


ORIGINAL RESEARCH

Effects of occupational anxiety on ethical value tendencies in emergency healthcare workers in Turkey

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Abstract

Objective: Ethical values are moral values that are necessary in situations involving contradictions or the awareness of one's own role and responsibilities in the existing situation. It is predicted that professional anxiety may affect the tendency of an individual related to ethical values. For this reason, this study aimed to analyze the effects of occupational anxiety in paramedics and emergency medical technicians (EMT) on their levels of tendency towards ethical values. The descriptive and cross-sectional study was conducted with the participation of paramedics and emergency medical technicians (n = 411). The data were collected by using a Personal Information Form, the Occupational Anxiety Scale for Emergency Healthcare Professionals and the Tendency towards Ethical Values Scale. Occupational anxiety levels (91.57 ± 13.09) and levels of tendency towards ethical values (72.50 ± 8.21) were found to be high in the paramedics and emergency medical technicians. A statistically significant relationship was found between the mean scores of the participants on the Occupational Anxiety Scale and their sociodemographic characteristics (gender, year of service, weekly working hours, willing choice of occupation, occupational satisfaction) ($p < 0.05$). Additionally, a statistically significant relationship was determined between the participants' education levels and their mean scores on the Tendency towards Ethical Values scale ($p < 0.05$). In the study, it was found that as occupational anxiety increased, the tendency to ethical values increased ($p < 0.001$). As the levels of occupational anxiety in the paramedics and emergency medical technicians increased, their levels of tendency towards ethical values also increased.

Keywords

Paramedic; Emergency medical technician; Ethics; Tendency towards ethical values; Occupational anxiety

1. Introduction

Paramedics and emergency medical technicians assume responsibilities in offering pre-hospital emergency healthcare services. They ensure that patients and injured individuals are transported to the hospital [1, 2]. They have to work in challenging conditions as they provide services for emergency health problems and due to the dynamic structure of the environment, heavy workload, heavy stress and having to make fast, urgent and vital decisions [3–5]. Anxiety that may develop in this period may limit the cognitive capacity of healthcare professionals, and thus, the critical decisions and interventions they make may be negatively affected by this situation [6].

Members of the pre-hospital emergency healthcare team should exchange ideas with other members of the team while making a critical decision and reach a decision for the fastest and best solution in line with ethical principles [7]. The quality of the care to be provided is related to the high ethical

sensitivity of healthcare professionals [8].

The threat that causes anxiety to develop may be physical and psychological, as well as being related to other values that the individual has regarding their existence. A significant relationship has been determined between anxiety and work performance [9, 10]. In emergency situations, paramedics and emergency medical technicians also try to deal with many problems that may lead to occupational anxiety. As they are the first respondents who contact the patient, they are exposed to many risks such as getting infected, being injured, becoming disabled, contracting infectious diseases, and losing their lives [11]. Moreover, factors such as the physical burden of the occupation, lack of sleep, long working hours, the expectations of patients and their relatives and communication problems may increase stress and lead to occupational anxiety [12]. A previous study revealed that the rate of violence that healthcare professionals were exposed to was very high, and it was determined that the staff providing emergency healthcare services were at great risk in this regard [13]. In the

provision of healthcare services, paramedics and emergency medical technicians are supposed to make the best decisions regarding patients in line with ethical principles and take the responsibility of the decisions they have made. In this process, they may encounter situations that involve ethical dilemmas [14, 15]. In these cases, in order for paramedics and emergency medical technicians to make accurate decisions in the process of recognizing ethical problems and solving them, their ethical sensitivity, which is defined as the ability to identify an ethical problem, should be developed [16]. People and their actions form the basis of ethics. Ethical values, are values that people have regarding some acts and experience opportunities in their interpersonal relationships [14]. Public service providers should consider ethical values to maintain social order and know how to behave and do their job within the framework of ethical values while performing their duties. Health services are important public services that should be carried out within the framework of ethical values [15]. Healthcare professionals who provide pre-hospital emergency healthcare should have developed ethical sensitivities, which are defined as the ability to distinguish ethical problems in order to recognize ethical problems and make the right decisions during the resolution phase. This is because making ethical decisions, which is a complex process, requires ethical sensitivity as well as ethical knowledge [16]. In other words, ethical sensitivity is solving ethical problems, clarifying these problems, justifying the action or preventing an ethical dilemma in all units providing healthcare services [7]. No study that examined the effects of occupational anxiety on the tendencies of individuals towards ethical values was encountered in the literature review. Therefore, this study was conducted to analyze the effects of occupational anxiety in paramedics and emergency medical technicians on their tendencies towards ethical values.

