

Teachers' Skills of Intervention to In-class Health Emergencies

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ABSTRACT The Turkish education system is one of the systems for which the world's highest number of students are planned and coordinated. According to statistics of the 2011-2012 academic year, a total of 25,4296 students have received education and 880, 317 teachers have provided service in 60,165 schools in Turkey. In addition, there is a total of 607,098 classrooms in all of the schools throughout Turkey. This being the case, many risky situations that are likely to occur for those students taught in a collaborative manner are large in number as well. Health emergencies health incidents may be experienced, although safety in the classrooms and the schools is ensured up to some extent. Social studies teachers, aiming for get the students to acquire social skills are expected to know how to respond to emergency situations and enable the students to acquire those response skills as well.

INTRODUCTION

The purpose of this study is to determine the intervention skills of the teachers in emergency cases that students who are entrusted to their care may experience. Emergency situations are confined to first aid. First aid is a set of practices that all individuals of society, whether they have had a first aid training or not, should be able to perform in any conditions (Guler and Bilir 1994). Without seeking any medication and any medical equipment, first aid is a set of practices with available equipment on the scene, to save life or to prevent aggravating the situation in case of an accident or anything else endangering life until the help of the paramedics arrives. Without seeking medical equipment and medication, the trained person who performs the first interventions to the sick or injured with the existing available tools is called the first-aider (Kakillioglu et al. 2002). In first aid no equipment is required. People's lives are saved by consciously manipulating the human body (Erkan 1995).

First aid aims to save people's lives and to prevent further injuries and further aggravation of the situation (Duncan 2007). In addition to these purposes, it prevents the shock and helps alleviate or kill the pain. In some emergency situations the things that the first aider should do are not different from the things that paramedics should do. Even a delay of a few seconds can affect the person's condition between life and death (Guler and Bilir 1994). On the other hand, the success of all paramedics' interventions to the patient after patients' meeting with the paramedics is directly proportional to the correctness of the interventions that were performed during the time of either the patient's arrival to the

paramedics or paramedics' arrival to the scene. That is, it is related to the first aid period (Vaizoglu et al. 2003)

In TUIK's 2013 statistical data, mortality rates, because of external injury and poisoning, for the situations in which first aid could have been life-saving, have been made public. According to TUIK's 2013 data, the mortality rates of children aged 0-14 resulting from external injuries and poisoning in 2010, 2011 and 2012 are 8.09%, 6.98%, 7.23%, respectively. In the last three years, while the general death rate due to external injury and poisoning has emerged as 0.4, it has risen to 8% for children in the total number of deaths (TUIK 2013). It is known that 10% of the deaths have occurred within the first five minutes and about 50% of deaths have occurred within the first thirty minutes of the accidents in which first aid could have been life-saving (Somyurek 1995). Therefore, the first thirty minutes after the accidents are the most vital time for saving the life of the injured by performing first aid in an effective manner (Gungor 1992).

Performing first aid in this period of time means saving lives. That is why it is the duty of everyone to give the patient the necessary help in case of an accident or illness until the medical care is provided (Basegmez and Duru 1980). However, conducted studies have revealed that first aid performed by people on the scene have been very far from life-saving almost everywhere in the world (Kucukoglu et al. 2009). In order to avoid such adverse situations, an effective first aid training should be given to individuals (Guler 1998). First aid training is required to minimize the deaths that take place after the accidents or sudden illnesses in our society. Most of the time for situations that call for first aid, it is not

possible for the required people who have received medical education to be found at the scene. Correctly performed interventions and avoided incorrect interventions by people at the scene will result in saving peoples's lives (Guler and Coban 1994).

The group of people that experience the incidents requiring first aid most often are children and this results from some factors such as child's increasing independence, peer pressure, changes in physical activities and carelessness (Bakir and Ozturk 2006). Situations requiring first aid may arise at any age and may end in death. For this reason, it is possible to save their lives by performing first aid procedures in the adverse situations that may arise at home, on the playground, and at the school (Dincer et al. 2000).

