symptoms and anxiety symptoms. Sociodemographic variables explained 24% of the variance in depressive symptoms and 19% in anxiety symptoms. In step 2, adding social-life related variables accounted for an additional 19% (*p* < .001) and 22% (*p* < .001) of the variance explained in depressive symptoms and anxiety symptoms, respectively. Overall, this model explained 44% of the variance in depressive symptoms and 41% in anxiety symptoms.

**\*\* Table 4 \*\***

**4. Discussion**

The aim of the current study was to investigate the prevalence, correlates and predictors of anxiety symptoms, depressive symptoms and life satisfaction during the new normal of ongoing social restrictions. Our results demonstrated that approximately half of participants showed depressive and anxiety symptoms, and over 90% of individuals were dissatisfied with life during the new normal of social restrictions. Prior to the pandemic, research conducted by the Turkish Statistical Institute (2019) indicates that the rate of dissatisfaction with life was 47.6%. Another study which has examining depressive and anxiety symptoms levels in Turkey in the beginning of the pandemic has reported prevalence rates of 23.6% and 45.1% respectively (Özdin & Bayrak Özdin, 2020). This indicates that as the pandemic has progressed, the prevalence of life dissatisfaction, depressive and anxiety symptoms have also significantly increased. Shevlin and colleagues (2020) demonstrated that there was a stable psychological response during the first month of lockdown. During the early stages of COVID-19, many individuals held onto the belief that the pandemic would be short-lived, and we would all go back to living our normal lives.

The increase in the prevalence of depressive and anxiety symptoms may also be attributed to the increase in COVID-19 related restrictions. Zandifar and colleagues (2020) have reported that depressive and anxiety symptoms increased as the levels of perceived stress increased. In addition, Son and colleagues (2020) conducted a qualitative study with 20 university students in Texas and reported that stressors such as decreased social interaction may be contributing to an increase in symptoms of depressive and anxiety.

It is well known that social connections, communication and support play significant roles in buffering individuals against stress and the development of mental health problems such as depressive and anxiety (Aneshensel, Stone,1982; Cohen, & Wills, 1985; Fiori, Antonucci, & Cortina, 2006a; Hall-Lande et al., 2007; Windsor, Rioseco, Fiori, Curtis, & Booth, 2016). Consistent with these findings, the current study demonstrated that higher social communication and a lower sense of being restricted due to COVID-19 predicted higher levels of life satisfaction, whilst lower social communication and a higher sense of being restricted predicted depressive symptoms and anxiety symptoms. Interestingly, another study that is carried out in Sweden showed that more social distancing was related with higher life satisfaction in older adults (Kivi et al., 2021). Examining the study from Kivi and colleagues (2021) showed that they asked physical social distancing, while we asked generally social communication. It could be suggested that the social communication but not the physical distance is decisive in terms of mental health.

It is important to examine the role cultural factors that may have in social communication. In considering the Cultural Dimension of Hofstede (2001), Turkey is generally accepted as a collectivistic culture (Oishi et al., 1999; Oyserman et al., 2002), with a strong focus on social connections, potentially making it more difficult to tolerate social distancing (Messner, 2020). Furthermore, the Turkish culture has a strong uncertainty avoidance, which means ambiguous, unknown or uncontrollable situations are perceived as being threatening, leading to increased levels of anxiety (Hofstede, 2001). In addition, the usual social rituals drawn on to help minimize anxiety and ease tension were not as readily available during the COVID-19 restrictions. A recent study by Karatas and Tagay (2020) conducted in the first months of the pandemic in Turkey revealed that the intolerance of uncertainty correlates negatively with life satisfaction. The intolerance of uncertainty in the Turkish culture and sense of uncontrollability of COVID-19 could be a possible explanation for the increased anxiety symptoms and depressive symptoms as well as the decreased life satisfaction reported in the current study. Future cross-cultural studies might examine the relationship between culture and mental health during the COVID-19 pandemic.

