

## **Covid-19 Pandemisi Sürecinde Çalışan Bireylerin Depresyon ve Öfke Düzeyleri: Bir Nedensel Karşılaştırma Araştırması**

### ***Depression and Anger Levels of Individuals Working During the Covid-19 Pandemic: A Causal Comparative Research***

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**Özet:** Çalışan bireyler; çalıştıkları ortamla ilgili olabilecek depresyon ve öfke gibi psikolojik sorunlardan büyük ölçüde muzdarip olabilmektedir. Bu durum özellikle Covid-19 koşullarında belirgin hale gelmiştir. Bu çalışmanın amacı, özel ve kamu sektörü çalışanlarının depresyon ve öfke düzeylerini ve bu düzeylerin cinsiyet değişkeni ile karşılaştırmaktır. Çalışıyor olma kriteri gözetilerek basit seçkisiz örnekleme yöntemi ile kamu ve özel sektörden 288 katılımcı belirlenmiş ve nedensel karşılaştırma modeli kullanılmıştır. Katılımcıların “Sosyodemografik Veri Formu”, “Beck Depresyon Envanteri (BDE)”, “Sürekli Öfke İfade Envanteri (STAEI)”ne verdikleri yanıtlardan elde edilen veriler, aralarındaki ilişkilerin belirlenmesi adına, SPSS-17 ile Pearson Korelasyon Analizi, Bağımsız Örneklem T-Testi ve Tek Yönlü Varyans Analizi (ANOVA) ile analiz edilmiştir. Çalışmanın sonuçlarına göre, özel sektör çalışanlarının, depresyon ve öfke düzeylerinin kamu sektörü çalışanlarından daha yüksek olduğu görülmüştür. Hem özel sektör hem de kamu sektörü çalışanlarının depresyon düzeyleri, öfke düzeyleri ile pozitif, öfke kontrol düzeyleri ile negatif bir ilişkiye sahiptir.

**Abstract:** Employees may suffer greatly from psychological issues such as depression and anger as a result of their workplace environment. This has become particularly evident in the conditions of Covid-19. This study is aimed to compare the levels of depression and anger among employees of the private and public sectors. 288 participants from the public and private sectors were determined by the simple random sampling method, considering the criterion of being employed, and the causal comparative model was used. The data which obtained from the answers of participants to “Sociodemographic Data Form” “Beck Depression Inventory (BDI)”, “State-Trait Anger Expression Inventory (STAEI)” analyzed by SPSS-17 with Pearson Correlation Analysis, Independent Samples T-Test and One-Way Analysis of Variance (ANOVA) to determine the relationship variables. According to the results of the study, private sector employees compared to public sector employees; depression and anger levels were found to be higher. Depression levels of both private and public sector employees has a positive correlation with anger levels but a negative correlation with their anger control levels.

## **Introduction**

The World Health Organization (WHO) declared coronavirus (COVID-19) as a pandemic on March 11, 2020, indicating that it is a worldwide disease that poses a threat (Hamouche, 2020). It was discovered in a group of people with breathing issues in Wuhan Province, China, on December 31, 2019. The World Health Organization proclaimed the virus a worldwide and urgent

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public health issue on January 31, 2020, and on February 11, 2020, it was named Coronavirus disease-2019 (COVID-19) and labelled a pandemic since it is a global epidemic (Karataş, 2020, p. 5). Epidemics that have a detrimental and long-term impact on society can result in many fatalities. With Covid-19 there is a drop in the nations' food, tourism, and other earnings, which has a detrimental impact on their economies (Öztaş et al., 2020). Employees have difficulty adjusting to the unfavourable atmosphere caused by the disease and changes in working circumstances during the pandemic period, and this new scenario creates stress and sadness in people, albeit at varying amounts. Individuals' psychological well-being is influenced by negative situations such as living surroundings, job conditions and stress, which are becoming increasingly complicated. Individuals' sadness and unhappiness can result in mental health problems like depression. (Akman & Abaslı 2016).

