Acil Sağlık Çalışanları için Mesleki Kaygı Ölçeği'nin Geliştirilmesi

Developing an Occupational Anxiety Scale for Emergency Medical Service Professionals

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ÖZET:

Giriş: Acil sağlık hizmeti sunan personel düzenli olarak çevresel faktörler ve kompleks vakalarda hasta bakımı ile ilgili doğrudan yaşamı etkileyen kritik kararlar vermektedirler. Kaygı bu dönemde sağlık çalışanlarının bilişsel düzeyini kısıtlayabilir ve hayati önem taşıyan kararların ve girişimleri olumsuz etkileyebilir. Yapılan çalışmada acil sağlık hizmeti sunan sağlık personelinin mesleki kaygı düzeylerini geçerli ve güvenilir biçimde ölçen bir ölçme aracının geliştirilmesi amaçlanmıştır.

Gereç ve Yöntem: Betimsel olarak yapılan araştırmada üç faklı gruptan veri elde edilmiştir. Bunlar; ölçek maddelerinin elde edilmesi için açık uçlu soru uygulaması yapılan grup (50 kişilik), açıklayıcı faktör analizi ve güvenirlik analizi yapılan grup (209 kişilik) ve doğrulayıcı faktör analizi yapılan gruptur (201 kişilik). Tüm gruplardaki bireyler acil servis ve hastane öncesi acil sağlık hizmeti sunumunda görev alan sağlık personelidir.

Açık uçlu soru uygulaması sonucunda 43 maddeden oluşan madde havuzu ile ölçek geliştirme uygulamaları yapılmıştır.

Bulgular: Geçerlik analizleri sonucunda ölçeğin iki faktörlü 22 maddeden oluşan bir ölçek olduğu tespit edilmiştir. Bu yapı doğrulayıcı faktör analizi ile doğrulanmıştır. Ölçeğin tamamının güvenirlik değeri 0,914; bedensel, fiziksel ve hayati kaygılar faktörü için 0,922; ortam, çalışan, ekipman ve çevresel faktörlere ilişkin kaygılar faktörü için 0,866 olduğu belirlenmiştir.

Sonuç: Bu araştırmada yer alan katılımcılar bağlamında bu sonuçlara göre geliştirilen ölçeğin acil sağlık hizmeti sunan personelin mesleki kaygılarını geçerli ve güvenilir biçimde ölçtüğü sonucuna ulaşılmıştır. Özellikle acil sağlık hizmetleri çalışanlarında yüksek mesleki kaygıya neden olan faktörlerin belirlenmesi ve kaygılarını düşürücü önlemlerin geliştirilmesi hizmete her an ihtiyaç duyabilecek tüm bireyler için hayati önem taşımaktadır. Geliştirilen Acil Sağlık Çalışanı Mesleki Kaygı Ölçeği'nin bu tür çalışmalarda kullanılabilecek ve daha ayrıntılı araştırmalar için de bir başlangıç oluşturacaktır.

ABSTRACT:
Background: *Emergency medical service professionals regularly make critical decisions that directly affect life-related to patient's care. Anxiety may restrict the healthcare professionals during this period. Present study is aimed to develop a measurement tool that measures the occupational anxiety levels of healthcare professionals providing emergency medical services in a valid and reliable manner.*

Methods: *In this descriptive study, data were obtained from three different groups. These were; the group (50 people) to whom open-ended questions were asked in order to obtain the scale items, the group (209 people) on whom explanatory factor analysis and reliability analysis were performed and the group (201 people) on whom confirmatory factor analysis was performed. Individuals in all groups were healthcare personnel who were involved in providing emergency and pre-hospital emergency medical services.*

Results: *As a result of the validity analyses, it was determined that the scale should consist of 22 items with two factors. This structure was confirmed by confirmatory factor analysis. The reliability value was determined to be 0.914 for the entire scale; 0.922 for the factor of bodily, physical and vital concerns; 0.866 for the factor of concerns regarding setting, staff, equipment and environmental factors.*

