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Evaluation of healthcare workers' perceptions of difficult patients: Samsun province example

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ABSTRACT

Aims: In this study, it was aimed to evaluate the difficult patient perceptions of physicians/dentists, midwives/nurses, medical secretaries, security personnel and other healthcare professionals working in public hospitals in Samsun by comparing them according to their gender, age, marital status, profession, educational status and place of duty.

Methods: Exploratory and confirmatory factor analysis was conducted within the scope of the validity and reliability analysis of the survey created to evaluate the perceptions of difficult patients among 238 healthcare professionals working in public hospitals in Samsun, and 28 statements were collected under 4 dimensions. Student-t test, ANOVA test and post-hoc analyzes were performed at 5% significance level to test the research hypotheses.

Results: While the struggle levels of health workers were generally low, it was observed that the struggle levels of women, under 40 years of age, and health workers working in polyclinics and emergency services were lower when compared according to gender, age and the units they worked in. While the burnout levels of healthcare professionals are generally found to be above average or high, it was found that the burnout levels of female, single, undergraduate and graduate educated healthcare professionals, physicians and nurses working in outpatient clinics, emergency services and inpatient services were higher when compared according to gender, marital status, education, profession and the units where they work.

Conclusion: Within the framework of health management and organization, it is thought that in-service training should be organized for healthcare professionals with lower levels of struggle to increase their level of coping with difficult patients, and to reduce the burnout levels of healthcare professionals with higher levels of burnout, and they should be supported with tools that will enable staff empowerment.

Keywords: Difficult patient, healthcare workers, level of struggle, level of burnout, health management

INTRODUCTION

Factors affecting the quality level of health services include the technical dimension of the service provided, the comfort features of the health facility, and the relationships between the health worker and the patient and their relatives. It can be stated that among the problems encountered in the mutual relations between the healthcare staff and the patient or their relatives, there may be patients' refusal to accept the healthcare services provided and increasing incidents of violence in healthcare. When the reasons for violence in healthcare and patients' refusal to accept healthcare services are examined, the term "difficult patient" is encountered in the literature.¹⁻⁵ In this context, it is thought that evaluating healthcare professionals' perceptions of "difficult patients" will contribute to the literature.

While the term "difficult" encountered in the literature on this subject expresses the lack of cooperation between the patient and the physician, it has been observed that these "difficult"

patients want care and treatment, but do not immediately accept the health service offered.^{1,2} Patients who demand immediate results as if they came with a "shopping list", are pessimistic, disrespectful, restless and even malicious are all described as "difficult".³⁻⁵

Initially, most of the literature on difficult patients classified problems in patient behavior such as care avoidance, indecision, and being overly demanding.¹ Nowadays, medical authorities have begun to stop blaming patients for difficult relationships. Knowing the role of physicians and other healthcare professionals in managing disturbing relationships and repairing broken relationships and listening to their voices has become a regulatory priority as well as a main goal in modern medicine.⁶ It is an important problem that 80% of the practices of restricting disruptive patients from healthcare services within a 2-year period. According to O'Malley et al.,⁷ it is thought that not providing health care to disturbing

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patients for a period of 2 years is important because it is insufficient to solve the problem and such problems gradually accumulate and become a bigger problem. This should not mean making excuses or justifying intentional disruptive behavior by patients or family members. Rather, it is stated that patients do not bear sole responsibility for the problems that arise in the relationships between themselves and healthcare professionals, and that healthcare professionals may have special duties to correct these conflicts.⁸

In the literature, three dimensions of quality are mentioned in studies on quality measurement in health services, based on the obligations of health professionals to manage difficult patients and correct the problems encountered in the service delivery process with these patients. The first is the technical dimension, the second is the comfort of the facility where the service is provided. The third is the interpersonal relations dimension exhibited by healthcare personnel in service delivery.⁹ This third dimension forms the basis of the research question regarding remediating uncomfortable situations between healthcare professionals and patients and employees' perceptions of difficult patients. It is thought that in difficult patient management, the characteristics of both patients and healthcare professionals should be examined and relevant precaution should be taken in accordance with quality practices within the framework of healthcare management and organization.

