



Research Article/Özgün Araştırma

Investigation of relationship between workload perception and burnout levels of employees at nursing homes and elderly rehabilitation centers

Huzurevleri ve yaşlı rehabilitasyon merkezlerinde çalışanların iş yükü algısı ile tükenmişlik düzeyleri arasındaki ilişkinin incelenmesi

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Abstract

Aim: To identify the relationship between workload perception and burnout levels of employees at nursing homes and elderly rehabilitation centers.

Materials and Methods: This cross-sectional study was conducted at private and public nursing homes and elderly rehabilitation centers in Istanbul. An Information Form that questioned demographic characteristics, the Individual Workload Perception Scale and Maslach Burnout Inventory were used to collect data on the employees (n=777) that provided elderly care at these facilities.

Results: Averages total scores of the emotional exhaustion, depersonalization, personal accomplishment sub-dimensions of the Maslach Burnout Inventory and the average total score of the overall scale were calculated as 23.34±7.35, 9.87±4.56, 17.22±5.47, and 50.44±13.77, respectively. Individual workload perception had statistically significant relationships with emotional exhaustion, depersonalization, and personal accomplishment (F=39.273, p=0.001; F=23.894, p=0.001; F=33.971, p=0.001).

Conclusion: A significant relationship was observed between the increase in manager support, coworker support, unit support, and the decrease in the total burnout level.

Keywords: Burnout; Elderly Care; Healthcare Professionals; Nursing Homes; Rehabilitation Center; Workload.

Öz

Amaç: Huzurevleri ve yaşlı rehabilitasyon merkezlerinde çalışanların iş yükü algıları ile tükenmişlik düzeyleri arasındaki ilişkiyi belirlemektir.

Gereç ve Yöntem: Kesitsel tipteki bu çalışma, İstanbul'da bulunan özel ve kamu huzurevlerinde ve yaşlı rehabilitasyon merkezlerinde gerçekleştirilmiştir. Bu tesislerde yaşlı bakımı yapan çalışanlara (n=777) ilişkin verilerin toplanması için demografik özellikleri sorgulayan Bilgi Formu, Bireysel İş Yükü Algı Ölçeği ve Maslach Tükenmişlik Envanteri kullanılmıştır.

Bulgular: Maslach Tükenmişlik Envanteri'nin duygusal tükenme, duyarsızlaşma, kişisel başarı alt boyutlarının toplam puan ortalamaları ile ölçek toplam puan ortalaması sırasıyla 23,34±7,35, 9,87±4,56, 17,22±5,47 ve 50,44±13,77 olarak hesaplanmıştır. Bireysel iş yükü algısı, duygusal tükenme, duyarsızlaşma ve kişisel başarı ile istatistiksel olarak anlamlı ilişkilere sahipti (F=39,273, p=0,001; F=23,894, p=0,001; F=33,971; p=0,001).

Sonuç: Yönetici desteği, iş arkadaşı desteği, birim desteğindeki artış ile toplam tükenmişlik düzeyindeki azalma arasında anlamlı bir ilişki gözlemlenmiştir.

Anahtar Kelimeler: Tükenmişlik; Yaşlı Bakımı; Sağlık Çalışanları; Bakım Evleri; Rehabilitasyon Merkezi; İş Yükü.

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intihal incelemesinden geçirilmiştir.



Introduction

The elderly population has been continuously increasing and it is predicted that 16% of the world's population would be aged over 65 years in 2050.¹ In Turkey, people aged over 65 years comprised 8.7% of the population in 2018, and it is predicted that this number will go up to 10.2% in 2023 and 16.3% in 2040.² An increase in the elderly population means an increase in the number of people who need care. Therefore, more importance has been placed on elderly care all over the world and various policies have been put into action. It is seen that nursing homes and elderly rehabilitation centers are places that have grown and developed rapidly to provide care for elderly people.³

In Turkey, care services are provided to the elderly by nursing homes and elderly rehabilitation centers, which operate under private and public institutions, and there are 435 active nursing homes as of 2020.^{4,5}

Nursing homes come to the fore within the scope of the model in which institutional services are offered to the elderly as inpatients in Turkey. Eating, drinking, sheltering and resting etc. of elderly individuals in nursing homes. In addition to meeting their physiological needs, their psycho-social needs are also provided. In Turkey, healthy elderly people who are over 60 years old and have difficulty living alone at home or who are lonely, lonely and in need of help are accepted to nursing homes in Turkey. Nursing homes can be opened by public institutions and organizations, as well as by private institutions, organizations and non-governmental organizations.⁶ It is stated that the education and knowledge level of the personnel providing care services in nursing homes is low, and therefore, people working in care services other than social workers may be insufficient to meet the needs that will arise. The heavy of the working conditions in care services, the insufficient number of care workers in both the private sector and public institutions, as well as the structural deficiencies cause both the employees to have difficulties in the work of the elderly care process and the insufficient quality of the care services for the elderly.⁴ Elderly care and

rehabilitation centers in Turkey, on the other hand, aim to protect, care for, and meet their social and psychological needs in a peaceful environment for people over 60 years of age, who are socially or economically deprived and in need of protection, care and assistance due to their physical, mental and spiritual disabilities. They are boarding social service institutions where rehabilitation is provided in a way that they can manage themselves for the purpose of self-management, and those who cannot be treated are constantly placed under special care.⁷

It is stated that, in addition to the inadequate number of employees, the heavy work conditions of care services and structural deficiencies cause employees to face difficulties at work and the quality of care for the elderly to decrease.^{4,5} A recent Danish study stated that the most common problem encountered in nursing homes was task organization between employees and teamwork.⁸ In addition to these difficulties, situations such as providing care for seriously ill patients and an unbalanced distribution of the staff also increase the workload of healthcare professionals.⁹

Workload brings along various negative consequences such as work stress, alienation, and burnout.¹⁰ In the literature, nursing workload is defined as the amount of time and care a nurse can devote to patients (directly and indirectly), to the workplace, and to professional development. For this reason, the sum of the nursing time needed by nurses to carry out both nursing activities and non-nursing activities should consist of the workload. However, the level of 'nursing activities directly related to the patient' is measured by the weight of 'nursing intensity'. Therefore, the level of nursing intensity, which is affected by patient dependence, the severity of the disease, and the complexity of care, has a significant effect on the level of nursing workload.^{11,12}

When employees are expected to perform work that exceeds their capacity, the possibility of experiencing burnout increases because the resources used for coping are eventually depleted.¹³ Burnout was first defined by Maslach and Jackson as the

psychological, emotional, and physical stress that occurred as a reaction to prolonged exposure to occupational stress.¹⁴ Maslach explained the burnout as “emotional exhaustion, depersonalization and personal achievement syndrome seen in those who have intense relationships with people due to their job”.¹⁵ On the other hand, Pines and Aronson described the burnout as “an idealism, energy, perspective, and purposelessness as a state of physical, mental, and emotional exhaustion that causes persistent feelings of oppression, hopelessness, helplessness, and trapped feelings”.¹⁶ Burnout causes serious individual and institutional problems in all occupational groups. It is seen that burnout has important effects on business life and therefore is a concept that limits social interaction at work.¹⁷

Burnout is more common in occupations that require face-to-face interaction with people such as physicians, nurses, psychologists, police, and teachers.¹⁸ Burnout deteriorates the social and family relationships of employees, increases their dissatisfaction with their jobs, causes them to neglect their jobs, and decreases their performance and productivity.¹⁹ Although there are some observations on the burnout of nursing home employees, research-based data are not as abundant as in other healthcare professionals. Nevertheless, the situation of employees of these institutions, which are rising in importance, is a very important topic in public health.