Conclusion: *It was concluded that the scale developed in accordance with these results in the context of the participants in this study measures the professional concerns of the personnel providing emergency medical services in a valid and reliable manner. It is of vital importance for all individuals who may need service at any time to determine the factors that cause high professional anxiety and develop anxiety-reducing measures, especially for Emergency Medical Services professionals. The Occupational Anxiety Scale of Emergency Health Professionals developed can be used in such studies and will be a starting point for more detailed studies.*

INTRODUCTION

Within the scope of the emergency medical service (EMS), patients are provided with the service offered by transferring the patients and injured to the appropriate health institution responding to the health problems occurring outside the hospital, and in a way to achieve the optimum health results in accordance with the existing professional knowledge within the hospital. In line with this scope, the healthcare

professionals providing emergency medical services have to work in difficult conditions both in the pre-hospital area and in the emergency room due to the dynamic structure of the setting, intense workload and providing services for health problems that unexpectedly arise (1, 2).

By the nature of health policies, the personnel providing healthcare are expected to provide a quality service that will increase the satisfaction of the patients or their relatives. However, the EMS personnel have to deal with many problems such as problems of status, insufficient wages and lack of pre- and post-graduate education since they start their professional lives. In addition, new regulations in the field of health have been found to increase future anxiety for healthcare professionals (3, 4). These concerns experienced by the EMS professionals directly affect the service quality.

Additionally, the EMS personnel should encourage patients and their relatives to explain their feelings, thoughts, fears and anxieties and prepare an appropriate environment for this (5). For this reason, the EMS personnel must first recognize their own emotions, know the dynamics of the EMS personnel-patient interaction, and learn to understand the patient's emotions in establishing a treatment-related relationship. In this context, anxiety (6), which may impair mental ability in reasoning and abstract thinking, may prevent EMS professionals from observing their patient's needs well, and this may cause intervention errors and the patient's loss of confidence in the EMS professional (7). In addition to anxiety may restrict the cognitive level of healthcare professionals during this period and reduce the quality of the intervention.

Anxiety, which is an important concept in explaining human behavior, is a psychological response to excessive energy caused by strain individual and tension that is felt in response to an expected threat against self-integrity (8). Anxiety has been studied in two ways as state and trait, and state anxiety level is a temporary emotional state characterized by subjective sensations of tension and fear, which are caused by the individual's perception of the situation he is in as threatening and dangerous (9). The trait anxiety level, on the other hand, reflects the anxiety tendency relatively present in the individual and is the form of state anxiety which gains intensification and continuity (10).

Anxiety is defined as unpleasant emotional and observable responses such as sadness, perception and tension caused by stressful situations (11). In the literature; alienation, hostility, self-promotion-related concerns and insecurity against group members in a group environment, (12), shift, work pressure, working in hazardous environments that may threaten health, social isolation (13), standards and expectations of the workplace, supervision and impositions (14), the content of the task (15), interpersonal conflicts (16), change, lack of job security, lack of feedback, performance appraisal errors (17) can also be expressed as 'organizational causes' of anxiety.

The EMS staff have to deal with many situations that cause anxiety during the intervention to the patient (18). Although a mild and moderate level of anxiety has a motivating effect on learning, high levels of anxiety can negatively affect attention, concentration, and learning, leading to mistakes in work, deterioration in interpersonal relationships, and a decrease in work efficiency (19).

The literature mostly handled anxiety causes separately (20, 21). However; this study, instead of focusing on individual anxiety causes, tries to reveal all the factors that may cause anxiety in emergency applications. In this respect, it is thought that it will make an original contribution to the literature.

The purpose of this research is to develop a measurement tool that measures the professional anxiety levels experienced by emergency healthcare personnel in a valid and reliable

manner.