Incidents that call for first aid are more frequently seen in schools where children spend most of their time together. Accidents come first among the most frequently seen and first aid requiring incidents in the schools. It has been determined that accidents in the primary schools have increased with age, and the accident rate in the middle schools has further increased (Maitra 1997). Other common frequently occurring accidents that require first aid in the schools consist of incidents such as sudden bleeding, shortness of breath, fainting, abdominal pain, sprains, fractures, dislocations, burns, poisoning, head trauma, upper respiratory tract infections, skin infections, diarrhea, and vomiting (Erkan and Eye 2006).

When facing these kind of incidents in their classes or schools, teachers' protective and first aid implementing features should manifest themselves when necessary and considering the vitality of the first seconds in first aid performance, they should perform first aid without merely leaving the first intervention to medical personnel (Nayir et al. 2011). For teachers to perform first aid, they should know the rules of first aid and be able to implement it (Bildik et al. 2011). To that end, teachers should take part in the first aid training programs, which are very important for saving lives, and they should also inform and educate their students on this subject. (Vaizoglu et al. 2003).

METHODOLOGY

This research has been designed as a survey. Being limited to the social studies teachers, the research has been conducted on 112 teachers employed in formal basic education in Kutahya in 2012-2013. The research data have been

collected through a questionnaire developed by the researcher. A questionnaire form containing 30 questions has been administered to teachers working in public schools. Alpha reliability of the questionnaire has been found to be 0.96.

FINDINGS

According the Table 1, while half of the teachers have taken a first aid training, the other half have not. The table shows that two- thirds of the

Table 1: Distributions

	Frequ- ency	Per- cent	Mean	Sd
<i>Whether Having Taken a First Aid Training</i>				
Yes	60	53.6		
No	52	46.4	1.46	.5
Total	112	100		
<i>Whether Having Taken an In-service First Aid Training</i>				
Yes	34	30.4		
No	78	69.6	1.69	.46
Total	112	100		
<i>Whether Having Experienced Incidents Requiring Emergency Interventions of First Aid</i>				
Yes	19	17		
No	93	83	1.83	.37
Total	112	100		
<i>Whether Having Performed First Aid Emergency Interventions in the Classes</i>				
Yes	24	21.4		
No	88	78.6	1.78	.41
Total	112	100		
<i>Whether Having Determined the Students in the Risk Group of the Classes</i>				
Yes	24	21.4		
No	88	78.6	1.78	.41
Total	112	100		
<i>Whether Having Found Themselves Adequate About First Aid</i>				
Adequate	21	18.8		
Unsure	39	34.8		
Inadequate	46	41.1	3.33	.84
Very inadequate	6	5.4		
Total	112	100		
<i>Whether They Have Been Able to Perform Any Interventions in the Classes in Case of Emergencies</i>				
Strongly agree	8	7.1		
Agree	24	21.4		
Neither agree or disagree	32	28.6	3.11	1.02
Disagree	43	38.4		
Strongly disagree	5	4.5		
Total	112	100		

teachers have not taken any in-service first aid training. Thus, it can be assumed that teachers have taken their first aid training before starting their occupation. In addition, although more than one-third of the participant teachers have experienced incidents requiring emergency interventions only 20% of the participant teachers have performed first aid in the classes. Therefore, it could be said that vast majority of the teachers have not performed any emergency intervention in the classes.

Moreover, Table 1 indicates that 67% of the participant teachers have not been able to determine the students in the risk group and almost half of the participant teachers have found themselves inadequate in their knowledge of first aid. Furthermore, 38% of the participant teachers who have performed emergency interventions in the class have not felt adequate themselves. Hence, even though they have performed emergency interventions, it could be said that they have doubts about the accuracy of the performed first aid.

According to Table 2, the rate of participant teachers who have not taken any pre-service first aid training is greater than that of the others ($\bar{X}=96.4$). With respect to results of the t-test conducted to determine whether the rate of the teachers that haven taken a preservice first aid training shows a significant difference or not, a significant difference has been found to exist ($t_{(110)} = 4.12, p < .05$).