Depression is a key contributor to the worldwide burden of disease and it's damaging effect on people's quality of life are a growing concern (Davidson, 2008). Approximately 80% of people suffering from depression have some degree of functional impairment, and 27% have substantial employment issues (Valenstein, 2001). Changes in a worker's conduct at work might be a symptom of depression (Ani et al., 2008). Depression rates differ by sector and employment, according to research (Rockville, 2007). Employees in the public sector were marginally more happy with their employers, opportunities for advancement, job security, and the amount of work they were anticipated to perform than those in the private sector (Powell et al., 2015). Depression is frequently viewed as a personal issue involving feelings of isolation. But also there is pervasive depression in companies too, which presents itself in a variety of ways, such as poor individual or collective employee performance, resulting in a decline in overall organizational functionality (Gray et al., 2008). "A extremely strong emotion of displeasure that emerges due to a genuine or perceived transgression" is how anger is defined (Modi & Thingujam, 2007). In this view, rage might be characterized as a signal that our rights have been violated, that our wants and needs have been thwarted, and that something isn't quite right.

When a person feels threatened, he feels angry, insulted and enraged, depending on the nature of the threat. The level of fury grows if the frightening scenario is damaging to one's self-esteem or irresistible (Bayrı & Kelleci, 2009). It is well known that some people readily express their anger in everyday life, while others repress their emotions and channel them internally. When anger is directed outward and others judge the situation badly, it can lead to decrease in self-esteem, conflicts in relationship and family problems, verbal and physical assaults, and work-related incompatibilities (Erdem, Çelik, Yetkin & Özgen, 2008).

Covid 19 pandemic condition has produced a challenging situation for employees with radical changes which it brings like limiting contact, turning to remote work and becoming face to face with new workplace policies. According to (Carnevale & Hatak, 2020). All of these factors have some consequences for employees, such as, separating work life and private life, isolation, uncertainties in working hours and difficulties in getting away from work demands, increased workloads, limitless working hours, and decreased free time (International Labour Organization, 2020; Chawla et al., 2020). Also job insecurity increased and employee wellbeing decreased because of layoffs, pay cuts, and furloughs. (Guest, 2017; Carnevale & Hatak, 2020; Chawla et al., 2020).

Szabo and Juhasz (2019) stresses that both of physical and mental health of employees affects the company and its' business performance just like the affects of conditions of work and the workplace on employees. Research shows that there is a strong relationship between employees' complacency, productiveness, loyalty and their health (Ozminkowski et al. 2016; Hendriksen et al. 2016; Gubler et al. 2017; Szabo and Juhasz 2019). The aim of this study is to compare the anger and depression levels of private and public sector employees. Thus, it is thought that necessary information can be obtained in order to take the necessary preventive measures and interventions to improve the psychological conditions of both employee groups. Also determining whether there is a differentiation in depression and anger between individuals working in the

public and private sectors and determining the direction of this differentiation, if there is, can provide important information in order to solve the problems of the disadvantaged group. Thus, this study can give handy and usefull signs for to increse benefits and satisfaction of both employees and employers can be increased.

## 2. Methodology

### 2.1. Hypotesis

In this study, the following hypotheses are evaluated.

**H1:** There is a significant difference between the depression levels of private and public sector employees.

**H2:** There is a significant difference between state-trait anger levels of private sector and public sector employees.

### 2.2. Resarch Design

This study, which includes the comparison of depression and state-trait anger levels of private and public sector employees, is a causal comparative study. Causal comparative research is a type of research conducted to determine the causes of an existing/existing situation/event, the variables that are thought to be effective on these reasons, or the results of an effect (Büyüköztürk et al., 2008).

### 2.3 Instruments/methods

The sample of this study was determined by a simple random sample, and it was desired to be working as a criterion for participation in the research. In the simple random sampling method, all units that make up the universe have an equal chance of being selected (Karasar, 2018). After the data were collected, the participants were divided into two groups by the researcher depending on their work in the private and public sectors.

### 2.4. Participants

The universe of the study consists of the employees in Turkey. The sample consisted of private sector and public sector employees aged 18-45 who voluntarily participated in the current study. The model of the study is the casual comparative model.