METHOD

This is a descriptive study in that it evaluates the technical features of the developed scale.

Approval for the study was granted by the Clinical Research Ethics Committee of Çanakkale Onsekiz Mart University no: 2011-KAEK-27/2019-E.1900091815, dated 24.07.2019 and written informed consent was obtained from all participants prior to study participation.

Study Sample

All applications were carried out with the healthcare personnel working in emergency services and the pre-hospital emergency medical services in the province of Canakkale. In this descriptive study, the data were obtained from three different groups. In order to obtain the scale items, open-ended questions were asked to a group of 50 people, and as a result, scale development applications were started with a pool of 43 items. 209 emergency medical service personnel were included in the first application, and explanatory factor analysis and reliability analysis were performed with the data obtained from this application. 201 healthcare professionals providing emergency medical services, consisting of different people from the first group, were included in the second application and confirmatory factor analysis was performed with the data obtained from this application.

Participation in the research was on a voluntary basis. Therefore, the sample of the study can be evaluated as a purposeful sample (22). There are different opinions on the size of the study sample in the scale development studies in the literature. In the factor analysis; Cattell (1978) emphasized that the number of participants should be three to six times the number of items, and Gorsuch (1974) proposed that it should be at least five times the number of items (23, 24).

On the other hand, Everitt (1975) stated that the number of participants should be at least ten times the number of items (25, 26). The researchers wanted to include a group 10 times bigger than the 43 items in the draft form of the measuring tool. However, taking into account the reasons such as the workload of EMS staff, the difficulties of reaching these staff, and the staff not volunteering to participate in the research, care was taken to keep the number of items at least five times the number of items in the measurement tool.

Data Collection Tool

The professional anxiety scale of the emergency healthcare staff was developed by the researchers. Firstly, the literature was reviewed and the scale items were written based on the literature. Subsequently, a group of 50 people among the personnel working in Canakkale province were asked two open-ended questions regarding the "anxiety they experienced while practicing their profession" and asked to write their thoughts freely. Then, the answers given were examined and the items of the scale were obtained. The question pool obtained from the literature and open-ended question application were presented to the expert opinion. In line with the feedback taken from two academicians competent in the field of first and emergency aid and one academician competent in the field of measurement and evaluation regarding the scale items, the items were constructed and a draft form consisting of 43 items was obtained. Detailed information about the analysis made as a result of the trial application is explained in the "findings" section. As a result of the analyses, the final version of the scale was determined as 22 items and 2 factors. As a result, two different total scores were taken from the scale and the comments were based on these total scores.

Data Analysis

It was determined that there was no missing

data in the data set. Kaiser Meyer Olkin (KMO) Test and Bartlett's Test of Sphericity, which are important criteria of factor analysis, were examined. a KMO score between 0.801 and 0.900 is considered very good, and a score of 0.901 and above is considered excellent. In the sphericity test, the result was expected to be significant (27, 28, 29).

The factor structure was revealed by the principal axis factoring [PAF] method. It is a preferred factor extraction method for newly developed scales with an unknown theoretical structure (30). "Varimax" axis rotation was performed in order to clarify the factors. Reference values in Table 1 were taken into consideration when determining the fit indices obtained in confirmatory factor analyses (27, 29, 31, 32, 33, 34, 35; 36, 37, 38, 39).

Table 1. Reference values of confirmatory factor analysis

Conclusion	RMSEA	GFI	AGFI	NFI	IFI	CFI	X^2/sd
Accepted	0,05≤RMSEA≤0,08	0.90 and above	0.90 and above	0.95 and above	0.95 and above	0.95 and above	$2<X^2$/sd≤5
Excellent	0≤RMSEA≤0,05						$0≤X^2$/sd≤2

