



## **The Effect Of Perceived Stress of Health Care Professionals on Servant Leadership Behaviors In The Covid-19 Period: NMRT Example**

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## Abstract

**Aim:** The research aims to determine the effect of servant leadership behaviors on the perceived stress levels of healthcare professionals during the COVID 19 pandemic.

**Methods:** The population of the study is 1107 health employees (NMRT - National Medical Rescue Team) in Ankara region. The sample consists of 215 people. Pearson correlation analysis was applied in the study. Simple linear regression test was implemented for the relation level of the sub-dimensions. In the correlation analysis, a medium strong positive correlation was determined between the dependent and independent variables.

**Results:** It is seen that servant leadership behaviors and perceived stress levels of employees are be positively affected. It has been revealed that with the servant leadership behaviors shown during the pandemic process, the stress levels of the employees decreased, the service quality increased and the motivation was provided in a positive way.

**Conclusion:** It can be stated that there is a moderate positive correlation between the dimensions of strengthening, courage, trust, and realism. The model established for the correlation between the stress/discomfort perception dimension and the inadequate self-efficacy perception dimension, and the servant leadership dimensions was determined as significant. Also the servant leadership behaviors exhibited by the ministry managers during the COVID 19 process are thought to make the level of stress perceived by the employees feel low. It can be said that the NMRT employees' servant leadership behaviors, especially in the COVID 19 process, positively affected the people in the working environment and with whom they contacted.

**Keywords:** Stress, Leadership, Health Staff

## INTRODUCTION

Since humanity has existed in the world, many disasters have emerged until today, and epidemic diseases have undoubtedly caused serious damage to humanity among these disasters and delayed the development of societies and states (Yıldız, 2014; Yiğit and Gümüşçü, 2016). In disasters and emergencies that affect life, the health system continues to work, and necessary measures must be taken for this (Çınar, 2019; 167). Many of the studies indicate that outbreaks cause serious traumas and anxieties on people (Lau et al, 2005; Taylor et al, 2008; Yıldız, 2014; Zhang et al, 2020). The epidemic called COVID 19 or 1019-nCOV, which emerged in Wuhan, the administrative center and largest city of Hubei province of China and spread to the world with great speed, has seriously damaged the economy and social life. A member of the coronavirus family, COVID 19, is from a very large family of coronaviruses, such as viruses known as the Middle East Respiratory

Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV) (Zhu et al, 2020; Kıroğlu, 2020). In these pandemic-level outbreaks, healthcare workers are at the highest risk group, and intensive work, not getting enough rest, missing opportunities, unsafe environment, and intense virus environment cause serious psychological distress (Kaya, 2020).

Stress is called as "estricitia" in Latin. Stress was expressed in the form of disaster, trouble, grief, and grief in the 17th century whereas it was expressed in the 18th and 19th centuries in terms of power, oppression, and use of force towards the individual and his spiritual structure (Güçlü, 2001). It was first stated by the scientific community as the "relationship between the elastic object and the external force applied to it" in the 17th century by the physicist Robert Hook (Graham, 1999). Selye stress appeared as follows, which causes the disappearance of energy in the person. The energy normally used to adapt to stress has extinction. Stress that harms individuals cause physiological wear and tear of cells. It is also stated that stress has positive and negative features (Selye, 1974). For this reason, it can be defined as "positive stress" if the positive changes the work ability and capacities of the employees, and "negative stress" if the negative changes (Quick and Quick, 1984).

One of the situations in which stress is most common is the business environment. Job stress definitions were made by many researchers. For example, the work stress is the tension on the workplace because of being affected by the work environment (Lazarus, 1991). Job stress is a serious problem for the employees of the organization and the organization itself. Job stress, difficulties, and inadequacies in the work environment, undermining physical stress, are undesirable, resulting in illness (Leong, 1996). In their studies conducted by Eskin and friends (2013) they stated that the concept of stress is a two-dimensional structure: insufficient self-efficacy and perception of stress / discomfort.

The most important feature of servant leadership that distinguishes it from other leadership approaches is that it provides integration between people and emphasizes establishing long-term relationships with employees (Kılıç and Aydın, 2016: 107).

