ORİJİNAL ARAŞTIRMA ORIGINAL RESEARCH

DOI: 10.5336/cardiosci.2022-93620

Examination of Care Burden and Stress Levels of Companions of Elderly Patients Undergoing Open Heart Surgery: Descriptive Research

Açık Kalp Cerrahisi Geçiren Yaşlı Hastaların Refakatçilerinin Bakım Yükü ve Stres Durumlarının İncelenmesi: Tanımlayıcı Araştırma

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This study was oral presented as a summary in 4th International 12th National Congress of Turkish Surgery and Operating Room Nursing in January 13-16, 2022, Antalya, Türkiye.

ABSTRACT Objective: This study aimed to examine the care burden and stress levels of companions of elderly patients undergoing open heart surgery. **Material and Methods:** This descriptive and cross-sectional study was carried out in a university hospital with 44 companions giving care to elderly patients who underwent open heart surgery. Data were collected using a questionnaire which was prepared by the researchers and consists of four parts. The first part includes a patient introduction form and the second part includes a companion introduction form. The third and fourth parts consist of the Burden Interview and the Caregiver Strain Index. Research data were collected by face-to-face interview method. Descriptive statistics, independent sample t-test, one-way analysis of variance, and correlation analyses were used for data analysis. **Results:** The mean age of the companions included in the study was 51.50±13.2 (minimum: 28, maximum: 74). Of the companions, 77.3% were female; 84.1% were married; 40.9% were the spouses of the patients; 34.1% were literate, primary-secondary school graduates, and high school graduates; 45.5% were housewives. The mean Burden Interview score was 30.34±11.92 and the mean Caregiver Strain Index score was 5.65±3.62. There was a positive statistically significant correlation between the mean Burden Interview score and the mean Caregiver Strain Index scores (r=0.744, p=0.000). **Conclusion:** This study showed that an increase in care burden cause an increase in stress.

Keywords: Caregiver burden; cardiac surgery; stress; elderly

ÖZET Amaç: Bu çalışmanın amacı, açık kalp cerrahisi geçiren yaşlı hastaların refakatçilerinin bakım yükü ve stres durumlarını incelemektir. **Gereç ve Yöntemler:** Tanımlayıcı ve kesitsel tipte olan bu çalışma bir üniversite hastanesinde açık kalp cerrahisi geçirmiş yaşlı hastalara bakım veren 44 refakatçi ile yürütüldü. Verilerin toplanmasında araştırmacılar tarafından hazırlanan 4 bölümden oluşan soru kâğıdı kullanıldı. Birinci bölümde hasta tanıtım formu, ikinci bölümde refakatçi tanıtım formu yer alırken üçüncü bölümde Bakım Verme Yükü Ölçeği ve dördüncü bölümde de Bakım Verenin Stres Ölçeği yer almakta idi. Araştırma verileri yüz yüze görüşme yöntemi ile toplandı. Verilerin analizinde tanımlayıcı istatistikler, bağımsız örneklem t-testi, tek yönlü varyans analizi ve korelasyon analizleri kullanıldı. **Bulgular:** Araştırma kapsamına alınan refakatçilerin yaş ortalaması 51,50±13,2'dir (minimum: 28, maksimum: 74). Refakatçilerin %77,3'ü kadın, %84,1'i evli, %40,9'u hastanın eşi, %34,1'i okuryazar-ilköğretim ve ortaöğretimlise mezunu ve %45,5'i ev hanımıdır. Bakım Verme Yükü Ölçeği puan ortalaması 30,34±11,92 iken Bakım Verenin Stres Ölçeği puan ortalaması 5,65±3,62'dir. Bununla birlikte Bakım Verme Yükü Ölçeği puan ortalaması ile Bakım Verenin Stres Ölçeği puan ortalaması arasında pozitif yönlü istatistiksel olarak anlamlı (r=0,744, p=0,000) bir ilişki bulundu. **Sonuç:** Bu çalışma, bakım yükünün artmasının stresi artırdığını gösterdi.

Anahtar Kelimeler: Bakıcı yükü; kardiyak cerrahisi; stres; yaşlı

The population aged 65 and over is over 500 million people in the world and is over seven million in Türkiye.[1,2] As a result of increased cardiovascular diseases with the aging world population, a large number of elderly patients undergoing cardiac surgery.[3]

The most common cardiac surgeries performed in elderly patients are coronary artery bypass and valve surgery.[4,5] Cardiac surgery is a high-risk procedure and the risk increases in elderly patients.[6,7] It may cause complications such as increased systemic inflammatory response, myocardial damage, ar-

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Peer review under responsibility of Turkiye Klinikleri Cardiovascular Sciences.

