

What Has Changed in Turkish First-Aid Education in 50 Years? A First-Aid Book Through 50 Years; Evaluation of Concurrent and Seperate Points with Present-Day First-Aid Information

İlk Yardım Eğitiminde Son 50 Yılda Ne Değişti? Elli Yıl Öncesinden Bir İlk Yardım Kitabı; Günümüz İlk Yardım Bilgileri ile Kesişen ve Ayrışan Noktaların Değerlendirilmesi

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ABSTRACT In this study, it is objected to evaluate first aid training, which has a very important place for the protection of public health, and whose importance increases gradually, comparing its present-day approach under the current legislation, in the context of a brief historical development of about 50 years, with the content of the book titled as "First Aid and Bandage Knowledge" written by ten different physicians. In this essay, the development of first aid in our time in which medical knowledge is quickly renewed, has been evaluated and content of a book which was published 50 years ago, in the light of present-day knowledge. In our country, although current first aid training subjects are parallel to those of the 50 years ago, in the basic training, it does not have the subjects such as blood groups, blood transfusion, and massage belonging to 50 years ago. It has been seen that the subjects of heart, lung revival which are very important currently were not included in the past, and it has been determined that the first three life saving approach has been changed and there has also been change on classification of burns, and approaches toward dislocation, freezing, and downing cases. It has been seen that non-pharmaceutical applications which are not in today's first-aid definition were in that of the past. The importance of first aid which is a set of applications that all members of society should know how to do, is increasing gradually. Therefore, all members of society are required to take first aid training, and education is increasing in this area, training are given and supported in various platforms. Today, definition of first aid has been clearer, changes have occurred in applications. It has been cleared of drug applications and simplified.

Key Words: First aid; history of medicine; education

ÖZET Bu çalışmada, toplum sağlığının korunması açısından çok önemli bir yere sahip olan, giderek önemi artan ilk yardım eğitimi kısa tarihçesi kapsamında ülkemizdeki güncel mevzuatın ve uygulanan günümüz yaklaşımının, yaklaşık 50 yıl önceye tarihlenen, 10 ayrı hekim tarafından hazırlanmış olan "İlk Yardım ve Sargı Bilgisi" adlı kitap içeriği ile karşılaştırılarak değerlendirilme amaçlanmıştır. Bu yazımızda; tıpta bilgilerin hızla yenilediği zamanımızda ilk yardımın gelişimi ve 50 yıl önce yayımlanan bir ilk yardım kitabının içeriği, günümüz bilgileri ışığında değerlendirilmiştir. Ülkemizde güncel ilk yardım eğitim konuları, 50 yıl öncesi eğitimle uyumlu olmakla birlikte geçmişte bugünkü temel eğitimde yer almayan kan grupları, kan nakli ve masaj yapma gibi konuların mevcut olduğu görülmektedir. Günümüzde önemli bir yeri olan Kalp Akciğer Canlandırması'nın geçmişte olmadığı gözlenirken; ilk yardımda yaşam kurtarıcı ilk üç uygulamanın değiştiği, yanıkların sınıflaması, çıkıklara, donma ve boğulma olgularına yaklaşımda değişikliklerin olduğu saptanmıştır. Günümüzde ilk yardım tanımında olmayan ilaç uygulamalarının, geçmişte ilk yardım kapsamında olduğu görülmüştür. Toplumun tüm bireylerinin bilmesi-yapması gereken bir uygulamalar bütünü olan ilk yardımın önemi giderek artmaktadır. Bu nedenle; toplumun tüm bireylerinin ilk yardım eğitimi almaları gerekli olup, bu alanda çalışmalar artmakta ve eğitimler değişik platformlarda verilmekte ve desteklenmektedir. Günümüzde ilk yardımın tanımını netleşmiş; uygulamalarda değişiklikler meydana gelmiştir. İlaç uygulamalarından arındırılmış ve basitleştirilmiştir.