Private sectors' participants were 199 adults, 103 women and 96 men volunteers and public sectors' participants were 96 women and 103 men volunteers. The age range of 288 participants in the study was 21-58 ( $Avg=37$ ,  $SD=9$ ) in the private sector employees group, and the age range was 25-62 ( $Mean=42$ ,  $SD=10$ ) for the group of public sector employees. The majority of the private sector employees who participated in the survey have a bachelor's degree (60.8%). 36 graduates (18.1%), 24 associate degree (12.1%) and 18 high school graduates (9.0%). The majority of the state sector employees who participated in the survey have a bachelor's degree (54.8%). 38 people are associate degree (19.1%), 31 people are graduate (15.6%) and 21 people are undergraduate (10.6%). The vast majority of private sector workers in the study reported a medium (69.8%) level of income, 37 reported a high (18.6%) and 23 a low level (11.6%). The vast majority of public sector workers in the study reported moderate (78.9%) income, 30 high (15.1%), and 12 low (6.0%).

### 2.5.Procedure

The study was carried out as an online questionnaire, with each participant utilizing their own computer or phone as the study's material. The study is completely voluntary, and there is no monetary or other incentive for participants to participate. Participants in the study were provided all necessary information before to the study, and all participants gave their consent to disclose their data. Participants were told about how to perform the study from the beginning of the study phase, and all participants were required to sign a statement stating that they accepted to

participate in the trial, were informed, and that their data might be utilized. On the study screen, there was a screen that detailed how the study was conducted. The present study consists of three scales. These are “Sociodemographic Data Form”, “Beck Depression Inventory”, “State-Trait Anger Expression Inventory”. Before the analyzes, the data collected on the internet were transferred to the 25th version of SPSS (SPSS, 2017), and then the analyzes were started. One of the first steps of the investigation was to verify the assumption of normal distribution. The scale and subscales' kurtosis and skewness values were examined during this phase. These values, which fall within the -2 to +2 reference range according to George and Mallery's (2010) study, show a normal distribution. Controlling the values, it appears that the variables of the current study provide the reference range for kurtosis and skewness. Pearson Correlation analysis used the Beck Depression Inventory, Trait Anger-Anger Styles Inventory to correlate with each other. Independent Samples T-Test and One-Way Analysis of Variance (ANOVA) were used. The p value to be used is 0.05 and the confidence interval value is 95%.

## 2.6. Materials

A total of four measurement tools were used as the data collection tool used within the scope of the research. These measuring tools; "*Sociodemographic Data Form*", "*Beck Depression Inventory*", "*State-Trait Anger Expression Inventory*".

### 2.6.1. Sociodemographic Data Form

The age, gender, educational status, and income of the individual are questioned in the Sociodemographic Data Form.

### 2.6.2. Beck Depression Inventory (BDI)

Beck Depression Inventory is a scale designed to assess depression symptoms and severity in people in emotional, cognitive, physical, and motivational aspects. It was developed by Beck (1961). There are a total of 21 self-recognition sentences: two on emotions, two on actions, eleven on cognitions, one on interpersonal connections, and five on physical symptoms (Bonicatto, Dew & Soria, 1998).

Each item has a four-point Likert scale, with a score of 0, 1, 2, or 3 indicating the degree of depression. The intensity of depressive symptoms is indicated by high scores. The scale is graded on a scale that ranges from 0 to 63 points (Aydemir and Köroğlu 2006). A score of 0 to 9 shows no depression, a score of 10 to 16 suggests mild depression, a score of 17 to 24 indicates moderate depression, and a score of 25 or more indicates severe depression (Beck et al., 1961). Depression symptoms (depressed mood, guilt, pessimism, weeping spells, discontent, sense of failure, restlessness, weariness, not eating, social withdrawal, inability to make decisions, incorrect body image, sleep disruption, somatic difficulties), work efficiency slowdown, and libido loss) are noted (Hisli, 1988).

Teğin (1980) and Hisli (1988, 1989) separately performed a validity and reliability study of the Turkish version of the BDI, and the scale's cut-off point was determined to be 17 points (Hisli, 1989). The internal consistency coefficient was 0.80 in the BDI reliability study, while the reliability coefficient was 0.74. (Hisli, 1988). The MMPI Depression scale was utilized as the validity method criterion in the scale's standardization investigation, and the Pearson correlation value was determined to be  $r=.50$  (Hisli, 1989). This study's internal consistency (Cronbach's alpha) coefficient found to be .90.

