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Family Medicine in the Emergency Service

Emrah Sayın[1*], Murat Altuntaş[2]

[1]Spec.Dr., Fam.Med., Kayseri Akkısla Governmental Hospital, Kayseri, Turkey
[2]Spec.Dr., Fam.Med., University of Health Sciences, Bagcılar Research and Training Hospital, Clinic of Family Medicine, Istanbul, Turkey

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***Corresponding author:** Emrah Sayın

Abstract **Original Research Article**

Aim: In this study, the patient profile of an emergency service and the reasons for not preferring family medicine units for existing diseases of the patients will be evaluated and a projection will be developed for future health services planning. ***Material and Methods:*** The study was carried out as a prospective cross-sectional survey with the patients who applied to the emergency policlinic of Bağcılar Training and Research Hospital between 01.03.2018 and 01.04.2018 for any reason. The patients were categorized as patients who applied to the family physician before and did not apply and the differences were determined. Chi-square and Fisher's reality tests were used to compare the data. The level of statistical significance was evaluated as $p<0.05$. ***Results:*** Most of the patients were between 18-34 years of age and 59.9% of the patients were male. The patients were mostly married (51.6%) and most of them was high school graduate (36.5%). The income level of the patients was between 1501-3000 TL (49.5%). It was determined that for the 23.7% of the patients, emergency polyclinic was the first place of application. 19% of the patients were aware that their condition was not urgent. 17.7% of the patients did not know their family physicians. The frequency of referral to a family physician was found to be low in 18-34 years of age ($p<0.05$). Gender, economic status, occupational status did not change the frequency of referral to family physician ($p>0.05$). Married individuals, individuals with low levels of education, and family physicians were more likely to apply ($p<0.05$). The frequency of referral to emergency department was found to be high in patients who had never gone to a family health center ($p<0.05$). The frequencies of the patients who applied to the family physician were found to be significantly higher ($p<0.05$). ***Conclusion:*** It was believed that emergency applications can be reduced by providing training for people, also training heath workers in family health centers, informing patients about the current clinic, organizing working hours and increasing the confidence of physicians in these centers.

Keywords: Family medicine, emergency service, health.

INTRODUCTION

Emergency services are the units that provide uninterrupted health services to all kinds of emergency patients. Emergency service admission rates are very high all over the world. The most important reason of the intensity of emergency services is that non-emergency patients apply to emergency services for various reasons. This situation brings a serious problem in the provision of health services. More active and effective implementation of primary health care services will be effective in decreasing the intensity of emergency services. As long as people have access to primary health care services more easily; they will prefer family medicine units instead of emergency services. In this situation; the treatment process will be faster, the more effective and efficient use of secondary and tertiary health care services will be used more effective and the health care costs will be reduced.

Family physicians are specialist physicians trained to carry out primary health care. According to Leeuwenhorst Declaration, family physicians; is a primary licensed medical doctor who provides personal and continuous care to families and a certain community, regardless of age, sex and disease [1]. Family doctors, during their educational period; get internal diseases, obstetrics and gynecology, child health, general surgery, psychiatry, chest diseases, emergency department rotations and completes their education as a specialist doctor [2]. Family physicians undertake continuous care in the chronic, recurrent, or terminal group of patients. They perform therapeutic medicine in cases where preventive health services are insufficient [1].

Today, emergency physicians can easily access to specialist physicians in their institutions; they can request consultation and can use advanced technology, which provides great convenience for the management of patients. However, in rural emergency units, the available facilities are limited and therefore, clinical skills and decision-making skills are more prominent during patients evaluation. The training of family physicians, which includes many clinical disciplines, together with an emergency clinical approach in the specialty training, facilitates the approach to patients requiring medical emergency intervention [3].

In this study, the patient profile and the reasons for preferring / not preferring the family medicine units for the existing diseases of the patients will be evaluated and predictability will be developed for the planning of future health services.

MATERİAL AND METHODS

This study was conducted with the approval of Ethics Committee of Clinical Researches of Bağcılar Training and Research Hospital of Health Sciences University (SBU) on 17.08.2017 with approval number 2017/598.

