

Evaluation of Knowledge of Emergency Healthcare Workers Regarding Approach to Emergency Patients

Acil Servis Çalışanlarının Acil Hastaya Yaklaşım ile İlgili Bilgi Düzeylerinin Değerlendirilmesi

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Abstract

Aim: Emergency units constitute the most important part of all hospitals. The aim of this study was to evaluate practitioners' and healthcare providers' knowledge and experience regarding emergency first aid in a hospital with insufficient facilities.

Methods: 17 physicians and 25 assistant staff working at our hospital were evaluated in terms of their knowledge about and experience in "emergency medicine and trauma" by a questionnaire and by observations.

Results: The results of observations and questionnaire indicated that knowledge and experience among physicians were inadequate in terms of basic life support and advanced cardiac life support. This lack of knowledge was not associated with age, time of employment, faculty graduated and training on "emergency medicine" in the group of physicians ($r=0.301$ $p>0.05$, $r=0.317$ $p>0.06$, $r=0.228$ $p>0.05$, $r=0.284$ $p>0.05$, respectively) and in the group of assistant staff ($r=0.341$ $p>0.05$, $r=0.287$ $p>0.06$, $r=0.234$ $p>0.05$, $r=0.227$ $p>0.05$, respectively).

Conclusion: Considering that the most of the physicians are gathered in certain regions of our country and that there is a lack of emergency medicine specialists in underdeveloped regions, it has been concluded that physicians specialized in other areas and practitioners must attend emergency medicine trainings under the concept of "emergency medicine rotation". (*The Medical Bulletin of Haseki 2010; 48:103-5*)

Key Words: Healthcare workers, knowledge, emergency patients, approach

Özet

Amaç: Acil servisler tüm hastanelerin en önemli bölümünü oluşturur. Bu çalışmada imkanları yetersiz olan bir hastanede çalışan doktor ve yardımcı sağlık personelinin acil ve ilk yardım konusundaki deneyim ve bilgilerinin değerlendirilmesi amaçlanmıştır.

Yöntemler: Hastanemizde görev yapan 17 doktor ve 25 yardımcı sağlık personelinin acil ve ilk yardım konusundaki bilgi ve tecrübeleri gözlemsel ve anket yöntemi kullanılarak değerlendirildi.

Bulgular: Hekimler ve yardımcı sağlık personelinin temel yaşam desteği ve ileri kalp yaşam desteği ile ilgili bilgi düzeylerinin yetersiz olduğu belirlendi. Bilgi düzeyindeki yetersizlik ile hekimlerin (sırasıyla $r=0.301$ $p>0.05$, $r=0.317$ $p>0.06$, $r=0.228$ $p>0.05$, $r=0.284$ $p>0.05$) ve yardımcı sağlık çalışanlarının (sırasıyla $r=0.341$ $p>0.05$, $r=0.287$ $p>0.06$, $r=0.234$ $p>0.05$, $r=0.227$ $p>0.05$) yaş, meslek hayatında geçirilen süre, eğitim alınan yer ve alınan acil tıp eğitimi arasında ilişki yoktu.

Sonuç: Ülkemizde acil tıp uzmanlığının geliştirilmesi veya sağlık çalışanlarının acil tıp rotasyonuna tabi tutulmasının daha doğru bir yaklaşım olabileceği kanısına varıldı. (*Haseki Tıp Bülteni 2010; 48:103-5*)

Anahtar Kelimeler: Sağlık çalışanları, bilgi düzeyi, acil hastalar, yaklaşım

Introduction

Emergency services constitute the most important part in all hospitals. The fastest and most accurate diagnosis is also of great importance for the patients admitted to these units (1). For this reason, the emergency medical

personnel must be experienced and knowledgeable in first aid and trauma. Poor physical conditions and lack of staff is a concern in our country, thus, it is inevitable that patients are referred to larger centers. Therefore, this problem might be solved in the district hospitals by providing adequate training to the health personnel.

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In this study, we evaluate first aid knowledge and experience among health staff working at a small district hospital.

Methods

This study was conducted in a small district hospital that has only twenty-five beds. 17 doctors and 25 nurses working at our hospital were included in the study.