Received: 29 Sep 2022 ***Received in revised form:*** 29 Dec 2022 ***Accepted:*** 03 Jan 2023 ***Available online:*** 06 Jan 2023

rhythmia, kidney damage, decrease in cardiac output, paralysis, and respiratory distress.[7] Elderly individuals undergoing surgery are at greater risk of complications due to age-related disabilities, changes in body compensation, respiratory and cardiovascular systems, thermoregulation, kidney functions, fluid-electrolyte balance, and decreased stress response.[8-12] At the same time, the care of patients undergoing cardiac surgery is difficult and worrisome because of cardiac symptoms such as shortness of breath and palpitations.[13] Accordingly, these patients need more care and support.[8-12] Caregivers are an important source of care and support for the elderly.[14]

Caregiving is a complex process and may lead to negative consequences such as physical and psychological burden, stress, and tension.[15] These negativities experienced by caregivers due to care may create difficulties in taking the caregiver role.[16] It is important for caregivers to identify the problems they experience and the negative outcomes in order to maintain their caring role. Care burden is one of the most widely researched negative consequences of caregiving.[11] It is a term that is used to describe the physical, emotional, and financial harms of providing care.[17] Factors affecting care burden include the functional health status of the elderly, financial adequacy, personal characteristics of the caregiver, lifestyle changes, and coping.[18-20]

One of the negative consequences of caregiving is stress. Moreover, it is emphasized that the care burden is the primary source of stress.[21] In this respect, care burden and stress are the most important factors that negatively affect the health of caregivers.[22] Determining the care burden and stress levels provides an opportunity to alleviate the care burden, reduce stress, and help the caregiver cope with difficulties.[17] Moreover, it will guide the discharge training.[23] However, caregiver stress and burden are the factors that are often ignored.[22]

In the literature, there are studies examining the care burden or stress of caregivers of elderly surgical patients.[12,24] Although there are studies examining the care burden or stress of caregivers who provide care to patients undergoing cardiac surgery, no study has examined the care burden and stress of caregivers of elderly patients who are hospitalized due to open heart surgery in the early period.[23,25,26] Considering this, the study aimed to examine the care burden and stress levels of companions who give care to elderly patients undergoing open heart surgery. This study provides information about the caregiving characteristics, care burden, and quality of life of caregivers in our developing country, which includes cultural, socioeconomic differences and differences in terms of health system and resources.

MATERIAL AND METHODS

RESEARCH TYPE

This research has a descriptive and cross-sectional design.

RESEARCH SAMPLE

The research sample consisted of 44 voluntary companions of elderly patients, who had undergone open heart surgery in the cardiovascular surgery clinic between 06.03.2019-06.03.2020.

DATA COLLECTION PROCESS

This research was carried out in the cardiovascular surgery clinic of a university hospital in İzmir between 06.03.2019-06.03.2020. During the data collection process, the researchers first introduced themselves to the participant and explained the purpose of the research. Then, the participants were asked to fill in the forms after obtaining their informed and written consent. Research data were collected on the day of discharge of elderly patients who had undergone open heart surgery. Attention was paid not to interrupt patient care and treatment during data collection. The data were collected at an appropriate time after the end of patient care in the clinic. It took an average of 30 minutes to fill out the questionnaire.

A questionnaire was prepared by the researchers and used for data collection. It consists of four parts. The first part includes a patient introduction form consisting of a total of 10 questions, one open-ended question and nine multiple-choice questions, about sociodemographic and clinical characteristics of the patient who was given care. The second part includes

a companion introduction form consisting of a total of 19 questions, one open-ended question and 18 multiple-choice questions, about the sociodemographic and clinical characteristics of the caregivers. The third part consists of the Burden Interview (BI) and the fourth part includes the Caregiver Strain Index (CSI).