### 2.6.3. State-Trait Anger Expression Inventory (STAEI)

The Trait Anger Scale, which is part of the Trait Anger-Anger Style Scale created by Spielberger (1988), was used in this study to measure how frequently people feel angry. The scale has 34 items, including two 4-likert subscales (1=never, 2=occasionally, 3=often, 4=almost usually), characteristic anger, and anger expression style. The Trait Anger Scale is made up of the first 10 elements, while the Anger Expression Style Scale is made up of the following 24. The Anger

Expression Style Scale is divided into three dimensions: "anger in," "anger out," and "anger management," each of which has eight items. The scale assigns points to each subscale independently and does not provide a total score. The Trait Anger scale ranges from 10 to 40, with 10 being the lowest and 40 being the most. The Anger Expression Style Scale's anger in, anger out, and anger management dimensions have a range of eight to 32, with eight being the lowest and 32 being the highest. Özer conducted a validity and reliability assessment of the Turkish adaption of the Trait Anger-Anger Style Scale (1994). For the Trait Anger Scale, the Cronbach alpha internal consistency coefficient ranged from .67 to .92; for the Anger Expression Style Scale, it was found between .58 and .76 for the anger-in sub-dimension, between .69 and .91 for the anger-out sub-dimension, and between .80 and .90 for the anger management sub-dimension (Özer, 1994). The anger management internal consistency (Cronbach's alpha) coefficient of the current study was .86, the anger-out internal consistency (Cronbach's alpha) coefficient was .69, and the anger-in-internal consistency coefficient found to be .85.

### 3. Results

Main hypothesis of the study is that; public and private sector's depression, anger sub-dimensions will differ significantly. When the scores obtained from the sub-dimensions of "trait anger", "anger out" compared according to the sector variable, the difference between the averages of variables wasn't significant ( $p > 0.05$ ). From the Beck Depression Scale ( $t(396) = 2.24, p < 0.05$ ), from the Anger In subscale ( $t(396) = 2.42, p < 0.05$ ), from the Anger management subscale ( $t(396) = 2.16, p < 0.05$ ) (See Table 1). It is seen that private sector employees have higher scores than public sector employees.

There is a moderate and positive correlation between Beck Depression Inventory and Trait Anger levels ( $r = .468, p < 0.01$ ), Beck Depression Inventory and Anger In ( $r = .328, p < 0.01$ ) levels, Beck Depression Inventory and Anger Out ( $r = .384, p < 0.01$ ) levels of private sector employees'. There is a moderate and negative correlation between Beck Depression Inventory and Anger Management levels of private sector employees ( $r = -.301, p < 0.01$ ) (See Table 2).

There is a positive moderate correlation between Beck Depression Inventory and Trait Anger levels ( $r = .406, p < 0.01$ ), Beck Depression Inventory and Anger In ( $r = .389, p < 0.01$ ) levels, Beck Depression Inventory and Anger Out ( $r = .362, p < 0.01$ ) Public sector employees' there is a weak and negative correlation between Beck Depression Inventory and Anger management ( $r = -.255, p < 0.01$ ). (See Table 3).

Table 1 Comparison of Beck Depression Inventory, State Trait Anger Expression Inventory Scores According to the Sector Variable (n= 398)

		n	$\bar{X}$	df	t	SD.	p
Beck Depression Inventory	Private Sector Employee	199	15.89	11.07	2.24	396	0.025*
	Public Sector Employee	199	13.38	11.26			
Trait Anger	Private Sector Employee	199	21.53	6.11	-1.43	396	0.153
	Public Sector Employee	199	22.42	6.27			

Anger In	Private Sector Employee	199	19.03	3.69	2.42	396	0.016*
	Public Sector Employee	199	18.08	4.11			
Anger Out	Private Sector Employee	199	16.67	4.40	-0.28	396	0.780
	Public Sector Employee	199	16.79	4.55			
Anger Management	Private Sector Employee	199	24.07	4.24	2.16	396	0.032*
	Public Sector Employee	199	23.12	4.59			

