

PSYCHOLOGICAL RESILIENCE AND DEPRESSION DURING THE COVID-19 PANDEMIC IN TURKEY

Burcu Karaşar² & Derya Canlı¹

¹Department of Psychological Counselling and Guidance, Amasya University Education Faculty, Amasya, Turkey

²Department of Psychiatry, Amasya University Sabuncuoğlu Şerefeddin Training and Research Hospital, Amasya, Turkey

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SUMMARY

Background: Turkey is one of the countries affected during the period of COVID-19 outbreak. The purpose of the current study is to investigate psychological resilience and depression in individuals during the period of COVID-19 outbreak in Turkey in relation to different variables. The study also aims to explore the relationship between psychological resilience and depression.

Subjects and methods: The current study was conducted on a total of 518 people over the social media through the Google e-forms. In the study, the "Short Psychological Resilience Scale" and the "Beck Depression Scale" were used to collect data. In the analysis of the collected data, t-test, One Way Anova, Mann-Whitney U Test, Kruskal Wallis-H Test, Pearson Correlation Coefficient were used.

Results: In the current study, psychological resilience and depression were investigated in relation to different variables. Psychological resilience was found to be higher male participants, educators, university graduates and groups with not mental health problems. Depression was found to be higher females, university students, high school and lower graduates, with mental health problems. When the relationship between psychological resilience and depression was investigated, it was found that there is a medium and negative correlation between them. Moreover, the cut-off point for the depression score was set to be 17 and the rate of the people having 17 points or higher scores was found to be 16.6%.

Conclusion: In light of the findings of the current study, it can be suggested to offer more mental health care services to those having higher levels of depression. Studies can be conducted to improve online psychological support services. A medium and negative correlation was found between psychological resilience and depression in the current study, which shows that more importance should be attached to activities to improve psychological resilience.

Key words: resilience - depression - COVID-19 outbreak

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INTRODUCTION

The COVID-19 outbreak has affected physical and psychological health and seriously threatened the lives of many people all over the world. Taking precautions such as social isolation due to the outbreak has psychologically affected many people. In the literature, it is seen that there are various studies conducted on the psychological effects of the COVID-19 epidemic (Lai et al. 2020, Sønderkov et al. 2020, Varshney et al. 2020). The outbreak has triggered various psychological problems, such as depression (Qiu et al. 2020). It is seen that depression rates are high during the COVID-19 epidemic in many parts of the world. Lei et al. (2020) stated that the prevalence of depression during the epidemic in China is approximately 14.6%. Wang et al. (2020) found that 16.5% of respondents in China reported moderate to severe symptoms of depression. Rossi et al. (2020) found that the rate of depression during the period of the outbreak is 17.3% in Italy. In the study conducted by Sigdel et al. (2020) in Nepal, the rate of depression was reported to be 34.1%. It is thought that many people in Turkey have also been psychologically affected from the outbreak.

Resilience is one of the factors that should be focused on the formation and improvement of equality for mental

health in social and global practices in the 21st century (Jakovljevic 2018). Each individual's reactions to negative situations, stressful life events, or strategies to deal with these situations are different. While it may take a long time for some people to get back to their normal life by getting rid of the effects of these negative situations or stressful events, some people may get out of the negative mood in a short time. People's ability to recover and return to their normal lives is called psychological resilience (Doğan 2015). There are differences between individuals in terms of adaptation (Block & Kremen 1996).

Resilience doesn't just mean survival and adaptation to challenges. It also includes growing, developing and getting better (Jakovljevic 2018). While robustness is expressed as the ability to recover from disease in medicine, psychological resilience is defined as being able to recover from negative emotional experiences. Resilience is an important concept in terms of quality of life and health, dealing with adverse events and overcoming difficulties. Psychological resilience has two dimensions: interpersonal and intrinsic. While the intrinsic dimension is concerned with one's relation to his/her inner world, the interpersonal dimension is related to his/her relation with other people (Jakovljevic 2017). Jakovljevic et al. (2020) stated that the outbreak

can be considered in four stages: personal, local, national and international. It is stated that societies have different characteristics that determine how resilient they can be against negative effects.