Study was planned as a single center prospective way. The cross-sectional, descriptive and analytical study consisted of patients who applied to the outpatient polyclinics of the Emergency Medicine Clinic of Bağcılar Training and Research Hospital between 01.03.2018 - 01.04.2018. Sample size was calculated by using the "Simple random sample sampling estimation" method on patients who applied to the mentioned polyclinic. 384 patients who met the criteria for inclusion, were included in the study. Data were collected by applying a face to face questionnaire method.

Verbal and written informed consent was obtained from all individuals included in the study. Among the patients admitted to the clinic; patients who agreed to participate in the study with the consent of their legal representative or those who had mental skills to understand the questions and/or who were literate, were included. Others were excluded. In the study survey directed to the participants; age, sex, marital status, socio-cultural status, socio-economic status, social health insurance, family medicine applications were interrogated.

In the study, statistical analysis was performed by NCSS (Number Cruncher Statistical System) 2007 Statistical Software (Utah, USA). Descriptive statistical methods (frequency and percentage distributions) were used to evaluate the data, and chi-square and Fisher reality tests were used to compare qualitative data. The results were evaluated with statistical significance $p < 0.05$.

RESULTS

The total number of the patients included in the study was 384; of which 154 (40.1%) were female and 230 (59.9%) were male. 198 (51.6%) were married, 171 (44.5%) were single and 15 (3.91%) were widows or divorced. The number of patients in the 18-34 age range was 180 (46.9%), in the 35-49 age range was 134 (34.9%), in the 50-65 age range was 58 (15.1%) and the number of patients over 65 years was 12 (3.1%).

Ten patients (2.6%) were illiterate, 129 (33.6%) were primary school graduates, 140 (36.5%) were high school graduates, 92 (24%) were university graduates, 13 (3,4%) were graduate/doctorate graduates. When the socioeconomic status of the patients were examined; 135 patients (35.2%) had monthly income below 1500 Turkish Liras (TL), 190 (49.5%) were between 1501-3000 TL per month and 47 (12.2%) were 3001-5000 TL per month and 12 (3.1%) had monthly income over 5000 TL. Of the patients; 41 (10.7%) had no profession, 40 (10.4%) were self-employed, 125 (32.6%) were workers, 71 (18.4%) were civil servants and 107 (27.9%) were other (student-housewife).

Patients' first admission places were evaluated and the results were given on Table-1. Emergency status and family physician application of the patients were summarized on Table-2.

Table-1: Evaluation of the patients' first admission places

	Whole Group	
	n	**%**
Family doctor	91	23.7 %
Bağcılar Training and Research Hospital	209	54.4 %
Another Training and Research Hospital	27	7.0 %
Public hospital	33	8.6 %
Private hospital	21	5.5 %
Other	3	0.8 %

Table-2: Emergency status and family physician application of the patients

		Whole Group	
		n	%
What do you think is the urgency of your current illness in terms of medical intervention?	Absolutely emergency	66	17.2 %
	Emergency	245	63.7 %
	Not emergency	73	19.0 %
You have learned that your situation does not require immediate medical attention; would you still apply to the emergency department for a similar complaint?	No	216	56.3 %
	Yes	167	43.5 %
	I am not sure	1	0.3 %

When the recommendations of the family physicians to their patients, who applied to the emergency department polyclinic; 29 (32.9%) patients were treated and referred to the hospital if necessary, 28 (31.8%) were examined, treated and called for control, 19 (21.6%) were referred to the hospital, 8 (9.1%) were examined, 3 (3.4%) were discharged without any treatment and 1 (1.1%) marked the other option (he wanted me to continue the current treatment).

Reasons of the patients for not applying to a family physician in the first application were investigated and summarized on table 3. Moreover; Family medicine specialist awareness and use of family health unit services were summarized on Table-4.