When the studies on difficult patients in recent years are examined, it is seen that difficult patient evaluations of medical assistants, general practitioners, family physicians, and specialist physicians in university and public hospitals,^{2,10-15} difficult patient evaluation by psychiatrist, psychologist and social worker in mental health clinic,¹⁶ difficult patient evaluation of nurses working in a palliative care center and private university hospital,^{17,18} difficult patient evaluation by medical secretaries at a university hospital.¹⁹ It has been observed that each of these studies are qualitative studies that focus on only one professional group. All professional groups were evaluated together in the grumpy patient evaluation of employees working in public hospitals (physicians, nurses, medical secretaries, security personnel) in research.²⁰ The aim of the study was to measure the frequency of employees encountering grumpy patients, to determine the characteristics of grumpy patients, to investigate how employees manage grumpy patients, and to determine how grumpy patients affect these employees.²⁰ When all these studies are evaluated together, no study has been found that evaluates the perceptions of difficult patients according to the gender, age, marital status, profession, education level and duty unit of healthcare professionals.

In this context, the research question that forms the basis of the hypotheses is to investigate whether healthcare professionals' perceptions of the difficult patients they encounter differ according to their socio-demographic characteristics. In the method section, the hypotheses that will be tested as a result of exploratory and confirmatory factor analyzes of the structural validity of the survey used in the research will be included.

METHODS

Data Collection Tool and Method

The "Difficult Patient Survey", consisting of 35 questions and sections questioning the demographic characteristics of the participants and the demographic characteristics of the difficult patient, was used as a data collection tool in the study. The survey, created by Çelik²² on a 5-point Likert scale, using Kistler's²³ Difficult Patient Interaction Survey and Hahn et al.'s²⁴ Difficult Physician-Patient Survey, was adapted to Turkish. It is expressed on a 5-point Likert scale as 1: Very low, 2: Low, 3: Medium, 4: High, 5: Very high. Applications were made to the responsible researcher for permission to use the survey, Samsun University for ethics committee permission (Date: 28.11.2022, Decision No: 2022/99), and Samsun Provincial Health Directorate for field work, and the necessary permissions were obtained. All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki. The surveys were administered to healthcare workers by the researcher using face-to-face interview technique and online via Google-Drive. 140 surveys were conducted face to face and 98 surveys were conducted online.

Population and Sample

The population of the research is healthcare professionals in secondary level public hospitals in Samsun. The healthcare professionals in the study include physicians, midwives-nurses, health officers, laboratory technicians, radiology technicians, emergency medical technicians, medical secretaries, and security/advisory staff. In the study, a research permit application was made to Samsun Provincial Health Directorate to evaluate the opinions of healthcare professionals about the "difficult patient", and as seen in Table 1, research was conducted in 6 (six) secondary level public hospitals in Samsun.

Table 1. Population and sample of the research

Organisation	Number of healthcare workers		
	Universe	Sample	Return
Gazi State Hospital	850	140	97
Çarşamba State Hospital	400	65	51
Bafra State Hospital	400	65	50
Terme State Hospital	200	32	24
Alaçam State Hospital	75	10	8
19 Mayıs State Hospital	75	10	8
Total	2000	322	238

As given in Table 1, that the total number of professional groups providing direct service to patients was approximately 2000, it was obtained from each of the hospital managements. In calculating the sample size, " $n=N \cdot p \cdot q \cdot Z^2 / [(N-1) \cdot d^2] + (p \cdot q \cdot Z^2)$ " ($n=2000 \cdot 0.5 \cdot 0.5 \cdot (1.96)^2 / [(2000-1) \cdot 0.05^2] + (0.5 \cdot 0.5 \cdot 1.96^2)=322.39$) formula²¹ was used and the number of healthcare worker samples that needed to be reached with a 5% significance level within a 95% confidence interval was found

to be approximately 322. However, the number of healthcare professionals who agreed to participate in the research was 238, with a response rate of 74%.

Statistical Analysis

SPSS 21.0 and AMOS 21.0 package programs were used for data entry and analysis in the study. Descriptive and parametric statistical analysis methods were used to analyze the data. In this study, skewness and Kurtosis values were examined for normality test to determine whether the groups showed normal distribution. Kurtosis and Skewness values of the factors are given in Table 2. It was observed that the Skewness value varied between -1.126 and 0.696, and the Kurtosis value varied between 1.484 and -0.485. When Kurtosis and Skewness values are -1.5 to +1.5, it is considered to be a normal distribution.²⁵

Table 2. Kurtosis and skewness values of factors

Factors	Skewness	Kurtosis
Difficult characteristics of patients	-1.126	1.488
Staff's level of struggle	0.696	0.291
Difficult behavior of patients	0.321	0.279
Staff burnout level	-0.062	-0.485