The issue of psychological resilience seems to be very important in reducing and preventing the negative psychological effects of the worldwide epidemic. Psychological resilience is an important variable in mental health. In various studies, psychological resilience has been reported to be correlated with happiness (Açıkgöz 2016, Altuntaş & Genç 2018, Aydın & Egemberdiyeva 2018, Can 2018, Lower 2014, Toprak 2014), life satisfaction (Beutel et al. 2010), mental health (Rudwan & Alhashimia 2018) and psychological well-being (Kajbafnezhad & Keshi 2015). Psychological resilience also seems to be related to depression. Studies have found that depression and psychological resilience are negatively correlated (Smith et al. 2008, Taheri-Kharamah & Hazavehei 2017).

In Turkey, many people have been affected by the epidemic spiritually and physically. Social isolation to prevent the COVID-19 outbreak has affected the lives of people in many ways. It is seen that psychological resilience has gained particular importance in this process. Thus, the current study aimed to investigate depression and psychological resilience in the period of social isolation during the epidemic in relation to different variables and to explore the relationship between psychological resilience and depression. The investigation of the relationship between depression and psychological resilience was thought to be important in planning mental health services during the epidemic. In the current study, the analysis of depression and psychological resilience in relation to different variables is important for determining the groups that should be given priority in mental health services. At the same time, the current study is thought to be important in terms of understanding the extent to which individuals living in Turkey are influenced by depression. The study is also thought to make some contributions to other researchers planning to conduct research to enhance psychological resilience.

SUBJECTS AND METHODS

Participants and procedures

A total of 518 individuals reached over the social media through the Google e-forms from different cities of Turkey between April and May 2020 participated in the current study. After the participants were given detailed information about the study and were informed that the participation would be on a volunteer basis, the volunteer participants were administered a Personal Information form, the Short Psychological Resilience Scale and the Beck Depression Inventory.

Personal Information Form: In the form, there are items to elicit information about gender, marital status, age, education level and profession.

Short Psychological Resilience Scale: The scale developed by Smith et al. (2008) was adapted to Turkish by Doğan (2015). The scale was found to be consisted of 6 items and one factor. It is a five-point Likert scale. As a result of the exploratory factor analysis, the scale was found to be consisted of a single dimension explaining 54.66% of the total variance. The factor loadings of the scale items were found to be varying between 0.63 and 0.79. In the validity study of the scale, factor analyses were conducted. The obtained results showed that the scale is a valid and reliable measurement tool.

Beck Depression Inventory (BDI): The scale was developed by Beck et al. (1961) and adapted to Turkish by Hisli (1988, 1989). The scale consisted of 21 items are scored between 0-3. The highest score to be taken from the scale is 63. The correlation of the scale with the MMPI-SD scale was found to be 0.50. When the split-half reliability of the scale was examined, it was found to be 0.74. The Cronbach alpha coefficient was stated to be 0.80 (Hisli 1989).

Table 1. Socio-demographic characteristics of research group

Variables	n	%
Age groups		
18-30 years	128	24.7
31-40 years	197	38.0
41-50 years	115	22.2
>51 years	78	15.1
Gender		
Males	228	44.0
Females	290	56.0
Marital status		
Single	155	29.9
Married	363	70.1
Education level		
High school	114	22.0
University	404	78.0
Occupation		
Student	24	4.6
Healthcare personnel	102	19.7
Educator	140	27.0
Private sector	125	24.1
Public worker	34	6.6
Unemployed-retired	93	18.0
Homeshaaring		
Lonely	34	6.6
Family	484	93.4
Health problem		
Yes	32	6.2
No	486	93.8
Mental illness		
Yes	27	5.2
No	491	94.8

Statistical analysis

The data analyses in the current study were conducted by using IBM SPSS Statistics for Windows 20.0 software program. In the analysis of the psychological resilience and depression scores in relation to different variables, Independent Samples T Test, One- Way Anova, Mann-Whitney U Test and Kruskal Wallis- H Test were used. In the analysis of the relationship between psychological resilience and depression, Pearson Correlation Analysis was used. Before initiating the analyses of the study, skewness and Kurtosis coefficients were examined to understand whether the data are suitable for normal distribution. For psychological resilience, the skewness and Kurtosis coefficients were found to be 0.02 and 0.35, respectively while for depression, they were found to be 0.94 and 0.74, respectively. In the current study, the level of significance was set to be $p < 0.05$.

