İLK YARDIM EĞİTİMİ ÖNCESİNDE VE SONRASINDA BİREYLERİN İLK YARDIM FARKINDALIKLARININ İNCELENMESİ

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Öz

Bu çalışmada bireylerin ilk yardım farkındalıklarının belirlenmesi ve ilk yardım eğitim merkezleri tarafından verilen eğitimlerin kişilerin ilk yardım farklılıklarında anlamlı bir değişikliğe neden olup olmadığının tespit edilmesi amaçlanmıştır. Tanımlayıcı kesitsel nitelikteki bu araştırma Mart 2023 tarihi içerisinde Ankara-Türkiye'de faaliyet gösteren 4 farklı ilk yardım eğitim merkezinde yürütülmüştür. 122 kişiyle araştırma yürütülmüş olup, çalışmaya katılma oranı %96,8'dir. Araştırmada veri toplama yöntemi olarak anket kullanılmıştır. Araştırma verileri SPSS 23.0 programında analiz edilerek değerlendirilmiştir. Araştırmaya katılanların yaş aralığı 20-47 yıl olup, yaş ortalaması 27.8±6.6'dır. Katılımcıların %61.5'i kadın, %68.8'i evlidir. Katılımcıların ön testte (2.10±1.1) puan, son testte ise (3.49±1.4) puan aldıkları ve aradaki farkın anlamlı olduğu tespit edilmiştir (t=-6.65, p<0.001). Yaş, cinsiyet ve eğitim düzeyine göre ilk yardım farkındalığında gruplar arasında farklılıklar vardır (p<0.05). Katılımcıların ilk yardım farkındalığının düşük düzeyde olduğu, ilk yardım eğitimi sonrasında yüksek düzeye ulaştığı tespit edilmiştir. İlk yardım eğitimlerinin toplumun tüm kesimlerini kapsayacak şekilde, belirli aralıklarla verilmesinin ilk yardım farkındalığını artıracağı değerlendirilmektedir.

Anahtar Kelimeler: İlk Yardım, Acil, Eğitim, Farkındalık.

EXAMINATION OF FIRST AID AWARENESS OF INDIVIDUALS BEFORE AND AFTER FIRST AID TRAINING

Abstract

In this study, it was aimed to determine the first aid awareness of individuals and whether the trainings provided by first aid training centers cause a significant change in the first aid differences of individuals. This descriptive cross-sectional study was conducted at 4 different first aid training centers operating in Ankara, Türkiye. The study was conducted with 122 respondents and the participation rate was 96.8%. A questionnaire was used as the data collection method in the study. The research data were analyzed and evaluated in SPSS 23.0 program. The range of age of the participants was 20-47 years and the mean age was 27.8±6.6 years. 61.5% of the participants were female and 68.8% were married. It was determined that the participants scored (2.10±1.1) points in the pre-test and (3.49±1.4) points in the post-test and the difference between these two scores was significant (t=-6.65, p<0.001). There is a difference between groups in terms of first aid awareness according to age, gender and level of education (p<0.05). It was determined that the first aid awareness of the participants was at a low level and reached a high level after the first aid training. It is considered that providing first aid trainings at regular intervals to cover all groups of the society will increase the first aid awareness.

Keywords: First Aid, Emergency, Training, Awareness.

1. INTRODUCTION

First aid is the first intervention applied without the use of medicines and medical equipment in line with the opportunities at the incident scene until the medical teams arrive in order to save the life of the person who is in danger due to an accident or any reason, to prevent the worsening of his/her condition and to keep his/her vital function stable (1,2).

The success of first aid depends on the timely, competent and correct administration of first aid (3). 10% and 30-40% of those injured in a traffic accident can be saved in the first 5 minutes and first half hour, respectively, with a correct first aid practice (4). First aid training is essential to know how to intervene in a timely manner in case of heart attacks, drowning, airway obstructions, injuries due to accidents, and to know what, how and when to do in case of natural disasters or other catastrophic situations. Correct intervention of the first person who reaches the victim can prevent injury or save the victim's life. In such a situation, it is known that a qualified and skillful first aid increases the success of the treatment after the incident and reduces deaths by 20% (2). Therefore, there is a need for trained and conscious first aiders and first aid trainings should cover the general population.