During the early months of COVID-19 in Turkey, there were disruptions to major life domains such as work and education. In the new normal, there has been a return to work and education within the bounds of social restrictions. The re-engagement to mostly online educational and work rituals failed to minimize the experiences of mental health challenges, which suggests that the ongoing restrictions are continuing to have a negative impact on rates of depressive and anxiety symptoms, and life satisfaction. In this respect, social relationships are negatively affected during this period and it has a significant role on mental health. Fiori and colleagues (2006b) showed that social relationship is a protective factor for mental health without considering the source of the support. Another study suggested that individuals’ social relationships affect their different aspects of health including mental health (Seeman, 1996). Besides, emotional support in accordance with social relationships have a positive effect on increased psychological well-being (Umberson & Karas Montez, 2010).

Consistent with the findings of studies conducted during the early stages of COVID-19, the current study also demonstrated that being of a younger age, being female, having lower income and greater exposure to media, including social media, were associated with the development of depression and anxiety (Benke et al., 2020; Chen et al., 2020a; Karaşar, & Canli, 2020; Özdin & Bayrak Özdin, 2020; Pieh et al., 2020; Stanton et al., 2020; Trzebiński et al., 2020; Gao et al., 2020; Wang et al., 2020).

Participants were more concerned about their loved ones being infected with COVID-19 than they were about catching it themselves or infecting others. Only 26.4% of participants reported that they were very frequently or always worried about contacting COVID-19 themselves, versus 41.2% very frequently or always worried about their loved ones being infected. These rates are lower than those reported by the study conducted by Bikmazer and colleague’s (2020) in the early phases of the pandemic in Turkey. They reported that more than the half of parents (59.8%) worried a lot about their loved ones or themselves contracting COVID-19. The lower levels of anxiety related to catching COVID-19 in the current study is most likely a result of normalization.

Consistent with the findings of Ustun (2021), of those individuals who were more worried about catching COVID-19 themselves or infecting others were found to have higher levels of depressive symptoms and anxiety symptoms than others. Interestingly in the current study being infected with COVID-19, knowing somebody in their close circle who had experience or died from COVID-19 did not make a difference with regards to the development of depressive symptoms and anxiety symptoms and life dissatisfaction during the new normal phase. These results are consistent with a study conducted during the first months of the pandemic (Benke et al., 2020). Anecdotal evidence suggests that heightened levels of gratitude, beliefs about gaining immunity post infection and relief in surviving the infection may be protective factors for mental wellbeing.

*4.2. Limitations*

This study has some limitations. Firstly, depressive and anxiety symptoms were determined using screening tools and therefore are not diagnostic. Secondly, even though the study was conducted with participants living in Istanbul which is a multicultural city consisting of various socioeconomic statuses, it was carried out with a rather small sample size. This is likely to limit the results being generalized to the whole population. Thirdly, the participation of male participants in this study was lower than females. Gender ratio must be taken into account because mood and anxiety disorders are more common in women than men (Kessler et al., 1994). Lastly, our exploration of social communication and sense of being restricted was limited and although the questions used to explore these factors were created specifically for this study, validated scales and more extensive questions relating to social communication and the impact of being restricted could be used in future studies.

*4.1. Clinical Implications & Future Studies*

The results of the current study indicate that as the pandemic has progressed, the prevalence of life dissatisfaction, depressive symptoms and anxiety symptoms have continued to increase in the new normal of ongoing social restrictions. The current findings suggest that social communication might be a protective factor that improves wellbeing and alleviates the sense of being restricted and therefore warrants further research. In addition, improvement in social communication could be a potential goal to decrease the sense of being restricted and to increase individuals’ life satisfaction during the pandemic. Effective treatment and intervention programs might focus on internet-based activities such as social network services or virtual workplaces that could be potential sources to enhancing and maintaining social relationships (Galea et al., 2020; Suzuki, Oi & Inagaki, 2020). The current findings also indicate greater exposure to media, including social media, are associated with the development of depression and anxiety symptoms. Considering the increased online hours produced by COVID-19 restrictions, further studies may examine the risks and predictors of social media addiction (Allahverdi, 2020) in relation to COVID-19 restrictions and the new normal.

The COVID-19 landscape in Turkey is continuing to rapidly change, with new restrictions being re-imposed as of 30th of November (Republic of Turkey Ministry of Interior, 2020b). The current study was a cross-sectional study; however, a longitudinal study is likely to provide a better understanding regarding the ongoing impact of the pandemic on mental health and life satisfaction.