Burnout experienced in institutions providing elderly care services is a serious problem. Due to the troublesome nature of this process, especially the responsible personnel are faced with serious problems regarding age care. The most important problem faced by the personnel is burnout.²⁰ Caring for the elderly is a job that requires both emotional and physical labor. In this process, the personnel providing care may be exposed to pressure and burnout depending on the level of close interaction and communication with the elderly individual and the length of time they spend with the elderly person.²¹ Well-planned caregiving work can be satisfying to the caregiver with a mindset of being helpful to older people. However, working individuals who encounter irresistible

demands while providing care; In general, it becomes inevitable for elderly individuals to experience pressure and burnout due to their uncontrollable health conditions and care needs.²² Because of their responsibilities and workload in business life, caregivers often act negligently about their own physical, emotional and spiritual health. Burnout is the total result of providing care. Although providing care at a high level and for a very long time, the lack of any foresight or future plans for how long this job will take are the reasons that increase burnout.²²

It is reported that burnout is quite common in nurses, who are members of the health care team working in nursing homes and nursing homes. Among the factors affecting burnout in these nurses; It is stated that the health status of the elderly individuals who need care and their families, the characteristics of the institutions (private or public, the size of the institutions, the number of elderly individuals, etc.), work stress, education, coping mechanisms of caregivers and managerial strategies.^{3,23}

In Turkey, it was determined that nurses who are not satisfied with working in a elderly nursing home and those who do not find the profession suitable for themselves have high emotional exhaustion and depersonalization scores. It was found that the emotional exhaustion and depersonalization scores of the nurses who had problems in working with the elderly person, care, communication and team cooperation were high. In addition, it was found that the burnout levels of nurses who continue their profession for economic and social reasons are higher than those who continue to be nursing with pleasure.¹⁷

In a study conducted with 203 caregivers working in nursing homes where Alzheimer's patients are cared for in Turkey; High levels of emotional exhaustion were found in 25% of employees, high levels of depersonalization were found in 30% of employees, and a decrease in personal achievement was determined in 26% of caregivers. It was found that there was a positive and significant relationship between caregivers' workload and emotional exhaustion, depersonalization, and decrease in personal achievement. As a result;

it was determined that most of the participants in the study experienced moderate or severe workload and high levels of burnout.²⁴

The study aims were threefold: (1) To measure the workload and burnout levels of healthcare professionals working in nursing homes and elderly rehabilitation centers in Istanbul; (2) To determine the relationships between workload and burnout levels of healthcare professionals; (3) To identify the factors affecting burnout levels. In this study, also were sought answers to the following questions:

- What are the healthcare professionals' characteristics and their the workload and burnout levels?
- What are the workload and burnout levels according to the healthcare professionals' characteristics?
- Is there a relationship between the healthcare professionals' the workload and burnout levels?
- What are the factors affecting healthcare professionals' burnout levels?

Materials and Methods

Type of research

The research is a cross-sectional study.

Population and sample of the research

The population (N=996) of the study comprised healthcare professionals working at a total of 66 private and public institutions in Istanbul, Turkey that provide elderly care services. The sample size was calculated using the simple random sampling method with a known population ($n = Nt^2pq/d^2(N-1) + t^2pq$; N: Population size, n: sample size, p: frequency of occurrence of the event under examination, q: unprecedented frequency of the event under investigation, t: theoretical value obtained from t table with a certain degree of freedom and margin of error, d: desired \pm deviation according to the frequency of the event). The power of the study is defined by $1 - \beta$ (β = probability of type II. Error) and researches must have 80% power in general. In our study, the number of cases to be included to reach 80% power at $\alpha=0.02$ level was calculated as 704. The inclusion criteria of the research are providing elderly care, working in the

profession for at least one year and filled out the questionnaires completely. And, also the exclusion criteria are working for less than one year, not being a healthcare professional, and incomplete filling in the questionnaires. The study was completed with a total of 777 healthcare professionals who met the inclusion criteria. The characteristics of the health workers included in the study are explained in detail in Table 1.

Data collection tools

The data of the research were collected using self-reported tools a Personal Information Form, the Individual Workload Perception Scale, and the Maslach Burnout Inventory.

Personal Information Form: This form consisted of a total of 17 questions on the sociodemographic characteristics of the healthcare professionals such as age, sex, marital status, educational status, type of work, time of working in the profession, and the level of income.

Individual Workload Perception Scale: This scale was developed by Cox to measure the workload perception of healthcare professionals. Validity and reliability studies of the scale were performed by Cox et al.²⁵ and it was adapted into Turkish by Saygili and Celik.²⁶ The scale consists of a total of five dimensions and 31 items. The Managerial support dimension consists of eight items, the coworker support dimension consists of eight items, the unit support dimension consists of six items, the work environment workload characteristics dimension consists of six items, and the intention to continue the current job dimension consists of three items. The scale is a five-point Likert scale. The highest and lowest scores that can be obtained from the scale are 5 and 1, respectively. This range of distribution was considered when calculating the average values for the total scale score and dimension scores (the upper limit for the average values are 5).²⁶ The lowest score that can be obtained from the scale is 31, and the highest score is 155. Increasing scores indicate a positive perception of workload, and decreasing scores indicate a negative perception of workload.²⁷

Table 1. Healthcare professionals' characteristics (N=777).

		Physician n(%)	Nurse n(%)	Social worker n(%)	Psychologist n(%)	Care personnel n(%)	Other n(%)
Sex	Female	7 (33.3)	108 (73)	22 (57.9)	39 (66.1)	12 (66.7)	272 (65.2)
	Male	14 (66.7)	40 (27)	16 (42.1)	20 (33.9)	6 (33.3)	145 (34.8)
Age	< 25 year	2 (9.5)	51 (34.5)	5 (13.2)	11 (18.6)	0 (0)	58 (13.9)
	25-29 year	2 (9.5)	31 (20.9)	6 (15.8)	28 (47.5)	5 (27.8)	43 (10.3)
	30-34 year	2 (9.5)	18 (12.2)	6 (15.8)	10 (16.9)	10 (55.6)	41 (9.8)
	35-39 year	1 (4.8)	21 (14.2)	6 (15.8)	6 (10.2)	0 (0)	61 (14.6)
	40-44 year	3 (14.3)	17 (11.5)	8 (21.1)	1 (1.7)	0 (0)	87 (20.9)
	>= 45 year	11 (52.4)	10 (6.8)	7 (18.4)	3 (5.1)	3 (16.7)	127 (30.5)
Time working in the occupation	< 1 year	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
	1-5 year	8 (38.1)	84 (56.8)	17 (44.7)	46 (78)	5 (27.8)	181 (43.4)
	6-10 year	2 (9.5)	22 (14.9)	7 (18.4)	9 (15.3)	8 (44.4)	116 (27.8)
	>= 11 year	11 (52.4)	42 (28.4)	14 (36.8)	4 (6.8)	5 (27.8)	120 (28.8)
Time working in the institution	< 1 year	0 (0)	0 (0)	0 (0)	2 (3.4)	1 (5.6)	0 (0)
	1-5 year	12 (57.1)	105 (70.9)	21 (55.3)	51 (86.4)	10 (55.6)	234 (56.1)
	6-10 year	3 (14.3)	14 (9.5)	7 (18.4)	4 (6.8)	5 (27.8)	87 (20.9)
	>=11 year	6 (28.6)	29 (19.6)	10 (26.3)	2 (3.4)	2 (11.1)	96 (23)
Weekly working time	40 hours	19 (90.5)	56 (37.8)	23 (60.5)	31 (52.5)	14 (77.8)	118 (28.3)
	50 hours	0 (0)	38 (25.7)	9 (23.7)	11 (18.6)	3 (16.7)	172 (41.2)
	>50 hours	2 (9.5)	54 (36.5)	6 (15.8)	17 (28.8)	1 (5.6)	127 (30.5)
Institution type	Public	1 (4.8)	18 (12.2)	11 (28.9)	9 (15.3)	9 (50)	84 (20.1)
	Private	12 (57.1)	96 (64.9)	20 (52.6)	44 (74.6)	8 (44.4)	220 (52.8)
	Other	8 (38.1)	34 (23)	7 (18.4)	6 (10.2)	1 (5.6)	113 (27.1)
Type of work	Shifts	4 (19)	53 (35.8)	7 (18.4)	6 (10.2)	3 (16.7)	239 (57.3)
	Only during day	12 (57.1)	53 (35.8)	29 (76.3)	47 (79.7)	13 (72.2)	122 (29.3)
	Night shifts	3 (14.3)	33 (22.3)	2 (5.3)	5 (8.5)	1 (5.6)	23 (5.5)
	Only at night	2 (9.5)	9 (6.1)	0 (0)	1 (1.7)	1 (5.6)	33 (7.9)
Salary	Insufficient	4 (19)	42 (28.4)	10 (26.3)	17 (28.8)	3 (16.7)	165 (39.6)
	Somewhat sufficient	5 (23.8)	62 (41.9)	15 (39.5)	24 (40.7)	7 (38.9)	145 (34.8)
	Sufficient	9 (42.9)	40 (27)	12 (31.6)	15 (25.4)	6 (33.3)	101 (24.2)
	Quite sufficient	3 (14.3)	4 (2.7)	1 (2.6)	3 (5.1)	2 (11.1)	6 (1.4)