Servant leaders, as a role model themselves, reinforce mutual trust by accelerating the flow of information, resources and feedback between themselves and their employees. Benevolence, support and personal attention are among the most important elements of servant leadership, and these benevolent behaviors of the leader reinforce trust in the leader. In addition, servant leaders

are leaders who inform their followers in advance, include them in decisions and take initiative, in other words, strengthen their followers. The fact that servant leaders deal with subordinates at a personal level and follow their professional and personal development, behave according to ethical values and be honest also helps employees express themselves comfortably without any concern. Servant leaders create a safe environment for their employees. In this way, employees can use their skills without stress and fear. (Akgemci et al, 2019).

Patterson has developed a value-based model of servant leadership that structures and shapes the behavior of servant leaders. Servant leadership contains seven virtues, according to Patterson. These virtues are moral love, humility, sacrifice, vision, trust, reinforcement, and service are listed (Patterson, 2003: 570).

According to Page et al, personality is at the focal point of servant leadership approach in terms of conceptual dimension. The combination of an individual's physical, cognitive, and emotional capacities creates his personality. Servant leaders also transform their abilities in cognitive, physical, and emotional aspects into behavior within the framework of leadership, wisdom and servitude formats with a unique mix (as cited in Fındıkçı, 2013: 309).

Many people have been guided by the servant leadership approach and philosophy to mediate people's spiritual, emotional, intellectual, and professional development; however, it has become the main expression of the mission definition of many organizations and a valuable and determinant part of its corporate philosophy (Spears, 2004: 7-11).

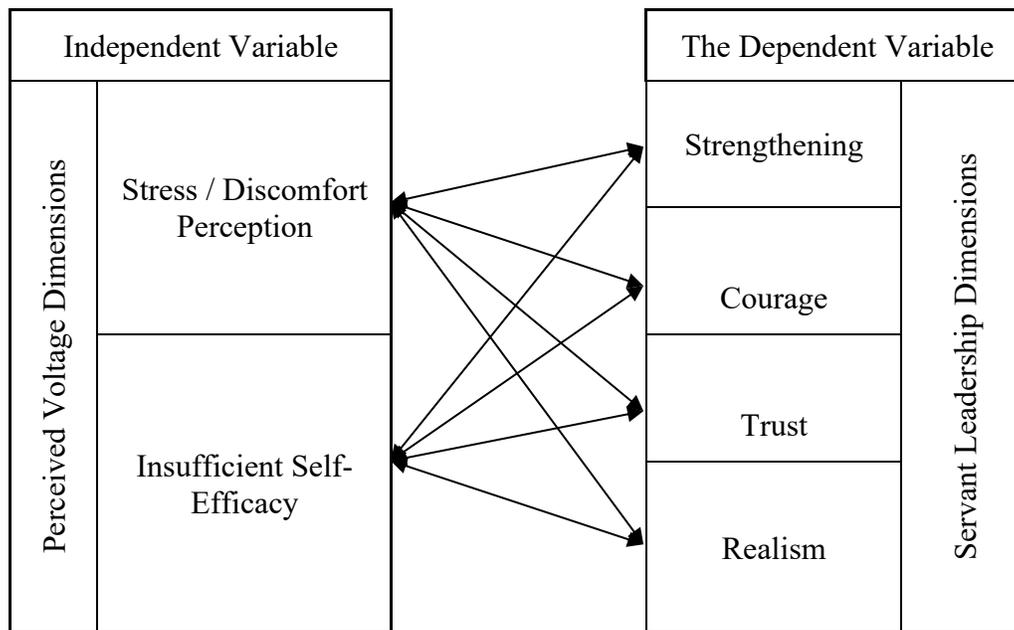
Hunter argues that the concepts of patience, encouragement, humility, respect, not thinking, forgiveness, honesty, and promise, which he describes as "the eight qualities of love," are not only the perfect qualities of love, but also the essence of servant leadership. According to him, these qualities do not only explain the requirements of leadership, but also reveal the real meaning of being a servant in a concrete way (Hunter, 2004: 90-110).