RESULTS

The data obtained from the application on 209 EMS staff were included in the explanatory factor analysis. As a result of the first analysis, it was determined that the eigenvalues of the scale had a 10-factor structure that exceeded 1. It was observed that 2 items fell below 4 factors in this 10-factor scale structure. It is generally considered appropriate to have at least three problems in each sub-dimension (factor) while developing scales (40, 41, 42). Total correlations and explanatory factor analysis input load values of some items are not at the desired level (0.300 and above) in the literature (43). A "scree plot" was created for this first analysis (Figure 1).
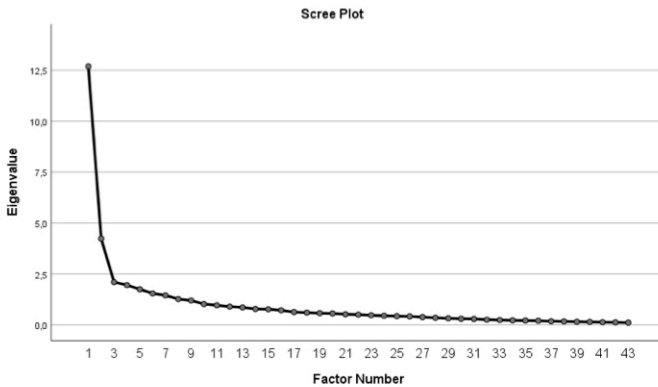

Figure 1. Scree Plot for the 10-factor structure of occupational anxiety scale of the personnel providing emergency medical service

When Figure 1 was analyzed, it was determined that 2 factors of the professional anxiety scale of the personnel providing emergency medical service were very evident. The eigenvalues of these 2 factors were very high. According to the logic of scale development and factor analysis, a large number of variables are explained by reducing them under a small number of factors (37). From this perspective and the findings in Figure 1, it was decided that it would be appropriate to perform the factor analysis in a manner that would collect the items under 2 factors. KMO, Bartlett's Test of Sphericity values regarding the re-applied factor analysis are given in Table 2.

Table 2. KMO and Bartlett values

KMO		0,878
Bartlett's Test of Sphericity	X^2	2660,965
	sd	231
	p	0,0001

KMO and Bartlett's test results were found to be at the level recommended by the literature as explained in the analysis of the data. As a result of the factor analysis, it was determined that 21 items could not reach the item-total correlations and factor analysis input load values suggested by the literature. These items were excluded from the scale. As a result of the factor analysis, the "Varimax" axis rotation method was used to determine under which factors the items would be grouped. Item total correlations, input load values, factor names, variance amount explained by the factors and Cronbach Alpha reliability values of the remaining items are given in Table 3.

Table 3. Input load values, item total correlations, factor names, variance amount explained by factors and Cronbach Alpha reliability values

Scale items	Factors 1	Factors 2	Input load values	Item total correlations	Factor names	Variance amount explained by factors	Cronbach Alpha reliability values
M1	0,547		0,385	0,586	Physical and vital concerns (BPVC)	%27,214	0,922
M2	0,623		0,410	0,536			
M3	0,744		0,557	0,556			
M4	0,815		0,666	0,578			
M5	0,854		0,745	0,668			
M6	0,771		0,640	0,670			
M7	0,662		0,474	0,582			
M8	0,787		0,625	0,584			
M9	0,746		0,587	0,628			
M10	0,523		0,379	0,577			
M21	0,534		0,414	0,604			
M22	0,557		0,447	0,630			
M24		0,622	0,442	0,558	Concerns about the environment, employees, equipment and environmental factors (CRSSEEF)	%19,807	0,866
M26		0,561	0,355	0,499			
M27		0,608	0,390	0,491			
M28		0,675	0,511	0,596			
M29		0,603	0,369	0,433			
M33		0,691	0,507	0,557			
M34		0,643	0,414	0,380			
M38		0,619	0,392	0,458			
M40		0,526	0,310	0,472			
M41		0,551	0,326	0,467			
22 Items Together (Full Scale) Cronbach Alpha Reliability Value = 0,914							