In the Turkish reliability and validity study of the scale, Cronbach's Alpha values ranged between 0.387 and 0.910.²⁶ Cronbach's alpha coefficients of the scale in this study were 0.877 for the manager support dimension, 0.869 for the coworker support dimension, 0.694 for the unit support dimension, 0.540 for the work environment workload dimension, 0.690 for the intention to continue the current job dimension, and 0.894 for the overall scale. According to the literature, if $0.80 \leq \alpha < 1.00$, the scale is highly reliable.²⁸ Thus, the scale is highly reliable.

Maslach Burnout Inventory (MBI): Maslach Burnout Model is also referred to as "multidimensional burnout model" or "three-dimensional burnout model" in the literature. These dimensions can be explained as follows:^{15,17}

Emotional exhaustion: It is the first dimension of burnout and represents the stress dimension. Emotional exhaustion can also be explained as the loss of energy or emotional resources. Symptoms in this dimension of burnout; it can be stated as feeling emotionally worn out, lack of energy and fatigue in the individual. The individual who experiences emotional burnout is full of feelings of tension and frustration, and has the feeling that he does not act as responsible and productively towards the people he serves as in the past.

Depersonalization: The second dimension of exhaustion is depersonalization. People who experience emotional exhaustion feel inadequate and powerless to solve other people's problems. They constantly use escape routes to reduce the emotional load on them.

Personal achievement: The personal achievement dimension is the final stage of burnout. Personal sense of accomplishment; It is expressed as the individual's perceiving himself professionally inadequate, feeling unsuccessful in business life and having the idea that all his efforts to respond to incoming requests are insufficient. Decreased sense of personal accomplishment is the dimension of burnout that individuals evaluate themselves negatively. It is about how individuals evaluate themselves as a whole. The aforementioned dimension occurs as a function of emotional exhaustion, depersonalization, and a combination of both. The decrease in the sense of personal achievement causes individuals to think that their efficiency, productivity and competence in the working environment are decreasing. Service providers feel inadequate when they do not perceive themselves as effective, productive and successful.^{15,17}

The MBI was developed by Maslach and Jackson in 1981. The Turkish validity and reliability study of the scale was performed by Ergin²⁹ and then repeated by Cam³⁰. The scale evaluates burnout levels in three dimensions, Emotional Exhaustion, Depersonalization, and Personal Accomplishment. The scale includes a total of 22 items, nine of which evaluate emotional exhaustion (1., 2., 3., 6., 8., 13., 14., 16., and 20. items; 9-45 scores), five evaluate depersonalization (5., 10., 11., 15., and 22. items; 5-25 scores), and eight evaluate personal accomplishment (4., 7., 9., 12., 17., 18., 19., and 21. items; 8-38 scores). The lowest and highest scores that can be obtained from the five-point Likert-type (responding to "never, rarely, sometimes, often, always") scale are 22 and 98, respectively. Since the scale does not have cut-off points, scores below the mean indicate low burnout, and scores above the mean indicate high levels of burnout. The reliability coefficients of the MBI were calculated by Maslach and Jackson as 0.89 for emotional exhaustion, 0.74 for personal achievement, and 0.77 for depersonalization.¹⁴ After its adaptation into Turkish by Ergin, Cronbach's Alpha coefficients for the three sub-dimensions were calculated as 0.83 for emotional exhaustion, 0.65 for depersonalization, and 0.72 for

personal achievement.²⁹ Cronbach's alpha coefficients for the scale in this study were 0.854 for the emotional exhaustion dimension, 0.817 for the depersonalization dimension, 0.820 for the personal accomplishment dimension, and 0.888 for the overall scale. According to the literature, if $0.80 \leq \alpha < 1.00$, the scale is highly reliable.²⁸ Thus, the scale is highly reliable.

Analysis of data

The NCSS (Number Cruncher Statistical System) 2007 (Kaysville, Utah, USA) was used for statistical analyses. Descriptive statistical methods (average, standard deviation, frequency, rate) were used to evaluate data. Kolmogorov-Smirnov, Shapiro-Wilk test and graphical evaluations were performed to examine whether the data showed normal distribution. In cases where the data were normally distributed, the t-test was used to compare two groups, and the One-way Anova test was used to compare more than two groups. Bonferroni test in determining between which groups there are differences as a result of Anova test; Kruskal Wallis test and Bonferroni-Dunn tests were used in comparisons of groups that did not show normal distribution. The relationships between workload perception and burnout dimensions were examined by Pearson Correlation Analysis. Backward Regression Analysis Enter Model was used to determine the effects of personality traits and individual workload perceptions on Maslach burnout levels of healthcare professionals. Consistency/Reliability analysis and Confirmatory factor analysis (Lisrel 8.8) were performed in the validity and reliability evaluations of the scales. Significance was evaluated at the $p < 0.05$ level.

The ethical aspect of research

The Human Rights Declaration of Helsinki was abided by throughout the study. Written ethical board consent was obtained from the head of the local ethics committee of a university in Istanbul (permission date and number: 06/11/2019, no.917). Informed consent was obtained from all individual participants included in the study.

Results

Participants' characteristics

In the research group, 53.7% (n=417) of the people were care personnel, 65.9% (n=512) were female, 24.3% (n=189) were aged 45 years and over, 50.8% (n=395) were married, 40.8% (n=317) had one child, 42.9% (n=333), 40.8% (n=317) were living with their spouses and children, and 23.3% were high school graduates. Almost half (48.1%) of the people worked 1-5 years in the occupation, 42.6% were working shifts, weekly working time of 37.1% (n=288) were 40 hours and 56.1% were working at private institutions. The salary of 37.2% (n=289) of the employees were partially sufficient.