It is reported that 2.3 million people die or become disabled due to occupational accidents and 1.3 million people die in traffic accidents worldwide each year (5,6). The number of accidents and injuries is increasing in Türkiye like in other countries (7). For example, while the number of people who had occupational accidents in Türkiye was approximately 75,000 in 2012, this number has increased to approximately 385,000 in 2020 (8). Similarly, the number of accidents on highways has also increased. In 2021, there were approximately 1 million 187 thousand traffic accidents in Türkiye, resulting in 5362 deaths and approximately 275,000 injuries. Compared to 2020, which was affected by the Covid-19 pandemic, the total number of accidents in traffic increased by 20.6%, the number of accidents with death/injury increased by 25.1%, the number of accidents with property damage increased by 19.8%, the total number of deaths increased by 10.2% and the number of injured increased by 21.4 (9). All these facts reveal the reality of Turkish society's knowledge and practice of first aid.

First aid trainings in Türkiye are carried out in accordance with the Ministry of Health First Aid Regulation and according to the occupational safety classification, it is obligatory for one out of twenty employees in less dangerous workplaces, one out of every 15 employees in dangerous workplaces, and one out of every 10 employees in very dangerous workplaces to receive first aid training in addition to voluntary individuals who would like to receive first aid training (10). First aid training lasts for 16 hours. Participants in this training must be at least primary school graduates. A training group consists of a maximum of 21 participants. The participants who receive training from the course centers must have received 85 points out of 100 points from each of the theoretical and practical exams conducted by the Provincial Directorate of Health officials in order to be considered successful. Participants who are not successful in the theoretical exam are not taken to the practical exam. First aid certificates issued to those who pass the exam are valid for 3 years and at the end of this period, 8 hours of renewal training is given and the validity period of the certificate is extended for another 3 years (10).

In this study, it was aimed to determine the first aid awareness of individuals and to determine whether the trainings provided by first aid training centers cause a significant change in the first aid awareness of individuals.

2. MATERIALS AND METHODS

2.1.Study population

This descriptive cross-sectional study was conducted in March 2023 at 4 different first aid training centers located in Ankara, Türkiye. In line with the regulation, a maximum of 21 people can take part in a training group and some training centers provided training to more than one group during the study period. The total number of people who participated in the trainings was 126. All participants were from different professions outside the field of health. An attempt was made to reach all of the participants, but 4 people who did not complete the pre-test/post-test questionnaire form were excluded from the study. The study was conducted with 122 respondents and the participation rate was 96.8%. All of these participants were successful in the exam held by the Ministry of Health after the first aid training.

2.2. Data collection method

A questionnaire was used as the data collection method in the study. The first section includes 10 questions about sociodemographic characteristics. In the second part, the First Aid Awareness Scale (FAS), which was developed by Tosun et al. and aimed to reveal the first aid awareness of individuals, was used. The scale consists of 26 items on a 5-point Likert scale (1 for strongly disagree, 5 for strongly agree). Cronbach's Alpha value was found as 0.907 as a result of the analysis conducted to determine its reliability (11). The formula $[(n-1)/n = (5-1)/5 = 0.80]$ was used to determine the scale score rating intervals. In 5-point Likert scales, the score range is very low for 1.00-1.80, low for 1.81-2.60, medium for 2.61-3.40, high for 3.41-4.20, and very high for 4.21-5.00 (12).

2.3. Implementation of study

The pre-test assessing the awareness about first aid was administered before the training. After the initial assessment, two days of theoretical-practical training about first aid, lasting 16 hours in total, was given in each training center's own training hall. The trainers were doctors, nurses and paramedics certified by the Ministry of Health as first aid trainers. Computer, projection device, video demonstration was used as training materials, and cardiopulmonary resuscitation model, injured transportation and identification materials were used during the practical training. In order to measure the effectiveness of the first aid training after a period of time, the participants were contacted by the researchers two weeks after the training and a post-test was administered via e-mail. In studies, the follow-up period after training varies between 2 and 6 weeks.

2.4. Statistical analysis

The research data were analyzed and evaluated using SPSS (Version 21, Chicago IL, USA). The normal distribution of the research data was analyzed by skewness and kurtosis values. Skewness and kurtosis values are within the range of ±2, indicating a normal distribution. Independent Sample T Test was used to determine whether the participants' scores from the scale changed according to the structures with two variables; One-Way ANOVA and Post Hoc Tukey test were applied in groups with more than two variables. The difference between the scores of the individuals before and after the training was evaluated with the Paired-Related Sample T Test.

2.5. Ethics

Approval for the research was obtained from Lokman Hekim University Non-Interventional Clinical Research Ethics Committee (Decision no: 2023/41 and Code no: 2023039). Participants were informed about the research and those who volunteered to participate were asked to fill in the questionnaire form.

3. RESULTS

The age range of the participants was 20-47 years and the mean age was 27.8±6.6 years. Sociodemographic characteristics of the participants are presented in Table 1.