Anahtar Kelimeler: İlk yardım; tıp tarihi; eğitim

First-aid is defined as applications (without drug administration) to a person whose life is in an imminent danger as a result of any disease or accident in order to prevent further deterioration of the condition. Whether medically educated or not, all of the individuals in society have to implement these first-aid procedures.

First aid applications has a history back to the initial appearance of human being on earth. Aims of first aid are to preserve life, provide maintenance of life, prevent deterioration of patient, facilitate recovery. First aid begins at the accident site, ends when the medical team arrives there. Authorized and experienced people are required for application of adequate first aid procedures.

Initially, first aid applications were aimed to treat wounded soldiers in battle and to generate a civilized organization as an adjunct to military health service. Then, it acquired a structure of an association. First aid educations and materials needed for education were considered within the context of this association. The books for this purpose are now found in most places of the world.

The book named "Knowledge of first-aid and bandage" has 144 pages with 24 drawings and figures. The preface of this book was written by Zeki Taşkın, Commander of the School of Sanitary Services in Battlefield¹. Taşkın wrote in the preface with his own words that "this book will save Sanitary Services staff from taking notes, and will be a close helper during their work hours or any time". This statement might prove that military first-aid educations were scheduled back in 1950's.¹⁻³

WESTERN WORLD AND FIRST-AID

Accident, is a word which has an interesting etymological history. Aristoteles used the word "accident" to define some unnecessary or external incidents. The word "accident" has been derived from the word "accidere" of Latin which means an incident by chance or unluckiness without any prediction, expectation. The usage in this meaning were reported inside publications of Chaucer in 1374, and also in 1604 publications of Caxton, Queen Elisabeth and Shakespeare.⁴

We might suggest that first-aid begins at the initial appearance of human beings on the earth surface. During historical developments, natural catastrophic events, and also under the guidance of basic instincts, human beings might have implemented some first-aid procedures for the wounds.⁵

When we look at the historical developments, we see that most steps were taken on the battlegrounds. 500 years before Christ, it has been well documented that Greek dish and clay painter So-cias had wrapped primitive bandages over battle wounds.⁶

Initial guidelines book in the field of first-aid was written by Stephen Bradwell in 1633 named as "Helps in Sudden Accidents Endangering Life".⁷

J.F.A Esmarch, as a military surgeon, was called for duty in a war between Denmark and Germany. He wrote a book named "Gun Wounds", with his experience of treating battle wounds. He explained the importance of first-aid on battlegrounds, told soldiers to carry first-aid kits. He published another book named "First-Aid to Wounded" in 1875 in order to teach basic principles of first-aid to civilian public.⁸

In European countries, initial knowledge of first-aid was developed inside military, religious and volunteer organizations. The knowledge of first-aid was then transferred to miners, policemen and security staff, railway workers, firemen. Thus, it rapidly developed further. First-Aid education programs were scheduled, written rules were formed, all the public segments were instructed to be included in these course of lectures.⁹

Two military officers in 1878; Peter Sheperd, head-surgeon of Royal Herbert Hospital and Colonel Francis Duncan suggested the idea of teaching first-aid knowledge and practice to civilian population. Sheperd developed a first-aid curriculum and became director in the school placed in Woolwich. Sheperd wrote a comprehensive lecture program named "Aids For Cases of Injuries and Sudden Illnesses".⁴

FIRST-AID IN ISLAMIC WORLD AND OTTOMAN EMPIRE

Female companions of Prophet Muhammad had been reported to enter army in order to help the wounded soldiers in case of a war. The aim of their entrance into army was to perform first-aid and health-care. Small wounds, scratches, cuts might be seen after carelessness, childrens' mischief. It was recorded that (direct) sucking was performed for these kinds of bleeding wounds. For these interventions, vacuum cups of leeches were used for sucking.¹⁰

Razi (854-932), one of the famous doctors in 10th century Islamic medicine, used lamb-gut for sutures.¹⁰

Zehravi (?-1013), in 11th century, explained special information of cauterization using gold or silver and where possible copper or iron. He also explained how to imply first-aid to fractures and subluxations.¹⁰