Individual workload perception and burnout levels

Regarding the Individual Workload Perception Scale, the average score of the manager support dimension was 3.91 ± 0.82 , the average score of the coworker support dimension was 3.89 ± 0.78 , and the average score of the unit support dimension was 3.85 ± 0.71 . The average score of the work environment workload dimension was 3.47 ± 0.65 , the average score of the intention to continue the current job dimension was 2.31 ± 1.09 , and the average total score of the overall scale was 3.65 ± 0.54 .

The average score of the "emotional exhaustion" dimension of the Maslach Burnout Inventory was 2334 ± 7.35 , the average score of the "depersonalization" dimension was 9.87 ± 4.56 , the average score of "personal accomplishment" dimension was 17.22 ± 5.47 , and the average total score was 50.44 ± 13.77 .

Evaluation of individual workload perception and burnout levels according to characteristics

The average total scores obtained from the individual workload perception scale differed significantly according to the participants' age group and educational status ($p=0.018$ and $p=0.022$, respectively). Although there were no differences in the total scores in terms of sex and "manager support" dimension scores were higher in females ($p=0.020$) (Table 2).

Significant differences were found in the "manager support," "work environment workload," and the "intention to continue the current job" dimension scores according to the age groups ($p=0.006$, $p<0.001$, and $p<0.001$, respectively) (Table 2).

It was detected that there were significant differences in "manager support" and "intention to continue the current job" dimension scores according to educational status ($p=0.013$ and $p<0.001$, respectively) (Table 2).

The distribution of the workload scores according to the occupational characteristics of the research group is given in Table 3. The average total score of the workload perception scale differed significantly according to all occupational characteristics.

It was found that the total workload perception score was the highest for physicians and the lowest for care personnel and the difference between the groups was caused by the care personnel. "Manager support," "coworker support," and "work environment workload" dimension scores also differed according to employees' duties (Table 3).

It was found that the total workload perception scores of those who worked at least 11 years in the occupation were lower than the other groups and a similar situation was also valid for "manager support," "work environment workload," and "intention to continue the current job" perception scores (Table 3).

Employees working at private institutions had higher total perception scores than those working at public or other institutions ($p<0.001$). The "Manager support," "unit support," and "work environment workload" dimension scores of those working at private institutions were also found significantly higher than the others (Table 3).

It was identified that the total scores of the participants differed significantly according to the type of work ($p<0.001$). As a result of pairwise comparisons, it was identified that total scores of those that only worked during the day were higher than those who worked shifts ($p<0.001$) and there were no statistically

significant differences between the total scores of the other groups ($p>0.05$) (Table 3).

It was found that “manager support” dimension scores differed significantly according to the type of work ($p<0.001$). Further analyses showed that employees who worked only during the day or at night had

higher scores than those who worked shifts ($p<0.001$ and $p=0.008$, respectively). “Manager support” and “work environment workload” dimension scores also differed significantly according to the type of work ($p=0.007$ and $p<0.001$, respectively). The difference between the groups was caused by the fact that the employees working shifts had lower average scores than the others (Table 3).

Table 2. Distribution of Individual Workload Perception Scale scores according to the demographic characteristics.

			Manager support	Coworker support	Unit support	Work environment workload	Intention to continue current job	Total
		n (%)	Mean±SD	Mean±SD	Mean±SD	Mean±SD	Mean±SD	Mean±SD
Sex	Female	512 (65.9)	3.95±0.79	3.91±0.76	3.83±0.70	3.44±0.64	2.31±1.08	3.66±0.53
	Male	265 (34.1)	3.81±0.85	3.87±0.81	3.88±0.71	3.52±0.68	2.32±1.11	3.64±0.57
	^a <i>p</i>		0.020	0.501	0.372	0.098	0.858	0.612
	Effect size		0.171	0.051	0.071	0.121	0.009	1.199
Age (years)	¹ < 25	134 (17.2)	4.09±0.80	3.88±0.81	3.91±0.68	3.58±0.60	2.57±1.23	3.75±0.51
	² 25- 29	118 (15.2)	4.03±0.72	3.91±0.68	3.88±0.63	3.64±0.55	2.31±1.15	3.73±0.47
	³ 30-34	94 (12.1)	3.91±0.74	3.90±0.79	3.79±0.76	3.58±0.67	2.59±1.15	3.69±0.55
	⁴ 35-39	110 (14.2)	3.85±0.74	3.91±0.76	3.85±0.69	3.43±0.61	2.35±1.08	3.64±0.51
	⁵ 40-44	132 (17)	3.75±0.85	3.84±0.82	3.78±0.77	3.42±0.72	2.26±1.00	3.57±0.59
	⁶ ≥ 45	189 (24.3)	3.84±0.91	3.92±0.79	3.88±0.71	3.30±0.67	2.02±0.90	3.59±0.57
	^b <i>p</i>		0.006	0.957	0.620	0.001	0.001	0.018
	Post Hoc Test		1>5	-	-	6<1,2,3	6<1,3	1>5,6
Education	¹ Primary School graduate	139 (17.9)	3.81±0.83	3.82±0.83	3.84±0.75	3.36±0.66	2.28±1.04	3.58±0.58
	² Secondary School graduate	99 (12.7)	3.83±0.84	3.82±0.83	3.77±0.81	3.36±0.74	2.21±0.98	3.57±0.61
	³ High school graduate	181 (23.3)	3.87±0.81	3.91±0.73	3.86±0.67	3.35±0.63	2.31±1.07	3.63±0.51
	⁴ Associate’s degree	139 (17.9)	4.05±0.81	3.89±0.86	3.93±0.71	3.50±0.70	2.48±1.24	3.72±0.57
	⁵ Undergraduate degree	136 (17.5)	4.05±0.73	4.03±0.64	3.86±0.68	3.71±0.55	2.18±1.07	3.76±0.47
	⁶ Graduate degree and higher	83 (9.7)	3.75±0.87	3.87±0.76	3.82±0.62	3.59±0.52	2.44±1.08	3.64±0.49
	^b <i>p</i>		0.013	0.257	0.661	0.001	0.196	0.022
	Post Hoc Test		5>1,6	-	-	5>1,2,3	-	5>1,2
			4>1,2,3,6					4>1,2

^aStudent’s t-test, ^bANOVA, $p<0.05$, $p<0.01$

Table 3. Distribution of Individual Workload Perception Scale scores according to the occupational characteristics.

