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Decision-Making in Suicidal Attempt to Discharge from Emergency Department or to Consult Psychiatry: A Retrospective Study

İntihar Girişimlerinde Acil Servisten Taburcu Etme veya Psikiyatri Konsültasyonuna Yönelik Karar Verme: Retrospektif Bir Çalışma

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ABSTRACT Objective: The aim of this study is to shorten the period of hospitalization of the psychiatry patients in the emergency service and to reduce number of emergency psychiatric consultations. **Material and Methods:** Total 249 patients who admitted to the emergency service and evaluated by psychiatry because of suicide attempt were included in the study. The patients were scored in terms of feeling of regret, suicide method, history of previous suicidal attempt and presence of suicide family history. Following psychiatric consultations, the patients were divided to 2 groups as those who were considered for hospitalization (Group 1) and those who were recommended for outpatient psychiatry clinic control (Group 2). **Results:** Of the 249-psychiatry consultation, hospitalization was recommended to 94 (37.8%) patients, while outpatient psychiatry clinic control was recommended to 155 (62.2%). According to the scoring, it was found that psychiatric consultation was required in 152 (61.0%) patients, while consultation was not necessary in 97 (39.0%) patients. When psychiatric examination notes were checked, a statistically significant difference was found between Group 1 and 2 ($p<0.001$) and sensitivity was found to be 100%, while specificity was found as 62.5%, positive predictive value was found to be 61.8% and negative predictive value was found to be 100%. **Conclusion:** In our study group, we found that emergency psychiatric consultation rate may decrease 36.5% thus will be cost effective and also decrease waiting time in emergency services.

Keywords: Suicide; adult; emergency services, psychiatric

ÖZET Amaç: Bu çalışmanın amacı, psikiyatri hastalarının acil serviste yatış sürelerini kısaltmak ve acil psikiyatri konsültasyonlarının sayısını azaltmaktır. **Gereç ve Yöntemler:** Çalışmaya, acil servise başvuran ve psikiyatri tarafından intihar girişimi nedeniyle değerlendirilen 249 hasta dâhil edildi. Hastalar; pişmanlık hissi, intihar yöntemi, önceki intihar girişimi öyküsü ve ailede intihar öyküsü varlığı açısından puanlandı. Psikiyatri konsültasyonu sonucuna göre yatışı düşünülen hastalar (Grup 1) ve poliklinik kontrolü önerilen hastalar (Grup 2) olarak 2 gruba ayrıldı. **Bulgular:** İki yüz kırk dokuz psikiyatri konsültasyonundan 94'üne (%37,8) yatış, 155'ine (%62,2) poliklinik kontrolü önerildi. Uygulanan puanlamaya göre 152 (%61,0) hastada psikiyatri konsültasyonu gerektiği, 97 (%39,0) hastada konsültasyona gerek olmadığı belirlendi. Psikiyatrik muayene notlarına bakıldığında, 2 grup arasında istatistiksel olarak anlamlı farklılık ($p<0,001$) bulunmuş olup; duyarlılık %100, özgüllük %62,5, pozitif tahmin değeri %61,8 ve negatif tahmin değeri %100 olarak bulundu. **Sonuç:** Acil psikiyatri konsültasyonları %36,5 oranında azalabilir ve böylece hem maliyet azaltılabilir hem de acil servislerde bekleme süresi kısaltılabilir.

Anahtar Kelimeler: İntihar; erişkin; acil servisler, psikiyatrik

In our country and all over the world, suicide is a major public health problem, causing many premature deaths. 703,000 people died in the world in 2019, as 1 out of every 100 (1.3%) deaths was by suicide.[1] The important thing is to guarantee medical and psychiatric safety in the emergency services, which are the first gateway to health care for suicide patients.

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The balance between situations causing stress in an individual's life and protective mechanisms determine the individual's risk of suicide. Disappearance of protective mechanisms or an increase in stress factors cause suicide thought to come to the forefront.[2] Finding out sociodemographic features which cause the individual to commit suicide and eliminating these if possible and good psychiatric analysis of these features will decrease suicide thoughts or recurrent suicide attempt risk. The main purpose in assessing the patient and planning the treatment is to provide the patient's safety in his/her future life.[3]

The aim of this study is to research as a result of consultation whether emergency service or psychiatry outpatient clinic is more suitable to start the necessary psychiatric support needed when discharged following treatment given to patients who refer to emergency service for suicide attempt.

MATERIAL AND METHODS

Patients who referred to our emergency service because of suicide attempts and have a psychiatric consultation note between January 2015 and 2018 were included in our retrospective study. Our study was conducted in accordance with the Helsinki Declaration principles. Approval was obtained from the Aydın Adnan Menderes University Faculty of Medicine Non-interventional Clinical Research Ethics Committee (Adnan Menderes University Faculty of Medicine, 2018/1350, March 8, 2018) for the study.

The patients were grouped in 2 as those who were considered for hospitalization following psychiatric consultation and those who were recommended to have outpatient psychiatry clinic control.

All the patients were scored according to the following four important characteristics which were defined in psychiatry books as important markers for recurrent suicide risk and those who got 0 and higher than 1 were classified further;[4-6]

The state of feeling regret (yes=0 point, no=1 point)

Suicidal method (single drug=0 point, multiple drugs, organophosphate, rat poison=1 point)

Previous suicidal attempt (no=0 point, yes=1 point)

Family history of suicidal attempt (no=0 point , yes=1 point)

According to this scoring, the patients who received 0 point were scored as "no request for consultation" and those who received 1 and higher than 1 were scored as "request for consultation."