## 1. RESEARCH METHODOLOGY

**Purpose of the research:** The aim of this study is to determine the effect of servant leadership behaviors on perceived stress levels of national health workers in the Ankara region (Ankara, Çankırı, Kastamonu, Kırıkkale, Çorum, Yozgat, Kırşehir – see ref. ASHGM). With the approval of the Ministry of Health dated 30.12.2003 and numbered 5442, the “Health Organization

Project in Disasters” was put into practice and the National Medical Rescue Teams (UMKE) were formed. During the COVID 19 pandemic from 21 NMRT regions according to the information received from the Disaster and Emergency Management Department of the Ministry of Health of the Republic of Turkey.

**Research Hypothesis and Model:** The research was carried out with a descriptive research model. The aim of the study is to define the direction and degree of the correlation between independent and dependent variables. In this context, the conceptual model related to the correlations of these variables can be expressed as in Figure 1.



**Figure 1.** Conceptual Model of the Research.

Based on this conceptual model, the hypotheses of the research can be listed as follows:

**Research Hypothesis:** The following hypotheses have been explored.

H1: There is a correlation between perceived stress levels and servant leadership behaviors of NMRT personnel working in the Ankara region (Ankara, Çankırı, Kastamonu, Kırıkkale, Çorum, Yozgat, and Kırşehir).

The sub-hypotheses developed based on this main hypothesis are:

h1.1. There is a correlation between perceived stress levels and reinforcement dimension in NMRT employees.

h1.2. There is a correlation between perceived stress levels and courage in NMRT employees.

h1.3. There is a correlation between perceived stress levels and trust in NMRT employees.

h1.4. There is a correlation between perceived stress levels and realism dimension in NMRT employees.

**Location and Features of the Research:** The target universe of this study consists of NMRT employees working in a pandemic in seven provinces within the Ankara region (Ankara, Çankırı, Kastamonu, Kırıkkale, Çorum, Yozgat, Kırşehir). The research was carried out between January and December 2021 by online method. NMRT is characteristically a community of volunteer health workers. The reason for the existence of this community is to save people. While carrying out this process, it contains all the functions of an organized organization. It has been a matter of curiosity, how this organized organization, which acts with the unity of the leader and team members, acts in changing conditions. The relationship and existence of this organization during the period of Covid-19 have been tried to be revealed by this study.

**Population and Sample of the Research:** All employees working in the Ankara Region NMRT team within the specified date range constituted the universe of the research. However, due to the difficulty of being reached despite the researchers' desire to reach, the accessible or concrete universe constitutes 1107 personnel. Simple random sampling method was used in the research. In the research, the following formula was used to determine the number of people to be reached through the universe in question (Yamane, 2001: 116-117).

$n = \frac{(Nt^2 pq)}{(d^2 (N-1) + t^2 pq)}$	$n = \frac{(1107 * 1,96^2 * 0,10 * 0,90)}{(0,05^2 * 100 + 1,96^2 * 0,10 * 0,90)}$	$n = 123$
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According to the results obtained, the number of people to be reached in the research is 123. In this study, analyzes were made on the data obtained from 215 employees, 32 from Ankara, 30 from Çankırı, 30 from Kastamonu, 31 from Kırıkkale, 30 from Çorum, 31 from Yozgat and 31 from Kırşehir. In this study, analyzes were made (T.R. Ministry of Health, 2020).

**Data collection tool:** In the collection of information and data, a questionnaire form consisting of 46 questions in total, 16 questions measuring the perceived stress level and 30 questions measuring servant leadership behaviors were used.

**Perceived Stress Scale:** A Likert type with Perceived Stress Scale (5) developed by Cohen (1983) and adapted to Turkish by (Eskin, 2013) was used. Scale items are filled in by selecting one of the

options ranging from “Never (0)” to “Very often (4)”. Of the items in the scale, “7” containing positive expression are scored in reverse. The scores that can be obtained from the scale vary between “0” and “56” and the high score indicates that the perception of stress is high. There are two sub-dimensions called Insufficient Self-Efficacy Perception and Stress / Disturbance perception, and the internal consistency coefficient is "0.84" and the test-retest reliability coefficient is "0.87" (Eskin, 2013).

