Araştırma Makalesi/Research Article

Hospitalizasyon Durumu ve Psikiyatri Konsültasyonunun Tekrarlayan Suisid Girişimi Üzerinde Etkisi

Hospitalization Characteristics and Physiciatric Consultations Status Associated with Post-discharge Suicide Reattempt; Retrospective Observational Study

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ÖZET

GİRİŞ ve AMAÇ: *Çalışmamızda suisid girişimi sonrasında acil servise başvuran hastaların ilk müdahale sonrasında hospitalizasyon durumu ve acil şartlarda psikiyatri konsültasyonun 1 yıllık takip sonrasında tekrarlayan suisid girişimi üzerine etkilerinin tespiti amaçlanmıştır*

YÖNTEM ve GEREÇLER: *Retrospektif gözlemsel çalışma 3.basamak Eğitim ve Araştırma Hastanesi Acil Tıp Kliniğine 1 Ocak-31 Aralık 2010 tarihleri arasında suisid girişimi sonrasında başvuran hastalar etik kurul onayı alınarak dahil edilmiştir. Hastaların demografik verileri, psikiyatri konsültasyon durumu ve tedavi son durumu hastane arşiv kayıtlarından ulaşılarak kayıt edildi. Hastalar başvuru sonrasında 1 yıllık gözlem sonrasında 1 Ocak 2011-31 Aralık 2011 tarihleri arasında hastane tarafından alınan iletişim numaralarından aranılarak taburculuk sonrasında 1 yıllık süreçte tekrarlayan suisid girişimi ya da düşüncesinin olup olmadığı, psikiyatri poliklinik kontrolüne gitme durumları kayıt altına alındı.*

BULGULAR: *1 yıllık dönemde suisid girişimi sonrasın başvuran 278 hasta (%0.28) çalışmaya dahil edildi. 133 hastadan (%57,8) psikiyatri konsültasyonu istendi. Psikiyatri konsültasyonu istenmeyen hastalarda konsültasyon istenen hastalara oranla tekrarlayan suisid girişimi üzerinde 5,21 kat daha fazla risk artışı tespit edildi. Psikiyatrik hastalık özgeçmişi olan hastalarda olmayan hastalara oranla istatistiksel olarak anlamlı olarak artan suisidal grişim gözlendi. (p=0,014) Müdahale sonrasında yoğun bakıma yatırılan ya da tedavi bitmeden kendi isteği ile taburcu olan hastalarda diğer hastalara oranla artmış oranda suisidal girişim düşüncesi mevcuttu. (p=0,007) Kendi isteği ile taburcu olan hastalarda hastaneye takip amaçlı yatırılan hastalara oranla 3,96 kat daha fazla artmış suisidal girişim riski ayrıca tedavi sonrasında taburcu edilen hastalarda hastaneye yatırılan hastalara oranla 0,96 daha fazla tekrarlayan suisidal girişim riski tespit edildi. Yoğun bakıma yatırılan hastalarda servise yatış verilen hastalara oranla 4,64 kat daha fazla tekralayan suisid grişim riski gözlendi.*

TARTIŞMA ve SONUÇ: *Çalışma sonuçlarına göre suisid girişimi sonrasında acil servise başvuran hastalardan rutin olarak psikiyatri konsültasyonu istenmesinin uygun olduğunu, hastaların özellikle acil servislerde kendi isteği ile taburcu olmalarını engelleyici önlemlerin alınması gerektiği ve taburculuk sonrasında psikiyatri poliklinik kontrolüne gitme durumlarının takibinin yapılmasının sağlayacak program geliştirilmesinin uygun olacağını düşünmekteyiz.*

Anahtar Kelimeler: *suisid, psikiyatri konsultasyonu, acil servis*

ABSTRACT

INTRODUCTION: *The aim of this study is to investigate effects of hospitalization status after the treatment and requesting emergency psychiatric consultation on recurrent suicide attempts of the patients who admitted to emergency department, during one year of follow up period.*