Table 1. Sociodemographic Characteristics of the Participants

Sociodemographic characteristics	n	%
Gender		
Male	75	61.5
Female	47	38.5
Age (Years)		
20-28	53	43.4
29-37	39	32.0
38-47	30	24.6
Marital status		
Married	84	68.8
Unmarried	38	31.2
Education level		
Primary school	17	14.0
Middle school	29	23.7
High school	31	25.4
University	45	36.9
Having children		
Yes	67	54.9
No	55	45.1
Income levels		
Expense more than income	73	59.8
Income equals expense	31	25.5
Income more than expenses	18	14.7
Have you taken any training/course on first aid (excluding driving school)?		
Yes	13	10.6
No	109	89.4
Have you encountered and applied a situation that requires you to provide first aid?		
I encountered, I applied	34	41.4
I encountered, I did not apply	19	15.6
I did not encountered	69	57.0
If you encountered a situation that required first aid, what was the situation? (n=53)		
Traffic accident	5	9.5
Heart attack	2	3.7
Epilepsy	4	7.4
Syncope	27	51.0
Injury (Bump, fall, etc.)	10	18.9
Other	5	9.5
Are there any health personnel in your family (mother, father, sibling, spouse, child)?		
Yes	8	6.6
No	114	93.4

4. n: Number of participants, %: Percent

When the answers of the participants to the questions are analyzed; the statement "I know which number to call for an ambulance" was found to have the highest mean score (3.95±0.7). The statement with the lowest mean score (1.90±1.0) was found to be "I can apply basic life support (heart massage and artificial respiration)". The mean FAS scale score of the participants was found to be in the range of 1-5 points (2.10±1.1). In addition, the Cronbach alpha coefficient of the scale was 0.83.

When FAS scores were analyzed according to the sociodemographic characteristics of the participants, it was found that there was no statistically significant difference between the groups in terms of marital status, having children, receiving training on first aid, encountering and performing a situation requiring first aid, and having health personnel in the family (p>0.05). According to gender, the FAS score of women (2.61±1.4) is statistically significantly higher than that of men (2.15±1.2) (p=0.04). When analyzed according to the level of education, it was found that the FAS scores of high school (2.25±1.7) and university (2.43±1.0) graduates were statistically significantly higher than that of primary school graduates (1.88±0.9) (p=0.02). When the FAS scores of the individuals participating in the study were analyzed according to age groups, a significant difference was found between those between the ages of 20-28 (2.56±1.8) and 38-47 (1.92±0.8). (p=0.01). The younger age group was found to have a higher mean value (Table 2).

Table 2. FAS Mean Score According to Some Sociodemographic Characteristics of the Participants

Sociodemographic characteristics	Mean	SD	p
Gender			
Male	2.15	1.2	0.04*
Female	2.61	1.4	
Education level			
Primary school[1]	1.88	0.9	0.02**
Middle school[2]	2.01	1.6	1-3<0.001***
High school[3]	2.25	1.7	1-4<0.001***
University[4]	2.43	1.0	
Age (Years)			
20-28[1]	2.56	1.8	0.01**
29-37[2]	2.35	1.6	1-3=0.01***
38-47[3]	1.92	0.8	

SD: Standard deviation, *Independent Samples T Test, **One Way ANOVA, ***Post-Hoc Tukey

It was found that the participants scored (2.10±1.1) in the pre-test and (3.49±1.4) in the post-test after the training (Table 3). Paired Samples t Test analysis was applied to determine the difference between the mean scores of the individuals who participated in the first aid training from the FAS scale before and after the training and it was determined that there was a significant difference (p<0.001, t=-6.65).

Table 3. Comparison of the FAS Mean Score of the Individuals Participating in the First Aid Training Before and After the Training

	Mean	SD	n	t	p
Pre-Test	2.10	1.1	122	-6.65	<0.001[&]
Post-Test	3.49	1.4	122		

SD: Standard deviation, n: Number of participants, [&]Paired Samples T Test

5. DISCUSSION

In this study, it was aimed to determine the first aid awareness of individuals and to determine whether the trainings provided by first aid training centers cause a significant change in the first aid awareness of individuals.

In our study, it was found that only 10.6% of the participants received first aid training, and 15.6% did not apply first aid despite the need for it. It was observed that participants had the least awareness about CPR. Similar results were obtained in studies conducted by O'Connor et al. with teachers in Ireland, Yu and Liang with airline cabin crew in Taiwan, Taniguchi et al. with different

segments of the society in Japan, and Temel et al. with university students in Türkiye (13-16). It is thought that individuals hesitate to perform CPR due to reasons such as not knowing or forgetting how to perform CPR, not following current guidelines, lack of self-confidence, and fear of getting an infectious disease (14).