**Servant Leadership Scale:** The Servant Leadership Scale consists of 5-point Likert-type 30 questions (Dierendonck - Nuijten, 2011). The statements contain positive and negative statements classified as "1. I strongly disagree", "I disagree 2.", "3. I am uncertain", "I agree" and "I totally agree." Scale sections consist of 4 parts as "Reinforcement", "trust", "realism" and "is courage". In terms of the reliability coefficients of the sub-sections of the Servant Leadership Scale, reinforcement was found as "0.93", courage, "0.87", trust "0.74", and realism as "0.84" (Yılmaz, 2013).

**Reliability of the Servant Leadership Scale:** The Cronbach's alpha coefficient ranged from 0 to 1, and according to the evaluation criteria, it was stated that “if  $0.00 < 0.40$  the scale is unreliable, if  $0.40 < 0.60$  the scale has low reliability, if  $0.60 < 0.80$  the scale is highly reliable and if  $0.80 < 1.00$  the scale is highly reliable”. is expressed (Tavşancıl, 2005).

The 1st factor of the Servant Leadership scale consists of 12 elements that vary between 0.764 and 0.585 in terms of load. The factor total variance explanation level was 26.838%, and the reliability coefficient was obtained as 0.940. As a result, the factor provides a high degree of reliability. The second factor consists of 12 elements that differ between 0.779 and 0.549 in terms of load. The factor total variance explanation level was 24.543%, and the reliability coefficient was 0.937. As a result, the factor provides a high degree of reliability. The third factor consists of 4 elements that differ in the range of 0.835 to 0.518 in terms of load. The factor total variance explanation level was 9.093% and the reliability coefficient was 0.754. As a result, the factor provides a high degree of reliability.

**Reliability Of The Perceived Stress Scale:** As a result of the reliability analysis, the Cronbach Alpha coefficient of the scale was found to be 0.83, and the Alpha coefficients of the sub-dimensions were found to be 0.82 and 0.83. It was determined that the item-total correlations were high for all items in the scale. As a result, the factor provides a high degree of reliability.

**Data Collection:** The questionnaires prepared online were directed to social media and the employees were able to respond to these questionnaires as soon as they found a space for them. In addition, they were reminded to fill out the questionnaire as the shifts changed. It takes 10-15 minutes to fill out the questionnaire.

**Analysis of Data:** The data of the research were analyzed using the SPSS 22.0 package program. Descriptive statistics about the participants are included. Descriptive statistics on perceived stress and servant leadership situations were averaged and their distributions were revealed. Perceived stress and servant leadership correlation analysis was performed, and the correlation was determined ( $p < 0.05$ ). Pearson Correlation analysis was used to determine the effect of the stress/discomfort perception dimension on the servant leadership dimensions.

**Ethical Aspect of Research:** This study was approved by the e-mail sent from the T.C. Ministry of Health General Directorate of Health Services, dated 27.05.2020, “portal@saglik.gov.tr”. In addition, T.C. Approved by giving the necessary permission to conduct this study with the letter dated 18.06.2020 and numbered by the General Directorate of Emergency Health Services of the Ministry of Health. These two documents are presented at the end of the article. Also, the ethics committee approval of the study, which was carried out in accordance with the ethical principles, was taken as the 1st Decision with the decision numbered E-33490967-044-121213 of the Social and Human Sciences Research Ethics Committee of Tokat Gaziosmanpaşa University.

**Limitations of the Research:** The results of the study cannot be generalized since it is based on data obtained from NMRT personnel working in a regional group.

## 2. FINDINGS

The correlation between the data scale scores was analyzed with the Pearson correlation test and the extent to which the dependent variable was affected by the independent variable was analyzed with the simple linear regression test.