Normally distributed numerical variables were expressed as mean±standard deviation, and categorical variables in percentages. Intergroup differences were analyzed using chi-square test based on the nature of the data. A p value <0.05 was considered statistically significant.

RESULTS

Average age of 249 patients included in the study was 32.3±12.1 years; 163 (65.5%) of the patients were female and 86 (34.5%) were male. Table 1 shows the demographic and clinical characteristics of the patients.

According to the psychiatry consultation, 94 of 249 patients were recommended hospitalization and 155 were referred to the outpatient clinic.

According to emergency service scoring, 152 (61.0%) patients were determined as "request for consultation", while 97 (39.0%) patients were determined as "no request for consultation." It was deter-

TABLE 1: The demographic and clinical characteristics of patients.

		n (%)
Demographic	Age	32.3±12.1
	Gender (female)	163 (65.5)
Marital status	Married	129 (51.8)
	Single	91 (36.5)
	Divorced	29 (11.6)
Suicidal method	Single drug	151 (60.6)
	Multiple drug	98 (39.4)
Regret	Present	154 (61.8)
	Absent	95 (38.2)
Previous suicidal intervention	Present	49 (19.7)
	Absent	200 (80.3)
Family history	Present	12 (5)
	Absent	237 (95)
Previous psychiatric illness	Present	157 (63.1)
	Absent	92 (36.9)

mined that the entire "no request for consultation" group was referred to the outpatient clinic as a result of the psychiatric consultation. 94 of 152 patients in the "request for consultation" group were hospitalized and 58 were referred to the outpatient clinic. All 94 patients who were hospitalized as a result of the psychiatric consultation, were included in the request for consultation group according to the emergency service scoring system. In addition, it was determined that no one in the "no request consultation" group had a hospitalization decision with the psychiatry consultation.

When psychiatric examination results and emergency service scoring results were compared, a statistically significant difference was found ($p<0.001$) and sensitivity was found to be 100%, specificity was found to be 62.5%, positive predictive value was found to be 61.8% and negative predictive value was found to be 100%.

DISCUSSION

It is debated whether psychiatric consultation is always necessary for individuals who attempt suicide.[7] On the one hand, while it is necessary to decrease the number of consultations which increase cost from every aspect, on the other hand patients who need emergency support should not be left alone. In our study, we found an emergency scoring system, while all of the patients who are considered for hospitalization as a result of psychiatric examination are detected, the number of emergency consultation also decreases by 36.5%. This decrease will both ease doctors in the emergency service with their intense patient tempo and also decrease the waiting time for patients who are followed in the emergency service and provide a more cost-effective use of emergency department hospital beds.

Patients who attempt suicide or have a tendency for suicide are frequently seen in emergency services. It is quite difficult for emergency doctors to find out whether they can activate the thoughts of patients who are inclined to suicide.[8] In previously conducted studies, it was found that in 14.2%-19% of the patients who referred to hospital as a result of suicide attempt, thoughts for suicide continued after being discharged and it was found that about 6%-10.8% of these patients attempted suicide again during the year that followed discharge.[9,10] In our study, it was found that 49 (19.7%) of 249 patients had a previous suicide attempt. We think that the reason why this number was higher than the literature was the fact that not only the period of a year but also the time from the first attempt to the last referral time was taken. While the characteristics of a patient who attempts suicide play a determinant role in deciding whether psychiatric consultation is necessary, findings show that clinical practices of the hospital these patients are treated in play a more determinant role in referring them to psychiatric consultation than the patient's characteristics.[7] This has led us to create a criterion system that can be used everywhere from the profiles of some of the characteristics of suicidal attempters.

In their study, Jorm et al. stated that if nations improved their psychiatric assessment approaches in terms of prevention and quality, the incidence of psychiatric admissions would decrease.[11] Due to the characteristics of our health system in our country, the necessity of establishing a forensic case record of patients with a history of suicidal attempt and creating a final opinion report by a psychiatrist in order to end this process ensures that these patients remain in the health system. For this reason, we think that it will not pose a risk in terms of preventive medicine practices.

In their study, Karakayalı et al. found that psychiatric consultation was requested to 57.8% of the patients they followed in the emergency service and they did not find a significant difference between these patients and the patients for whom psychiatric consultation was not requested in terms of attempting suicide again.[12] In the same study, absence of psychiatric consultation was found to be associated with 5.21 times increased risk for recurrent suicide attempt. This shows that patients who require psychiatric treatment are discharged from the emergency service. It can be concluded from the results of our study that it can be more suitable to find out patients with high risk and to request consultation for these patients.

In their study, Kukul Guven et al. reported that it was more cost-effective to follow the patients with

suicide attempt in emergency service.[13] It seems that another way to decrease the cost of these patients is to request psychiatric consultation not to each patient but to patients who get 0 points according to our scoring system according to the results of our study, asking for consultation based on our scoring system both detects all of the patients who are considered for hospitalization as a result of psychiatric examination and also decreases the number of emergency consultation by 36.5%.

CONCLUSION

Although it is still disputable in literature, the question of requesting psychiatric consultation to which suicidal patient can be solved with simple scoring solutions that can be applied in the emergency service. With our scoring system, it is possible both to decrease the number of emergency psychiatric consultations and to decrease the time patients wait in the emergency room and thus to provide more cost-effective use of beds.

Source of Finance

During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.

Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

All authors contributed equally while this study preparing.

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