Age, gender, total number of years in the profession, information about educational level and postgraduate certificates of the personnel participating in the study were recorded. All participants were administered a questionnaire consisting of 12 questions on cardiopulmonary resuscitation, emergency diagnosis, emergency treatment and patient transport. There was only one correct answer for each question. Grading was performed in points out of 100 based on the answers to the questionnaire. Score intervals and corresponding degrees are as follows: 0-30 - unsatisfactory, 30-50 - intermediate, 50-75 - satisfactory and 75-100 - enough.

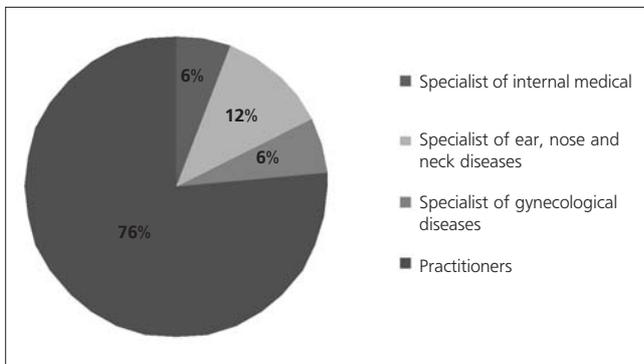
The statistical analyses were performed by SPSS version 10.0 for Windows (SPSS Inc. Chicago, Illinois, USA). All data were expressed as mean ± SD or median range as appropriate. The non-numerical values were given as frequency and percentage. Statistical differences between

numerical values were determined using the Mann-Whitney U tests. Correlations between variables were assessed by the Pearson’s bivariate correlation analysis. The results were evaluated in 95% confidence interval, at $p < 0.05$ significance level.

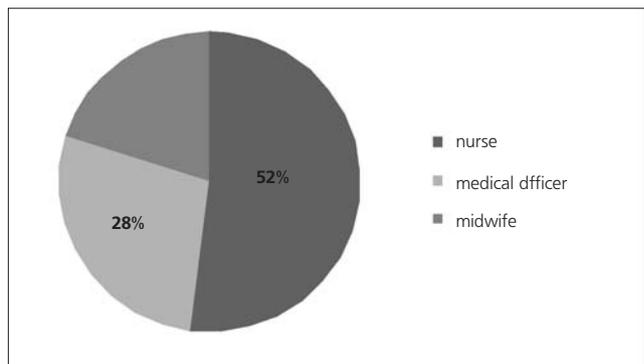
Results

The mean age for physicians and other health personnel were 29.7 ± 6.9 and 24.4 ± 6.13 years, respectively. The average time in the profession for physicians and other health personnel were 4.79 ± 3.97 and 3.89 ± 2.97 years, respectively. The distribution of physicians and medical personnel are shown in the graphics 1 and 2. None of the doctors and other health personnel had a first aid certificate.

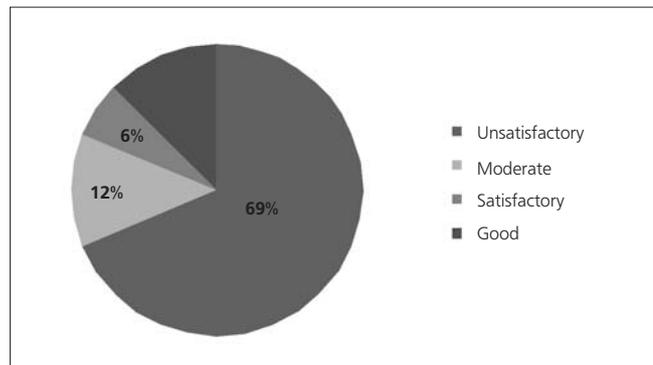
There were no significant differences among physicians in terms of knowledge and experience ($p > 0.05$). The results of observations and questionnaire indicated that the knowledge and experience of physicians were inadequate in terms of basic life support (BLS) and advanced cardiovascular life support (ACLS) (Graphic 3). No association of lack of education and experience with age, time



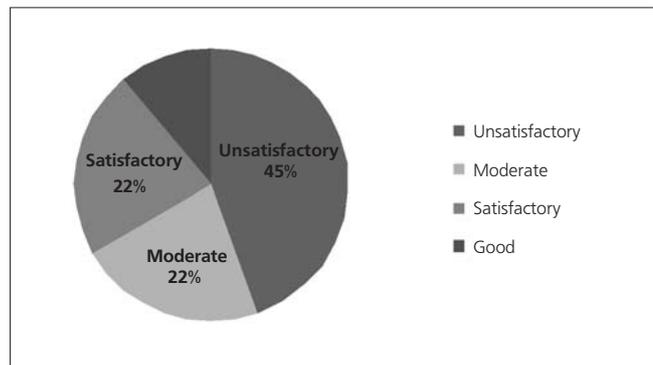
Graphic 1. Distribution of physicians according to their specialization