\* $p < 0.05$  Test Used: Independent Samples T-Test

Table 2 The Relationship between Beck Depression Inventory, Trait Anger-Anger Styles Inventory (Private Sector Employee,  $n=199$ )

	1	2	3	4	5	6	7
1.Beck Depression Inventory	1						
2.Trait Anger	.468**	1					
3.Anger In	.328**	.380**	1				
4.Anger Out	.384**	.628**	.402**	1			
5.Anger Management	-.301**	-.451**	-0.006	-.416**	1		

\*\* $p < 0.01$  \* $p < 0.05$  Test used: Pearson Correlation Test

Table 3 *The Relationship Between Beck Depression Inventory, Trait Anger-Anger Styles Scale (Public Sector Employee, n=199)*

	1	2	3	4	5	6	7
1.Beck Depression Inventory	1						
2.Trait Anger	.406**	1					
3.Anger In	.389**	.560**	1				
4.Anger Out	.362**	.770**	.562**	1			
5.Anger Management	-.255**	-.544**	-.209**	-.640**	1		

\*\* $p < 0.01$  \* $p < 0.05$  Test used: Pearson Correlation Test

#### 4. Discussion

In this research, it was tried to compare the depression and anger levels of private and public sector employees with the pandemic period (Covid-19) affecting the whole world. In this context, an online survey was conducted with employees across Turkey. Since the study examines depression and anger levels, it is not known whether levels and sectoral differences are related to the pandemic period or not. Due to the fact that public and private sector employees in Turkey have different working circumstances, the study sample was made up of employees from both sectors. As a result, the possibility of making study variable comparisons has developed.

The study's findings showed that there was a substantial difference between the depression, and anger levels of public and private sector employees. That is, according to the private sector employees compared to the public sector employees; depression and anger levels were found to be higher. According to a research that compared public and private hospital employees, those working in public hospitals showed lower job satisfaction, as well as higher degrees of burnout and depression (Yılmaz, 2014). While clan culture is more dominant in the public sector, market culture is more dominant in the private sector. Clan culture means a friendly and comfortable working environment where the workforce is perceived as an extended family. In this sense, clan culture reflects the opposite of market culture. Organizational harmony, teamwork and personnel satisfaction are ahead of financial targets (Deshpande, Farley, & Webster, 1993: 26). Market culture is a culture whose keyword is competition. Organizations that adopt this culture aim to be highly competitive, and the efficiency of the organization is measured by the market mechanism. In this organizational culture, where goals are a priority, success and result-orientedness come to the fore. Employees are rewarded for their personal contributions to organizational goals in an environment where the market mechanism operates (Erdem, 2007). Clan culture is associated with higher job satisfaction and therefore less anger and depression (Eryılmaz, 2019).

Contraversly Upadhyay and Sharma, (2020) found that both public and private sector employees are susceptible to stress and depression, but that working environment has no on these variables. They conducted a study with employees in India, who suffer from mental health issues such as stress and depression, which may be connected to the environment in which they work. They encounter a variety of obstacles at work, which may change in different work environments. The study's goal is to compare the levels of stress and depression among employees in the private and public sectors. 60 participants from both public and private sectors (30 public and 30 private sector employee) joined to study. The findings reveal that both public and private sector

employees are susceptible to stress and depression, but that working environment has no influence on stress, or depression. It is thought that the results of Upadhyay and Sharma (2020) may be due to the lack of significant differences between working conditions in the public and private sectors in India.