2. Methods

2.1 Design

This study was carried out as a descriptive and cross-sectional study between 15.04.2021 and 15.06.2021 through online surveys held with the participation of all paramedics and emergency medical technicians working in units affiliated to the Balıkesir Provincial Ambulance Command and Control Centers in Turkey.

2.2 Sample

The population of the study consisted of all paramedics and emergency medical technicians at 55 emergency health service stations affiliated to the Office of the Chief Physician of the Balıkesir Provincial Ambulance Command and Control Centers in the province of Balıkesir in Turkey ($n = 688$). Deviation was taken as 0.05 with the Epi InfoTM 7 StatCalc software, and the required sample size was calculated at least 338 within a 99% confidence interval. Sample selection was not made and the survey link was sent to 688 people through 55 emergency health service station chiefs affiliated to Balıkesir Provincial Ambulance Command and Control Centers Chief Physician. When the number of samples reached the desired number, the survey link was closed via google forms and

data collection was terminated. The study was completed with 411 paramedics and emergency medical technicians who voluntarily agreed to participate in the study and filled out the survey forms completely. 59.73% of the population was reached.

The inclusion criteria of the study were being a working paramedic or emergency medical technician and agreeing to participate in the study.

The exclusion criterion of the study was not working at emergency healthcare service stations.

2.3 Data collection method

An Online Survey form was created on the Google Forms platform. This form was sent to the potential participants via WhatsApp by reaching them through the 55 emergency health service stations affiliated to the Office of Chief Physician of the Balıkesir Provincial Ambulance Command and Control Centers. The scales were presented to the participants as Likert-type scales on the Google Forms platform, and the participants were asked to answer the items and questions on the scales. It took each participant to fill out the survey form approximately 10 minutes. The survey form was composed of three parts. The first part consisted of a Personal Information Form, the second part included the Occupational Anxiety Scale for Emergency Healthcare Professionals, and the third part included the Tendency towards Ethical Values Scale.

2.4 Measures

2.4.1 Personal information form

The form, which was prepared by the researchers based on a review of the relevant literature to identify the participants' occupational and sociodemographic characteristics, consisted of 14 questions [17–20]. In this form, there were questions reflecting the sociodemographic characteristics of the participants such as age, gender, marital status, educational status, duty, working unit, whether they had received training on ethics, and occupational characteristics.

2.4.2 Occupational anxiety scale for emergency healthcare professionals

The 22-item questionnaire whose Turkish validity and reliability studies were conducted by Postacı *et al.* [6] is used to determine the occupational anxiety levels of healthcare professional who provide emergency health services. The scale is a 5-point Likert-type scale, and each item on the scale is scored as “Strongly Agree = 5 points, Agree = 4 points, Partially Agree = 3 points, Disagree = 2 points, or Strongly Disagree = 1 point”. The total score to be obtained from the scale varies between 22 and 110, and higher scores indicate lower levels occupational anxiety. The scale has two subscales, which are the bodily, physical and vital anxieties (the first 12 items) and anxieties related to the employee, equipment and environmental factors (the last 10 items) subscales. In the study conducted by Sevinc Postacı *et al.* [6], Cronbach's alpha internal consistency coefficient of the total scale was reported as 0.914. In this study, the Cronbach's alpha internal consistency coefficient of the scale was determined as 0.929.

2.4.3 Tendency towards ethical values scale

The 16-item scale, the Turkish validity and reliability studies of which were carried out by Kaya [21], is used to determine the level of the tendency of an individual towards ethical values. The scale is a 5-point Likert-type scale, and each item is scored by choosing on of the options of “Strongly Agree = 5 points, Agree = 4 points, Undecided = 3 points, Disagree = 2 points, and Strongly Disagree = 1 point”. The total score to be obtained from the scale ranges between 16 and 80, and higher scores indicate higher levels of tendency towards ethical values. The scale consists of 3 subscales, which are Love-Respect, Justice-Honesty and Cooperation. In the study conducted by Kaya [21], the Cronbach’s alpha internal consistency coefficient of the total scale was found as 0.90. In this study, the Cronbach’s alpha internal consistency coefficient of the scale was determined as 0.924.

2.5 Statistical analysis

The normality of the distribution of the data was tested with Shapiro-Wilk test. The descriptive statistics are reported as frequency, percentage, mean and standard deviation values. In determining the relationship between the participants’ sociodemographic characteristics and occupational lives and their tendency towards ethical values and occupational anxiety levels, independent-samples *t*-test and one-way analysis of variance (ANOVA) (Post Hoc LSD) were used. The relationship between the total occupational anxiety and ethical value tendency scores of the participants was determined by using Pearson’s correlation analysis. In all analyses, $p < 0.05$ was accepted as statistically significant.