The study was approved by Amasya University Social Sciences Ethics Committee (21/04/2020-E.8810) and Provincial Health Directorate.

RESULTS

A total of 518 people participated in the current study and 290 (56%) of them are females and 228 (44%) of them are males. The descriptive statistics related to demographic features of the study group are presented in Table 1.

The depression scores of the study group were analyzed in relation to different variables. The depression scores were found to be varying significantly depending on gender ($t_{(516)}=2.26, p < 0.05$) and the mean score of the female participants (10.05) was found to be significantly higher than that of the male participants (8.54). Significant difference was found based on education level ($t_{(516)}=2.69, p < 0.05$), yet, the mean score of the participants who are highschool and lower school graduates (11.07) was found to be higher than that of the participants who are university graduates (8.91). The scores were found to be varying significantly depending on profession ($F(5,512)=3.29$) and in order to find the source of the difference, Scheffe test was conducted and

Table 2. Evaluation of depression in terms of various variables

Variables	n	Mean±SD	Median	Min	Max	p-value
Age groups						0.45
18-30 years	128	9.96±7.82	8	0	33	
31-40 years	197	9.18±7.87	8	0	39	
41-50 years	115	9.79±7.59	9	0	34	
>51 years	78	8.37±6.29	8	0	27	
Gender						0.02
Males	228	10.05±7.41	9	0	34	
Females	290	8.54±7.71	7	0	39	
Marital status						0.14
Single	155	10.14±8.02	8	0	33	
Married	363	9.06±7.37	8	0	39	
Education level						0.00
High school	114	11.07±7.53	10	0	32	
University	404	8.91±7.53	8	0	39	
Occupation						0.00
Student	24	13.75±8.02	13	3	33	
Healthcare personnel	102	9.86±8.27	8	0	34	
Educator	140	8.67±7.42	7.50	0	39	
Private sector	125	9.00±7.32	8	0	32	
Public worker	34	6.58±6.18	7	0	24	
Unemployed-retired	93	10.36±7.21	10	0	29	
Homesharing						0.40
Lonely	34	8.70±8.18	6.50	0	34	
Family	484	9.43±7.54	8.00	0	39	
Health problem						0.24
Yes	32	11.15±8.62	9.00	1	34	
No	486	9.27±7.50	8.00	0	39	
Mental illness						0.00
Yes	27	14.22±8.19	14.00	0	34	
No	491	9.12±7.46	8.00	0	39	

SD - Standard Deviation

according to the results of this test, the mean depression score of the university students (13.75) was found to be higher than that of the public workers (6.58). The depression scores of the participants were found to be varying significantly depending on whether having a psychological disorder or not ($U=4137.00$, $p<0.05$) and the depression mean score of the participants having a psychological disorder was found to be higher than that of the participants not having a psychological disorder. The depression scores were found to be not varying significantly depending on marital status ($t_{(516)}=1.47$, $p>0.05$), age ($F(3,514)=0.87$), the people lived together at home ($U=7525.50$, $p>0.05$) and whether having a health problem or not ($U=6820.50$, $p>0.05$). The cut-off point for the depression score was set to be 17 (Hisli 1989) and the rate of the people having 17 points or higher scores was found to be 16.6%. The results related to the analysis of depression in relation to different variables are presented in Table 2.

The psychological resilience scores of the study group were analyzed in relation to different variables. The psychological resilience scores were found to be varying significantly depending on gender ($t_{(516)}=4.50$, $p<0.05$). The mean psychological resilience score of the male participants (21.53) was found to be significantly higher

than that of the female participants (19.94). In relation to education level, a significant difference was found ($t_{(516)}=2.68$, $p<0.05$), and the mean psychological resilience score of the participants who are university graduates (20.89) was found to be higher than that of the participants who are graduates of high school or lower level of education (19.74). The scores were found to be varying significantly depending on profession ($F(5,512)=4.01$), and in order to find the source of the difference, Scheffe test was conducted and according to the results of this test, the mean psychological resilience score of the educators (21.34) is higher than that of the health care professionals (19.57). The psychological resilience scores of the participants were found to be varying significantly depending on whether having a psychological disorder or not ($U=4842.00$, $p<0.05$), and the mean psychological resilience score of the participants not having a psychological disorder was found to be higher than that of the participants having a psychological disorder. The psychological resilience scores were found to be not varying significantly depending on marital status ($t_{(516)}=0.76$, $p>0.05$), age ($F(3,514)=2.16$), the people lived together at home ($U=7603.50$, $p>0.05$) and whether having a health problem or not ($U=6343.50$, $P>0.05$). The related results are presented in Table 3.