14th century Ottoman Medicine included books written in Arabic, Persian and Turkish. In review of those hand-written books, there was no special chapter of first-aid. However detailed topics within the context of first-aid were included like burns, frost-bite, heat-stroke, fractures and subluxations, joint strain, poisoning, animal bites, foreign bodies in eye, ear or nose.^{11,12}

Turkey is the country which is one of the most suffered countries from catastrophic events. From the beginning of the 1900's until today, approximately 120.000 people were lost due to natural disasters. Therefore, first-aid education in Turkey is gaining more interest recently.¹²

TURKISH RED-CRESCENT'S SUPPORT TO FIRST-AID EDUCATION

In our country, Turkish Red-Crescent has unique position in first-aid education.

At the republican period, in 1935, after the recommendation of President Mustafa Kemal Atatürk, former Ottoman Red-Crescent Community (Hilal-i Ahmer Cemiyeti) changed its name to Turkish Red-Crescent Community (Türkiye Kızılay Cemiyeti). In 1947, its name changed again to Turkish Red-Crescent Association (Türkiye Kızılay

Derneği).¹⁶ The book named "Knowledge of first-aid and bandage" was published in the same year when another book named "First-Aid" was translated by Dr. Behzat Yeğen and published by Turkish Red-Crescent Association.¹³⁻¹⁵

Turkish Red-Crescent Association (Türkiye Kızılay Derneği) performs public first-aid educations since 1960. It has public service responsibility and the main aim is to heal wounded after disasters or accidents.¹³

Especially after the earthquake of 1999, importance of first-aid education was understood very well; education quality is increased and availability is provided at the whole national level. International organizations, Turkish Ministry of Health, other ministries and universities should all collaborate for first-aid education programs. During these activities, contributions should be achieved for institutionalization of first-aid education programs.

FIRST-AID LEGISLATION

Currently, the first-aid education in Turkey is implemented according to the "First-Aid Legislation=İlkyardım Yönetmeliği" which was published in 22.05.2002 (in official newspaper number 24762) and revised in 18.03.2004 (in official newspaper number 25406).¹⁶

Turkish "First-Aid Legislation" includes "Basic First-Aid Education" which has main topics as follows:

- 1) General First-Aid Knowledge
- 2) Evaluation of the place of patient/wounded
- 3) Basic Life Support
- 4) Bleeding First-Aid
- 5) Wounded First-Aid
- 6) Burn, Frost-Bite, Heat-Stroke First-Aid
- 7) Fracture, Subluxation and Strain First-Aid
- 8) First-Aid in Disorders of Consciousness
- 9) First-Aid in Intoxications
- 10) First-Aid in Animal Bites
- 11) First-Aid in Foreign Bodies of Eye, Ear or Nose

12) First-Aid in Drowning

13) Transport of Patient/Wounded

The total theoretical and practical lecture durations and subtopics of the main titles are expressed in details inside this Turkish “First-Aid Legislation”.

THE KNOWLEDGE OF FIRST-AID AND BANDAGE

“Knowledge of first-aid and bandage” is the third book of the officially approved “Medical Books= Sağlık Kitapları” by the Turkish government. The authors presented this book to hygienists, sanitary officers, nurses and hospital attendants. They expressed their feelings in the preface, that this book could fill the gap in this field. The topics inside this book are compared with the topics inside Turkish “First-Aid Legislation” and shown in Table 1.

First-Aid application approaches of that book are generally out of today’s definitions. Furthermore, there are drug applications which are no more present in today’s first aid Legislation.

When we look at the topics, we see the lectures are quite similar, however topics of blood groups, whole-blood transfusion, heat rashes, massage are no more present in today’s first aid legislation. This change of definitions might be due to timeline differences.