3. Results

In Table 1, the relationships between the sociodemographic characteristics and occupational lives of the participants and their levels of tendency towards ethical values and occupational anxiety are presented. As a result of the analysis, no significant relationship was found between age, gender, occupation, years of work, unit of work, status of choosing the profession willingly and occupational satisfaction status and the participants’ sensitivity towards ethical values ($p > 0.05$). According to the results of the Post Hoc LSD tests that were conducted to identify the source of the statistically significant differences found in the analyses, there were statistically significant differences in the participants scale scores related to the overall ethical value tendencies and their ethical value tendencies in terms of bodily, physical and vital anxieties and anxieties related to the employee, equipment and environmental factors between those with vocational high school degrees and those with postgraduate degrees ($p = 0.033$) and between those with undergraduate degrees and those with postgraduate degrees ($p = 0.007$). In terms of the love-respect subscale scores, a statistically significant difference was found between those with vocational high school degrees and those with postgraduate degrees ($p = 0.002$) between those with associate degrees and those with postgraduate degrees ($p = 0.004$) and between those with undergraduate degrees and those with postgraduate degrees ($p = 0.002$). In terms of the Justice-Honesty

subscale scores, a statistically significant difference was also found between those with vocational high school degrees and those with postgraduate degrees ($p = 0.030$), between those with associate degrees and those with undergraduate degrees ($p = 0.019$) and between those with undergraduate degrees and those with postgraduate degrees ($p = 0.014$). As a result of the Post Hoc LSD test, a significant difference was determined in the Cooperation subscale scores between those who worked 24 hours per week and those who worked 48 hours per week ($p = 0.027$).

Moreover, no significant relationship was found between the participants’ age, education levels and occupation and their levels of occupational anxiety ($p > 0.05$). It was determined that the occupational anxiety total scores and occupational anxiety subscale scores (bodily, physical and vital anxieties and anxieties related to environment, employee, equipment and environmental factors) of the female participants were significantly higher in comparison to the scores of the male participants ($p < 0.05$). It was also found that the bodily, physical and vital anxieties scores of the participants working at Emergency Healthcare Services were higher than those working at the Command and Control Center ($p < 0.003$). As a result of the Post Hoc LSD test, a significant difference was identified between those with 1–5 years of service and those with 6–10 years of service in terms of their occupational anxiety total scores ($p = 0.011$). Additionally, a significant difference was found between those with 1–5 years of service and those with 6–10 years of service in terms of their bodily, physical and vital anxieties subscale scores ($p = 0.004$). Furthermore, a significant difference was determined among those working for 24 hours, 48 hours and 72 hours per week in terms of their occupational anxiety total scores and bodily, physical and vital anxieties subscale scores. Finally, a significant difference was found between those working for 24 hours and 72 hours per week in terms of their anxieties related to the employee, equipment and environmental factors subscale scores ($p = 0.014$).

As shown in Table 2, it was found that the Occupational Anxiety scores of the participants increased as their Love-Respect, Justice-Honesty and Cooperation subscale scores and total Tendency towards Ethical Values scores increased ($p < 0.001$).

4. Discussion

Healthcare professionals who provide healthcare services regularly make decisions about environmental factors and patient care in complicated cases that directly affect life. Anxiety in this period may restrict the cognitive capacity of healthcare professionals and negatively affect their capacity of making vitally important decisions and interventions [6].

A statistically significant difference was found in the participants’ tendencies towards ethical values based on their education levels. It was determined that the participants with undergraduate degrees showed more tendency towards ethical values in comparison to the participants with vocational high school degrees, associate degrees and postgraduate degrees. In the study conducted by Ozturk *et al.* [22], the ethical sensitivity levels of nurses with undergraduate degrees were found to be

TABLE 1. The relationship between the sociodemographic characteristics and occupational lives of the participants and their levels of tendency towards ethical values and occupational anxiety.