METHODS: *This retrospective observational study is conducted in the emergency department of a Tertiary Research and Training hospital, on patients admitted due to suicide attempt, between January 1st and December 31-2010 after the ethics committee approval. Archival data were retrospectively screened for the study group and the file numbers of the patients were reached to communicate directly with them.*

RESULTS: *: 278 patients, 0.28% of total admissions, were admitted to the study. 133 patients (57.8%) were consulted psychiatrically. In the patients with the need for a psychiatry consultation, lack of psychiatric consultation was found to be associated with the 5,21 times increased risk for repeated suicide attempts after admission. The rate of suicide reattempts in patients with a history of psychiatric disorder was significantly higher (p=0.014). The patients who were discharged from the intensive care unit and the emergency room with their own request have a higher rate of suisidal thinking than the other patients (p=0,007). The risk of suisidal reattempts was 3,96 times higher in patients discharged upon their own requests than the hospitalized patients, also the risk of suisidal reattempts was 0,96 times higher in patients discharged upon healing than the hospitalized patients.Patients hospitalized in the intensive care unit had the risk of suisidal reattempts 4,64 times more than the patients hospitalized in other departments.*

DISCUSSION AND CONCLUSION: *Psychiatric consultation before discharging from the emergency departments routinely, and more effective psychiatric follow up of the patients after discharge may decrease recurrent suicide attempts. Preventive algorithm must be defined in order to not allow the patients with own request discharge.*

Keywords: *Suicide, psychiatry consultation, emergency department*

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INTRODUCTION

Patients presenting with suicide attempts or suicidal ideations are frequently seen in the emergency departments (ED). Determining whether the patients with suicidal ideations will put their thoughts into action or whether they are seriously determined to kill themselves are quite difficult for emergency service doctors (1). In previous studies (2,3), it has been shown that about 14,2% -19% of the patients admitted to the hospitals due to suicide attempts had ongoing suicide thoughts after being discharged from the hospital and about 6% to 10.8% of these patients have reattempted suicide within one year after the discharge.

Although there is clear evidence about management of patients after suicide attempts, deciding whether they should be hospitalized or discharged is controversial. Patients are usually hospitalized in relevant clinics or followed -up in intensive care unit due to possible metabolic effects at the end of treatment, and in some cases patients leave the hospital at their requests. Although reattempted suicide rate is not known in the patients who leaved at their own request, knowing whether these patients reattempted suicide rate may be enlightening in determining which strict measures should be taken in order to prevent patients to be discharged at their own request. In the literature, in a study investigating the effects of hospitalization on repeated suicide attempts are only included patients with psychiatric disorders but patients without a history of psychiatric illness were not included (4). In another study comparing hospitalization with directly discharging after the initial treatment no effective advantage of hospitalization has been showed (5).

Whether psychiatric consultation is always necessary in the care of suicide attempters is controversial. Although there are many different approaches in clinics the effect of psychiatric consultation in acute period on reattempts of suicide is not known. However, referral to psychiatric treatment following a suicide attempt will often depend on their being assessed by a member of a psychiatric service. (6)

The aim of this study is to investigate effects of hospitalization status and requesting emergency psychiatric consultation after the treatment in the ED on recurrent suicide attempts, during one year of follow up period.

MATERIALS AND METHODS

Design and Settings

This retrospective observational study is conducted in the emergency department of a Tertiary Research and Training hospital, on patients admitted due to suicide attempt, between January 1st and December 31-2010 after the ethics committee approval. The patients who did not agree to participate in the study, the ones who developed cardiopulmonary arrest on admission or during the follow up, and the ones who could not be reached during one-year follow-up and any lack of archival data were excluded. Informed consents of the patients were obtained before the study started.

Study protocol

The demographic data (age, sex, marital status, occupation) of the patients were recorded on archival data. The types of suicide attempts were classified as exposure to sharp object, jumping off, multiple drug intake, and using firearms. The hospitalization process after primary resuscitation is classified as hospitalization in relevant clinics, admission to the intensive care unit, transportation to other centers, discharge home, and leaving the hospital at their own request before the treatment completed. Psychiatric consultation requested before ending the treatment was also recorded from archival data. Any lack of missing data completed from telephone contact.