When we read this book, we see the old “ABC” (initial 3 procedures) of first aid were;

A) Stopping the bleeding

B) Bandage over open wound to prevent microbial contamination

C) Prevent shock

However, today’s first aid ABC is universal;

A) Airway (open and preserve patent airway)

B) Breathing (support respiration)

C) Circulation (support circulation)

Fixing of fractures (with splint or cast), stopping bleeding, approaches to burns and other first aid interventions will come after ABC.¹⁷

Advised interventions of blood stopping include (which goes beyond borders of definition of

first aid) closing of wound edges using sutures or pliers, to apply bending pressure on bleeding site.

Nose bleeding cases were not treated by formerly attributed “extending head backwards”. Instead, nose bleeding was treated like this: “the bleeding person is brought to a chilly cold place. His head is flexed and nostrils are closed with some pressure externally. Then we wait for 5 minutes. If nose bleed does not stop after 5 minutes, tamponade should be performed which is most effective and safe. There are anterior and posterior tamponades. We mention here only anterior tamponade.” While performing tamponade, this interesting feature was emphasized: “firstly gauze-clothing should be dipped into hydrogen peroxyde, or 1% adrenaline, or 10-12% antiprin.”

About the open wounds, we see that suturing techniques were inside first aid interventions, “wound edges or inside should be wiped out using gauze-tamponade which is dipped into tincture of iodine (teinture d’iode)”.

About subluxations, we see that fixing techniques were inside first aid interventions, maneuvers of this purpose are explained. However in today’s practice of first aid, it is especially emphasized that we should not try to fix the dislocations at the first aid level.

About the liquid drugs used in bandage of wounds; we see solutions like “Dakin Water, Potassium Permanganate” which are no more used in today’s practice.

About the powderous drugs, we see “sulphamide powder, penicillin powder, dermatol, iodoform” which are no more present in today’s practice. At the first aid level, these drugs are no more used in education or in practice.

There are details of bandage implementations like “drain, fistula or protective bandage, spongy bandage, pressurizing bandage” which are over the first aid concept. There are also explanations and implementations about “infection, abscess” and “gauze gangrene” cases.

In that book, there are 4 grades of burns; which are now classified into 3 grades. Today’s 3rd

TABLE 1: Comparison of topics inside the book “Knowledge of first-aid and bandage” and Turkish “First-Aid Legislation”.

Turkish “First-Aid Legislation” topics	Topics of the book “Knowledge of first-aid and bandage”
General first-aid knowledge	Principles of first aid
First-aid, emergency therapy, aims, Differences, basic principles, Initial three procedure of first-aid	No explanation about these sub-titles
Evaluation of environment of patient/wounded	No explanation about these sub- titles
Systems of human body, pulse, The steps of evaluation of patient/wounded, aims of evaluation	
Basic life support	Rescue Breathing
Basic life support, external cardiac massage, differences according to ages, Heimlich maneuver	Pressure over back, arm holding, pressure Over back, hip holding, safer method, Sylvester method, IV method
First aid in bleedings	Bleeding, shock
Bleeding types, first aid in bleedings	Blood groups, blood transfusion, plazma transfusion, artificial serum,
Triangular bandage, tourniquet, hand and foot break off, shock types, symptoms, first aid in shock, shock position	prevention symptoms and therapy of shock.
First aid in woundings	Open wound bandage
Wound types, common symptoms, first aid in wounds, serious woundings, penatran chest and abdomen wounds, cranium and vertebrae wounds	head, chest, abdomen, arm, leg
First aid in burns, frost-bites, heat-stroke	Burns, heat-stroke, sun-stroke, frost-bites
Types of burns, seriosity, factors of burns, grades of burns, negative effects of burns to body, heat burns, chemical burns, electricity burns, frost- bites, heatstroke	Therapy in first and grade burns, heat stoke symptoms, therapy and prevention, general frost- bite, lokal frost- bite, therapy and prevention of frost-bite
First-aid in fractures, dislocations, strain	Fractures, dislocations and splinting
Types of fractures, symptoms, strain and symptoms and first-aid, dislocation types and first-aid, methods of fixing fractures	Cranium, mandibula, arm, vertebrae, thorax and leg fractures, mandibula, shoulder and vertebrae dislocations, sprain
First aid in disorders of consciousness	Faintings
Causes, types, symptoms and first aid of	No details about other sub titles
Consciousness, coma position, febril convulsion, causes and types, epilepsy- symptoms and first aid, hipoglisemi and chest pain	
First aid in poisoning	Poisoning
Poisoning, general symptoms, causes, first aid in different types of poisoning, general first aid principles in poisoning	Food poisoning paratypho poisoning, Botilismus poisoning, mushroom poisoning, carbon monoxide poisoning, carbondioxide poisoning, Morphine poisoning, tobacco poisoning, insectisit poisoning, toxic plant
First aid in animal bites	Animal bites
Symptoms and first aid in bee bites	Snake bites
Symptoms and first aid inscorpion bites	Scorpion bites
Symptoms and first aid insnake bites	
First aid in foreign bodies in eye, ear, nose	Foreign bodies
First aid in foreign bodies in eye, ear, nose	Foreign bodies in soft tissue, ear,nose, throat and eye
First aid in drownings	Drownings
Causes and general symptom of drownings and general first aid procedures of drowning	Drowning in water
Patient/wounded transport techniques	No details