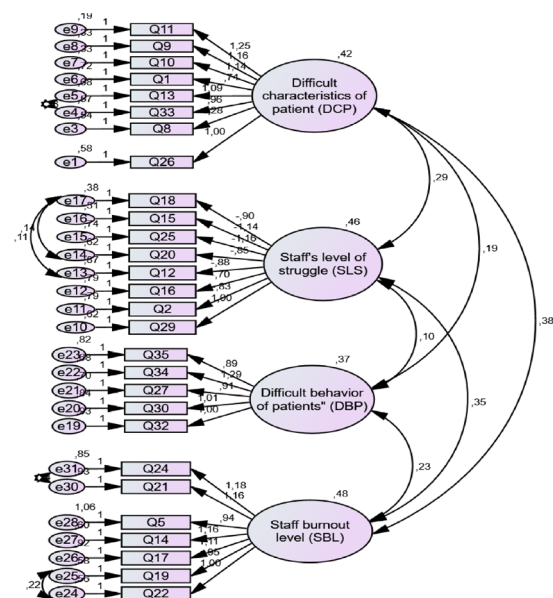
Therefore, in the procedural analysis of the data, parametric statistics; t test was used for two independent groups and ANOVA test was used for multiple groups. Research hypotheses were tested at a 5% significance level with a 95% confidence interval. The validity and reliability of the questionnaire used were evaluated.

Construct validity and reliability of the survey: The validity of the survey was evaluated by exploratory and confirmatory factor analyses, and exploratory factor analysis was first applied to reach a small number of factors from the large number of items in the scale. In social sciences, when performing factor analysis, if there is a correlation between the factors in the data set you will separate the factors, it is thought that an oblique (oblimin and promax) rotation gives a more useful loading.^{25,26} In the exploratory factor analysis, the “direct-oblimin” method was used as the principal component analysis and rotation method. In the exploratory factor analysis, factor loadings for each item in the survey form, explained variance of each factor, total explained variance of the factors, Kaiser- Meyer-Olkin coefficient, and Bartlett’s sphericity test were calculated. Later, after reaching the reference ranges for these calculated values, confirmatory factor analysis was performed to determine the accuracy of the created dimensions. The models were revised until the goodness of fit values of the measurement models of the concepts in the study reached the reference ranges.

As a result of the exploratory factor analysis applied to a total of 35 items included in the survey in order to capture the evaluations of healthcare professionals regarding their perceptions of the “difficult patient”, it was seen that it reached a structure with 32 items under 4 factors. As a result of the exploratory factor analysis, 3 items were excluded from the analysis because each item was linked as a single factor.

The first of these factors, “difficult characteristics of patients” (DCP), includes the difficult personality characteristics of the patients, such as how tiring, challenging, and frustrating they are. The second factor, “staff’s level of struggle” (SLS), includes opinions indicating how positive, comfortable and enthusiastic the staff are in the face of difficult behavior of patients. The third factor, “difficult behavior of patients” (DBP), includes the situation in which patients exhibit behaviors that push the staff to burnout or behaviors that provoke the staff and include complaints. The fourth factor, “staff burnout level” (SBL), includes opinions about the difficult behavior of the patients and how mad, angry, hopeless, tense and irritated the staff is.

As a result of the confirmatory factor analysis conducted to test whether this structure reached as a result of exploratory factor analysis is valid, the final measurement model containing 28 items under this 4-factor structure was reached, as seen in Figure. As a result of confirmatory factor analysis, 4 items with factor loadings below 0.70 were deleted.



x ² (CMIN)	sd	x ² /sd	NFI	IFI	CFI	GFI	AGFI	RMSEA
740,968	339	2,186	0,776	0,865	0,863	0,820	0,785	0,071

Figure. Final measurement model and compliance values regarding the difficult patient perception dimensions of healthcare professionals

When the goodness of fit values of the model were examined, it was seen that they were among the acceptable values ($x^2/df=2.186$ NFI=0.776 IFI=0.865 CFI=0.863 GFI=0.820 AGFI=0.785 RMSEA=0.071). When the reliability level of the structure, which includes 4 dimensions and 28 items reached as a result of the final measurement model, is examined, it is seen that the Cronbach’s alpha coefficients of the four dimensions (DCP=0.912 SLS=0.751 DBP=0.802 SBL=0.886) are between 0.751-0.912. The overall Cronbach alpha coefficient of all dimensions was found to be 0.849.