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**6. Declaration of Interests**

The authors declare that they have no conflict of interest

**References**

Allahverdi, F.Z. (2020). The relationship between the items of the social media disorder scale and perceived social media addiction. *Current Psychollogy,* 1-8. https://doi.org/10.1007/s12144-020-01314-x.

Ammar, A., Chtourou, H., Boukhris, O., Trabelsi, K., Masmoudi, L., Brach, M., Bouaziz, B., Bentlage, E., How, D., Ahmed, M., Mueller, P., Mueller, N., Hsouna, H., Aloui, A., Hammouda, O., Paineiras-Domingos, L. L., Braakman-Jansen, A., Wrede, C., Bastoni, S., … Hoekelmann, A. (2020). Covid-19 home confinement negatively impacts social participation and life satisfaction: A worldwide multicenter study. *International Journal of Environmental Research and Public Health*, *17*(17), 1–17. <https://doi.org/10.3390/ijerph17176237>.

Aneshensel, C. S., & Stone, J. D. (1982). Stress and depression: A test of the buffering model of social support. *Archives of general psychiatry*, *39*(12), 1392-1396.

Barzilay, R., Moore, T. M., Greenberg, D. M., DiDomenico, G. E., Brown, L. A., White, L. K., Gur, R. C., & Gur, R. E. (2020). Resilience, COVID-19-related stress, anxiety and depression during the pandemic in a large population enriched for healthcare providers. *Translational Psychiatry*, *10*(1). <https://doi.org/10.1038/s41398-020-00982-4>.

Benke, C., Autenrieth, L. K., Asselmann, E., & Pané-Farré, C. A. (2020). Lockdown, quarantine measures, and social distancing: Associations with depression, anxiety and distress at the beginning of the COVID-19 pandemic among adults from Germany. *Psychiatry Research*. <https://doi.org/10.1016/j.psychres.2020.113462>.

Bikmazer, A., Kadak, M. T., Gormez, V., Doğan, U., Aslankaya, Z. D., Bakır, F., ... & Öztürk, M. (2020). Parental psychological distress associated with COVID-19 outbreak: A large-scale multicenter survey from Turkey. International Journal of Social Psychiatry, 0020764020970240.

Boyraz, G., Legros, D. N., & Tigershtrom, A. (2020). COVID-19 and traumatic stress: The role of perceived vulnerability, COVID-19-related worries, and social isolation. *Journal of Anxiety Disorders*, *76*(July), 102307. https://doi.org/10.1016/j.janxdis.2020.102307.

Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *The Lancet*, *395*(10227), 912–920.<https://doi.org/10.1016/S0140-6736(20)30460-8>.

Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, *287*, 112934. https://doi.org/10.1016/j.psychres.2020.112934.

Carvalho Aguiar Melo, M., & de Sousa Soares, D. (2020). Impact of social distancing on mental health during the COVID-19 pandemic: An urgent discussion. *International Journal of Social Psychiatry*, *66*(6), 625–626. <https://doi.org/10.1177/0020764020927047>.

Chen, J., Zhang, S. X., Wang, Y., Jahanshahi, A. A., Dinani, M. M., Madavani, A. N., & Nawaser, K. (2020a). The curvilinear relationship between the age of adults and their mental health in Iran after its peak of COVID-19 cases. *medRxiv*.

Chen, F., Zheng, D., Liu, J., Gong, Y., Guan, Z., & Lou, D. (2020b). Depression and anxiety among adolescents during COVID-19: A cross-sectional study. *Brain, Behavior, and Immunity*, *88*(January), 36–38.<https://doi.org/10.1016/j.bbi.2020.05.061>.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological bulletin*, *98*(2), 310.

Diener, E., Emmons, R. A., Larsem, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*. https://doi.org/10.1207/s15327752jpa4901\_13.

Dubey, S., Biswas, P., Ghosh, R., Chatterjee, S., Dubey, M. J., Chatterjee, S., ... & Lavie, C. J. (2020). Psychosocial impact of COVID-19. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, *14*(5), 779-788.