BI: BI was developed by Zarit and Zarit to evaluate the difficulties experienced by caregivers of individuals who are in need of care.[27] The Turkish adaptation of the scale was established by İnci and Erdem. The tool includes 22 items that are rated on a Likert-type scale ranging from 0 to 4 as "never", "rarely", "sometimes", "often", or "always". The lowest score obtainable from the scale is 0 and the highest score is 88. A total score of 88-61 indicates "severe burden"; a score of 60-41 indicates "moderate burden"; a score of 40-21 indicates "mild to moderate burden"; a score less than 21 indicates "low burden" or "no burden". A high score on the scale indicates a high level of distress. Cronbach's alpha internal consistency coefficient of the scale was 0.95.[28] In this study, the Cronbach's alpha coefficient was found to be 0.84.

CSI: CSI was developed by Robinson in order to measure the subjective care burden of caregivers and quickly identify families with care concerns quickly.[29] The Turkish adaptation of the scale was established by Uğur. The scale consists of 13 items related to employment status, financial status, physical status, social status, and time. The items are answered as Yes (1) or No (0). The scale score is obtained by summing the scores of 0 and 1 obtained from 13 items. A positive response to seven or more items indicates a higher level of stress. The Cronbach alpha internal consistency coefficient of the scale was 0.77.[30] In this study, the Cronbach alpha coefficient was found to be 0.83.

DATA EVALUATION

The research data were evaluated in the SPSS 26.0 (IBM Corp., Armonk, NY, USA) program. Descriptive statistics (mean, median, standard deviation, percentage, and frequency) were used in the analysis of descriptive data. The normality assumption of quantitative data was checked with the Shapiro-Wilk W test. Independent samples t-test and one-way analysis of variance were used for normally distributed variables. Pearson correlation analysis was performed to determine the correlation between two variables. A value of $p<0.05$ was considered statistically significant for all results.

ETHICAL CONSIDERATION

Prior to the collection of research data, written permission was obtained from the Medical Research Ethics Committee of the Rectorate of Ege University Faculty of Medicine (date: June 26, 2019, no: 19-6.1T/43), the hospital management, the patients, and the accompanying caregivers. In order to use the scales in the study, permission was received from the authors of the scale via e-mail. The research was conducted in accordance with the principles of the Declaration of Helsinki.

RESULTS

The mean age of the patients who were given care was 68.81±5.25 (minimum, 52, maximum, 80). Of the patients, 63.6% were male; 75.0% were married; 95.5% had children; 40.9% were literate or primary school graduates; 65.9% were retired; 100% had social security; 88.6% were unemployed; 52.3% had an income more than their expenses. 72.8% of the patients underwent coronary artery bypass surgery (Table 1).

The mean age of the companions was 51.50±13.52 (minimum, 28; maximum, 74). Of the caregivers, 77.3% were female; 84.1% were married; 40.9% were the spouses of the patients; 79.5% had children; 34.1% were literate, primary school graduates, or secondary-high school graduates; 45.5% were housewives. 88.6% of the companions had social security; 68% were unemployed; 52.3% had an income more than their expenses. 31.8% of the companions stated that they were responsible of giving care to a person other than the elderly patient who had undergone surgery. 65.9% of the companions had been giving care to their patients who had undergone surgery for less than six months and 50.0% had received support from others while giving care. 31.8% of the companions experienced physical, 31.8% experienced psychological, 61.4% had social, and 31.8% had financial problems during the accompanying period.

TABLE 1: Sociodemographic and clinical characteristics of the caregiver patients.

	n	%
Gender		
Female	16	36.4
Male	28	63.6
Marital status		
Married	33	75.0
Single	11	25.0
Number of children		
No children	2	4.5
1-2	26	59.1
3-4	16	36.4
Education status		
Illiterate	3	6.8
Literate or primary school	18	40.9
Secondary or high school	14	31.8
University	9	20.5
Occupation		
Housewife	9	20.5
Retired	29	65.9
Other (farmer, self-employed, worker, physician)	6	13.6
Presence of social security		
Yes	44	100.0
Working status		
Full day employed	4	9.1
Half day employed	1	2.3
Unemployed	39	88.6
Income and expense status		
Income less than expenses	6	13.6
Income equal to expenses	15	34.1
Income more than expenses	23	52.3
Type of surgery		
Coronary artery bypass surgery	32	72.8
Heart valve surgery	6	13.6
Ventricular assist device implantation	6	13.6
Total	**44**	**100**

Moreover, 71.4% of the companions suspended their work life and 38.6% had changes in their family relations during the accompanying period (Table 2).