Descriptive variables	n	%	Tendency towards ethical values score	Tendency towards ethical values subscales				Occupational anxiety score	Occupational anxiety subscales	
				Love-Respect	Justice-Honesty	Cooperation			Bodily, physical and vital anxieties	Anxieties related to the employee, equipment and environmental factors
			Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD	
Age group*										
≤25 years	92	22.4	71.79 ± 8.08	37.09 ± 4.06	22.01 ± 3.39	12.68 ± 2.61	89.85 ± 13.95	51.82 ± 8.67	38.03 ± 6.93	
26–35 years	201	48.9	72.78 ± 7.95	36.97 ± 3.91	22.79 ± 3.34	13.01 ± 2.33	92.41 ± 12.71	53.33 ± 7.22	39.07 ± 6.96	
≥36 years	118	28.7	72.58 ± 8.79	36.72 ± 4.45	22.93 ± 3.28	12.93 ± 2.08	91.47 ± 13.02	52.61 ± 8.05	38.87 ± 6.52	
<i>p</i>			0.628	0.786	0.102	0.521	0.299	0.294	0.471	
Gender**										
Male	139	33.8	71.72 ± 10.59	36.69 ± 5.24	22.27 ± 4.06	12.76 ± 2.57	88.52 ± 15.28	51.38 ± 9.18	37.13 ± 7.81	
Female	272	66.2	72.91 ± 6.68	37.04 ± 3.36	22.85 ± 2.91	13.00 ± 2.19	93.13 ± 11.54	53.51 ± 6.92	39.62 ± 6.12	
<i>p</i>			0.233	0.466	0.133	0.354	0.001	0.009	<0.001	
Education level*										
Vocational high school	34	8.3	73.35 ± 6.13	37.67 ± 2.78	23.26 ± 3.21	12.41 ± 2.42	90.14 ± 13.51	52.11 ± 7.47	38.02 ± 7.61	
Associate degree	173	42.1	71.93 ± 8.03	36.91 ± 3.95	22.27 ± 3.27	12.74 ± 2.48	92.41 ± 12.25	52.93 ± 7.41	39.47 ± 6.58	
Undergraduate	178	43.3	73.43 ± 8.07	37.15 ± 4.03	23.11 ± 3.17	13.17 ± 2.06	91.61 ± 13.63	52.99 ± 8.09	38.61 ± 9.92	
Postgraduate	26	6.3	68.80 ± 8.21	34.46 ± 5.85	21.38 ± 4.51	12.96 ± 2.71	87.61 ± 14.09	51.31 ± 9.18	36.31 ± 6.36	
<i>p</i>			0.032	0.011	0.015	0.187	0.323	0.715	0.125	
Occupation**										
Paramedic	204	49.6	72.21 ± 8.36	36.85 ± 4.19	22.42 ± 3.41	12.94 ± 2.32	90.78 ± 14.58	52.26 ± 8.42	38.51 ± 7.67	
EMT	207	50.4	72.79 ± 8.08	37.00 ± 3.99	22.89 ± 3.28	12.89 ± 2.34	92.34 ± 11.42	53.29 ± 7.14	39.04 ± 5.89	
<i>p</i>			0.478	0.716	0.153	0.853	0.228	0.182	0.433	
Working unit**										
Emergency Healthcare Services	323	78.6	72.51 ± 8.08	37.01 ± 3.93	22.58 ± 3.31	12.92 ± 2.34	91.90 ± 12.79	53.38 ± 7.41	38.52 ± 6.87	
Command and Control Center	88	21.4	72.47 ± 8.76	36.62 ± 4.63	22.94 ± 3.48	12.91 ± 2.27	90.37 ± 14.14	50.61 ± 8.87	39.76 ± 6.61	
<i>p</i>			0.970	0.436	0.370	0.962	0.333	0.003	0.131	
Years of work*										
1–5 year	104	25.3	71.75 ± 7.83	36.91 ± 4.03	22.12 ± 3.34	12.71 ± 2.58	89.21 ± 14.98	51.05 ± 8.93	38.15 ± 7.46	
6–10 year	150	36.5	73.04 ± 7.94	37.24 ± 3.65	22.77 ± 3.42	13.03 ± 2.45	93.45 ± 11.53	53.90 ± 6.75	39.55 ± 6.32	
≥11 year	157	38.2	72.49 ± 8.72	36.63 ± 4.51	22.91 ± 3.25	12.94 ± 2.01	91.34 ± 12.96	52.87 ± 7.81	38.47 ± 6.83	
<i>p</i>			0.467	0.436	0.160	0.547	0.038	0.017	0.211	

TABLE 1. Continued.