According to Table 3, the rate of participant teachers who have not taken any in-service first aid training is greater than that of the others ($=94.6$). With respect to results of the t-test conducted to determine whether the rate of the teachers who have not taken an in-service first aid training shows a significant difference or not, a significant difference has been found to exist ($t_{(110)} = 5.5, p < .05$). Therefore, more than two-thirds of the participant teachers have not taken any first aid training during their in-service education.

According to Table 4, the difference between the positions of the participant teachers on finding themselves adequate has not been statistically significant ($F_{(3)} = .653, p < .05$).

According to Table 5, the rate of the participant teachers who have not experienced an incident requiring emergency intervention has become greater than those of the other participant teachers ($=88.81$). With respect to results of the t-test conducted to determine whether the teachers' having experienced incidents requiring emergency intervention shows a significant difference, no significant difference has been found to emerge ($t_{(110)} = .62, p < .05$).

According to Table 6, the rate of the participant teachers who have performed any first aid intervention in the classes has become smaller than that of the other teachers who have not performed any of first aid intervention in the classes. With respect to results of the t-test conducted

Table 2: t-test of the cases of the participant teachers' whether having taken pre-service first aid training

<i>Pre-service first aid training</i>	<i>N</i>	<i>Mean</i>	<i>Sd</i>	<i>df</i>	<i>t</i>	<i>p</i>
Yes	60	81.2	19.84	110	4.12	.000
No	52	96.4	18.98			

Table 3: t-test of the participant teachers' whether having taken in-service first aid training

<i>In-service first aid training</i>	<i>N</i>	<i>Mean</i>	<i>Sd</i>	<i>Df</i>	<i>t</i>	<i>p</i>
Yes	34	73.5	17.38	110	5.5	.000
No	78	94.66	18.90			

Table 4: ANOVA table of the cases in which the participant teachers' finding themselves adequate about first aid

	<i>Sum of squares</i>	<i>df</i>	<i>Mean square</i>	<i>F</i>	<i>p</i>
Among the groups	855.5	3	285.16	.653	.583
Within the groups	47195.9	108	437		
Total	48051.49	111			

Table 5: t-test of the cases of the participant teachers' whether having experienced any incidents requiring emergency intervention in the classes

<i>Cases of emergency intervention</i>	<i>N</i>	<i>Mean</i>	<i>Sd</i>	<i>Df</i>	<i>t</i>	<i>p</i>
Yes	19	85.52	29.05	110	.62	.64
No	93	88.81	18.84			

Table 6: T-test of the cases of the participant teachers' whether having performed any first aid intervention in the classes

<i>Performing first aid</i>	<i>N</i>	<i>Mean</i>	<i>Sd</i>	<i>df</i>	<i>t</i>	<i>p</i>
Yes	24	80	22.45	110	2.23	.028
No	88	90	19.87			

Table 7: ANOVA table of the cases of the participant teachers' whether having intervened in case of emergencies in the classes

	<i>Sum of squares</i>	<i>df</i>	<i>Mean square</i>	<i>F</i>	<i>p</i>
Among the groups	10638.31	4	2659.57	7.60	.000
Within the groups	37413.17	107	349.65		
Total	48051.49	111			

Table 8: The cases of the participant teachers' having determined the students in the risk group of the classes

<i>Determination of the student in the risk group</i>	<i>N</i>	<i>Mean</i>	<i>Sd</i>	<i>df</i>	<i>t</i>	<i>p</i>
Yes	37	83.94	26.97	110	1.55	.124
No	75	90.38	16.77			

ed to determine whether the teachers' having performed any first aid intervention in the classes shows a significant difference, a significant difference has been found to exist ($t_{(110)} = 2.23$ $p < .05$).

According to Table 7, the cases of the participant teachers' having intervened in case of emergencies in the classes have emerged as significant ($F_{(4)} = 7.6$, $p < .05$).