		n (%)	Manager support	Coworker support	Unit support	Work environment workload	Intention to continue the current job	Total	
			Mean±SD	Mean±SD	Mean±SD	Mean±SD	Mean±SD	Mean±SD	
Position at institution	¹ Physician	21 (2.7)	3.99±0.98	4.22±0.75	4.09±0.84	3.75±0.71	2.14±0.96	3.84±0.69	
	² Nurse	148 (19)	4.02±0.73	4.03±0.68	3.86±0.68	3.64±0.61	2.39±1.17	3.76±0.48	
	³ Physio-therapist	38 (4.9)	3.78±0.76	4.02±0.73	3.77±0.57	3.72±0.59	2.19±1.06	3.67±0.50	
	⁴ Social worker	59 (7.6)	4.10±0.76	4.06±0.60	3.90±0.54	3.72±0.54	2.27±1.19	3.80±0.43	
	⁵ Psy-chologist	18 (2.3)	4.13±0.66	4.13±0.43	3.82±0.62	3.64±0.59	1.94±0.88	3.76±0.41	
	⁶ Care personnel	417 (53.7)	3.82±0.85	3.80±0.81	3.84±0.71	3.35±0.67	2.34±1.08	3.58±0.56	
	⁷ Other	76 (9.8)	3.97±0.81	3.83±0.89	3.82±0.87	3.37±0.58	2.24±1.00	3.62±0.57	
	<i>^bp</i>			0.032	0.003	0.761	0.001	0.616	0.002
<i>Post HocTest</i>			4>3,6 2>6	2>6	-	6<2,3,4 4>7	-	2>6	
Time of work in occupation (years)	¹ 1-5 years	374 (48.1)	4.03±0.78	3.90±0.79	3.88±0.68	3.56±0.62	2.47±1.18	3.73±0.52	
	² 6-10 year	179 (23.0)	3.93±0.74	3.97±0.75	3.88±0.67	3.44±0.62	2.23±0.98	3.67±0.53	
	³ ≥ 11 years	224 (28.8)	3.67±0.89	3.83±0.78	3.78±0.77	3.34±0.71	2.11±0.98	3.52±0.56	
	<i>^bp</i>			0.001	0.165	0.170	0.001	0.001	0.001
	<i>Post HocTest</i>			3<1,2	-	-	1>3	1>2,3	3<1,2
Institution type	¹ Public	15 (19.8)	3.58±0.83	3.79±0.68	3.67±0.72	3.15±0.67	2.24±0.90	3.44±0.53	
	² Private	436 (56.1)	4.06±0.78	3.95±0.82	3.89±0.69	3.61±0.58	2.35±1.17	3.75±0.53	
	³ Other	187 (24.1)	3.82±0.79	3.85±0.74	3.91±0.72	3.40±0.69	2.29±1.04	3.61±0.52	
	<i>^bp</i>			0.001	0.065	0.002	0.001	0.556	0.001
	<i>Post HocTest</i>			2>1,3 3>1	-	1<2,3	2>1,3	-	2>1,3 3>1
Type of work	¹ Shifts	331 (42.6)	3.72±0.86	3.79±0.83	3.80±0.74	3.36±0.74	2.36±1.07	3.55±0.59	
	² Only during day	324 (41.7)	4.07±0.74	3.99±0.71	3.89±0.68	3.54±0.58	2.26±1.09	3.74±0.49	
	³ Night shifts	74 (9.5)	3.88±0.75	3.85±0.73	3.88±0.65	3.63±0.58	2.45±1.19	3.68±0.52	
	⁴ Only at night	48 (6.2)	4.12±0.80	4.04±0.78	3.91±0.67	3.51±0.43	2.14±1.08	3.75±0.48	
	<i>^bp</i>			0.001	0.007	0.343	0.001	0.321	0.001
	<i>Post HocTest</i>			1<2,4	2>1	-	1<2,3	-	2>1
Salary	¹ Insufficient	267 (34.4)	3.65±0.85	3.69±0.83	3.71±0.71	3.32±0.65	2.44±1.16	3.49±0.55	
	² Somewhat sufficient	289 (37.2)	3.90±0.73	3.86±0.71	3.84±0.67	3.47±0.59	2.26±1.09	3.64±0.48	
	³ Sufficient	199 (25.6)	4.19±0.77	4.16±0.69	4.00±0.70	3.61±0.67	2.20±0.98	3.84±0.51	
	⁴ Quite sufficient	22 (2.8)	4.46±0.79	4.44±0.73	4.39±0.74	3.97±0.77	2.52±1.07	4.16±0.63	
	<i>^bp</i>			0.001	0.001	0.001	0.001	0.068	0.001
	<i>Post HocTest</i>			1<2,3,4 2<3,4	1<3,4 2<3,4	1<3,4 2<3	1<2,3,4 2<3	-	1<2,3,4 2<3,4

^bANOVA

p<0.05

p<0.01

The burnout levels of the research group according to their demographic characteristics are given in Table 4. The average total burnout

score did not differ according to sex and educational status and differed significantly according to the age groups ($p < 0.001$).

Table 4. Burnout levels according to the demographic characteristics.

		Emotional exhaustion	Depersonalization	Personal Accomplishment	Total Maslach
		Mean±SD	Mean±SD	Mean±SD	Mean±SD
Sex	Female	23.43±7.14	9.63±4.47	17.23±5.50	50.29±13.52
	Male	23.17±7.77	10.35±4.70	17.21±5.43	50.73±14.25
	^a <i>p</i>	0.640	0.036	0.967	0.674
	<i>Effect size</i>	0.034	0.156	0.003	0.031
Age (years)	¹ < 25	23.41±7.12	9.34±3.93	16.90±5.81	49.66±13.15
	² 25- 29	24.20±7.59	10.66±5.23	17.07±4.89	51.93±14.08
	³ 30-34	25.84±7.75	11.28±5.15	18.60±5.33	55.71±13.44
	⁴ 35-39	23.90±7.36	10.07±4.59	17.63±5.20	51.60±13.96
	⁵ 40-44	23.33±7.36	9.96±4.74	17.09±5.75	50.39±14.46
	⁶ ≥ 45	21.20±6.65	8.88±3.78	16.72±5.55	46.80±12.60
	^b <i>p</i>	0.001	0.001	0.120	0.001
	<i>Post Hoc Test</i>	6<2,3,4	6<2,3 1<3	-	6<2,3,4 1<3
Education	Primary school graduate	22.69±6.72	9.76±4.39	17.59±6.08	50.04±13.89
	Secondary school graduate	22.85±7.79	9.61±4.51	17.87±6.11	50.32±14.04
	High school graduate	23.10±7.48	9.92±4.42	17.31±5.59	50.33±14.46
	Associate's degree	23.68±6.86	9.68±4.11	16.93±5.66	50.29±12.78
	Under-graduate degree	23.24±7.76	9.51±4.89	16.52±4.65	49.27±13.51
	Graduate degree and higher	25.14±7.60	11.22±5.19	17.29±4.13	53.65±13.63
	^b <i>p</i>	0.219	0.118	0.456	0.342
<i>Post Hoc Test</i>	-	-	-	-	

^aStudent's t-test, ^b Oneway ANOVA & post hoc Bonferroni test $p < 0.05$, $p < 0.01$

Burnout levels of the research group according to the occupational characteristics are given in Table 5. The average total burnout scores did not differ significantly according to the duties at work and type of work; however, significant differences were present according to the duration of work, institution worked at, and sufficiency of salary ($p = 0.014$, $p < 0.001$, and $p < 0.001$, respectively).

Emotional exhaustion differed significantly according to the duties at work, duration of working in the occupation, institution worked at, and the sufficiency of the salary ($p = 0.016$, $p = 0.007$, $p < 0.001$, and $p < 0.001$, respectively) (Table 5).

Relationships between individual workload perception and burnout levels

Table 6 shows the relationships between the workload and burnout levels of the research

group. All of the dimensions of the Individual Workload Perception scale, except the “work environment workload” dimension, were significantly correlated with the dimensions of the Maslach Burnout Inventory. There was a positive weak relationship (was present between the “intention to continue current job” dimension and total and dimension scores of the Maslach Burnout Inventory, a negative weak relationship was present between “manager support,” “coworker support,” “unit support,” and “total workload” and all score groups of the Maslach Burnout Inventory.

The effects of healthcare professionals' descriptive characteristics and workloads on burnout levels

Table 7 shows the results of the Bacward regression analysis on the deterministic effect the healthcare professionals' characteristics

and the dimensions of the individual workload perception scale on the burnout levels.