Descriptive variables	n	%	Tendency towards ethical values score	Tendency towards ethical values subscales			Occupational anxiety score	Occupational anxiety subscales	
			Mean ± SD	Love-Respect	Justice-Honesty	Cooperation	Mean ± SD	Bodily, physical and vital anxieties	Anxieties related to the employee, equipment and environmental factors
			Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD	
Weekly working hours *									
24 hours	116	28.2	71.56 ± 8.52	36.55 ± 3.99	22.38 ± 3.41	12.62 ± 2.31	88.73 ± 14.94	51.21 ± 9.18	37.51 ± 7.25
48 hours	192	46.7	73.51 ± 7.23	37.29 ± 3.61	22.98 ± 3.01	13.22 ± 2.27	92.41 ± 11.88	53.39 ± 7.03	39.01 ± 6.47
72 hours	103	25.1	71.69 ± 9.38	36.66 ± 4.94	22.34 ± 3.81	12.68 ± 2.41	93.22 ± 12.64	53.43 ± 7.34	39.78 ± 6.83
<i>p</i>			0.067	0.226	0.173	0.045	0.019	0.038	0.040
Willing choice of profession **									
Yes	336	81.8	72.31 ± 8.71	36.83 ± 4.33	22.51 ± 3.51	12.95 ± 2.34	90.42 ± 13.42	51.96 ± 8.17	38.46 ± 6.78
No	75	18.2	73.42 ± 5.41	37.33 ± 2.77	23.34 ± 2.39	12.74 ± 2.26	96.73 ± 10.03	56.49 ± 4.33	40.24 ± 6.88
<i>p</i>			0.284	0.342	0.049	0.478	<0.001	<0.001	0.041
Occupational satisfaction **									
Yes	273	66.4	72.31 ± 8.56	36.93 ± 4.18	22.55 ± 3.46	12.82 ± 2.45	89.39 ± 13.71	51.32 ± 8.41	38.06 ± 6.74
No	138	33.6	72.89 ± 7.51	36.92 ± 3.91	22.86 ± 3.11	13.11 ± 2.06	95.89 ± 10.54	55.67 ± 5.43	40.21 ± 6.79
<i>p</i>			0.500	0.981	0.383	0.243	<0.001	<0.001	0.002

*One-Way ANOVA, **Independent Samples T Test.

TABLE 2. Correlation coefficients between total occupational anxiety and tendency towards ethical values scores.

	Pearson	<i>p</i>
Tendency towards ethical values score	0.339	<0.001
Love-Respect	0.363	<0.001
Justice-Honesty	0.221	<0.001
Cooperation	0.208	<0.001

higher than the participants with other degree levels. Similarly, in the studies conducted by Yeom *et al.*, Aydin *et al.*, Kırca *et al.*, Kim *et al.* and Tas [14, 16, 23–25] on nursing students studying in undergraduate programs, tendency towards ethical values mean scores were determined to be higher. Taylan and Arslan reported that the ethical sensitivities of healthcare teams with undergraduate degrees who worked in pre-hospital field and hospital emergency services were higher than those with other degree levels [17]. These results suggested that in today's world where it is believed that ethics and values have lost their importance, individuals with undergraduate degrees get higher scale scores regarding love, respect, justice, honesty and cooperation, and they are sensitive in terms of ethical values, which is a promising situation for society.

The National Institute of Occupational Health and Safety (NIOHS) categorizes risks in hospitals as physical, chemical, biological, ergonomic and psychological risks. These risks are valid for paramedics and emergency medical technicians, who are a part of pre-hospital emergency healthcare services. In consistency with the results of this study, it has been reported in the literature that particularly lifting loads, light, noise, risk of contact with chemicals, radiation, being exposed to infection through contamination, stress and workplace accidents threaten healthcare professionals, and therefore, these situations are factors that may be effective in the development of occupational anxiety. Traffic accidents pose a great risk of death for people all over the world. Considering that they spend most of their working hours under the pressure of time in traffic where regulations are not adequate, it is seen that the risks are much higher for pre-hospital emergency healthcare professionals [26].

In this study, it was determined that 66.2% of the participants were female, and their occupational anxiety mean scores and bodily, physical and vital anxieties subscale mean scores were higher in comparison to the male participants. In studies conducted with dentists, teachers, police officers and non-commissioned officers in the literature, it has been determined that women experience higher occupational anxiety than their male colleagues in the same roles [27–29]. Personnel who take responsibilities in providing pre-hospital emergency healthcare services frequently face cases such as alcohol use, drug use and aggressive psychiatric patients. In such situations, interventions and transportation to the hospital become more difficult. The lower physical strength of female employees compared to their male colleagues and thus difficulties they encounter in resisting aggressive behaviors such as physical violence may lead to occupational anxiety. Additionally, it is thought that they may experience physical difficulties in terms

of carrying patients in comparison to their male colleagues.