Limitations

One of the main limitations of the research is that the study could not be carried out in all of Türkiye, but only in Samsun province, and although 21 Ministry of Health hospitals in this province were applied for research permission, the study

was limited to 6 secondary public hospitals that accepted the research. Another limitation of the research is that 74% of the sampled personnel working in 6 secondary public hospitals in Samsun responded to the survey and non-response bias could not be controlled.

RESULTS

Descriptive Findings

Descriptive findings regarding the characteristics of 238 healthcare professionals who participated in the survey conducted in Samsun province to determine the evaluations of healthcare professionals' perceptions of difficult patients are included in Table 3.

Variables	n	%
Gender		
Male	103	43.3
Female	135	56.7
Marital status		
Married	183	76.9
Single/widow/divorced	50	21.0
No answer	5	2.1
Age group		
40 years and under	108	45.4
Over 40 years old	106	44.5
No answer	24	10.1
Education		
Associate degree and below	71	29.8
Undergraduate	115	48.4
Postgraduate	51	21.4
No answer	1	0.4
Occupation		
Physician/dentist	57	23.9
Midwife/nurse	76	31.9
Health technician/medical secretary	50	21.0
Security/advisory officer	55	23.1
No answer	1	0.4
Hospital units		
Outpatient clinic/examination unit	58	24.4
Inpatient clinic unit	48	20.2
Patient registration/patient rights/patient complaint unit	48	20.2
Emergency service/ambulance unit	47	19.7
Radiology/laboratory unit	36	15.1
No answer	1	0.4

While 56.7% of the healthcare professionals participating in the research are women, 76.9% are married. It was observed that 45.4% of the employees were 40 years old and under, and 48.4% had a bachelor's degree. While 31.9% of the personnel are midwives/nurses, 23.9% are physicians/dentists, it is seen that 24.4% of the employees work in polyclinic/examination units.

Findings Regarding Hypotheses

The comparison of the dimensions resulting from the factor analysis regarding the answers given in the research conducted to determine the difficult patient perception levels of healthcare professionals according to their gender, marital status and age is given in Table 4. Research hypotheses established separately according to healthcare professionals' perception levels of each difficult patient and statistical analysis results for each hypothesis are included.

Difficult patient perception levels	Groups	n	Average	SD	t	p
Difficult characteristics of patients	Female	135	4.18	0.69	1.756	0.080
	Male	103	4.01	0.82		
	Married	183	4.06	0.73	1.639	0.102
	Single*	50	4.26	0.78		
	≤40 years	108	4.17	0.79	1.863	0.064
	>40 years	106	3.98	0.69		
Staff's level of struggle	Female	135	2.09	0.54	-3.290	0.001
	Male	103	2.34	0.59		
	Married	183	2.22	0.56	-0.972	0.332
	Single*	50	2.13	0.62		
	≤40 years	108	2.12	0.58	-2.106	0.036
	>40 years	106	2.29	0.59		
Difficult behavior of patients	Female	135	2.93	0.70	-0.448	0.655
	Male	103	2.98	0.80		
	Married	183	2.96	0.73	-0.598	0.551
	Single*	50	2.89	0.81		
	≤40 years	108	2.86	0.75	-1.125	0.262
	>40 years	106	2.97	0.70		
Staff burnout level	Female	135	3.65	0.85	2.678	0.008
	Male	103	3.36	0.81		
	Married	183	3.46	0.82	2.311	0.022
	Single*	50	3.77	0.91		
	≤40 years	108	3.61	0.87	1.295	0.197
	>40 years	106	3.46	0.79		

*Marital status of healthcare workers was evaluated together as single, widowed and divorced, SD: Standard deviation

Hypothesis 1.1: There is a statistically significant difference compared to (a. their gender, b. their marital status, c. their age) health professionals' levels of patients' difficult characteristics.

Hypothesis 1.2: There is a statistically significant difference compared to (a. their gender, b. their marital status, c. their age) staff's level of struggle.

Hypothesis 1.3: There is a statistically significant difference compared to (a. their gender, b. their marital status, c. their age) health professionals' levels of difficult behavior of patients.

Hypothesis 1.4: There is a statistically significant difference compared to (a. their gender, b. their marital status, c. their age) staff's burnout level.

Difficult patient survey is expressed on a 5-point Likert scale as 1: Very low, 2: Low, 3: Medium, 4: High, 5: Very high. Health professionals found that patients' levels of difficult personality traits such as tiring, challenging and annoying were high (mean: 4.11 ± 0.75), and it was found that there was no statistically significant difference according to their gender, marital status and age, hypothesis 1.1. was rejected ($p > 0.05$).