Table 3. Evaluation of psychological resilience in terms of various variables

Variables	n	Mean±SD	Median	Min	Max	p-value
Age groups						0.09
18-30 years	128	20.17±4.02	20.00	8	30	
31-40 years	197	20.63±4.29	20.00	6	30	
41-50 years	115	20.48±4.11	20.00	9	30	
>51 years	78	21.62±3.24	21.00	14	30	
Gender					0.00	0.00
Males	290	19.94±4.13	20.00	6	30	
Females	228	21.53±3.79	21.00	8	30	
Marital status						0.44
Single	155	20.43±4.59	21.00	8	30	
Married	363	20.73±3.80	20.00	6	30	
Education level					0.00	0.00
High school	114	19.74±4.01	20.00	8	30	
University	404	20.89±4.03	21.00	6	30	
Occupation						0.00
Student	24	18.66±4.63	18.00	8	28	
Healthcare personnel	102	19.57±3.81	20.00	11	30	
Educator	140	21.34±3.52	21.00	11	30	
Private sector	125	21.00±4.39	20.00	9	30	
Public worker	34	21.47±3.79	21.50	10	30	
Unemployed-retired	93	20.46±4.21	20.00	6	30	
Homesharing					0.45	0.45
Lonely	34	19.97±4.28	21.00	10	30	
Family	484	20.68±4.04	21.00	6	30	
Health problem					0.08	0.08
Yes	32	19.43±4.72	19.00	8	30	
No	486	20.72±4.00	21.00	6	30	
Mental illness					0.01	0.01
Yes	27	18.66±3.74	19.00	8	24	
No	491	20.74±4.05	21.00	6	30	

SD - Standard Deviation

Tablo 4. Correlations between psychological resilience and depression

	Depression
Psychological resilience	-0.47**

** $p < 0.01$

When the relationship between the study group's psychological resilience and depression was examined, a medium and negative correlation was found between them ($r = -0.47$, $p < 0.01$). The results are presented in Table 4.

DISCUSSION

The current study aimed to analyse depression and psychological resilience during the COVID-19 outbreak in relation to different variables and to explore the relationship between psychological resilience and depression. The depression scores were found to be varying significantly depending on gender and the mean depression score of the female participants was found to be higher than that of the male participants. This finding of the current study seems to concur with the literature. Nolen-Hoeksema (2001) stated that the reason for the difference between the genders is that women are exposed to some stressors more frequently than men. Various studies conducted before the COVID-19 outbreak reported that women had higher depression scores than men (Yalçınkaya Akyüz & Güven 2001, Ongider & Ozişik Eyüpoğlu 2013, Ozişik Eyüpoğlu 2019, Algur 2019). When the studies conducted during the epidemic are examined, it is seen that similar results have been reported (Wang et al. 2020; Rossi et al. 2020; Sigdel et al. 2020). In the current study, psychological resilience scores were found to differ significantly between genders, and male participants' mean psychological resilience score was found to be higher than that of the female participants. In accordance with the current study, various studies in the literature have reported that psychological resilience is higher in males than females (Açıkgöz 2016, Hoşoğlu et al. 2018).