Long working hours lead to exhaustion in individuals. Exhaustion has evident negative effects on wakefulness, attention, judgment and emotional status. These effects may lead to accidents, malpractices and injuries in individuals. It is also known that exhaustion affects work productivity and performance levels by causing disruptions in memory, problem-solving and decision-making [30]. It was determined in this study that 25.1% of the participants worked 72 hours per week, and they had a rather high mean total occupational anxiety score. Their bodily, physical and vital anxieties and anxieties related to environment, employee, equipment and environmental factors subscale mean scores were found to be higher than the scores of those working for 48 hours or 24 hours per week. It has been reported that long working hours may lead to neurological and cardiovascular problems. In a study conducted on pre-hospital healthcare professionals, it was stated that the risk of having a work accident significantly increased after the 9th hour of working on the same day [31]. Postaci *et al.* [6] reported that long working hours negatively affected occupational anxiety levels among emergency healthcare professionals, and these professionals experienced work overload and job-related fatigue. According to the results obtained in an analysis in a previous study on the variable of team perception based on pre-hospital emergency healthcare professionals' weekly working hours, while the personnel whose working hours were 48 hours and below had more positive team perceptions, the perceptions of the personnel working for 72 hours or longer were reported to be more negative [32]. Stress, exhaustion and lack of sleep which increase in direct proportion to the length of a professional's working hours may also lead to occupational anxiety. Normal working conditions also involve many factors such as fast and critical decision-making that may cause occupational anxiety. When the individual works longer hours, their exposure to existing factors also increases, and therefore, their occupational anxiety may also increase.

Choosing a profession is one of the most important issues by which an individual gives a direction to their life. These days, the choice of a profession is usually made on a random basis. The characteristics of the profession and individual characteristics, as well as environmental conditions, political and economic status, chance, norms, social values and attitudes, are effective in choosing a profession [33]. 81.8% of the participants of this study had chosen their profession willingly. It was found that the total occupational anxiety mean scores and bodily, mental and vital anxieties and anxieties related to the employee, equipment and environmental factors subscale mean scores of the participants who had chosen their profession willingly were higher in comparison to those who had chosen their professions unwillingly. When individuals choose their professions willingly by knowing about the working conditions and fields of work required by the professions, they perform their jobs in accordance with the requirements of the profession, and individuals who receive services from them benefit more from and become more satisfied with them [34]. Tosunoz *et al.* and Sirin *et al.* [34, 35] found profession choice scores to be high in nursing students who had willingly chosen their jobs. It is thought that individuals choosing their

profession willingly and doing their job lovingly will ensure that they will be happy and get occupational satisfaction easily, thus affecting the development of the profession positively and directly, and this will lead to lower occupational anxiety levels.

In this study, it was determined that 66.4% of the participants were satisfied with their profession. The occupational anxiety mean scores of those who were satisfied with their profession were found to be lower in comparison to those who were not. It was also observed that their bodily, mental and vital anxieties and anxieties related to the employee, equipment and environmental factors subscale mean scores were found to be lower in comparison to those who were not satisfied with their professions. It is expected that the occupational anxiety levels of individuals who do their job lovingly would be lower.

In the Pearson's correlation analysis conducted in this study to analyze the relationship between occupational anxiety and tendency towards ethical values among the participants, a positive and strong relationship was found between occupational anxiety and tendency towards ethical values. The participants who had higher occupational anxiety levels were more sensitive towards ethical values. Healthcare professionals providing emergency healthcare services have to work under difficult conditions due to the dynamic structure of the environment, fast decision-making, heavy workload and providing services for health problems that occur unexpectedly. Due to the nature of healthcare policies, personnel providing healthcare services are expected to offer a quality service that will increase the satisfaction of patients and their relatives. Hence, in addition to bodily, physical and vital anxieties, anxieties related to the safety of the environment, provision of adequate equipment, and environmental factors emerge [6]. Besides, it has been determined that new regulations made in the field of healthcare increase future anxieties. Ethical values are directly associated with human actions, and for this reason, concepts related to ethics have been frequently used in recent studies [36]. The reason why interest in occupational ethics has increased today is that ethical problems encountered in certain professions have increased, or these problems have started to be noticed [6]. Tendency towards ethical values has an important place in the provision of healthcare services. The process should be managed in line with ethical values. Although the probability of being exposed to physical or verbal violence increases occupational anxiety, it also encourages employees to behave in accordance with ethical values. In order to solve occupational anxiety and these problems encountered in different occupations, sensitivity should be displayed towards ethics and ethical values as necessary.

5. Limitations

This study had a few limitations. (a) The results of the study cannot be generalized to the whole population as it was conducted only with the participation of paramedics and emergency medical technicians working in a province in western Turkey. (b) The study is the first study that examined the effects of occupational anxiety on tendency towards ethical values. For this reason, the results of the study could not be compared to those of previous studies. (c) As it was a cross-sectional study, causal inferences could not be made. (d) As

the study was carried out online, the written consent of the participants could not be taken in the conventional physical sense. However, the participants were asked on the online survey form whether they were willing to participate in the study.