Graphic 2. Distribution of assistant medical personnel



Graphic 3. Level of knowledge and experience of physicians at our hospital in emergency first aid, approach to emergency patients, ambulance medicine, and cardiopulmonary resuscitation



Graphic 4. Level of knowledge and experience of assistant medical officers at our hospital in emergency first aid, approach to emergency patients, ambulance transfer, and cardiopulmonary resuscitation

of employment, faculty graduated and training on "emergency medicine" was determined by these assessments ($r=0.301$ $p>0.05$, $r=0.317$ $p>0.06$, $r=0.228$ $p>0.05$, $r=0.284$ $p>0.05$, respectively).

Similarly, in terms of knowledge and experience were no significant differences among the rest of health personnel ($p>0.05$). The observations and questionnaire results for assistant medical personnel indicated that in terms of BLS and ACLS, there was a lack of knowledge and experience (Graphic 4) that was not associated with age, time of employment, faculty graduated and training on "emergency medicine" ($r=0.341$ $p>0.05$, $r=0.287$ $p>0.06$, $r=0.234$ $p>0.05$, $r=0.227$ $p>0.05$, respectively).

Discussion

In emergency service units, the diagnosis and treatment must be done accurately and quickly. Therefore, the hospital location, number of personnel, medical qualifications, technical equipment and transportation may affect the results related to diagnosis and treatment (2,3). The training of health personnel and continuity of education are essential to ensure sufficient knowledge and experiences (4). In many studies, it was reported that with postgraduate education, knowledge and experience of health workers can reach the desired level (2-4). In a study performed by Kimaz et al., it was observed that physicians did not have enough knowledge on ACLS, BLS, and the legal responsibility of the physician and it was emphasized that physicians should always take part in training courses (5). Lowenstein et al. has noted that acute myocardial infarction death rates reduced as a result of adequate training of physicians for

ACLS (6). In our study, a total of 25 health personnel were found to be inadequate in ACLS, and this fact was found to be directly related with lack of knowledge. In some of these studies, to assist health care providers have also made similar conclusions (4,6).

Although emergency medicine is a separate specialty, first aid services often remain responsibility of other physicians in our country. Therefore, postgraduate courses with adequate training for medical personnel can be beneficial in solving the problem with knowledge insufficiency.

References

1. Kimaz S, Soysal S, Çımrın AH, Günay T. 112 Acil Sağlık Hizmetleri'nde görevli doktorların temel yaşam desteği, ileri kardiyak yaşam desteği ve doktorun adli sorumlulukları konularındaki bilgi düzeylerinin değerlendirilmesi. *Ulus Trav Derg* 2006;12:59-67. [[Full Text](#)] / [[PDF](#)]
2. Lowenstein SR, Sabyan EM, Lassen CF, Kern DC. Benefits of training physicians in advanced cardiac life support. *Chest* 1986;89:512-6. [[Abstract](#)] / [[PDF](#)]
3. Yakeel ME. Retention of cardiopulmonary resuscitation skills among nursing personnel: what makes the differences? *Heart Lung* 1989;18:520-5. [[Abstract](#)]
4. Stewart RM, Johnston J, Geoghegan K et al. Trauma surgery malpractice risk: perception versus reality. *Ann Surg* 2005;241:969-77. [[Abstract](#)] / [[Full Text](#)] / [[PDF](#)]
5. Kimaz S, Soysal S, Cimrin AH, Gunay T. Assessment of physicians employed in emergency medical services about their level of knowledge on basic life support, advanced cardiac life support and medicolegal responsibilities. *Ulus Travma Acil Cerrahi Derg.* 2006;12:59-67. [[Abstract](#)] / [[PDF](#)]
6. Lowenstein SR, Sabyan EM, Lassen CF, Kern DC. Benefits of training physicians in advanced cardiac life support. *Chest*. 1986;89:512-6. [[Abstract](#)] / [[PDF](#)]