Table 5. Burnout levels according to the occupational characteristics.

		Emotional exhaustion	Depersonalization	Personal accomplishment	Total Maslach
		Mean±SD	Mean±SD	Mean±SD	Mean±SD
Position	¹ Physician	21.76±8.65	10.52±5.57	17.43±6.03	49.71±15.59
	² Nurse	23.10±7.50	9.73±4.32	16.55±5.17	49.39±13.74
	³ Physio-therapist	24.55±7.48	12.29±5.58	16.55±3.82	53.39±14.21
	⁴ Social worker	25.29±8.07	10.75±5.32	17.03±4.42	53.07±13.83
	⁵ Psy-chologist	25.50±8.34	11.44±5.09	18.78±4.66	55.72±15.09
	⁶ Care personnel	23.45±7.23	9.83±4.42	17.28±5.79	50.57±14.00
	⁷ Other	21.01±5.87	7.93±3.26	18.26±5.67	47.21±10.51
	^b <i>p</i>	0.016	0.001	0.310	0.068
	<i>Post Hoc Test</i>	4>7	3>2,6	-	-
Time working in the occupation	¹ 1-5 year	23.79±7.55	10.10±4.78	17.51±5.82	51.40±14.27
	² 6-10 years	24.01±7.64	10.12±4.54	17.14±5.29	51.27±13.81
	³ ≥ 11 years	22.05±6.63	9.31±4.16	16.81±5.00	48.17±12.62
	^b <i>p</i>	0.007	0.088	0.307	0.014
	<i>Post Hoc Test</i>	3<1,2	-	-	3<1,2
Institution type	¹ Public	24.19±7.06	10.52±4.03	19.06±4.89	53.77±12.80
	² Private	23.87±7.19	10.07±4.63	17.05±5.76	50.99±13.93
	³ Other	21.41±7.67	8.88±4.68	16.12±4.87	46.42±13.26
	^b <i>p</i>	0.001	0.002	0.001	0.001
	<i>Post Hoc Test</i>	3<1,2	3<1,2	1>2,3	3<1,2
Type of work	Shifts	23.10±7.56	9.68±4.52	17.17±5.95	49.95±14.25
	Only during day	23.25±7.30	9.73±4.55	17.00±4.90	49.99±13.23
	Night shifts	24.26±7.01	10.58±4.68	18.05±5.28	52.89±12.82
	Only at night	24.21±6.84	11.08±4.54	17.77±6.01	53.06±14.99
	^b <i>p</i>	0.529	0.108	0.435	0.183
	<i>Post Hoc Test</i>	-	-	-	-
Salary	¹ Insufficient	25.19±7.19	10.43±4.55	18.04±5.44	53.67±13.90
	² Somewhat sufficient	22.83±6.97	9.72±4.45	17.12±4.98	49.66±12.94
	³ Sufficient	21.74±7.19	9.21±4.35	16.61±5.92	47.56±13.39
	⁴ Quite sufficient	22.18±10.81	11.18±6.73	14.09±6.33	47.45±18.45
	^b <i>p</i>	0.001	0.015	0.001	0.001
	<i>Post Hoc Test</i>	1>2,3	1>3	1>3,4	1>2,3

^b Oneway ANOVA & Post hoc Bonferroni test

p<0.05

p<0.01

Table 6. Relationship between the dimensions of the Individual Workload Perception Scale and Maslach Burnout Inventory.

Maslach Burnout Inventory	Individual Workload Perception Scale						Total
	Manager support	Coworker support	Unit support	Work environment workload	Intention to continue the current job		
Emotional exhaustion	r	-0.244	-0.269	-0.255	0.036	0.339	-0.185
	<i>p</i>	0.001	0.001	0.001	0.316	0.001	0.001
Depersonalization	r	-0.204	-0.144	-0.242	0.045	0.239	-0.137
	<i>p</i>	0.001	0.001	0.001	0.211	0.001	0.001
Personal accomplishment	r	-0.346	-0.378	-0.358	-0.228	0.109	-0.397
	<i>p</i>	0.001	0.001	0.001	0.001	0.002	0.001
Total	r	-0.335	-0.342	-0.359	-0.056	0.304	-0.302
	<i>p</i>	0.001	0.001	0.001	0.116	0.001	0.001

r: Pearson's Correlation Coefficient

p<0.01

Table 7. The effects of healthcare professionals' descriptive characteristics and workloads on burnout levels.

Dependent variable	Independent variable	β	t	p	F	Model (p)	R ²
Emotional exhaustion	Constant	25.007	14.733	0.000	22.774	0.001	0.280
	Coworker support	-1.744	-4.593	0.000			
	Unit support	-1.811	-4.371	0.000			
	Work environment workload	1.923	4.619	0.000			
	Intention to continue the current job	1.653	7.599	0.000			
	Age (25-29 year)	1.167	1.748	0.081			
	Age (30-34 year)	2.091	2.851	0.004			
	Age (35-39 year)	1.449	2.130	0.034			
	Number of children (2)	2.676	4.408	0.000			
	Position (other)	-2.098	-2.731	0.006			
	Living person (alone)	1.559	2.762	0.006			
	Employed institution (other)	-2.223	-3.952	0.000			
Salary (insufficient)	1.851	3.692	0.000				
Depersonalization	Constant	12.547	11.674	0.000	15.053	0.001	0.269
	Manager support	-0.603	-2.537	0.011			
	Coworker support	-1.436	-5.199	0.000			
	Unit support	0.930	3.423	0.001			
	Work environment workload	0.724	5.112	0.000			
	Age (25-29 year)	1.202	2.659	0.008			
	Age (30-34 year)	1.573	3.202	0.001			
	Age (35-39 year)	1.065	2.304	0.021			
	Position (physiotherapist)	1.796	2.580	0.010			
	Position (other)	-1.822	-3.604	0.000			
	Employed institution (other)	-1.312	-3.687	0.000			
	Salary (insufficient)	2.192	2.348	0.019			
Decreased Personal accomplishment	Constant	30.666	27.573	0.000	32.857	0.001	0.204
	Manager support	-0.698	-2.292	0.022			
	Coworker support	-1.557	-5.032	0.000			
	Unit support	-1.180	-3.581	0.000			
	Employed institution (Public)	1.296	2.715	0.007			
	Employed institution (Other)	-1.097	-2.495	0.013			
Total Maslach Burnout	Constant	68.042	21.267	0.000	28.620	0.001	0.292
	Manager support	-2.135	-2.929	0.004			
	Coworker support	-2.647	-3.514	0.000			
	Unit support	-4.154	-5.124	0.000			
	Work environment workload	2.724	3.512	0.000			
	Intention to continue the current job	2.519	6.237	0.000			
	Age (25-29 year)	3.864	3.037	0.002			
	Age (30-34 year)	6.476	4.668	0.000			
	Age (35-39 year)	4.059	3.108	0.002			
	Employed institution (Other)	-5.123	-4.983	0.000			
	Salary (insufficient)	2.058	2.196	0.028			

The relationships between the descriptive features such as age, number of children, living person (alone), position, working time in the profession, the institution, salary (insufficient) and emotional exhaustion of individual workload perceptions, was found statistically significant ($F=22.774$; $p=0.001$; $p<0.01$). The emotional exhaustion explanation rate of descriptive features and individual workload

perceptions is 28%, which is seen to be at a weak level (Table 7).