**Table 1. Demographic Characteristics of the Participants**

<b>Demographic Variables</b>	<b>Type</b>	<b>f</b>	<b>%</b>
<b>Gender</b>	Female	87	46.6
	Male	128	53.4
	Total	215	100.0
<b>Age (29.21±7.77)</b>	20 Years and Under	19	7.8
	21-30 Age	111	55.4
	31-40 Age	58	26.9
	41-50 Age	23	8.8
	51 Years and Above	4	1.1
	Total	215	100.0
<b>Marital Status</b>	Single	123	57.2
	Married	92	42.8
	Total	215	100.0
<b>Educational Status</b>	Primary	3	2.0
	High School	67	31.4
	Vocational School	86	42.3
	Licenses	45	19.4
	Graduate	14	5.9
	Total	215	100.0
<b>Job</b>	Physician	11	4.8
	Emergency Medical Technician	67	31.5
	Other Health Personnel	63	29.2
	Ambulance Driver	27	12.0
	Other Personnel	47	22.1
	Total	215	100.0
<b>Working Time</b>	0-5 Years	120	57.9
	6-10 Years	50	23.6
	11-15 Years	21	9.2
	16-20 Years	12	4.8
	21-25 Years	8	3.3
	Over 26 Years	4	1.2
	Total	215	100.0
<b>Overall Total</b>		215	

Table 1 shows the demographic characteristics of NMRT employees who participated in the research. Looking at the gender distribution of the participants, it was determined that 45.3% were female and 51.5% were male. Considering the age distribution of health personnel, 7.0% of them are 20 years old and under, 49.8% are 21-30 years old, 24.2% are 31-40 years old, 7.9% are 41-50 years old, and it was determined that 1.0% of them were 51 years old and over. It was determined that 55.2% of the participants were single and 41.1% were married. According to the results

obtained for the education levels of health personnel, 0.5% of them are primary school graduates, 29.9% of them are high school graduates, 40.5% are associate degree graduates, 18.7% are undergraduate graduates, and 5.5% are postgraduate degree.

Considering the duties of the participants, 4.6% are doctors, 30.2% are emergency medical technicians, 28.2% are other health personnel, 11.5% are ambulance drivers, and 21.2% are other personnel. Considering the working time of the participants in this line of work, 54.9% of them are 0-5 years, 22.3% are 6-10 years, 8.8% are 11-15 years, 4.6% are 16-years. It was determined as 20 years, 3.1% as 21-25 years and 1.1% as 26 years and above.

**Table 2. Descriptive Statistics on Perceived Stress and Servant Leadership Dimensions**

n=215	Minimum	Maximum	Mean	Standard Deviation	Level%	Skewness	Kurtosis
Stress/ Disturbance Perception	10	30	20.32	4.04	67.7	0.62	-0.13
Inadequate Self-Efficacy Perception	10	30	22.21	4.17	74.0	-0.46	-0.05
Perceived Stress	37	86	63.17	8.79	73.5	-0.06	0.03
Reinforcement	8	25	18.72	3.70	74.9	-0.38	-0.15
Courage	6	20	14.89	2.92	74.4	-0.38	0.06
Trust	5	15	11.15	2.19	74.4	-0.24	-0.27
Realism	7	20	15.07	2.90	75.4	-0.28	-0.13
Servant Leadership	29	80	59.84	9.78	74.8	-0.29	0.15

Descriptive statistics of perceived stress and servant leadership scores are shown in Table 2. Reinforcement score average ( $18.72 \pm 3.70$ ) courage point average ( $14.89 \pm 2.92$ ). Trust score average ( $11.15 \pm 2.19$ ). The servant leadership average is also ( $59.84 \pm 9.78$ ); The perceived stress score average is ( $63.17 \pm 8.79$ ). Stress / Disturbance perception score average ( $20.32 \pm 4.04$ ). Inadequate self-efficacy score average ( $22.21 \pm 4.17$ ).

**Table 3. Pearson correlation analysis of Perceived Stress and Servant Leadership Scores**

		Reinforcement	Courage	Trust	Realism	Servant Leadership
Stress/ Disturbance Perception	r	0.307	0.283	0.191	0.225	0.295
	p	0.000	0.000	0.000	0.000	0.000
Inadequate Self-Efficacy Perception	r	0.353	0.305	0.253	0.288	0.362
	p	0.000	0.000	0.000	0.000	0.000
Perceived Stress	r	0.467	0.439	0.349	0.426	0.513
	p	0.000	0.000	0.000	0.000	0.000