The struggle levels of the staff, indicating how positive, comfortable and enthusiastic they were in the face of difficult behavior of the patients, were found to be low (mean: 2.20 ± 0.57). Within the scope of this dimension, it has been observed that male healthcare workers have a higher level of struggle than female healthcare workers and healthcare workers over the age of 40 have a higher level of struggle than healthcare workers under the age of 40, and the difference is statistically significant, and hypothesis 1.2.a and hypothesis 1.2.c are accepted. ($p: 0.001$ and $p: 0.036$, respectively). However, within this dimension, it was found that there was no statistically significant difference according to the marital status of healthcare professionals and hypothesis 1.2.b was rejected ($p: 0.332$).

The level of difficult behavior of patients who provoke the staff, push them to burnout, and contain complaints was found to be at a medium level (mean: 2.95 ± 0.74) by healthcare professionals, and it was found that there was no statistically significant difference according to their gender, marital status and age, hypothesis 1.3. was rejected ($p > 0.05$).

The burnout levels of the staff, which included opinions indicating how angry, furious, hopeless, tense and irritated the difficult behavior of the patients made the staff, were found to be above average or high (mean: 3.53 ± 0.84). Within the scope of this dimension, it was seen that female health workers had higher burnout levels than male health workers and single health workers had higher burnout levels than married health workers, and the difference was statistically significant, and hypothesis 1.4.a and hypothesis 1.4.b were accepted ($p: 0.008$ and $p: 0.022$ respectively). However, within this dimension, it was found that there was no statistically significant difference according to the ages of healthcare workers and hypothesis 1.4.c was rejected ($p: 0.197$).

A comparison of the dimensions resulting from the factor analysis regarding the answers given in the research conducted to determine the difficult patient perception levels of healthcare professionals according to their education, profession and the units they work in the hospital is given in [Table 5](#). Research hypotheses established separately according to healthcare professionals' perception levels of each difficult patient and statistical analysis results for each hypothesis are included.

Hypothesis 2.1: There is a statistically significant difference according to (a. their education, b. to their profession, c. working units in the hospital) health professionals' levels of patients' difficult characteristics.

Hypothesis 2.2: There is a statistically significant difference compared to (a. their education, b. to their profession, c. working units in the hospital age) staff's level of struggle.

Hypothesis 2.3: There is a statistically significant difference compared to (a. their education, b. to their profession, c. working units in the hospital age) health professionals' levels of difficult behavior of patients.

Hypothesis 2.4: There is a statistically significant difference compared to (a. their education, b. to their profession, c. working units in the hospital age) staff's burnout level.

It was found that there was a statistically significant difference in the level of difficult patient characteristics according to the education of healthcare professionals ($p: 0.043$), profession ($p: 0.001$) and working units in the hospital ($p: 0.002$), and hypothesis 2.1 was accepted.

It was found that there was no statistically significant difference in the staff's level of struggle against the difficult behavior of the patients according to their education ($p: 0.102$) and profession ($p: 0.119$), and hypothesis 2.2.a and hypothesis 2.2.b were rejected. However, it was found that there was a statistically significant difference in the struggle levels of the staff against the difficult behavior of the patients compared to the working units in the hospital ($p: 0.008$) and hypothesis 2.2.c was accepted.

It was found that there was no statistically significant difference in the level of difficult behavior of patients among healthcare professionals according to their education ($p: 0.370$), profession ($p: 0.179$) and working units in the hospital ($p: 0.216$), and hypothesis 2.3 was rejected.

It was found that there was a statistically significant difference in the burnout levels of the staff as a result of the difficult behavior of the patients, depending on their education, profession and working units in the hospital, and hypothesis 2.4 was accepted ($p < 0.001$).

Firstly, the homogeneity of variances test was carried out to determine between which groups the differences in hypothesis 2.1, hypothesis 2.2.c and hypothesis 2.4, which are accepted to be different between the difficult patient perception levels of healthcare professionals, according to their education, profession and the units they work in the hospital. Afterwards, post-hoc tests were applied and are shown in [Table 6](#).