In the anger-in sub-dimension and anger-management sub-dimension, private sector employees were found to be higher than public sector employees. Private sector employees; It has been seen that the relationship between depression and trait anger level and also relation between anger in and anger out is moderate and positive. Because of that; It was observed that as the depression level increased in private sector employees, the trait anger level, anger in and anger out sub-dimensions also increased. In the private sector, the customer's satisfaction is at the forefront, which brings profit. Therefore, it is thought that private sector employees are more likely to encounter demands that are more numerous and more difficult to meet. While it is expected that private sector employees will feel anger at the feeling of frustration created by these demands, allowing private sector conditions to express anger may lead to employees turning their anger inward and higher depression levels. Ersoy (2009) stresses the fact that the private sector nurses find it more inconvenient to express their anger. Likewise Lakshmi et al. (2012) performed a research in Chennai to assess the work-life balance of public and private sector female nurses. The study revealed that nurses in both the commercial and public sectors face the same work-life balance issue, which may lead to stress in women if not adequately handled. Nurses, according to Ferns (2005), use the term "violence" as a type of "umbrella" idea that encompasses both physical assault and insult. Female nurses in the private sector were shown to be more successful in regulating their anger in this study. People avoid feeling upset and expressing their anger because of the potential for bad repercussions and cultural reactions (Erkek et al., 2005). The private sector, as is well known, necessitates professional cooperation, and it is critical for job security to be shielded from bad feedback from superiors. As a result, nurses in this field are aware that expressing anger might result in undesirable consequences, such as termination. So, the fear of losing their jobs may be leading these nurses to repress their rage. Similarly, it's understandable that private-sector nurses find it difficult to openly voice their dissatisfaction. Because of the fact "patient happiness comes first", is a key value in the private sector (Ferns, 2005). This circumstance may lead nurses to treat or care for patients in a strict and unsympathetic manner, as if they deserved it (Goh et al., 1999).

The relationship between the organizational structure of the organization, the conditions of the workplace, the status of the person in the work environment, inadequacy in decision making, the existing leadership style, role confusion, and the interaction of the individual's personality results in the expression of anger, workplace stress (Keskin, Gümüş & Engin, 2011). Private firms have faced great economic difficulties with the pandemic, especially small-scale firms. It is thought that the fact that these companies do not have the capital to tolerate the damage caused by the pandemic process and the low profit margins pushes the companies to turn their employees' working from home into an opportunity that they can work 7/24. Therefore working from home turns to more demands, fewer prescriptions for appropriate action, norms for specific behaviors (Ashfold, Caza & Reid, 2018). Working from home also made them lose a sense of community, social network, predictability and they become physically and emotionally isolated from their colics (Durán & Rodríguez-Sánchez, 2021). The isolation made it difficult to establish communication and cooperation about the work that needs to be done, and it is thought that the rate of labor and time per unit of work has increased.

### **Conclusion and Implications**

According to the findings of the study, it was found private sector employees' all depression, and anger levels were found to be higher than public sector employees. Also it was observed that as the depression levels increased in both private and public sector employees as their anger levels increased but their anger control decreased. On the other hand, it was observed that private sector employees had higher depression levels and anger internalization levels. The increase in anger

internalization accompanied by a decrease in anger control is particularly significant and reveals that private sector workers suppress themselves. Therefore, this study shows that working in the private sector is related to the individual's self-suppression. However, there is a need for pre-test post-test studies, which will include the evaluation of employees before and while they work, in order to determine whether the depression levels, which are determined to be higher in private sector employees, are due to internalization of anger or something else. The results of the study also indicate that the conditions of public sector employees can be evaluated in order to improve the conditions of private sector employees.

It also reveals that not expressing anger does not mean good anger control and it can make employees become more suppressed and depressive. When it is remembered that anger is a natural emotion that arises in the face of frustration, it is seen that there is a need for in-house support systems where private sector employees can express themselves appropriately instead of suppressing them and seek solutions to the negativities they experience.

Also the time spent by the working in the profession was not evaluated in the present study and it seen as a limitation.

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#### ETİK ve BİLİMSEL İLKELER SORUMLULUK BEYANI

Bu çalışmanın tüm hazırlanma süreçlerinde etik kurallara ve bilimsel atıf gösterme ilkelerine riayet edildiğini yazar(lar) beyan eder. Aksi bir durumun tespiti halinde Toplumsal Politika Dergisi'nin hiçbir sorumluluğu olmayıp, tüm sorumluluk makale yazarlarına aittir. Yazarlar etik kurul izni gerektiren çalışmalarda, izinle ilgili bilgileri (kurul adı, tarih ve sayı no) yöntem bölümünde ve ayrıca burada belirtmişlerdir.

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