p <0.01, p <0.05 significant correlation. p > 0.05 no significant correlation

Table 3 shows the perceived stress and servant leadership points. Strengthening with perception of Stress / Disturbance ( $r = 0.307$ ). Among the servant leadership perceptions ( $r = 0.295$ ), a positive medium; Reinforcement with inadequate self-efficacy perception ( $r = 0.353$ ). Perceptions of Courage ( $r = 0.305$ ); There is a positive correlation between servant leadership ( $r=0.362$ ) scores ( $p<0.05$ ); reinforcement with perceived stress score ( $r = 0.467$ ). Courage ( $r = 0.439$ ). Trust ( $r = 0.349$ ). Realism ( $r = 0.426$ ). There is a moderately positive relationship between servant leadership and perceived stress ( $r = 0.513$ ), ( $p < 0.05$ ). As a result of the Pearson Correlation analysis, it is possible to accept all hypotheses by determining that there is a correlation between dependent and independent variables in some, if weak. However, Regression analysis was performed to determine which dependent variables can be explained with which independent variables and what the degree of the correlation is, and the results are given in table 4.

**Table 4. Regression Analysis of Dependent Variable Servant Leadership and Independent Variable Perceived Stress Scores**

Dependent Variable: Perceived Stress sizes	Independent Variable: Servant leadership dimensions	Coefficients			Model		
		B	t	p	F	p	R2
Stress/ Disturbance Perception	Constant	13.197	11.453	0.000*			
	Reinforcement	0.274	3.831	0.000*			
	Courage	0.034	0.359	0.719	11.752	0.000	0.099
	Trust	0.016	0.135	0.893			
	Realism	0.087	0.995	0.320			
Inadequate Self-Efficacy Perception	Constant	13.167	11.326	0.000*			
	Reinforcement	0.266	3.685	0.000*			
	Courage	0.130	1.365	0.173	17.190	0.000	<0.138
	Trust	0.030	0.255	0.799			
	Realism	0.119	1.343	0.180			

\* p < 0.05 has significant effect. p > 0.05 no significant effect

As can be seen in Table 4, the model established to determine the degree of influence of Stress / Disturbance perception dimension on servant leadership dimensions is meaningful. In terms of the empowerment dimension, while the Stress/Discomfort perception dimension is positively affected, it does not affect the courage, confidence and realism dimensions ( $p > 0.05$ ). Reinforcement the Stress / Disturbance perception change explains the dimension. The model established to test the influence of the perception of insufficient self-efficacy from the servant leadership dimensions is meaningful. Reinforcement, Courage, and Realism dimensions affect the perception of insufficient self-efficacy positively, while the Trust dimension does not seem to have

a significant effect ( $p > 0.05$ ). The Reinforcement and realism dimensions explain the change in the perception of insufficient self-efficacy. It is seen that some sub-dimensions of servant leadership have a statistically significant correlation with the dependent variable.

### 3. DISCUSSION

Established in the country under the Ministry of Health, General Directorate of Emergency Health Services, NMRT unit provides emergency health services by performing medical rescue in case of domestic and international disasters and emergencies. NMRT teams were among the officers who made the first contact with the disease with the onset of the pandemic. As time progressed, this process took a long time, vaccination was not sufficient and the course of the disease was constantly fluctuating, which made it difficult for NMRT employees. During the restriction practices, NMRT teams, together with other officials, provided fever and pulse measurements, vaccination services, health services to people in quarantined guesthouses and dormitories, and took part in disasters that developed in this process. NMRT basic training includes working under intense, stressful and pressure. The health worker who successfully completes these trainings is included in the NMRT team. Each team has a leader in training. In addition, each NMRT officer consists of people with servant leadership characteristics. With this research, they worked in the COVID 19 pandemic process.

The perceived stress level of those who worked under very difficult conditions and participated in this study was determined as 73.5% with  $(63.17 \pm 8.79)$  points, 67.7% with Stress/Discomfort  $(20.32 \pm 4.04)$  points, and 74.0% with Insufficient Self-Efficacy Perception  $(22.21 \pm 4.17)$  points. As a result, it is seen that perceived stress levels are high during the pandemic process. This situation is consistent with the literature.