Patient's telephone numbers were recorded for communication on admission, they were called and queried for whether they admitted to psychiatry outpatient clinic for control, and presence of repeated suicide attempts or suicidal thoughts, during the one year follow up period between January 1 and December 31, 2011. The patients who could not be reached through their phone numbers or who died during the follow up period were excluded from the study.

Statistical Analysis

SPSS for Windows version 15.0 software was used for the statistical analysis. Quantitative variables were shown by mean ± standard deviation and qualitative variables were shown by numbers and percentages. Mann-Whitney U test was used to investigate the differences between the two groups in terms of numeric variables and chi-square test was used to investigate the difference between the qualitative variables. The differences between two groups in terms of quantitative variables were analyzed by using the Kruskal-Wallis test and the differences between the pre and post-treatment values of the quantitative variables were analyzed by using Wilcoxon test. Factors affecting the risk of suicidal reattempts after hospital admissions were analyzed by using stepwise binary logistic regression analysis. The relationships between quantitative variables were examined by Pearson's correlation coefficient. The level of significance was set at p≤0.05.

RESULTS

A total of 278 patients who admitted to the ED after suicide attempt during one year period were included in the study; 48 patients (% 17,2) were excluded from the study due to lack of contact information (%58,4) or unwillingness to participate in the study (%41,6). A total of 230 patients were included in the study; 75 (32.6%) patients were male and 155 (67.4%) were female and 2.6% of the female patients were pregnant. The study was completed with 224 patients, because 6 patients died in the ED. During the study period, a sum of 98,658 patients had admitted to the ED and the cases of suicide attempts constituted 0.28% of total admissions. Age, gender and marital status of the patients are shown in Table 1.

Table 1. Age and sex distribution of the patients and marital status

		n	%	Mean ± SD
Gender	Female	155	67,4	27,30±10,641
	Male	75	32,6	27,43 ±10,045
Age	<17	23	10,0	
	18-25	104	45,2	
	26-35	61	26,5	
	36-50	34	14,8	
	51-65	8	3,5	
Maritual Status	Bachelor	124	53,9	
	Divorced	21	9,1	
	Widower	8	3,5	
	Married	77	33,5	
Total		230	100,0	27,43±10,429

The types of suicide attempts were; taking drugs in 194 patients (84.4%), contact with a sharp object in 21 patients (9.1%), jumping off in 12 patients (5.2%), and with firearm in 3 patients (1.3%), respectively.

Regarding history of previous suicide attempts, 32 patients (13.9%) have had a prior suicide attempt. Sixty (26.8%) patients had suicidal ideation when they had been discharged and 20 (8.9%) of them reattempted suicide within one year after the discharge.

During the follow-up in the ED, 133 patients (57.8%) were consulted to the psychiatry clinic. The rate of reattempts of suicide were found to be increasing in the group of patients for whom psychiatry consultation was requested, but the difference was not statistically significant (p = 0.065) (The total number of patients is accepted as 224, because 6 patients died in the ED). Lack of psychiatric consultation was found to be associated with a 5.21 times increased risk for repeated suicide attempts after admission (Table 2).

Tablo 2. Results of the stepwise binary logistic regression analysis

Patient outcomes	Odds ratio (95% confidence interval)	p
Discharge by own request vs hospitalization	3,96 (0,38 – 41,10)	0,249
Discharge vs hospitalization	0,68 (0,06 – 7,40)	0,751
Intensive care unit hospitalization vs hospitalization	4,64 (0,47 – 45,63)	0,188
History of pyschiatric disease	5,52 (1,74 – 17,49)	0,004*
Lack of psychiatric consultation	5,21 (1,55 – 17,54)	0,008*

A history of psychiatric disease was present in 83 (63.9%) patients; in this group 25 (30.1%) patients had a history of a prior suicide attempt. Among the patients without a history of psychiatric disease, only 7 (4.8%) had a history of a prior suicide attempt. The rate of prior suicide attempts was significantly higher in patients with a history of psychiatric disease than in patients without a history of psychiatric disease (p<0.001).