In our study, the mean FAS score of the participants was found to be (2.10±1.1). Therefore, it can be said that the mean FAS score of the participants in our study was between 1.81-2.60 points and their first aid awareness was low. When the studies on first aid awareness in Türkiye are examined; participants were found to have a low level of awareness in studies conducted by Usta et al., Yetiş et al. and Buyukkayaci Duman et al. with university students, Cakallioglu et al. with school bus drivers, Sonmez et al. with teachers, Koksoy et al. with prison inmates, and Elmas et al. with mothers (1,17-22). Studies conducted by Eldosoky in Egypt, Bennett et al. in the UK and the USA, Chandan and Meakin in the UK, and Alomar et al. in Saudi Arabia also found low levels of first aid awareness among participants (23-26). According to studies conducted in different groups of the population both in Türkiye and in other countries, first aid awareness is generally considered to be at a low level.

In our study, it was determined that there was a significant difference in the FAS pre-test (2.10±1.1) and post-test (3.49±1.4) scores of the participants and that their first aid awareness reached a high level after the training. When the studies conducted in Türkiye were examined, Kurtgoz and Incedal Sonkaya found that the mean pre-test and post-test scores of teachers' knowledge level of first aid approach to airway obstruction were (1.91±1.47) and (7.12±1.96), respectively (27). In a study conducted by Bayraktar et al. with drivers, it was found that the level of first aid knowledge increased from (41.87±13.9) in the pre-test to (69.05±14.02) in the post-test (28). In a study conducted by Karamustafa et al. with academic and administrative staff of a state university, it was found that the first aid score increased from (4.12±0.56) to (4.52±0.45) (29). In the study conducted by Dogar et al. with gendarmerie personnel, it was observed that the pre-test score of (47.81±10.86) increased to (61.71.±8.57) in the post-test (30). In studies conducted in Egypt and India, it was found that post-training first aid knowledge scores were significantly higher than pre-training scores (31,32). The results of these studies suggest that first aid training is effective and should be provided to the whole population at regular intervals.

In our study, it was found that females had higher first aid awareness than males. In studies conducted by Tosun et al. with university students in Türkiye and Al Gharsan and Alarfaj with teachers in Saudi Arabia, it was determined that women had higher awareness about first-aid (11,33). Our study is consistent with the literature. It is thought that the fact that women are more emotional and more sensitive to the events around them is effective on their high awareness about first aid, which is a humanitarian duty.

In our study, it was observed that the mean FAS score increased as the educational level increased, and it was also found that high school and university graduates had statistically significantly higher first aid awareness than primary school graduates. It was determined in household surveys conducted by Bas et al. with rifle factory workers in Türkiye, Midani et al. in the United Arab Emirates, and Diango et al. in the Democratic Republic of the Congo that those with higher levels of education had higher first aid awareness (34-36). Positive improvements are observed in the knowledge and awareness of individuals after the training (37). It is evaluated that the courses and course environments that people experience throughout their education life affect their level of knowledge and their attitudes towards events.

In our study, it was found that the younger age group had higher first aid awareness than the 38-47 age group. Similar results were found in studies conducted by Nayir et al. and Aktas et al. in Türkiye and Dolenc et al. in Slovenia, and it was found that first aid awareness decreased with increasing age (38-40). The decrease in awareness of first aid with increasing age may be attributed

to the fact that existing knowledge is forgotten over time and the lack of emphasis on updating the existing knowledge or the reluctance to learn new information.

The limitation of the study is that it was conducted only in first aid training centers in Ankara and with a limited number of participants. It is recommended that future studies should be planned to cover different regions and cities and the results should be compared.

5. CONCLUSION

In conclusion, it was determined that the first aid awareness of the participants, which was at a low level, reached a high level after the first aid trainings. This result reveals that first aid trainings have a positive effect on the level of first aid awareness of individuals. It was determined that young age group, women and high school-university graduates had higher first aid awareness. It is considered that providing first aid trainings at regular intervals with theoretical and practical training methods, covering all parts of the population, with the contribution of public and private health institutions as well as non-governmental organizations, will create effective first aid awareness. It is suggested that the first aid training given in the driving courses should be given more effectively and comprehensively and even associated with the first aid certificate training. By including the couples in the first aid training program before marriage, the first aid knowledge and awareness of the society and therefore the prospective parents can be increased.

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