CAREGIVER BURDEN AND STRESS OF COMPANIONS

In this study, the mean BI score of the companions providing care to elderly patients who underwent open heart surgery was 30.34±11.92 and their mean CSI score was 5.65±3.62 (minimum, 0.0; maximum, 13). The mean CSI score of the companions who had

TABLE 2: Sociodemographic and care-giving characteristics of companions.

	n	%
Gender		
Female	34	77.3
Male	10	22.7
Marital status		
Married	37	84.1
Single	7	15.9
Companion's degree of relation to the patient		
Spouse	18	40.9
Children	16	36.4
Mother, father	3	6.8
Other (daughter-in-law, sister, relative, friend)	7	15.9
Number of children		
No children	9	20.5
1-2	28	63.6
3-4	7	15.9
Education status		
Literate or primary school	15	34.1
Secondary or high school	15	34.1
University	14	31.8
Occupation		
Housewife	20	45.5
Retired	8	18.2
Other (worker, civil servant, self-employment)	16	36.4
Presence of social security		
Yes	39	88.6
No	5	11.4
Working status		
Full day employed	13	29.5
Half day employed	1	2.3
Unemployed	30	68.2
Income and expense status		
Income less than expenses	8	18.2
Income equal to expenses	13	29.5
Income more than expenses	23	52.3
Responsibility to give care to for a person other than the elderly patient who had undergone surgery		
Yes	14	31.8
No	30	68.2
Duration of care for patients who had undergone surgery		
<6 month	29	65.9
6-24 month	7	15.9
>25 month	8	18.2
Receiving support from others while giving care		
Yes	22	50.0
No	22	50.0
Financial problems during the accompanying period		
Yes	14	31.8
No	30	68.2
Psychological problems during the accompanying period		
Yes	14	31.8
No	30	68.2
Changes in social life during the accompanying period		
Yes	27	61.4
No	17	38.6
Financial problems during the accompanying period		
Yes	14	31.8
No	30	68.2
Suspended work life (n=14)		
Yes	10	71.4
No	4	28.6
Changes in family relations during the accompanying period		
Yes	17	38.6
No	27	61.4
Total	**44**	**100**

TABLE 3: The distribution of the mean scores on BI and CSI according to the sociodemographic and care-giving characteristics of the caregiver companions.