The presence of a known psychiatric disease also increased the risk of suicidal reattempts after hospital admission 5,52 times more (Table 2). Among the patients with a known history of psychiatric disease, 13 patients (16.7%) reattempted suicide after discharge while only 7 patients (4.8%) reattempted suicide among the patients without a history of psychiatric disease. The rate of suicide reattempts in patients with a known history of psychiatric disease was significantly higher (p=0.004).

Regarding the final status of the patients, 127 (55.2%) patients were discharged from the ED upon healing, 14 (6.1%) patients were hospitalized in the intensive care unit, 26 (11.3%) patients were hospitalized in relevant clinics, 42 (%18,2) patients were discharged at their requests and 15 patients (%6,5) were transferred to external centers due to the lack of beds in the intensive care unit. (Table 3)

Table 3. Effect of final status of the patients with suicidal thoughts afterdischarge

Final Status		Suicide Reattemp		Suicidal ideations		Total
		No	**Yes**	**No**	**Yes**	
Hospitalization	n	25	1	20	6	26
	%	96,2%	3,8%	77%	23%	100,0%
Discharged home upon own request	n	35	7	21	21	42
	%	83,3%	16,7%	50%	50%	100,0%
Discharged Home	n	121	6	109	18	127
	%	95,2%	4,8%	85,8%	14,2%	100,0%
Referred to external centers	n	13	2	7	6	15
	%	86,6%	13,4%	46,6%	53,4%	100,0%
Hospitalized in intensive care unit	n	5	9	10	4	14
	%	35,7%	64,3%	71,4%	28,6%	100,0%
Total	n	199	25	169	55	224
	%	88,8%	11,2%	75,4%	14,6%	100,0

Suicidal ideations were significantly higher in patients hospitalized in the intensive care unit or those who were transferred to external centers, and who were discharged upon their own requests when compared to the other patients (p<0.001). The rate of suicidal reattempts was also statistically significantly higher in patients hospitalized in the intensive care unit or those who were discharged at their own requests when compared to the other patients (p<0.004) The risk of suicidal reattempts was 3,96 times higher in patients who were discharged upon their own requests than in patients who were hospitalized. In addition, the risk of reattempts suicide was 0,96 times higher in patients who were discharged upon healing than those who were hospitalized. The patients who were hospitalized in the intensive care unit had a risk of suicidal reattempts 4,64 times more than the patients who were hospitalized in other clinics (Table 2).

Among the 117 patients (47%) who had not admitted to outpatient psychiatry clinics for control after discharge, 55 patients (47%) had ongoing suicidal ideations. Suicidal ideations were significantly higher in the patients who had not admitted to outpatient psychiatry clinic, when compared to the patients who admitted to the outpatient psychiatry clinic after discharge (p<0.001). Among the patients who had not admitted to the outpatient psychiatry clinic for control after

discharge, 18 patients (15.3%) reattempted suicide, whereas only 2 (1.8%) patients who admitted to the outpatient psychiatry clinic reattempted suicide. This difference was statistically significant ($p<0.001$).

DISCUSSION

In our study, we found that young age, female gender, and unmarried status are effective factors on suicide attempts. Being discharged at patient's own request, admission to ICU, lack of psychiatric consultation before discharge, and lack of admission to a psychiatric clinic for control are considered to be independent risk factors for recurrent suicide attempts or suicidal ideations.