As a result of the homogeneity of variances test conducted in the research, as seen in [Table 6](#), it was seen that the groups were not homogeneous when comparing the level of difficult characteristics of the patients among the healthcare professionals according to the education groups, and the Games-Howell test was used in the post-hoc analysis to determine which group caused the statistical difference between the groups. When comparing the perception levels of other difficult patients of healthcare professionals in [Table 6](#) according to education, profession and work unit groups, it was seen that the groups were homogeneous. In the post-hoc analysis to determine which group caused the statistical difference between the groups, the Gabriel test was used because the group sample numbers were not equal and there was very little difference.²⁶

In the post-hoc analysis conducted to determine which groups caused the difference between groups in hypothesis 2.1.a, accepted in the research, the statements of healthcare

Table 5. ANOVA table to determine healthcare professionals' perception levels of difficult patients and differences between groups (n=238)

Difficult patient perception levels	Groups	n	Average	SD	F	p
Difficult characteristics of patients	Associate degree and below	71	3.93	0.91	3.177	0.043
	Undergraduate	115	4.15	0.67		
	Postgraduate	51	4.26	0.64		
	Physician/dentist	57	4.30	0.70	5.829	0.001
	Midwife/nurse	76	4.25	0.64		
	Health technician/medical secretary	50	4.00	0.74		
	Security/advisory officer	55	3.80	0.85	4.250	0.002
	Outpatient clinic/examination	58	4.29	0.68		
	Inpatient clinic	47	4.33	0.87		
	Patient registration/patient rights/patient complaint	48	4.11	0.62	4.250	0.002
	Emergency service/ambulance	48	3.87	0.78		
	Radiology/laboratory	36	3.86	0.68		
Staff's level of struggle	Associate degree and below	71	2.32	0.66	2.310	0.102
	Undergraduate	115	2.14	0.54		
	Postgraduate	51	2.17	0.51		
	Physician/dentist	57	2.12	0.57	1.971	0.119
	Midwife/nurse	76	2.14	0.54		
	Health technician/medical secretary	50	2.20	0.63		
	Security/advisory officer	55	2.36	0.56	3.523	0.008
	Outpatient clinic/examination	58	2.05	0.50		
	Inpatient clinic	47	2.07	0.63		
	Patient registration/patient rights/patient complaint	48	2.29	0.58	3.523	0.008
	Emergency service/ambulance	48	2.23	0.56		
	Radiology/laboratory	36	2.44	0.55		
Difficult behavior of patients	Associate degree and below	71	2.85	0.94	0.998	0.370
	Undergraduate	115	3.00	0.62		
	Postgraduate	51	3.00	0.69		
	Physician/dentist	57	2.98	0.69	1.648	0.179
	Midwife/nurse	76	3.07	0.70		
	Health technician/medical secretary	50	2.91	0.76		
	Security/advisory officer	55	2.79	0.82	1.458	0.216
	Outpatient clinic/examination	58	2.82	0.68		
	Inpatient clinic	47	3.16	0.98		
	Patient registration/patient rights/patient complaint	48	2.99	0.60	1.458	0.216
	Emergency service/ambulance	48	2.90	0.61		
	Radiology/laboratory	36	2.92	0.81		
Staff burnout level	Associate degree and below	71	3.19	0.95	9.057	<0.001
	Undergraduate	115	3.63	0.77		
	Postgraduate	51	3.77	0.71		
	Physician/dentist	57	3.77	0.75	11.522	<0.001
	Midwife/nurse	76	3.75	0.76		
	Health technician/medical secretary	50	3.48	0.84		
	Security/advisory officer	55	3.01	0.82	6.341	<0.001
	Outpatient clinic/examination	58	3.68	0.80		
	Inpatient clinic	47	3.87	0.96		
	Patient registration/patient rights/patient complaint	48	3.56	0.78	6.341	<0.001
	Emergency service/ambulance	48	3.35	0.71		
	Radiology/laboratory	36	3.04	0.76		

ANOVA: Analysis of Variance, SD: Standart deviaton

Table 6. Post-hoc analysis table to determine healthcare professionals' perception levels of difficult patients and differences between groups (n=238)

Difficult patient perception levels	Homogeneity of variances test levene value	Comparison groups		Group average difference	p
Difficult characteristics of patients	8.155*	Associate degree and below	Postgraduate	-0.328	0.057
	1.886	Physician/dentist	Security/advisory officer	0.500	0.002
		Midwife/nurse	Security/advisory officer	0.444	0.004
	0.406	Outpatient clinic/examination	Patient registration/patient rights/patient complaint	0.421	0.035
		Emergency service/ambulance	Patient registration/patient rights/patient complaint	0.462	0.024
			Radiology/laboratory	0.469	0.042
Staff's level of struggle	0.749	Radiology/laboratory	Outpatient clinic/examination	0.381	0.016
			Emergency service/ambulance	0.368	0.036
Staff burnout level	3.006	Associate degree and below	Undergraduate	-0.437	0.001
			Postgraduate	-0.578	<0.001
	0.187	Physician/dentist	Security/advisory officer	0.758	<0.001
		Midwife/nurse	Security/advisory officer	0.738	<0.001
		Health technician/medical secretary	Security/advisory officer	0.465	0.018
	1.940	Outpatient clinic/examination	Radiology/laboratory	0.635	0.003
		Emergency service/ambulance	Patient registration/patient rights/patient complaint	0.516	0.022
			Radiology/laboratory	0.825	<0.001
		Inpatient clinic	Radiology/laboratory	0.512	0.044