	Mean BI score X̄±SD	Statistical analysis	Mean CSI score X̄±SD	Statistical analysis
Mean BI score=30.34±11.92 (minimum, 5; maximum, 55)				
Mean CSI score=5.65±3.62 (minimum: 0.0; maximum: 13)				
Gender				
Female (n=34)	30.47±11.75	t=-0.131	5.58±3.85	t=0.236
Male (n=10)	29.90±13.11	p=0.896	5.90±2.88	p=0.814
Marital status				
Married (n=37)	28.62±12.00	t=-2.307	5.16±3.61	t=-2.178
Single (n=7)	39.42±6.34	p=0.119	8.28±2.49	p=0.307
Companion's degree of relation to the patient				
Spouse (n=18)	27.11±13.34	F=1.421	5.16±3.51	F=1.332
Children (n=16)	34.06±12.35	p=0.251	6.50±4.06	p=0.278
Mother-father (n=3)	36.66±5.85		8.00±1.00	
Other (daughter-in-law, sister, relative, friend) (n=7)	27.42±4.82		4.00±3.00	
Number of children				
No children (n=9)	35.33±8.94	F=1.050	7.22±3.63	F=1.621
1-2 (n=28)	29.39±12.80	p=0.359	5.57±3.60	p=0.210
3-4 (n=7)	27.71±11.16		4.00±3.36	
Education status				
Literate or primary school (n=15)	29.78±12.79	F=0.744	4.92±4.10	F=0.380
Secondary or high school (n=15)	33.60±11.18	p=0.532	5.93±3.91	p=0.744
University (n=14)	28.07±12.12		6.21±2.99	
Occupation				
Housewife (n=20)	30.90±12.46	F=0.049	5.55±4.14	F=1.045
Retired (n=8)	29.37±11.12	p=0.953	4.25±3.15	p=0.361
Other (worker, civil servant, self-employment) (n=16)	30.12±12.33		6.50±3.07	
Presence of social security				
Yes (n=39)	30.94±12.11	t=0.943	5.74±3.78	t=0.427
No (n=5)	25.60±10.13	p=0.351	5.00±2.23	p=0.671
Working status				
Full day employed (n=13)	29.84±13.08	F=0.409	6.76±3.21	F=1.056
Half day employed (n=1)	20.00±0.00	p=0.667	3.00±0.00	p=0.357
Unemployed (n=30)	30.90±11.65		5.26±3.77	
Income and expense status				
Income less than expenses (n=8)	37.14±12.13	F=1.501	7.85±4.74	F=1.870
Income equal to expenses (n=13)	29.30±9.98	p=0.229	5.15±3.46	p=0.150
Income more than expenses (n=23)	29.56±12.46		5.52±3.14	
Responsibility to give care to a person other than the elderly patient who had undergone surgery				
Yes (n=14)	32.78±12.30	t=0.913	5.25±3.45	t=-0.373
No (n=30)	29.20±11.77	p=0.370	5.80±3.75	p=0.711
Duration of care for patients who had undergone surgery				
<6 month (n=29)	28.79±11.85	F=2.211	5.34±3.62	F=1.412
6-24 month (n=7)	27.42±12.14	p=0.102	5.57±3.40	p=0.253
>25 month (n=8)	40.42±8.42		7.71±3.49	
Receiving support from others while giving care				
Yes (n=22)	32.22±10.92	t=1.051	6.04±3.44	t=0.702
No (n=22)	28.45±12.82	p=0.300	5.27±3.84	p=0.486
Financial problems during the accompanying period				
Yes (n=14)	34.21±9.59	t=1.493	7.28±3.17	t=2.112
No (n=30)	28.53±12.60	p=0.143	4.90±3.62	p=0.041
Psychological problems during the accompanying period				
Yes (n=14)	**36.64±9.38**	**t=2.542**	**7.78±2.80**	**t=2.871**
No (n=30)	**27.40±11.96**	**p=0.015**	**4.66±3.57**	**p=0.006**
Changes in social life during the accompanying period				
Yes (n=27)	**35.66±9.43**	**t=4.489**	**7.25±2.87**	**t=4.407**
No (n=17)	**21.88±10.65**	**p=0.000**	**3.11±3.27**	**p=0.000**
Financial problems during the accompanying period				
Yes (n=14)	**38.85±6.99**	**t=2.643**	**8.21±2.48**	**t=3.611**
No (n=30)	**27.30±12.60**	**p=0.011**	**4.46±3.48**	**p=0.001**
Suspended work life (n=14)				
Yes (n=10)	28.20±11.40	t=-0.420	6.40±2.83	t=-0.175
No (n=4)	31.50±17.71	p=0.682	6.75±4.64	p=0.864
Changes in family relations during the accompanying period				
Yes (n=17)	**37.17±10.37**	**t=3.359**	**7.88±3.17**	**t=3.662**
No (n=27)	**26.03±10.91**	**p=0.002**	**4.25±3.20**	**p=0.001**

Correlated factors are indicated in bold; BI: Burden Interview; CSI: Caregiver Strain Index; SD: Standard deviation; t: Independent sample t-test; F: One-way analysis of variance; Significant at p<0.05.

physical problems during their companionship was higher (t=2.112, p=0.041; Z=-2.536, p=0.011). Furthermore, the mean BI and CSI scores of those who experienced psychological (t=2.542, p=0.015; t=2.871, p=0.006) and financial (t=2.643, p=0.011; t=3.611, p=0.001) problems and those who experienced changes in social life (t=4.489, p=0.000; t=4.407, p=0.000) and family relations (t=3.359, p=0.002; t=3.662, p=0.001) were higher (Table 3).

RELATIONSHIP BETWEEN BI, CSI, AND AGE

A positive, strong, statistically significant (r=0.744, p=0.000) correlation was found between the mean BI and CSI scores. There was no statistically significant (r=-0.257, p=0.092) correlation between the mean BI score and age. A negative, moderate, statistically significant (r=-0.447, p=0.002) correlation was determined between the mean CSI score and age.

DISCUSSION

Examining a caregivers' care burden and stress is important as it will affect the caregivers' own health and well-being as well as the assistance received by the individual receiving care.[16] In this study, the care burden and stress levels of the caregivers of elderly patients undergoing open heart surgery during their hospital stay were examined. It was determined that the majority of the participants in this study were female and married. In the literature, no study has examined the caregiver burden and stress levels of caregivers of elderly patients undergoing open heart surgery. Our findings were compared with the results of studies conducted on caregivers of elderly patients.