Fiori, K. L., Antonucci, T. C., & Cortina, K. S. (2006a). Social network typologies and mental health among older adults. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *61*(1), P25-P32.

Fiori, K. L., Mcilvane, J. M., Brown, E. E., & Antonucci, T. C. (2006b). Social relations and depressive symptomatology: Self-efficacy as a mediator. *Aging and mental health*, *10*(3), 227-239.

Fullana, M. A., Hidalgo-Mazzei, D., Vieta, E., & Radua, J. (2020). Coping behaviors associated with decreased anxiety and depressive symptoms during the COVID-19 pandemic and lockdown. *Journal of Affective Disorders*, *275*(July), 80–81. <https://doi.org/10.1016/j.jad.2020.06.027>.

Galea, S., Merchant, R. M., & Lurie, N. (2020). The mental health consequences of COVID-19 and physical distancing: The need for prevention and early intervention. *JAMA internal medicine*, *180*(6), 817-818.

Gao, J., Zheng, P., Jia, Y., Chen, H., Mao, Y., Chen, S., Wang, Y., Fu, H., & Dai, J. (2020). Mental health problems and social media exposure during the COVID-19 outbreak. *PLoS ONE*, *15*(4), 1–10. <https://doi.org/10.1371/journal.pone.0231924>.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2013). Multivariate Data Analysis. Essex, England.

Hall-Lande, J. A., Eisenberg, M. E., Christenson, S. L., & Neumark-Sztainer, D. (2007). Social isolation, psychological health, and protective factors in adolescence. *Adolescence*, *42*(166).

Hawryluck, L., Gold, W. L., Robinson, S., Pogorski, S., Galea, S., & Styra, R. (2004). SARS control and psychological effects of quarantine, Toronto, Canada. *Emerging Infectious* Diseases, 10(7), 1206–1212. <https://doi.org/10.3201/eid1007.030703>.

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations.* Sage publications.

Huang, Y., & Zhao, N. (2020). Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey. *Psychiatry Research*, *288*(April), 112954.<https://doi.org/10.1016/j.psychres.2020.112954>.

Karaşar, B., & Canli, D. (2020). Psychological resilience and depression during the COVID-19 pandemic in Turkey. *Psychiatria Danubina*, *32*(2), 273–279. https://doi.org/10.24869/PSYD.2020.273.

Konkan, R., Şenormanci, Ö., Güçlü, O., Aydin, E., & Sungur, M. Z. (2013). Validity and reliability study for the Turkish adaptation of the generalized anxiety disorder-7 (GAD-7) scale. *Noropsikiyatri Arsivi*, *50*(1), 53–58.<https://doi.org/10.4274/npa.y6308>.

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ‐9: validity of a brief depression severity measure. *Journal of general internal medicine*, *16*(9), 606-613.

Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., Eshleman, S., … Kendler, K. S. (1994). Lifetime and 12-Month Prevalence of DSM-III-R Psychiatric Disorders in the United States. *Arch Gen Psychiatry*, *51*, 8–19.

Mækelæ, M. J., Reggev, N., Dutra, N., Tamayo, R. M., Silva-Sobrinho, R. A., Klevjer, K., & Pfuhl, G. (2020). Perceived efficacy of COVID-19 restrictions, reactions and their impact on mental health during the early phase of the outbreak in six countries. *Royal Society Open Science*. https://doi.org/10.1098/rsos.200644.

Morgul, E., Bener, A., Atak, M., Akyel, S., Aktaş, S., Bhugra, D., Ventriglio, A., & Jordan, T. R. (2020). COVID-19 pandemic and psychological fatigue in Turkey. *International Journal of Social Psychiatry*. <https://doi.org/10.1177/0020764020941889>.

Oishi, S., Diener, E., Suh, E., & Lucas, R. E. (1999). Value as a moderator in subjective well‐being. *Journal of personality*, *67*(1), 157-184.

Oosterhoff, B., Ph, D., Palmer, C. A., Ph, D., Wilson, J., S, M., Shook, N., & Ph, D. (2020). *Adolescents’ Motivations to Engage in Social Distancing During the COVID-19 Pandemic: Associations with Mental and Social Health*. *January*.