It was seen that the input load values of the remaining 22 items in the scale ranged between 0.523 and 0.855, and the item-total correlations ranged between 0.310 and 0.745. It was decided based on the literature that these items were suitable for the scale. It was determined that the reliability value of the entire scale was 0.914; the BPVC factor was 0.922; and the CRSSEEF factor was 0.866. It is accepted in the literature that these values are at high levels of reliability (37). The variance explained by the first factor was 27%, the variance explained by the second factor was 20%. The two dimensions together explained 47% of the variance in EMS staff's professional anxiety. This figure is considered low for some sources (37, 44), sufficient for some sources (43), and 40% to 70% sufficient for some sources (30) in the literature. The scree plot formed for 22 items and a two-factor structure is shown in Figure 2.
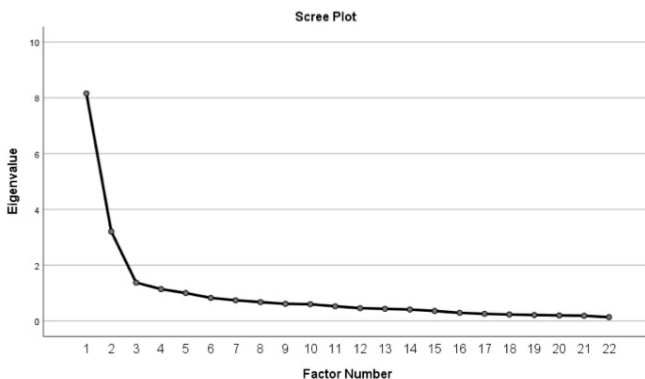

Figure 2. Scree plot for the 2-factor and 22-item structure of professional anxiety scale of first aid and emergency medical service personnel

After the explanatory factor analysis applied as explained above, a scale structure consisting of 22 items and 2 factors was achieved. Another evidence to be obtained regarding the validity of this structure is the verification of the structure. Therefore, a 22-item scale was applied to a different group of EMS personnel consisting of 201 people. Confirmatory factor analysis was performed based on the obtained data. The fit indices obtained are shown in Table 4 and the diagram is shown in Figure 3.

Table 4. DFA fit indices

X^2/sd	GFI	AGFI	NFI	IFI	CFI	RMSEA
3,132	0, 862	0,803	0,851	0,899	0,892	0,077

The results of the confirmatory factor analysis are at an acceptable level in light of the information described under the title of data analysis. It was concluded that the scale developed according to these results in the context of the participants in this research measured the professional concerns of EMS staff in a valid and reliable manner. The remaining items in the scale and the final version of the scale are given in Appendix 1.
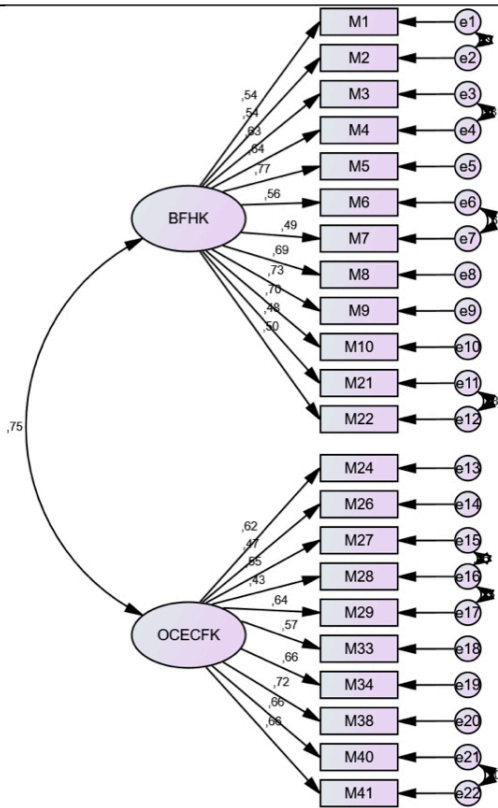
Figure 3. Confirmatory factor analysis diagram of professional anxiety scale of the personnel providing emergency response service (standardized values) (BPVC: Bodily, physical and vital concerns, CRSSEEF: Concerns regarding Setting, Staff, Equipment and Environmental factors)