In the current study, there are participants from different professions (university students, health care professionals, educators, private sector workers, public workers, and those not working) and when the depression scores were analyzed depending on profession, it was found that the mean depression score of the university students is higher than that of the public workers. Similarly, Wang et al. (2020) found the depression score of the students higher during the COVID-19 epidemic. Becerra-García et al. (2020) found in their study in Spain that the mean depression score of the participants in the age group of 18-35 is higher than that of the participants from older age groups. Rossi et al. (2020) found that being younger was associated with depression. When the studies conducted before the epidemic are examined, it is seen that higher depression scores were reported for individuals aged 18-20

(Ongider & Ozişik Eyüpoğlu 2013, Ozişik Eyüpoğlu 2009). Aylaz et al. (2007) reported that the frequency of depression among university students is 25.4%. The existing research in general shows that pre-epidemic and post-epidemic depression is relatively higher in young people. It can be said that some uncertainties brought by the period of youth may trigger depression in university students. In the comparison of psychological resilience scores according to professional groups, it was found that the mean psychological resilience score of the educators is higher than that of health care providers. This finding of the current study may be because health care providers work under a higher risk than those working in the field of education. The occurrence of an emotional and physical exhaustion among health workers working intensively during the epidemic may have caused a decrease in their psychological resilience.

In the current study, the participants were grouped according to their education level and the mean depression score of the participants who are high school graduates is higher than that of the participants who are university graduates. This finding of the study shows that the high level of education can be a protective factor for depression. It can be thought that the level of education can positively affect the coping skills and prevent depression. Various studies have found that those with lower education levels have higher depression scores than those with higher education levels (Ozişik Eyüpoğlu 2009, Yalçınkaya Akyüz & Güven 2001). When the same groups were compared in terms of psychological resilience, it was seen that individuals with university education have a higher mean score than individuals with high school education and lower level of education. This finding of the study seems to be consistent with studies showing that psychological resilience varies according to the level of education (Bektaş & Ozben 2016, Soysal 2016). This finding of the study also shows that high education level can be an important factor for psychological resilience. At the same time, the high level of education can positively affect coping skills and the development of social skills, thereby increasing psychological resilience.

In the current study, the mean depression score of the group with a psychological disorder was found to be higher than that of the group without a psychological disorder. This finding can be explained by the fact that individuals who have previously been diagnosed with a psychological disorder are also at risk of depression. Their depression scores may have been found higher because they have been psychologically affected more than undiagnosed people from the epidemic. The mean psychological resilience score of the group with no psychological disorder was found to be higher than the score of the group with physiological mental disorder. Rudwan and Alhashimia (2018) found that there is a relationship between psychological resilience and mental health.

In the current study, a medium and negative correlation was found between psychological resilience and depression. There are many studies supporting this finding of the current study (Smith et al. 2008, Taheri-Kharameh & Hazavehei 2017).

CONCLUSIONS

The results of the current study seem to be important in terms of determining the groups with high levels of depression and planning mental health services. In light of the findings of the current study, following suggestions can be made.

The medium and negative correlation found in the current study between depression and psychological resilience shows that services to increase psychological resilience should be made more prevalent. In this regard, various psycho education programs, online support groups and individual therapies can be promoted.

For the groups with higher depression scores including women, people with a lower level of education, university students, people previously diagnosed with any psychological disorder, support services and activities to enhance mental health can be planned. Various studies can be initiated to increase psychological resilience, primarily in these groups. Special emphasis can be put on online support groups.

On the basis of the finding that the mean psychological resilience score of the female participants is lower than that of the male participants, future research can look at the reasons for lower psychological resilience scores among women.

In the current study, it was found that the psychological resilience of health care workers is lower than that of the educators. Based on this result, applications such as online cognitive behavioural therapy trainings and EMDR therapies can be planned to increase the psychological resilience of health care workers.

This study was conducted on individuals aged 18 and over. This is a limitation of the study. For this reason, in the future studies, variables such as depression and psychological resilience can be investigated extensively on children and adolescents. In addition, efforts to increase psychological resilience from childhood can be accelerated.

In line with the results of the current study, it seems to be important to expand the services for increasing psychological resilience. Studies that increase psychological resilience should be accelerated in order to reduce the negative psychological and physical consequences of the outbreak.

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Contribution of individual authors:

Burcu Karaşar: study design, data collection, literature review, statistical analysis, approval of the final version.

Derya Canlı: study design, data collection, literature review, approval of the final version.

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Correspondence:

Burcu Karaşar, MD
Department of Psychological Counselling and Guidance,
Amasya University Education Faculty
Amasya, Turkey
E-mail: burcukarasar@gmail.com