6. Conclusions

As a result of this study, it was determined that occupational anxiety and tendency towards ethical values were on a high level in the paramedics and emergency medical technicians. Additionally, it was found that education level had an effect on tendencies towards ethical values. Healthcare professionals with higher levels of education have taken more courses related to professional ethics in their studies. For this reason, it is thought that the level of education has an effect on the person's predisposition to ethical values. Additionally, the results of this study showed the importance of including topics on professional anxiety in ethics courses in vocational education. It was also determined that certain sociodemographic characteristics such as gender, year of service, weekly working hours, status of choosing the profession willingly and occupational satisfaction were effective on occupational anxiety. It was found that as the occupational anxiety levels of the participants increased, their tendency towards ethical values also increased. In line with these results, it is suggested that occupational anxiety in paramedics and emergency medical technicians should be identified, and measures that will reduce occupational anxiety should be developed. Furthermore, organizing wide-scale training programs that will help healthcare professionals develop their skills to identify ethical problems, establishing ethical committees at institutions where there are none, informing employees about the scope and functions of ethical committees and ensuring active participation in these committees would be beneficial in terms of solving ethical problems. It is recommended to conduct future studies on this topic with larger sample sizes and in different populations.

AUTHOR CONTRIBUTIONS

SKS, HT and TK designed the study, SKS and HT performed the statistical analyses and drafted the tables, SKS and HT drafted the manuscript, and SKS, HT and TK contributed to the final version of the manuscript.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Ethical approval for the study was obtained from Bandirma Onyedi Eylul University Clinical Research Ethics Board (Decision number: 2021/23). On the survey form, the purpose of the study was explained, and the participants were informed that their identities would be kept confidential. A question was directed to the participants on the survey form regarding whether or not they agreed to participate in the study. The participants who marked the option "I want to participate in the study" were able to move on to the other pages of the questionnaire. The survey was terminated for the participants

who chose the option “I do not want to participate”.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