DISCUSSION

It was concluded that the scale developed in accordance with these results in the context of the participants in this study measured the professional concerns of the personnel in Canakkale province providing emergency medical services in a valid and reliable manner. As a result of the validity analyses, it was determined that the scale consisted of 22 items with two factors. This structure was confirmed by confirmatory factor analysis. The reliability value was determined to be 0.914 for the entire scale; 0.922 for the factor of bodily, physical and vital concerns; 0.866 for the factor of concerns regarding setting, staff, equipment and environmental factors. The scale, in this form, can be used to measure the anxiety levels of similar groups for research purposes.

According to the results of the responses from the participants, the items that provided information by reaching the highest correlation values included the items of; "Risk of accident while providing service", "Risk of disability while providing service", "Risk of death while providing service", "Possibility of physical violence while providing service", "Risk of disability and income reduction" and "Vital risks due to my work".

The National Institute for Occupational Safety and Health (NIOSH) classifies the risks in hospitals as physical, chemical, biological, ergonomic and psychological. These risks also apply to the EMS staff who are part of the Emergency Medical System (45). It is reported by the literature that especially the lifting loads, light, noise, risk of chemical contact, radiation, exposure to infection through contamination, stress and workplace accidents threaten healthcare employees, which are consistent with the results of this study. Traffic accidents pose a serious risk of death for humanity around the world. It is seen that the risk is much higher for the pre-hospital EMS staff considering that they spend a considerable amount of their working hours under time pressure in the traffic, which lacks sufficient arrangements (45) (https://www.cdc.gov/niosh/index.htm, access date: 21.01.2020).

According to Yildiz (2019), when the opinions of those who are exposed to violence about the causes of violence are evaluated, it is seen that the expressions emphasizing the structure and characteristics of the society are more prominent. The topics such as the low education level of society, being affected by the publications in the media, the increasing tendency of violence in society, the perception that system-induced errors and disruptions are due to employees, and the fact that society is affected by the emphasis on the subject of patient rights can be listed in this context. Managerial and system-induced problems were also among the causes of the phenomenon of violence. The vulnerability of EMS staff to violence due to insufficient and poorly-planned human resources and the inconvenience of the working environment, and disruptions in the health organization were among the major reasons. The insufficient legal regulations preventing violence and the lack of effective security measures stood out as the most emphasized reasons. It was stated by healthcare professionals that the negative approach of healthcare professionals to patients and their relatives was a reason for the severity of violence albeit at a lower level. Additionally, burnout due to excessive workload and job dissatisfaction was also shown as one of the reasons (46).

In a study conducted with the emergency personnel in Korea, 86.7% of the personnel were found to be exposed to violence (47). Studies show that violence has become an important public health problem that threatens public peace in health institutions and hospitals, as in many sectors in recent years (48, 49). These results, which are in line with the study, show that health professionals are at risk of violence all over the world. Between 8% and 38% of healthcare professionals are exposed to physical violence and threat or verbal violence, at a much higher rate, at some point in their careers. Most violent attempts are made by patients and their relatives. The categories of healthcare workers who are at risk most include nurses and emergency personnel who are directly involved in patient care and pre-hospital healthcare personnel (50).

The International Labor Organization (ILO), the International Council of Nurses (ICN), the World Health Organization (WHO), the Public Services International (PSI) have jointly developed framework guidelines to support the development of violence prevention policies in the emergency environments in the health sector and prepared a questionnaire and study protocol to investigate the level and results of violence. For emergencies, WHO has also developed methods to systematically collect data about attacks on health facilities and health professionals (50). We need to prevent the problem of violence with the measures that we will develop following these policies.