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: evaluation of theoretical assumptions and meta-analyses. *Psychological bulletin*, *128*(1), 3.

Özdin, S., & Bayrak Özdin, Ş. (2020). Levels and predictors of anxiety, depression and health anxiety during COVID-19 pandemic in Turkish society: The importance of gender. *International Journal of Social Psychiatry*, *66*(5), 504–511. <https://doi.org/10.1177/0020764020927051>.

Pavot, W., & Diener, E. (1993). Review of The Satisfaction with Life Scale. *Psychological Assessment, 5*(2), 164–172. https://doi.org/10.1207/s15327752jpa4901.

Pieh, C., Budimir, S., & Probst, T. (2020). The effect of age, gender, income, work, and physical activity on mental health during coronavirus disease (COVID-19) lockdown in Austria. *Journal of Psychosomatic Research*, *136*(May), 110186.<https://doi.org/10.1016/j.jpsychores.2020.110186>.

R Core Team. (2016). R: A Language and Environment for Statistical Computing. https://www.r-project.org/.

Republic of Turkey’s Ministry of Health, (2020). Coronavirus Case Table. Retrieved March 8, 2020 from https://covid19.saglik.gov.tr/TR-66935/genel-koronavirus-tablosu.html.

Republic of Turkey Ministry of Interior, (2020a). Circular to 81 Provincial Governorships: Restaurant, Cafe etc. Workplaces; Park, Picnic Areas; Promenade and Clothing Markets. Retrieved December 23, 2020. https://www.icisleri.gov.tr/81-il-valiligine-lokanta-restoran-kafe-vb-isyerleri-park-piknik-alanlari-mesire-yerleri-ve-giyim-pazarlari-genelgesi.

Republic of Turkey Ministry of Interior, (2020b). Circulars on New Restrictions and Measures for Combating Coronavirus. Retrieved November 30. https://www.icisleri.gov.tr/koronavirus-ile-mucadele-kapsaminda-sokaga-cikma-kisitlamalari---yeni-kisitlama-ve-tedbirler-genelgeleri.

Republic of Turkey Ministry of National Education, (2020). Retrieved December 23, 2020 from http://www.meb.gov.tr/turkiye-koronavirus-salgininda-ulusal-capta-uzaktan-egitim-veren-2-ulkeden-biri/haber/20618/tr.

Sari, Y. E., Kokoglu, B., Balcioglu, H., Bilge, U., Colak, E., & Unluoglu, I. (2016). Turkish reliability of the patient health questionnaire-9. *Biomedical Research (India)*, *2016*(Special Issue 1), S460–S462.

Satici, B., Gocet-Tekin, E., Deniz, M. E., & Satici, S. A. (2020). Adaptation of the Fear of COVID-19 Scale: Its Association with Psychological Distress and Life Satisfaction in Turkey. *International Journal of Mental Health and Addiction*. <https://doi.org/10.1007/s11469-020-00294-0>.

Seeman, T. E. (1996). Social ties and health: The benefits of social integration. *Annals of epidemiology, 6*(5), 442-451.

Shevlin, M., McBride, O., Murphy, J., Miller, J. G., Hartman, T. K., Levita, L., Mason, L., Martinez, A. P., McKay, R., Stocks, T. V. A., Bennett, K. M., Hyland, P., Karatzias, T., & Bentall, R. P. (2020). Anxiety, depression, traumatic stress and COVID-19-related anxiety in the UK general population during the COVID-19 pandemic. *BJPsych Open*. https://doi.org/10.1192/bjo.2020.109.

Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19 on college students’ mental health in the United States: Interview survey study. *Journal of medical internet research,* 22(9), e21279.

Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of internal medicine*, *166*(10), 1092-1097.

Stanton, R., To, Q. G., Khalesi, S., Williams, S. L., Alley, S. J., Thwaite, T. L., Fenning, A. S., & Vandelanotte, C. (2020). Depression, anxiety and stress during COVID-19: Associations with changes in physical activity, sleep, tobacco and alcohol use in Australian adults. *International Journal of Environmental Research and Public Health*. https://doi.org/10.3390/ijerph17114065.