Suicide is one of the leading causes of death worldwide and a major public health problem. In the literature, young age and being a woman have been reported among the risk factors for suicide, due to the nature of suicide (7). In the study of Serinken at al. (8), 71% of 257 cases of suicide were female and 88.7% of the cases were between 17-40 years of age. In our study, consistent with the literature, the number of female patients was twice as many as the number of males and 45.2% of the patients were between 18-25 years of age. Demographic characteristics such as being unmarried, low education level and unemployment have been reported to be independent risk factors for suicidal attempts in many studies. In the literature, although the marital status of the patients attempting suicide vary, living alone is reported to be a greater risk factor for suicide (9)

In the literature, there is no clear consensus related to the decision of hospitalization of the patients after treatment. In our study, we found that the patients who were discharged at their own request reattempted suicide 3,96 times more than the patients whose treatment were completed. Patients may usually reject the treatment under the affection of their psychological state and requesting to be discharged from the emergency department before their treatment completed; reattempts of suicide can be seen in the early period due to their continuing psychological state.

Herng-Ching Lin at al. (4) in their study with 425 patients found that the adjusted hazard for reattempting suicide for patients who have been discharged at their own request to be 2.85 times (95% CI=1.387–5.856, $p=0.004$) greater than for those who have been discharged after the treatment was completed. Similarly, Brook at al. reported worse outcomes, such as higher rates of mortality and reattempts of suicide in patients who had been discharged at their own request (10). Chandrasena and Miller pointed out that patients, who accept hospitalization in order to deal with an immediate stressor, might request immediate discharge after the stressing situation disappeared; though this discharge seemed premature to the psychiatrist. (11) Hospitalization is recommended for adolescents who have attempted suicide and cannot be adequately monitored and kept safe outside of an inpatient setting. Discharge can be considered for a subset of adolescents with suicidal thoughts, if urgent follow up for mental health and adequate supervising and protection can be ensured. Adolescents should not be discharged to an outpatient setting unless follow-up is arranged for additional evaluation and treatment. (12)

In our study, unlike other studies, we found that the patients who were hospitalized in the intensive care unit reattempted suicide 4.64 times more when compared to the patients who were hospitalized in other clinics. This situation suggests that ICU is an additional source of stress as well as these patient's higher determination and presence of underlying psychological diseases which could be effective in repeated suicide attempts.

It is often not possible to differentiate that the suicide attempts of the patients is impulsive or determined. Although different algorithms of approaches are accepted by various clinics there is no consensus regarding the request of psychiatric consultation in emergency conditions. In the clinics, where the number of the patients is higher, the patients can be referred to outpatient psychiatry clinics, but whether these patients admitted to psychiatry clinic can not be followed. Herng-Ching Lin showed that the repeated suicide attempt time from discharge was 29.9 (±26.0) days and the overwhelming majority of deaths occurred after 30

days of leaving the hospital. (4) The results indicating that patients reattempt to suicide in the early period suggest that psychiatric evaluation could be effective in the acute period. Our results indicate that recurring suicide rates are higher in patients who weren't referred to psychiatry clinic. Similarly it has been shown in other studies that psychiatric consultation appears to have a positive effect on the outcome of suicide attempters (13,14). Suominen at al. reported that about half (56%) of the suicide attempters received psychiatric consultation during their study period. Although the characteristics of a patient attempting suicide play a determining role in deciding whether psychiatric consultation is required, their findings suggest that clinical practices of the hospital where suicide attempters are treated play a more decisive role in subsequent referral to psychiatric consultation, than the attempter's characteristics. (6) In patients admitting ED due to recurrent suicide attempts psychiatric intervention is important in preventing suicide.

Limitations

In our study, the lack of information about the actual condition of the patients whose follow up is ended, exclusion of the data of the patients who died during follow up, in ability to consider the other effects on recurrent attempts of suicide, the limited number of the cases are limitations of the study. In addition we think that gathering data only by oral conversation by telephone may shroud the possibility of recurrent suicide attempts.

Conclusion

Depending on the results of this observational retrospective study indicating that the patients who were discharged at their own request reattempted suicide more than those whose treatment was completed.We suggest that making necessary arrangements in hospitals to hospitalize these patients, requesting routinely psychiatric consultation before discharging from the emergency departments, and more effective psychiatric follow up of the patients after discharge may decrease recurrent suicide attempts.

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