The items that do not function well as a result of the responses of the participants and that are not grouped under the factors that are created due to high correlation are as follows:

• My work hours affect the flow of my private life.

• My profession requires constant knowledge updates.

• Starting the profession without gaining sufficient professional knowledge and skills

• Insufficient respectability of providing emergency medical services in the society

• Frequent changes in management-based working conditions

• The service requires a night shift.

• Working on religious and official holidays

• Having to respond to events other than emergency

• Inadequate support of law enforcement officers

• Catching occupational disease

• Possibility of paying compensation due to my job

• Possibility of harming the patient

• Problems with communication during the intervention

• Unnecessary panic of the service recipient or his/her relatives

• The ministry does not defend me sufficiently in the face of the problems that may arise in my service

• Compulsory service duty

• Reaching the patient late due to weather and road conditions

• The service I provide involves forensic cases.

• Failure to reach the specialist physician for consultation or approval when necessary

• Making an instant mistake

• The intervention that I make directly affects human life.

The validity and reliability evidences in this research were obtained from the data of two different applications on 410 EMS personnel. Although the scale can be said to be valid and reliable, these validity and reliability evidences should be evaluated in the context of 410 people. It should be perceived that the scale has an open-to-development structure. The fact that researchers who want to carry out studies using the scale in the future provide evidence of validity and reliability over the groups they make applications on will contribute to the development of the scale.

On the other hand, it has been revealed that EMS professionals have professional anxiety in providing emergency medical services. EMS professionals regularly make critical decisions that directly affect life-related to patient's care in environmental factors and complex cases. Anxiety may restrict the cognitive level of healthcare professionals during this period and negatively affect vital decisions and interventions. If precautions are not taken in this regard, the anxiety experienced during the emergency intervention may affect human life negatively and decrease the quality and effectiveness of the delivery of emergency medical services. Therefore, it is of vital importance for all individuals who may need service at any time to determine the factors that cause high professional anxiety and develop anxiety-reducing measures, especially for EMS professionals.

It was concluded that the scale developed in accordance with these results in the context of the participants in this study measures the professional concerns of the personnel providing emergency medical services in a valid and reliable manner. It is of vital importance for all individuals who may need service at any time to determine the factors that cause high professional anxiety and develop anxiety-reducing measures, especially for Emergency Medical Services professionals. The Occupational Anxiety Scale of Emergency Health Professionals developed can be used in such studies and will be a starting point for more detailed studies.

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OCCUPATIONAL ANXIETY SCALE OF PROFESSIONALS PROVIDING EMERGENCY MEDICAL SERVICES

Order		1	2	3	4	5
Strongly Disagree=1, Disagree=2, Undecided=3, Agree=4, Strongly Agree=5						
1	Not being able to do my profession efficiently due to physical activities as I get older	(1)	(2)	(3)	(4)	(5)
2	Physical burden placed by my profession	(1)	(2)	(3)	(4)	(5)
3	Risk of accident while providing the service	(1)	(2)	(3)	(4)	(5)
4	Risk of becoming disabled while providing the service	(1)	(2)	(3)	(4)	(5)
5	Risk of death while providing the service	(1)	(2)	(3)	(4)	(5)
6	Possibility of exposure to physical violence when providing the service	(1)	(2)	(3)	(4)	(5)
7	The possibility of exposure to verbal violence when providing the service	(1)	(2)	(3)	(4)	(5)
8	Reduction in income due to becoming disabled	(1)	(2)	(3)	(4)	(5)
9	Life-threatening risks posed by my job	(1)	(2)	(3)	(4)	(5)
10	Uncertainties brought about by my job	(1)	(2)	(3)	(4)	(5)
11	Risk of infectious disease	(1)	(2)	(3)	(4)	(5)
12	Exposure to secondary accidents	(1)	(2)	(3)	(4)	(5)
13	Others interfering with my job during intervention	(1)	(2)	(3)	(4)	(5)
14	Workload	(1)	(2)	(3)	(4)	(5)
15	Lack of personnel	(1)	(2)	(3)	(4)	(5)
16	Unethical behaviors encountered during the service	(1)	(2)	(3)	(4)	(5)
17	My colleague's lack of knowledge and skills	(1)	(2)	(3)	(4)	(5)
18	Prejudice of patients and their relatives against us	(1)	(2)	(3)	(4)	(5)
19	Lack of necessary equipment, or having problems during an emergency response	(1)	(2)	(3)	(4)	(5)
20	The necessity of rapid intervention to the patient, and transfer procedures	(1)	(2)	(3)	(4)	(5)
21	Obstacles experienced during patient transfer (narrow corridor etc.)	(1)	(2)	(3)	(4)	(5)
22	Non-ergonomic intervention and transport equipment	(1)	(2)	(3)	(4)	(5)