Suzuki, K., Oi, Y., & Inagaki, M. (2020). The Relationships Among Autism Spectrum Disorder Traits, Loneliness, and Social Networking Service Use in College Students. *Journal of Autism and Developmental Disorders*, *0123456789*. <https://doi.org/10.1007/s10803-020-04701-2>.

Torales, J., O’Higgins, M., Castaldelli-Maia, J. M., & Ventriglio, A. (2020). The outbreak of COVID-19 coronavirus and its impact on global mental health. *International Journal of Social Psychiatry*, *66*(4), 317–320. https://doi.org/10.1177/0020764020915212.

Trzebiński, J., Cabański, M., & Czarnecka, J. Z. (2020). Reaction to the COVID-19 Pandemic: The Influence of Meaning in Life, Life Satisfaction, and Assumptions on World Orderliness and Positivity. *Journal of Loss and Trauma*, *25*(6–7), 544–557. <https://doi.org/10.1080/15325024.2020.1765098>.

Turkish Statistical Institute (2019). Life Satisfaction Research. Retrieved December 23, 2020 from <https://tuikweb.tuik.gov.tr/PreHaberBultenleri.do?id=33729>.

Umberson, D., & Karas Montez, J. (2010). Social relationships and health: A flashpoint for health policy. *Journal of health and social behavior*, *51*(1\_suppl), S54-S66.

Usher, K., Bhullar, N., & Jackson, D. (2020). Life in the pandemic: Social isolation and mental health. *Journal of Clinical Nursing, 29*(15–16), 2756–2757. https://doi.org/10.1111/jocn.15290.

Ustun, G. (2021). Determining depression and related factors in a society affected by COVID-19 pandemic. *The International Journal of Social Psychiatry, 67*(1), 54.

Van Rheenen, T. E., Meyer, D., Neill, E., Phillipou, A., Tan, E. J., Toh, W. L., & Rossell, S. L. (2020). Mental health status of individuals with a mood-disorder during the COVID-19 pandemic in Australia: Initial results from the COLLATE project. *Journal of Affective Disorders*. https://doi.org/10.1016/j.jad.2020.06.037.

Vindegaard, N., & Eriksen Benros, M. (2020). COVID-19 pandemic and mental health consequences: Systematic review of the current evidence. *Brain, Behavior, and Immunity*, *May*, 1–12. <https://doi.org/10.1016/j.bbi.2020.05.048>.

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health*, *17*(5).<https://doi.org/10.3390/ijerph17051729>.

Windsor, T. D., Rioseco, P., Fiori, K. L., Curtis, R. G., & Booth, H. (2016). Structural and functional social network attributes moderate the association of self-rated health with mental health in midlife and older adults. *International psychogeriatrics*, *28*(1), 49.

World Health Organization (2020). Coronavirus Disease Dashboard. Retrieved March 8, 2020 from https://covid19.who.int/.

Yetim, U. (1993). Life satisfaction: A study based on the organization of personal projects. *Social Indicators Research*, *29*(3), 277-289.

Yetim, U. (2003). The impacts of individualism/collectivism, self-esteem, and feeling of mastery on life satisfaction among the Turkish university students and academicians. *Social Indicators Research*, *61*(3), 297-317.

Zandifar, A., Badrfam, R., Yazdani, S., Arzaghi, S. M., Rahimi, F., Ghasemi, S., ... & Qorbani, M. (2020). Prevalence and severity of depression, anxiety, stress and perceived stress in hospitalized patients with COVID-19. *Journal of Diabetes & Metabolic Disorders*, 1-8.

Zhang, J., Lu, H., Zeng, H., Zhang, S., Du, Q., Jiang, T., & Du, B. (2020). The differential psychological distress of populations affected by the COVID-19 pandemic. *Brain, Behavior, and Immunity*, *87*(April), 49–50. https://doi.org/10.1016/j.bbi.2020.04.031.

Zhang, S. X., Wang, Y., Rauch, A., & Wei, F. (2020). Health, Distress and Life Satisfaction of People in China One Month into the COVID-19 Outbreak. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3555216.