The relationships between age, gender, position, working time in the institution, employed institution and salary (insufficient) and individual workload perceptions and depersonalization, was found statistically significant ($F=15.053$; $p=0.001$; $p<0.01$). The depersonalization explanation rate of descriptive features and individual workload

perceptions is 26.9%, which is seen to be at a weak level (Table 7).

The relationships between employed institution, salary (insufficient) and individual workload perceptions and decreased personal accomplishment was found statistically significant ($F=32.857$; $p=0.001$; $p<0.01$). The decreased personal accomplishment explanation rate of descriptive features and individual workload perceptions is 20.4%, which is seen to be at a weak level (Table 7).

The relationships between age, employed institution, salary (insufficient, and intention to continue the current job and individual workload perceptions and Total Maslach Burnout was found statistically significant ($F=28.620$; $p=0.001$; $p<0.01$). The Total Maslach Burnout explanation rate of descriptive features and individual workload perceptions is 29.2%, which is seen to be at a weak level (Table 7).

Discussion

In the study, it was determined that health workers in nursing homes and elderly care rehabilitation centers experienced moderate emotional exhaustion and low level of depersonalization, and their thoughts on the intention to leave the job were intense with the effect of the experienced emotion. Descriptive features such as age, number of children, living alone, position, employed institution, insufficient wage and individual workload perceptions were found as important predictors of burnout levels.

Discussion of individual workload perception and burnout levels

In the research group, the healthcare professional had positive individual workload perceptions. The dimension with the highest average score was manager support and the dimension with the lowest average score was the intention to continue the current job. These results are coherent with similar studies conducted on the same scale in our country and even better than some of them. For example, in a study conducted with 202 care personnel in a nursing home and elderly rehabilitation center in Ankara, the care load of the employees were found at a medium level.³¹ A study with a total

of 203 people working at a nursing home for patients with Alzheimer's disease identified that the majority of the employees had a medium level of workload perception.²⁴ In a study with a total of 195 healthcare professionals, it was stated that the highest workload perception was related to coworker support and the lowest was related to the intention to continue the current job.⁹ In a study, contrary to the studies in Turkey, it was stated that employees that provided care in nursing homes and elderly rehabilitation centers (nurses and nurse assistants) had a greater tendency to quit their jobs compared with the personnel in other institutions due to workload, time pressure, role conflict, lack of social support, compensation, and rewards.³²

When the results of the research are evaluated as a whole, it can be said that the healthcare professional at the institutions in Turkey who provide care for the elderly are not under a high level of workload. It might be caused by the fact that the care services provided for the elderly in nursing homes and rehabilitation centers are mostly limited to satisfying the daily activities of life and routine healthcare services, which are not medically diverse.

It was observed that the research group experienced a medium level of emotional exhaustion, a low level of depersonalization, and mid-high level decrease in personal accomplishment. Other studies in our country published different levels of burnout scores for nursing home employees.^{33,34,35} These differences might be caused by the conditions of different institutions, as well as the small sample sizes of recent studies and differences in the distributions of occupations.

Discussion of individual workload perception and burnout levels according to characteristics

In the research, it was identified that coworker support and unit support perceptions did not differ according to the time of work in the occupation. Manager support, work environment workload, intention to continue the current job and total workload perception significantly differed according to the time of work in the occupation. In the literature,

although some studies found that the individual workload perception of the participants did not differ according to the time of work in the occupation, others reported that it differed accordingly.³⁶ Karacabay et al. illustrated that surgical nurses who worked 11 years and over in the occupation had more positive manager support and coworker support perception and more negative workload perceptions than those who worked fewer years.³⁷

In the research, between employees were no differences in terms of unit support and intention to continue the current job perception according to the types of work and those who worked shifts had the most negative perception towards the other workload dimensions. Researches indicated that the workload perception of participants did not differ by the type of work.^{7,20} The main reason for these different results are thought to be that the research was conducted with healthcare professionals in hospitals and the study by Avci was conducted with surgical nurses. The working conditions of the nursing homes and elderly rehabilitation centers are different from hospitals.^{9,36} In comparison with hospitals, there is limited personnel in nursing homes and elderly rehabilitation centers, the number of residents per care worker is higher, and decision-makers and problem-solvers needed in the event of problems mostly work during the day.

According to the sufficiency of salary, there were differences in the workload perceptions except for the intention to continue the current job. Accordingly, the intention to continue the current job was similar for those who found their salary sufficient or insufficient, yet the perception of other workload dimensions was more negative for those who found the salary insufficient compared with people who found the salary sufficient.

In a study by Isikhan with nursing home care personnel, it was stated that 84.2% of the participants found their salary insufficient; however, they loved their jobs and did not want to quit.³¹ In another foreign study, contrary to our results, it was identified that care personnel in nursing homes and elderly rehabilitation centers worked with less personnel for patient

care and received less salary, which resulted in more workload for the care personnel and they did not prefer to work at these institutions.³² In our research, the reason why the employees of the nursing homes and elderly rehabilitation centers in Turkey wanted to continue their jobs although they found their salary insufficient was not investigated in detail. However, it was assumed that this result was because of the positive thoughts of the employees on variables such as work environment and work conditions. Further research should investigate this subject in detail.

In the present study, emotional exhaustion levels differed significantly according to the occupations. Social workers had higher emotional exhaustion levels than the others and physiotherapists had higher depersonalization levels than the others. Personal accomplishment and total burnout levels were at similar levels for employees with different jobs.

In a study conducted with a total of 50 physiotherapists (25 working in nursing homes and 25 working at outpatient centers), it was detected that physiotherapists who worked in nursing homes had a higher possibility of experiencing burnout and factors that triggered burnout included work stress, unfair behavior of managers, and lack of recognition.³⁸ Tastan stated that among healthcare professionals, nurses and technicians had higher levels of emotional exhaustion and burnout compared with other healthcare professionals.³⁹ Eylevler identified that nurses experienced a higher level of emotional exhaustion than physicians.⁴⁰ The responsibilities and workload of healthcare professionals differ according to the institution worked in and this negatively affects the burnout levels of nurses and physicians who are the primary people that are responsible for diagnosis and treatment. However, the employees in our research group had responsibilities for care rather than treatment.

It can be said that the social support needs of the elderly in nursing homes and elderly rehabilitation centers have negative effects on the emotional exhaustion levels of social workers. On the other hand, physiotherapists may also experience more intense burnout due

to their active roles in rehabilitation centers and physical disorders that come with age.

In the present study, it was found that the participants with different durations of work in the occupation had similar levels of depersonalization and personal accomplishment; participants who worked for 11 years and over in the occupation had lower levels of emotional exhaustion and total burnout levels compared to those who worked for a shorter time.

In the literature, there are different results on the burnout levels of participants according to the time of work in the occupation. In the study by Tastan with X and Y generation healthcare professionals working at a training and research hospital, it was identified that participants with 6-10 years of professional experience experienced a higher level of emotional exhaustion than those with 0-5 years of professional experience.³⁹ Karahuseyin detected that participants with less than one year of professional experience had a higher perception of personal accomplishment.⁴¹ Simsek-Bilgin detected that burnout levels of nursing home employees did not differ according to professional experience.⁴² The differences in these results are thought to be mainly caused by factors such as the different working conditions of the institutions, and the distribution of the participants by age. The results do not allow generalizing the burnout levels according to the professional experience of the healthcare professionals.