ACİL SAĞLIK HİZMETİ SUNAN PERSONELİN MESLEKİ KAYGI ÖLÇEĞİ

Sıra		1	2	3	4	5
Hiç Katılmıyorum=1, Katılmıyorum=2, Kısmen Katılıyorum=3, Katılıyorum=4, Tamamen Katılıyorum=5						
1	Yaşım ilerledikçe fiziksel aktivitelerden dolayı mesleğimi verimli biçimde yapamamak	(1)	(2)	(3)	(4)	(5)
2	Mesleğin gerektirdiği fiziksel yük	(1)	(2)	(3)	(4)	(5)
3	Hizmeti sunarken kaza yapma riski	(1)	(2)	(3)	(4)	(5)
4	Hizmet sunarken sakat kalma riski	(1)	(2)	(3)	(4)	(5)
5	Hizmeti sunarken ölüm riskinin olması	(1)	(2)	(3)	(4)	(5)
6	Hizmet sunarken fiziksel şiddet görme olasılığı	(1)	(2)	(3)	(4)	(5)
7	Hizmet sunarken sözel şiddet görme olasılığı	(1)	(2)	(3)	(4)	(5)
8	Sakat kalıp gelirimin düşmesi	(1)	(2)	(3)	(4)	(5)
9	İşimin getirdiği hayati riskler	(1)	(2)	(3)	(4)	(5)
10	İşimin getirdiği belirsizlikler	(1)	(2)	(3)	(4)	(5)
11	Bulaşıcı hastalık riski	(1)	(2)	(3)	(4)	(5)
12	Sekonder kazalara maruz kalma	(1)	(2)	(3)	(4)	(5)
13	Müdahale sırasında başkalarının işime karışması	(1)	(2)	(3)	(4)	(5)
14	İş yoğunluğu	(1)	(2)	(3)	(4)	(5)
15	Personel yetersizliği	(1)	(2)	(3)	(4)	(5)
16	Hizmet sırasında karşılaştığım etik dışı davranışlar	(1)	(2)	(3)	(4)	(5)
17	Çalışma arkadaşımın bilgi ve beceri yetersizliği	(1)	(2)	(3)	(4)	(5)
18	Hasta ve hasta yakınlarının bize karşı önyargısı	(1)	(2)	(3)	(4)	(5)
19	Acil müdahale sırasında gerekli ekipmana sahip olamamak ya da sorun çıkması	(1)	(2)	(3)	(4)	(5)
20	Hastaya hızlı müdahale etme gerekliliği ve nakil işlemlerinin olması	(1)	(2)	(3)	(4)	(5)
21	Hasta nakil sırasında yaşanacak engeller (dar koridor vb.)	(1)	(2)	(3)	(4)	(5)
22	Müdahale ve nakil ekipmanlarının ergonomik olmaması	(1)	(2)	(3)	(4)	(5)

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