Table-3: Reasons for not applying to a family physician in the first application

		Yes n (%)	No n (%)
What is the reason why I did not go to your family doctor before for your current medical condition?	I don't know who my family doctor is	52 (17.7%)	241 (82.3%)
	I think my family doctor is not enough	77 (26.3%)	216 (73.7%)
	I think technical equipment is not enough in the family health center	64 (21.3%)	229 (78.7%)
	I want to be examined by a specialist	40 (13.1%)	253 (86.9%)
	I want to be examined in hospital conditions	53 (18.1%)	240 (81.9%)
	I do not prefer because it is difficult to access	26 (9.9%)	267 (91.1%)
	Family medicine does not serve at the time I apply	18 (6.1%)	275 (93.9%)
	Other	16 (5.5%)	277 (94.5%)

Table-4: Family medicine specialist awareness and use of family health unit services

		Whole Group	
		n	%
Have you heard the definition of family medicine specialist before?	No	234	60.9%
	Yes	150	39.1%
How often do you go to the family medicine unit?	I never go	139	36.2%
	1 time	179	46.6%
	2-3 times	52	13.5%
	>4	14	3.7%

In the statistical analyzes; frequency of revisits to family physicians was significantly higher in patients who applied to family physicians before (p:0.0001).

DISCUSSION

Emergency departments of the hospitals are obliged to provide fast, accurate and uninterrupted service to patients [4]. Most of the patients admitted to these units are treated as an outpatient and only a few are hospitalized [5-7]. As a result of the excessive intensity in these services; the quality of the service decrease, waiting times prolonge, treatment of the patients delay, satisfaction reduce, treatment costs increase, security problems turn up and efficiency of emergency service personnel decrease [8, 9]. This intensity can be prevented by the effective implementation of primary health care services. Nesanır *et al.*, concluded that family medicine practice is promising in terms of reducing hospital admissions [10]. There is an opinion that, the density in the second and third step health institutions can be broken by referral chain and the health services can gain quality [2]. Family physicians are defined as the first physicians to apply [11, 12].

In the study, if we look at the places preferred by patients; 54.43% of them applied to a Training and Research Hospital, 23.7% applied to the family physician. The first application place, in two separate studies in the elderly population in Turkey was determined to be family health center [13, 14]. In a study conducted in women aged 15-49 years, the first place of application was determined, again, family health center and in another study as public hospitals

[15, 16]. In the study of Çetinkaya *et al.*, 49.7% of the patients stated that they first apply to a family health center instead of emergency department for their complaints. The reasons for choosing these institutions are easy to access (39.2%), reliable (27.4%), good technical facilities (18.6%), being familiar (4.2%) and cheaper services (2.9%) [17]. In the study of İlhan *et al*., 66.6% [18], Sünter *et al*., 68.4% [19], Caglayan *et al.*, 38.7% [20] of the patients stated the primary health care institutions as the first place they apply for any health problems. Again; in the study of Bambal *et al.*, the rate of preference of family health centers was found to be 61.9% [21]. Despite all these studies, as in this study, patients may shift to the hospital due to the fact that they can be treated more specially.

When the relationship between admission unit and age was examined; while 65-84 age group had a high rate of family medicine application, 18-34 age group had a low rate. The mean age of patients admitted to a family health center was 41.9 years [17] in the study of Çetinkaya *et al.*, 32.3 years [22] in the study of Ciğerli *et al*., and 42.8 years [23] in the study of Yılmaz *et al*., In some studies which investigate the average age of patients admitted to the emergency department polyclinics of hospitals was examined; this average was 36 years [24], 33 years [25], 41 years [26], and 42 years [27]. Elderly people want to use primary care institutions in all their problems because of being close to their homes and the easiest place to access their drugs. One of the reasons why the younger population uses fewer family physicians is to work during the day and to have limited opportunities to apply during working hours.

When the relationship between the application unit and gender is examined; it was observed that gender did not create statistically significant difference in terms of referral to family physician. There are different results in this regard in the literature [6, 9, 14, 25, 27]. Although there was no gender difference in the performed study; especially in the villages far from the center, we believe that women may have consulted the family physician more often because of children's health, vaccination follow-up, and control during pregnancy. In addition, the high emergency service application of male patients can be explained by their working conditions.