*: p<0.05 Post-hoc test: Games-Howell

professionals with postgraduate education regarding the level of difficult characteristics of patients were higher than those of healthcare professionals with associate degree or lower education. But it was found that this difference was not statistically significant (p: 0.057). However, it was found that the statistically significant difference in hypothesis 2.1.b was due to the fact that healthcare professionals whose professions are physicians/dentists and midwives/nurses expressed higher levels of patients' difficult characteristics than security/consultation personnel (p: 0.002 and p: 0.004 respectively). Again, it was found that the statistically significant difference in hypothesis 2.1.c was due to the fact that the statements of healthcare professionals working in outpatient clinics/examination units regarding the level of difficult characteristics of patients were higher than the personnel working in patient registration/rights/complaint units (p: 0.035). Likewise, it was found that the statements of the personnel working in the emergency service/ambulance units regarding the level of difficult characteristics of the patients were higher than the healthcare professionals working in the patient registration/rights/complaint units and radiology/laboratory units (p: 0.024 and p: 0.042 respectively).

It was found that the difference between the groups in hypothesis 2.2.c accepted in the study was due to the fact that the level of struggle of healthcare workers working in the outpatient clinic/examination and emergency service/ambulance units was lower than the staff working in the radiology/laboratory unit (p: 0.016 and p: 0.036 respectively).

In the post-hoc analysis conducted to determine which groups caused the difference between groups in hypothesis 2.4.a accepted in the research, it was found that the burnout

level of health workers with undergraduate and postgraduate education was higher than that of health workers with associate degree or lower education (p: 0.001 and p<0.001 respectively). Again, it was found that the statistically significant difference in hypothesis 2.4.b was due to the fact that the burnout levels of health workers whose professions were physician/dentist, midwife/nurse and health technician/medical secretary were higher than those of personnel whose profession was security/consultant (p<0.001, p<0.001 and p: 0.018 respectively). Likewise, it was found that the statistically significant difference in hypothesis 2.4.c was due to the fact that the burnout levels of the personnel working in the hospital's outpatient clinic/examination, emergency service/ambulance and inpatient service/clinical units were higher than the healthcare professionals working in the radiology/laboratory units (p: 0.003, p<0.001 and p: 0.044 respectively). Again, it was found that the burnout levels of the staff working in the emergency service/ambulance units in the hospital were higher than the health workers working in the patient registration/rights/complaint units (p: 0.022).

DISCUSSION

While healthcare professionals' statements regarding the levels of difficult patient characteristics were found to be high, the patients' difficult behavior levels were found to be at a medium level. While the staff's struggle levels were found to be low, their burnout levels were found to be above average or high. In a study, when the answers given by the healthcare personnel to the difficult patient survey were evaluated, the average of the dimension of difficulty experienced by the patient and the dimension of discomfort felt by the staff

was calculated to be above 3, which is a medium level.²⁷ This result is similar to our study. Our study is similar to the study conducted, which stated that negative attitudes displayed by patients are associated with higher levels of burnout in healthcare professionals through high emotional exhaustion and low personal accomplishment.²⁸

It was found that male healthcare workers had a higher level of struggle than female healthcare workers, while female healthcare workers had a higher level of burnout than male healthcare workers. When the results of our study are evaluated, it is thought that female health workers have a lower level of struggle and a higher level of burnout because women have a more emotional structure than men. In the study, it was stated that female physicians encountered more difficult situations than male physicians and that there were significant differences between genders.¹⁰ It can be said that this finding is similar to the results of our study.

It has been found that single healthcare professionals have higher burnout levels than married healthcare professionals. In our study, it is thought that the reason why single healthcare workers have higher burnout levels than married healthcare workers is the psychology of living alone and the deficiencies in sharing the happiness and sadness in life. In a study, it was determined that married secretaries defined married patients as difficult patients at a higher rate, while single secretaries defined single patients as difficult patients at a higher rate.¹⁹ It is thought that our study is similar to Bilişli et al.'s¹⁹ study in that difficult patient experiences differ depending on the marital status of healthcare professionals.