Analyzing Table 8, it is seen that the teachers have not determined the students in the risk group. With respect to results of the t-test conducted to determine whether the teachers' having determined the students in the risk group in the classes shows a significant difference, no significant difference has been found to exist. Although the teachers have not determined most of the students in the risk groups in their classes the rate has not been found to be at any significant level ($t_{(110)} = 1.55$ $p < .05$).

DISCUSSION

In the study, in order to find the intervention skills of the teachers in emergency cases that

students who are entrusted to their care may experience. Analyzing the distribution of the participant teachers' whether having taking a first aid training, it can be concluded that 53.6 % of them haven't taken a first aid training. Analyzing the distribution of the participant teachers' whether having taking an in-service first aid training, it is seen that 69.6 % of them have not taken any in-service first aid training. Considering the cases of the teachers' whether having found themselves competent in first aid, almost half of the teachers have found themselves inadequate in first aid (inadequate: 41.1%). Analyzing the cases of the teachers' whether having experienced incidents requiring emergency intervention, it can be concluded that more than two third of the teachers have not experienced any incidents requiring emergency intervention (83%). It may be thought to be resulted from teachers' having been unable to separate and to identify emergency situations. Analyzing the cases of the participant teachers' whether having performed any emergency intervention in the classes, it is found that 20% of the teachers have performed any emergency intervention. Accordingly, it can be

said that the greatest majority of the teachers have not performed any emergency intervention in the classes. Thirty-eight percent of the teachers that have performed emergency intervention in the classes have felt themselves adequate. Therefore, it can be said that even though teachers have performed emergency interventions, they have doubted the accuracy of their performed first aid. Teachers' having felt themselves inadequate about first aid can be one of the obstacles to their interventions to the emergency incidents in the classes. Sixty-seven percent of the participant teachers have not been able to determine the student in the risk group in their classes. The rate of the participant teachers who have not taken any first aid training has become greater than that of the teachers who have taken a first aid training (=96.4). According to the results of the t-test conducted to determine whether the rate of the teachers' having taking a first aid training shows a significant difference, a significant difference has been found to exist ($t_{(119)} = 4.12, p < .05$). The rate of participant teachers who have not taken pre-service first aid training during their education has become rather higher than that of the teachers who have taken a pre-service first aid training during their education (=94.6). With respect to results of the t-test conducted to determine whether the rate of the teachers who have taken an pre-service first aid training shows a significant difference or not, a significant difference has been found to exist ($t_{(119)} = 5.5, p < .05$). Hence, more than two thirds of the participant teachers have not taken any pre-service first aid training. A statistically significant difference has been found to exist between the cases of the teachers' whether having found themselves adequate about first aid ($F_{(3)} = .653, p < .05$). The rate of the participant teachers who have not performed first aid intervention in the classes has become greater than that of the other teachers who have performed a first aid intervention in the classes (=88.81). With respect to results of the t-test conducted to determine whether the teachers' having performed any first aid intervention in the classes shows a significant difference, a significant difference hasn't been found to emerge. The rate of the participant teachers who have been able to perform any first aid intervention in the classes has become smaller than that of the other teachers who have not been able to perform any of first aid intervention in the classes. With respect to results of the t-test conducted to determine whether the teachers' having been able to per-

form any first aid intervention in the classes shows a significant difference, a significant difference has been found to exist ($t_{(119)} = 2.23, p < .05$). It is seen that the teachers have not determined the students in the risk group (=90.8). With respect to results of the t-test conducted to determine whether the determination of the students in the risk group in the classes shows a significant difference, no significant difference has emerged. Although the teachers have not been able to determine most of the students in the risk groups in their classes, the rate has not been found to be at any significant level ($t_{(119)} = 1.55, p < .05$). In the same studies, first aid knowledge among participant teachers was indicated to be insufficient (Erkan and Goz 2006; Bildik 2011; Nayir 2011). The research findings consistent with the findings of other studies.