It is reported in the literature that the COVID-19 epidemic, which affects the earth, causes psychiatric problems. In a study with 4872 participants over the age of 18 during the COVID-19 outbreak in Wuhan. The prevalence of mental illness and its correlation with social media exposure was investigated. In this study prevalence of depression in the general population over 18 years of age during the COVID-19 outbreak. prevalence of anxiety is 22.6%. The prevalence of the combination of depression and anxiety was 19.4%. Over 80% of respondents reported that they were frequently exposed to news and information about COVID-19 on social media. In the same study, the level of anxiety of those with high social media exposure in the last week is related to

this situation. it was found to be significantly higher than those with lower social media exposure. As a result, those with high social media exposure have been reported to develop higher mental illness (Gao et al., 2020).

In another study, it was conducted with 144 patients who were hospitalized with COVID-19. It was reported that 34.72% of patients had anxiety symptoms and 28.47% had depression symptoms. In the same study, it was stated that there was a significant correlation between the high rate of anxiety and depression symptoms and less social support in patients treated with COVID-19 (Kong et al., 2020).

In this study, the difference between perceived stress sub-dimensions and servant leadership sub-dimensions (Stress/Discomfort and Empowerment ( $r=0.307$ ). Positive median between servant leadership perceptions ( $r=0.295$ ), insufficient self-efficacy perception and Empowerment ( $r=0.353$ ). Courage perceptions ( $r=0.305$ ), Servant leadership ( $r=0.362$ ), positive mean ( $p<0.05$ ), Perceived stress score and Empowerment ( $r=0.467$ ), Courage ( $r=0.439$ ), Confidence ( $r=0.349$ ), Realism ( $r=0.426$ ). There is a positive, moderately strong correlation between servant leadership ( $r=0.513$ ) scores ( $p<0.05$ ). There is a positive, moderately strong relationship. It is seen that servant leadership behaviors and perceived stress levels of employees are be positively affected. It has been revealed that with the servant leadership behaviors shown during the pandemic process, the stress levels of the employees decreased, the service quality increased and the motivation was provided in a positive way.

However, the COVID-19 pandemic, like other pandemics in the past, has caused mental and psychological problems in individuals (Chua et al, 2004). In a study conducted in China during the COVID-19 pandemic, it was determined that health workers experienced significant stress (71%) (Lai et al, 2019). In a similar study, it was determined that health workers experienced intense pressure in the COVID-19 epidemic due to stress, anxiety and depression symptoms, and it was reported that the symptoms mentioned were severe in 2.2-14.5% of the participants (Pappa et al, 2020).

This study bears serious similarities with the causes and levels of discomfort of healthcare workers during the pandemic process in the world. In a study conducted on 85 physicians, the work-related stress score was found to be statistically significantly higher among the groups with longer working hours compared to those with less working time (Sunter, 2006: 12).

In the study conducted with intensive care workers, it was determined that they experienced moderate emotional burnout (Akalın and Modanlıoğlu, 2021). In a similar study, it was determined that the contact of the healthcare worker providing COVID 19 patient care with the patient increased the level of stress and burnout. Compared to the group that doesn't encounter the patient, it has been determined that the health care worker who has no contact has less stress and burnout levels (Kannampallil et al., 2020).

In this study, as a result of Pearson Correlation analysis, it is possible to accept all hypotheses by determining that there is a correlation between dependent and independent variable. In this sense, it can be said that all servant leadership dimensions, especially reinforcement, courage, and realism, have an effect on perceived stress dimensions. The model created to determine the dimension of stress/discomfort perception and the effect of the dimension of self-efficacy perception on servant leadership dimensions was found to be significant.

In similar studies, it has been determined that nurses experience low and moderate stress, and the causes of stress are usually work-related (Javadi-Pashaki and Darvishpour, 2019). When the rapid development of the pandemic process and the effects of this process on health workers are examined, it's thought that the level of response may be different depending on the development of the health system of each country, therefore the effect on health workers may be at different levels (Bohlken et al.,2020).

Healthcare professionals have treated COVID-19 patients by putting their own health at risk, increasing their knowledge about the disease as well as their mental state and stress levels. According to the study, the level of knowledge of healthcare professionals about COVID-19 was determined as 75%; it was understood that 88.4% of the health workers had good knowledge. (Huynh et al., 2020).