REFERENCES

- [1] Aslan Ş, Güzel Ş. Pre-hospital emergency health services in Turkey. *International Journal of Social Humanities Sciences Research*. 2018; 5: 4995–5002 (In Turkish).
- [2] Balcı T. The development of the paramedic profession in the world and Turkey. *J ADEM*. 2020; 1: 37–43 (In Turkish).
- [3] Bayır A, Demir S. Paramedic’s asking for medicine approval through phone from the consultant. *Türkiye Klinikleri Journal of Health Sciences*. 2019; 4: 26–33 (In Turkish).
- [4] Cowan RM, Trzeciak S. Clinical review: Emergency department overcrowding and the potential impact on the critically ill. *Critical Care*. 2005; 9: 291–295.
- [5] Jonsson A, Segesten K, Mattsson B. Posttraumatic stress among Swedish ambulance personnel. *Emergency Medicine Journal*. 2003; 20: 79–84.
- [6] Postacı ES, Uysal I, Aytuğ Koşan AM, Toraman Ç. Developing an occupational anxiety scale for emergency medical service professionals. *Tıp Eğitimi Dnyası*. 2020; 19: 102–115 (In Turkish).
- [7] Bayraktar AK, Sivrikaya SK. Nursing ethics in the emergency department. *Journal of Education and Research in Nursing*. 2018; 15: 57 (In Turkish).
- [8] Lützn K, Ewalds-Kvist B. Moral distress and its interconnection with moral sensitivity and moral resilience: viewed from the philosophy of Viktor E. Frankl. *Journal of Bioethical Inquiry*. 2013; 10: 317–324.
- [9] Miguel-Tobal JJ, González-Ordi H. The role of emotions in cardiovascular disorders. In Antoniou A-SG, Cooper CL (eds.) *Research companion to organizational health psychology* (pp. 455–477). 1st edn. Edward Elgar Publishing: North and South America. 2005.
- [10] Çınar B, Yenipınar U. The relationship between general self-efficacy, occupational anxiety and intention to perform the profession of tourism guiding students. *Anatolia: A Journal of Tourism Research*. 2019; 30: 153–162 (In Turkish).
- [11] Maguire BJ, Dean S, Bissell RA, Walz BJ, Bumbak AK. Epidemic and bioterrorism preparation among emergency medical services systems. *Prehospital and Disaster Medicine*. 2007; 22: 237–242.
- [12] Hoşgör H, Ülker Dörttepe Z, Sağcan H. The effect of covid-19 anxiety on the professional performances of emergency medical health services staff and demographic differences. *Journal of Mehmet Akif Ersoy University Economics and Administrative Sciences Faculty*. 2020; 7: 865–886.
- [13] Özdemir A, Karasu F, Avan H. Gaziantep 112 emergency health services violence exposed by employees. *Journal of Pre-Hospital*. 2018; 3: 31–42 (In Turkish).
- [14] Kırca N, Bademli K, Özgönül ML. Determination of student nurses’ predisposition to ethical values *Journal of Anatolia Nursing and Health Sciences*. 2020; 23: 410–417 (In Turkish).
- [15] Bilgin R, Küçükazar M. General view of unethical behaviors and applications in public health institutions in Turkey. *Journal of Munzur University Social Sciences*. 2018; 7: 5–7 (In Turkish).
- [16] Kim YR, Ryu SY, Park J, Han MA. Factors related to ethical values among some paramedic students. *The Korean Journal of Emergency Medical Services*. 2018; 22: 103–117.
- [17] Taylan S, Arslan S. Determination of the ethical sensitivity of healthcare working in the pre-hospital area and hospital emergency service. *Mersin University Journal of Health Sciences*. 2017; 10: 102–103 (In Turkish).
- [18] Istar Isıklı E. An investigation of prospective hospital workers’ views on occupational ethics and ethical problems. *Electronic Journal of Social Sciences*. 2018; 17: 861–873 (In Turkish).
- [19] Büyükyılmaz O, Alper Ay F. The mediating role of organizational justice on the impact of ethical leadership on organizational citizenship behavior. *Hitit University Journal of Social Sciences Institute*. 2017; 10: 209–233 (In Turkish).
- [20] Fırat B, Karataş G, Barut A, Metin G, Sarı D. Investigation of ethical sensitivities of emergency service nurses. *DEUHFED*. 2017; 10: 229–235 (In Turkish).
- [21] Kaya İ. The study of validity and reliability: The inclination to ethical values scale. *The Journal of International Social Research*. 2015; 8: 968–974 (In Turkish).
- [22] Öztürk H, Hintistan S, Kasım S, Candaş B. Ethical sensitivity of physicians and nurses in intensive care units. *Yoğun Bakım Hemşireliği Dergisi*. 2009; 13: 77–84 (In Turkish).
- [23] Yeom HA, Ahn SH, Kim SJ. Effects of ethics education on moral sensitivity of nursing students. *Nursing Ethics*. 2017; 24: 644–652.
- [24] Aydın GÖ, Turan N, Irmak AY, Çelikkalp Ü, Aygün A, Çakır Z. Nursing students’ individual values, inclination to ethical and professional values. *Perspectives in Psychiatric Care*. 2021. (in press)
- [25] Taş F. Ethical Values of the Inclination in University Students and Related Factors. *Kahramanmaraş Sutcu Imam University Journal of Social Sciences*. 2018; 15: 607–626 (In Turkish).
- [26] Department of Health and Human Services. NIOSH National Institute for Occupational Safety and Health. Criteria for a recommended standard occupational exposure to heat and hot environments revised criteria. USA. <https://www.cdc.gov/niosh/index.htm> (Accessed: 2 July 2021).
- [27] Song KW, Choi WS, Jee HJ, Yuh CS, Kim YK, Kim L, *et al.* Correlation of occupational stress with depression, anxiety, and sleep in Korean dentists: cross-sectional study. *BMC Psychiatry*. 2017; 17: 398.
- [28] Desouky D, Allam H. Occupational stress, anxiety and depression among Egyptian teachers. *Journal of Epidemiology and Global Health*. 2017; 7: 191–198.
- [29] Acquadro Maran D, Varetto A, Zedda M, Ieraci V. Occupational stress, anxiety and coping strategies in police officers. *Occupational Medicine*. 2015; 65: 466–473.
- [30] Güzel Özdemir P, Ökmen AC, Yılmaz O. Shift work disorder and mental and physical effects of shift work. *Current Approaches in Psychiatry*. 2018; 10: 71–83 (In Turkish).
- [31] Yıldırım SA, Gerdan S. Occupational Risks of Pre-Hospital Emergency Medicine Workers in the Context of Occupational Health and Safety. *Journal of Pre-Hospital*. 2017; 2: 37–49 (In Turkish).
- [32] Gül G. Investigation of patient and employee safety for personnel working in pre-hospital emergency health services [Master Thesis]. *Dokuz Eylül University Institute of Health Sciences*. 2012 (In Turkish).
- [33] Bölükbaş N. Occupational selection of nursing students and the effecting factors. *Ordu University Journal of Nursing Studies*. 2018; 1: 10–17 (In Turkish).
- [34] Şirin A, Öztürk R, Bezci G, Çakar G, Çoban A. Nursing students’ opinions related to selection and application of profession. *Dirim Medical Journal*. 2008; 83: 69–75 (In Turkish).
- [35] Tosunöz İK, Eskimez Z, Öztunç G. Factors affecting the career choices of nursing students. *Journal of Health Sciences of Kocaeli University*. 2019; 5: 91–97.
- [36] Altunkurt Y, Yılmaz K. Prospective Teachers’ Views About Teachers’ Occupational Unethical Behaviours. *Mehmet Akif Ersoy University Journal of Faculty of Education*. 2011; 11: 113–128 (In Turkish).

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