CONCLUSION

When the results are considered, by giving information regarding the intervention skills of the teachers in emergency cases that students who are entrusted to their care may experience. First aid knowledge among participant teachers was considered to be insufficient. Majority of the participant teachers have not performed any emergency intervention in the classes. Majority of them find themselves insufficient about first aid training. Participant teachers have found themselves inadequate even though they had taken a first-aid training. Additionally, teachers have not determined most of the students in the risk group in their classes.

RECOMMENDATIONS

The field of social studies is a subject aiming to enable students to acquire social skills. In this subject, teachers are expected to know intervention skills for any emergency in the classes and are also expected to enable their student to acquire those skills. Skills and shortcomings of the teachers on this area greatly affect the students. Therefore, all core subject teachers, social science teachers in particular, should be given first aid training.

REFERENCES

- Bildik F, Kilicaslan I, Dogru C, Keles C, Demirca AA 2011. Egitim fakultesi ogrencileri icin yardim

- egitiminin gerekliligi. *Türkiye Acil Tıp Dergisi*, 11(4): 166-170.
- Dincer C, Atakurt Y, Simsek I 2000. Okulöncesi eğitimcilerinin ilk yardım bilgi düzeyleri üzerine bir araştırma. *Ankara Üniversitesi Tıp Fakültesi Mecmuası*, 53(1): 31-38.
- Duncan G 2007. *First Aid Kit For Teachers*. New York: Continuum International Pub.
- Erkan M, Göz F 2006. Öğretmenlerin ilk yardım konusundaki bilgi düzeylerinin belirlenmesi. *Atatürk Üniversitesi Hemsirelik Yüksekokulu Dergisi*, 9(4): 63-68.
- Erkan N 1995. *İlk Yardım*. İstanbul: Alfa Publication.
- Güngör T 1992. *İlk Yardım*. Ankara: Sivil Savunma Genel Müdürlüğü Yayını.
- Güler C, Bilir N 1994. *Temel İlk Yardım*. Directorate General of Basic Health Services of the Ministry of Health. Ankara: Ministry of Health.
- Güler C, Bilir N 1994. Herkes İçin İlk Yardım. Directorate General of Basic Health Services of the Ministry of Health. Ankara: Ministry of Health.
- Güler C, Cobanoğlu Z 1994. *Cevre Sağlığı Konusunda Toplum Eğitimi İlkeleri*. Ankara: Sağlık Bakanlığı Temel Sağlık Hizmetleri Genel Müdürlüğü.
- Güler C 1998. *Temel İlk Yardım*. Ankara: Güneş Bookstore.
- Kucukoglu S, Arıkan D, Çurcanı M 2009. Kirik, çıkık ve burkulma durumlarında çocuklara yapılan ilk yardım uygulamalarının özelliklerinin belirlenmesi. *Atatürk University Hemsirelik Yüksekokulu Dergisi*, 12(4): 74-83.
- Maitra A 1997. School accidents to children: Time to act. *J Accid Emerg Med*, 14: 240-242.
- Nayir T, Üskün E, Türkoglu H, Uzun E, Öztürk M, Kışoğlu AN 2011. Isparta il merkezinde görevli öğretmenlerin ilkyardım bilgi düzeyleri ve tutumları. *S.D.U. Tıp Fakültesi Dergisi*, 18(4): 123-127.
- Olum Nedeni İstatistikleri 2010- 2012. From <[http://www.sabah.com.tr/Egitim/2012.04.18/turkiyenin-egitim-tablosu](http://www.tuik.gov.tr: TUIK:> Olum Nedeni İstatistikleri 2010, 2011 ve 2012 (Retrieved on 18 April 2012).</p>
<p>Türkiye'nin Eğitim Tablosu 2012. From < (Retrieved on 18 April 2012).
- Vaizoglu S, Evci D, Kapisiz E, Özcan S, Soylu G, Unal B, Unlu N, Zü'by B, Güler C 2003. İlköğretim öğrencilerinin temel ilkyardım bilgi düzeyinin değerlendirilmesinde soru tekniğinin etkisi. *STED Dergisi*, 12(6): 227-230.