In another study, it was reported that 10% of healthcare workers involved in the pandemic process developed moderate to severe depression, anxiety, and stress symptoms (Lenzo et al., 2021). However, in a study conducted on Jordanian healthcare workers, it was determined that 35% of them were under severe stress (Alnazly et al., 2021). The perceived stress level score of health sector workers in Turkey is 29.8, which is Limcaoco and friends (2020) (PSS 10 score 17.4), Gao and friends (2020) (PSS score 13.81).

Many traumas have been experienced during the COVID-19 pandemic process due to problems such as pre-hospital healthcare workers working in risky areas, tiring, long and intense duty periods, and lack of protective materials and information. Acute stress reaction disorder, depression, anxiety, and post-traumatic stress disorder can be seen in prehospital emergency health workers due to heavy working conditions during the pandemic process (Akgün at al., 2021).

In addition to the studies mentioned above, in this study, it was seen that the Perception of Stress/Discomfort and Perception of Inadequate Self-Efficacy, which are the sub-dimensions of Perceived Stress, interacted positively with the Empowerment sub-dimension of Servant Leadership. It has been understood that if empowerment processes such as sharing, cooperation, team spirit, decision making, improving working conditions, giving authority and responsibility, continuous on-the-job training, providing control and feeling valuable are carried out among NMRT employees, the level of perceived stress will develop in a positive way. In this study, it was seen that the Perception of Insufficient Self-Efficacy and the dimensions of Empowerment, Courage and Realism were in a significant interaction, and the perception of Stress/Comfort and the Empowerment dimension had a significant interaction.

It's understood that there are similarities between this study and similar studies. In particular, there may be differences between perceived stress levels. It's thought that the reason for this may be due to the suitability of the work area and the intensity of the workload, as well as the level of awareness. In addition, it's thought that the health policies implemented by the countries and the level of public awareness may be effective.

#### **4. CONCLUSIONS AND RECOMMENDATIONS**

In the study, when the correlation between variables is examined in the COVID 19 process, it's seen that there is a positive correlation between perceived stress and servant leadership behaviors. When NMRT employees exhibit servant leadership behaviors, it's understood that there is a positive effect on stress perception levels.

Necessary steps should be taken to reduce the stress levels of NMRT teams, which provide effective service in the field during the pandemic period. The first of these steps should be servant

leadership behaviors among NMRT teams. For this, they should be given on-the-job applied servant leadership behaviors and their perceived stress levels should be reduced.

It is necessary to increase the activities to improve servant leadership behaviors especially for NMRT employees. However, the servant leadership behaviors exhibited by the ministry managers during the COVID 19 process are thought to make the level of stress perceived by the employees feel low. It can be said that the NMRT employees' servant leadership behaviors, especially in the COVID 19 process, positively affected the people in the working environment and with whom they contacted. However, it was understood that the perceived stress in the process of COVID 19 was caused by a wide variety of factors, depending on the situation, the person, and the effect varied. It is seen that NMRT employees exhibiting servant leadership behavior in the process of COVID 19 increased the success rate in the pandemic struggle. Employees' relations with their leaders.

To alleviate the workload of health workers, social distance, mask use and hygiene measures dissemination is important. The community should be educated, visit restrictions should be imposed. Effective treatment and preventive measures should be implemented. To control the pandemic, researchers must continue biological and clinical studies without interruption.

It is understood that the leadership behaviors of healthcare professionals during the pandemic process can positively affect their stress levels. The fact that the study conducted on this subject is not encountered during the literature review increases the importance of the research and can be perceived as a limitation.

Despite this, managers should identify the causes of stress,

- By determining the workload, sufficient number of employees should be planned,
- Frequent meetings and social organizations should be organized to combat stress,
- Employees should be trained on work stress,
- Psychological counseling and guidance services should be provided,
- Rewarding practices should be carried out,
- Health screenings should be done for those working in places with high stress levels.

Also, to researchers who will do similar work. By increasing the sample size, we can suggest that they conduct studies in accordance with the structure of the subject and between regions.

This study has limitations as it is regional. A general study is needed to eliminate this situation. To do this, a study can be carried out by the ministry to make a country generalization regarding the situation of the organization, NMRT, which is a unit under the Ministry of Health.

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