When the relationship between the application unit and marital status is examined; the rate of applying to a family physician was found to be significantly higher in married women. The fact that married patients had higher rates of referral to family physicians was consistent with the literature [17, 28, 29]. Considering that there are reasons such as vaccination, follow-up of pregnant women, and prescribing the medications; it can be thought that married women apply to family physicians more.

When the application unit and sociocultural relationship are examined; it was found that when the level of education gets higher, application to family physician gets lower. In the study of Sünter et al., 7% of the patients were illiterate, 39.7% were primary school graduates and 6.5% were university graduates [19]. In the former Soviet Republics (Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Ukraine); it was found that health care usage was lower in the older age and low education groups and in the groups with low economic income [30]. Erdem *et al*., in their studies; stated that many factors such as age, gender, education, working status, social security, religion, race and family structure had an impact on the way patients benefit from health services [31].

When the relationship between the application unit and the socioeconomic situation is examined; there was no statistically significant difference between the distribution of socioeconomic status in terms of referral to family physician. In many studies, it is stated that low-income groups use general practitioners and high-income groups use specialists more frequently [32-35]. There are studies indicating that ethnic minorities, unskilled workers and unemployed people are mostly directed to general practitioners and highly educated individuals towards specialist physicians [36-39]. In two studies examining the European Union countries, it is stated that there is no inequality between the income groups for general practitioner application, but higher income groups prefer more specialist physicians [39, 40]. Researches in developed and developing countries show that low socioeconomic groups are more disadvantaged [35, 41, 42]. In Netherlands, it was stated that the use of health care was higher in low education groups and this situation was associated with high comorbidity [43]. Although no significant difference was found between the income groups in our study; it was stated in the literature that low-income people generally preferred to use family physicians or public hospitals according to the severity of the complaints, whereas high-income people preferred hospitals with the thought that they would be examined and treated with better facilities. It can also be considered that low-income people have more comorbidities due to insufficient care and therefore use health care facilities more.

In the study; relationship between the applicant unit and the perception that the current medical condition necessitates urgent intervention is examined. There was no statistically significant difference between the patients who applied to the family physician and those who did not. In the presence of a similar complaint, no statistically significant difference was observed between the distributions to the emergency department. In studies conducted in our country, it has been shown that 11.6-57% of the patients coming to emergency departments can be treated by their family physicians [25-27, 44]. Haddy *et al.*, reported that the

majority of patients who were not included in the medical emergency, stated their condition as an acute developing pathology that required immediate intervention [45]. In the study of Ersel *et al.*, rate of applicants who were not suitable for urgency was 32.2% [8]. It has been shown that patients presenting to emergency services with minor complaints are mostly composed of well-educated, in good social status and without chronic health problems [46]. It was believed that raising awareness of the society, increasing the level of education, establishing a referral chain will enable the physician to decide the urgency of the patients and reduce the unnecessary intensity of the emergency services.

In the study, the relationship between the recognition of the family physicians and the demand of specialist physicians was examined. The patients were generally familiar with their family physician and they found it sufficient and their preferences were not high for a specialist. It was almost the same in the similar studies [47-51]. Sufficient satisfaction from the family physician may be due to the fact that family medicine meet the needs of the people in terms of prescribing drugs and referral requests.

When the frequency of visits to the family physician among the emergency department applications was investigated; it was found that 30% of those who go to family physician, were visiting their family doctor 2-3 times before coming to emergency department. The rate of family physician use in the literature was similar to that of the present study [52, 53]. However, this study did not determine the frequency of admission to the emergency department.

In the study, when the reason for applying to family physician was examined; treatment and drug prescribing were the most reasons. The application for immunization services was lower than the group that did not apply to the family physicianThe results of the study were consistent with the literature [18, 20, 22, 54]. The low level of immunization in the applicant group can be explained by treatment and vaccination during drug printing.

As a result; use of family medicine can be increased with adequate information, education and sociocultural contribution. This will reduce unnecessary use of emergency services.

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