grade burns were further divided into two as 3rd or 4th grades in old book. Destruction of soft tissues between skin and bone were 3rd grade burns. If all bony and soft tissues were turned into coal/charcoal, they were classified as 4th grade burns.

In treatment of burns; pain killers, morphin and topical oinments were used as first aid but today they are not adviced. Especially applications of “powder with talk” were explained in detail which is no more available today.

About frost-bites; massage and friction techniques were adviced. Today, drinking of “alcoholic beverages” is no more adviced because of increased heat loss. However, it was one of the preventive measures in frost-bites.

About the differences of drowning cases, formerly adviced techniques were as follows: “promptly get the drowning person out of water, hold him from hips to head-down position in order to extract water from lungs. Put a soft thing over stomach and apply pressure from back, this will fascilitate outpouring of water from lungs. Open his mouth and pull tongue with a clean cloth... Massage his face, arm and legs with alcohol, cologne or cold water.”

About poisoning, stomach lavage and drug administrations were mentioned. Especially in food poisoning cases, extremely detailed information according to etiology (paratyphoid disease, ...) are present which are no more relevant in today’s first aid approach.

About snake bites, it has been explained in detail how to differentiate poisonous snakes by looking at their teeth structures.

Massage application types were also expressed in detail; sliding massage, pressurizing massage, molding, punching, shaking.

Rescue breathing techniques were also very different from today’s applications. There were no information about cardiopulmonary resuscitation.

Old rescue breathing techniques were:

- Pressure over back, arm holding

- Pressure over back, hip holding
- “Şafer” method
- Sylvester method (which is arm holding and pressure over chest)
- “iv” method (which is teeter-totter method)

Today, heart-lung reanimation techniques (cardiopulmonary resuscitation) are extremely important and are educated both theoretically and practically. In that book, there is nothing about these reanimation techniques.

CONCLUSION

Within the context of this book and its contents; we conclude that first aid knowledge is closely affected from advances in medicine. Through 50 years, some topics were removed from first aid whereas new topics were added into first aid education programs for example Heart-Lung Reanimation (cardiopulmonary resuscitation).¹⁶

By the way, definition of first aid is clarified and simplified by removing drug administrations. Thus, we reviewed and acknowledged the first aid topics and contents under the light of authorizations and responsibilities written in relevant Turkish Legislation.

As a result of the development and shaping of the boundaries of medicine, the essential which is important and necessary is also education in the legislation. Considering the target is the education of the whole community in first aid, size of the education comes up to surface. For the realization of the education such a size, all educational institutions and civil society organizations should have responsibility.

For this purpose, it is a positive development that first aid training has been started in all educational opportunities from primary to university education, and evaluated in all private and public institutions and organizations. parallel to changes in of educational processes, small groups are given mostly applied training. Parallel to technological advances, tools and materials are also integrated in the educational process.

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