The present study identified that participants working in public institutions had a higher level of burnout compared with those working in private and other institutions. In another study conducted with nurses, it was identified that the burnout level of the participants did not differ according to the institution type.⁴³ In another study conducted with nurses, it was identified that nurses working in university hospitals experienced a higher level of burnout.⁴⁴ Each institution has its own characteristics, work environment, and organizational culture. These characteristics affect the perception of the employees towards their jobs. The policies and working conditions of public institutions are determined by laws and regulations. By contrast, in-house

applications and procedures are under the initiative of the management in private and other institutions, which allows a more flexible working arrangement. This might directly affect the burnout levels of employees.

We found no differences in burnout levels in terms of the type of work. In the literature, some results are similar and some conflict with our results.^{41-43,45-47} Healthcare professionals work only during the day, only at night or in shifts. Depending on the level of healthcare services, some hours can be more intense and healthcare professionals working during these hours can be negatively affected. The type of work can be reflected in burnout levels in different ways, especially according to whether the subject is married-single, has children, and with age. However, in our research, the type of work had similar effects on the burnout level of the employees, which was caused by the fact that the services in our research were mainly providing care and maintaining daily activities rather than diagnosing and treating.

In the research, it was identified that the employees who found their salary insufficient had a higher level of burnout than those who found it sufficient. Similar to our result, Simsek-Bilgin identified that participants with lower salaries had higher levels of emotional exhaustion and depersonalization.⁴² People who find their salary insufficient or that it does not meet their expenses have lower levels of job satisfaction. Low income may cause burnout due to its effects on job satisfaction.⁴⁸

Discussion of relationships between workload and burnout

In the present study, it was found that high levels of coworker support and unit support were related to decreased levels of emotional exhaustion, and an increased work environment workload and intention to continue the current job were related to increased levels of emotional exhaustion. In studies using different workload scales, it has been found that there is a strong relationship between workload and emotional exhaustion, and as the workload perception of the participants increases, they become more worn out and their emotional burnout levels

increase.^{41,49-51} In Karahüseyin's study on rest and nursing home workers, it was determined that those who think that they have a high perception of workload have higher levels of emotional burnout.⁴¹ Since emotional burnout means that individuals feel emotionally exhausted due to negativities in the workplace, it is thought that it is normal for individuals to feel emotionally exhausted when the workload is heavy. In a study conducted on employees in nursing homes where Alzheimer's patients were cared for, found that there were positive and significant relationships between the employees' workload perceptions and the sub-dimensions of emotional exhaustion, depersonalization, and decrease in personal achievement.²⁴

Discussion of predictive factors effecting to the burnout levels

It was detected that the level of depersonalization decreased with the increase in manager support and unit support, it was not affected by coworker support, and increased with the increase in work environment workload and intention to continue the current job. We found that the level of personal accomplishment decreased with the increased in manager support, coworker support, and unit support, and it was not affected by work environment workload and intention to continue the current job. Moreover, it was identified that manager support, coworker support, and unit support decreased the level of burnout and work environment workload, and intention to continue the current job increased levels of burnout. In a study with employees working at nursing homes for patients with Alzheimer's disease, positive significant relationships were found between the workload perception of employees and emotional exhaustion, depersonalization, and a decrease in personal accomplishment.²⁴ In a study by Philips with a total of 58 medical-surgical nurses, it was detected that workload perception moderately affected the level of burnout.⁵² In our study, the contradictory result that manager support, coworker support, and unit support decreased the level of personal accomplishment may be related to the fact that the research group was not homogenous because the majority was care personnel whose

educational levels were mostly primary school or high school. Other factors that may affect the personal accomplishment dimension of burnout (e.g. concern for the future, psychological characteristics, self-confidence, self-efficacy) should be handled in detail and qualitative investigations on this matter should be performed.

According to the results of our research related to the relationship between workload and burnout, manager support, coworker support, unit support, work environment workload, intention to continue the current job, being aged between 25-39 years, working at other institutions, and finding the salary insufficient were significant determinants of the burnout levels of healthcare professionals working at nursing homes and elderly rehabilitation centers.

As a result, it can be said that a negative increase in workload causes burnout levels to increase. Burnout, one of the most important facts of work, has been among the most serious problems in work life for the last 50 years. The underlying reasons for problems related to burnout include uncertainty in career, excessive workload, problems in wages policies, insignificance at work, and personal characteristics.

The health sector differs from the other sectors because it provides services in certain situations, mostly emergency services, to individuals with high stress levels who are between life and death. In addition to these sector-specific situations, frequent exposure to stress for employees, problems in the supply of equipment, problems in the work environment, low salaries, lack of workforce despite the workload and inappropriate distribution of the workforce, and lack of motivation causes employees to experience burnout.

Limitations

The limitations of the research are that it was conducted only in Istanbul and only quantitative data, not qualitative data, were collected on the workload perception and burnout levels of the healthcare professionals. In addition, the low reliability coefficient of the work environment workload dimension of the Individual Workload Perception Scale and

the fact that the effects of job satisfaction, coping and social resources were not measured in this study are other limitations.

Conclusion

In the research, it was identified that the healthcare professionals working at nursing homes and elderly rehabilitation centers experienced medium levels of emotional exhaustion and low levels of depersonalization, and they had intense thoughts about quitting their jobs due to these emotions. Although the healthcare professionals thought positively about their working conditions, the workload, intention to continue the current job, being young, and living alone increased the emotional exhaustion level of healthcare professionals. It was identified that manager support, coworker support, and unit support decreased total burnout levels, which showed the importance of managers in decreasing the burnout levels of healthcare professionals. Managers must create a work environment that supports employees. Moreover, individual workload perceptions of care personnel were more negative than in other employees, which can be normal considering their duties and functions at the institution. Improving working conditions and increasing manager support could contribute to making their individual workload perceptions more positive.

Based on the result that employees aged 40 and over have more negative perceptions of individual workload, it is suggested that managers should pay particular attention to employees in this age group, and implement practices that will ease the burden of their work and make them feel better.

Employees with chronic diseases can be treated more attentively and positive discrimination can be made. In this way, it can be ensured that the work environment workload perceptions are more positive.

It is normal for the care personnel to have more negative perceptions of their individual workload compared to other employees, in terms of their functions and duties in Nursing Homes and Elderly Care Rehabilitation Centers. However, it is thought that increasing the working conditions and the support of the

managers will contribute to the transformation of the individual workload perceptions of these employees into a more positive one.

The fact that the burnout levels of social workers and physiotherapists are higher than those of other employees is due to the roles they assume in Nursing Homes and Elderly Care Rehabilitation Centers. It is thought that managerial practices such as providing flexible working conditions, rewarding and performance evaluation are important in order to reduce the burnout levels of these employees.

It is thought that those with 1-5 years and 6-10 years of work in the profession and those with less than five years of work in the institution may have higher burnout because they are at the beginning of their working life, they need time to develop their experience and problem-solving skills, which they have given for years to solve problems. In order to reduce the burnout levels of these employees, it is thought that making applications to support the employees in the duties undertaken within the institution will contribute.

Ethics Committee Approval

Approval was taken from the Ethical Board of the Istanbul Medipol University Non Interventional Research Ethics Committee (Ethics committee approval number: 917 and date: 06/11/2019) and written permission was taken from University. The study was conducted in accordance with the Helsinki declaration principles Informed Consent.

Informed Consent

The purpose of the study was explained to the employees at nursing homes and elderly rehabilitation centers who volunteered to participate in the study and their consents were obtained.

Author Contributions

Idea, design, collection of resources, analysis and interpretation of results and literature, written and critical: FA, OH, BT.

Conflict of Interest

There is no conflict of interest to declare.

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Peer-review

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