CARE BURDEN OF CAREGIVER COMPANION

In this study, the care burden of the caregivers who gave care to elderly patients who underwent open heart surgery during their hospital stay was found to be mild to moderate. In the study conducted by Ariza-Vega et al. with caregivers of elderly patients one year after hip fracture surgery, it was reported that the level of care burden was high.[24] In a study conducted with caregivers of hospitalized elderly patients, the level of care burden was found to be moderate.[31] In the study conducted by Xiao and Zhou with caregivers who gave care to patients for more than three months due to femoral neck fracture and continued to give care to their hospitalized patients after surgery, it was found that the caregiver burden was at a significant level.[32] In the study of Luo et al. with caregivers of hospitalized elderly patients with spinal tumors, it was stated that the caregiver burden was at a significant level.[33] In this study, although the level of care burden was similar to those reported in the literature, it was higher than expected because the majority of the care of elderly patients, who underwent open heart surgery, during their stay in the hospital was given by nurses. This may indicate that the post-discharge care burden of the companions will increase even more.

STRESS OF CAREGIVER COMPANION

In this study, the stress levels of the companions who gave care to elderly patients, who underwent open heart surgery, during their hospital stay were found to be low. In the study conducted by Janssen et al. with caregivers of elderly patients undergoing major abdominal surgery, the level of stress was reported to be severe. It was also stated that the stress level of caregivers peaked 2 weeks after discharge and that the stress level decreased after the 6th and 12th months.[12] In a study conducted on caregivers of elderly inpatients, it was determined that the stress of caregivers was at mild to moderate levels.[34] In the literature, the stress level of caregivers differs. In this study, the level of caregiver stress was found to be lower than expected. It can be said that elderly patients undergoing heart surgery affect the stress levels of caregivers. In addition, the low stress level of the companions can be explained by the fact that the treatment and care of the patients were under the control of health professionals throughout the hospital stay.

STRESS AND CARE BURDEN OF CAREGIVER COMPANION

In this study, it was observed that the stress levels of caregivers who gave care to elderly patients who underwent open heart surgery increased as their care burden increased. This correlation was found to be consistent with the findings reported in the literature. Previous studies showed that stress increases as the care burden increases.[35,36]

In this study, the care burden and stress levels of the companions who experienced psychological and financial problems due to caregiving and who experienced changes in social life and family relations were found to be higher. This can be explained by the fact that care brings emotional, social, and economic responsibilities.

LIMITATIONS

This study has some limitations. The results of the study cannot be generalized since it was conducted with a limited sample in a single center.

CONCLUSION

In this study, which examined the care burden and stress levels of caregiver companions of elderly patients who underwent open heart surgery during their hospital stay, it was found that the level of care burden was mild, that the stress level was low, and that high care burden increased stress. However, in the early postoperative period, when the care and treatment of the patient was provided by health professionals, the care burden and stress levels of the companions would be expected to be even lower. Furthermore, the care burden and stress levels of patients' companions who experienced psychological and financial problems and changes in social life and family relations were found to be higher.

It is thought that it would be beneficial for nurses, who cooperate with the clinicians, to take these findings into account while planning care and applying treatments. Moreover, it is important for nurses to provide necessary information to patients' companions, cooperate in treatment and care, and create a comfortable environment. It is also recommended to share social, economic, and care sources with companions after discharge.

Source of Finance

During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.

Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: *Hatice Eda Yoltay, Nihal Çeliktürk Doruker, Fatma Demir Korkmaz;* ***Design:*** *Hatice Eda Yoltay, Nihal Çeliktürk Doruker, Fatma Demir Korkmaz;* ***Control/Supervision:*** *Hatice Eda Yoltay, Nihal Çeliktürk Doruker, Fatma Demir Korkmaz;* ***Data Collection and/or Processing:*** *Hatice Eda Yoltay, Nihal Çeliktürk Doruker;* ***Analysis and/or Interpretation:*** *Hatice Eda Yoltay, Nihal Çeliktürk Doruker, Fatma Demir Korkmaz;* ***Literature Review:*** *Nihal Çeliktürk Doruker;* ***Writing the Article:*** *Hatice Eda Yoltay, Nihal Çeliktürk Doruker, Fatma Demir Korkmaz;* ***Critical Review:*** *Hatice Eda Yoltay, Nihal Çeliktürk Doruker, Fatma Demir Korkmaz.*

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