While the burnout levels of healthcare workers do not vary depending on their age, it has been found that healthcare workers over the age of 40 have a higher level of struggle than healthcare workers under the age of 40. It is thought that both work experience and age experience are effective as the reason for the high level of struggle of healthcare workers over the age of 40. The study by Krebs et al.²⁹ showed that junior doctors reported higher levels of frustration with patients. The study by Steinmetz and Tabenkin¹³ revealed that older and more experienced doctors had fewer difficult patients and were better able to deal with a variety of patients and their problems, including the emotional domain. Our study is similar to the findings of both Krebs et al.²⁹ and Steinmetz and Tabenkin's study that the experiences of healthcare professionals with difficult patients differ as they get older.

It has been observed that the burnout level of healthcare professionals with undergraduate and graduate education is higher than healthcare professionals with associate degree or lower education. It is thought that healthcare professionals with undergraduate and graduate education encounter difficult patients more often than those with lower education in service delivery. In a study, it was observed that there was no difference in terms of exposure to violence between the education levels of healthcare workers.³⁰

In a study, it was stated that in order to manage difficult patients more effectively, physicians should recognize many characteristics of these patients and have advanced communication skills or change their approach to difficult

patients by improving their existing skills.³¹ Various studies have described the characteristics of difficult patients^{13,22,27,32} and agreed that they have the ability to trigger an emotional response or frustrate the physician.^{13,33} It was observed that the burnout levels of the physicians in our study and their level of involvement regarding the difficult characteristics of the patients were higher than other personnel. Findings in the literature^{13,22,27,32,33} that doctors have higher levels of burnout than other staff because they are more exposed to difficult patient behaviors due to their roles in healthcare are thought to support this study.

In a study, as in other healthcare facilities, hospice care nurses perceive some patients as "difficult".¹⁷ It has been stated that nurses feel frustration, exhaustion and powerlessness, especially in the care of patients who refuse the recommended treatment. The fact that the nurses' expressions regarding the difficult characteristics of the patients and their burnout levels were higher than the other staff in our study are similar to the results of the relevant study.¹⁷

While it was observed that the statements of the healthcare professionals working in the outpatient clinic and emergency department regarding the difficult characteristics of the patients were higher than the personnel working in the patient registration units and radiology and laboratory units, their struggle levels were lower than the personnel working in the radiology and laboratory units. It was found that the burnout levels of the staff working in the outpatient clinic, emergency department and inpatient service at the hospital were higher than the healthcare professionals working in the radiology, laboratory units and patient registration units. In the study conducted by Yıldız,³⁰ it was stated that emergency, internal and surgical services are the departments that are exposed to more violence than intensive care, operating room, radiology and laboratories departments. It is thought that the reason for the low level of struggle and high burnout level of healthcare professionals working in outpatient clinics and emergency departments is that the staff working in these units are more exposed to difficult patient behaviors than the staff working in other units.

CONCLUSION

It has been observed that women under the age of 40, women, and healthcare workers working in polyclinics and emergency services have lower levels of struggle.

It has been determined that physicians, nurses, women, single, undergraduate and graduate healthcare professionals, and healthcare professionals working in polyclinics, emergency services and inpatient services have higher levels of burnout.

It is recommended to policy makers and decision makers that female health workers, whose struggle level is lower and burnout level is higher, should be given in-service training on controlling their emotions. Activities should be organized to provide a family environment for single employees regarding their relationships with their colleagues through social activities. Staff under the age of 40 should be given in-service training on crisis management and encounters with difficult patients.

Again, it is recommended to policy-makers and decision-makers that laws should be made to improve the personal rights, job wear and tear, and increase professional and organizational commitment of healthcare professionals with low levels of struggle and high levels of burnout, such as physicians, nurses, those with undergraduate and postgraduate education, and personnel working in polyclinic/emergency services.

As a result, it is thought that within the framework of health management and organization, in-service training should be organized to increase the level of struggle of health workers with lower levels of struggle and to reduce the levels of burnout of healthcare professionals with higher levels of burnout, and they should be supported with tools that will enable staff empowerment.

ETHICAL DECLARATIONS

Ethics Committee Approval

The study was carried out with the permission of Ethics Committee of Samsun University (Date: 28.11.2022, Decision No: 2022/99).

Informed Consent

All patients signed and free and informed consent form.

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Financial Disclosure

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Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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