DOI: 10.5455/jmood.20130909122703

The Effects of The Presence of a Psychiatric Outpatient Clinic in a District on Suicides

Abdullah Akpinar[1], Hüseyin Yumrukcal[2], Erman Bagcioglu[3], Umut Mert Aksoy[4]

ÖZET:
Bir ilçedeki psikiyatri polikliniğinin varlığının intiharlar üzerine etkileri

Amaç: Bu çalışmada bir ilçede yeni kurulmuş bir psikiyatri polikliniğinin intiharlar üzerine etkili olup olmadığını saptamak amaçlanmıştır.
Yöntem: Bu ilçe hastanesinde Eylül 2009 tarihinden önce psikiyatrist bulunmamaktaydı. Bu tarihte psikiyatri polikliniği açıldı ve hasta kabulune başlandı. Bu çalışmada psikiyatri polikliniği öncesi bir yıl ve psikiyatri polikliniği birinci yılındaki intihar sıklığı ve ilişkili etmenler karşılaştırılmaktadır.
Bulgular: Psikiyatri polikliniği öncesindeki bir yılda 115 (%54) ve psikiyatri polikliniği sonrası bir yılda 98 (%46) intihar vakası saptanmıştır ve istatistiksel olarak sınırda önemliliğe sahiptir (p=0.084). Psikiyatri polikliniği öncesi ve sonrası bir yıldaki intiharlar; yaş, cinsiyet, medeni durum, eğitim durumu ve çalışma durumu açısından benzerdi. Psikiyatri polikliniğinin ilk yılında tekrarlayan intihar teşebbüsleri olan ilk intihar teşebbüsleri olanlara göre istatistiksel olarak daha yüksek oranda psikiyatri polikliniğe başvurdular (p= 0.036). İki yıl süresindeki intihar teşebbüsü ardından psikiyatri polikliniğine başvurular toplamda %19.3 (n=41) oranında saptanmıştır. Bunlardan %36'sı sadece bir defa ve %64'ünün de tekrarlayan başvurularda bulunduğu saptandı. Psikiyatri polikliniğine başvuran bu 41 intihar vakasından 4'ünde (%9.8) psikiyatri polikliniğinin ilk yılında tekrarlayan intihar girişimleri olduğu saptanmıştır.
Sonuç: Psikiyatri polikliniğinin varlığı intihar girişimlerini önlemede koruyucu bir etmen olabilir. Konunun çok boyutlu doğası gereği intihar girişimlerini önlemede çok disiplinli çalışma ekibi gereklidir.

Anahtar sözcükler: intihar, psikiyatri, psikiyatrist, psikiyatri polikliniği

Journal of Mood Disorders 2013;3(4):150-5

ABSTRACT:
The effects of the presence of a psychiatric outpatient clinic in a district on suicides

Objective: We aimed to determine whether having a newly served psychiatric outpatient clinic has a significant effect in a district on has or not effect on suicides.
Method: There had never been a psychiatrist in the district hospital before September 2009, at which date the outpatient psychiatry clinic opened and began accepting patients. We compared the frequency of suicides and related factors in the first year before and after opening of psychiatric outpatient clinic.
Results: Of all suicides 115 (54%) and 98 (46%) were admitted within the first year before and after the opening of the psychiatry outpatient clinic, respectively which was statistically marginal significant (p=0.084). The age, gender, marital, educational and working status of the suicide attempters were similar before and after opening of psychiatric outpatient clinic. Among the people who attended to outpatient psychiatry clinic after the suicide, the repeated of suicide attempts were significantly higher than the single suicide attempts (p= 0.036). 19.3% (n=41) of all suicide attempts attended to the outpatient psychiatry clinic both two years. 36% of these patients attended only once, while 64% has attended regularly. Of the 41 total suicide attempters who attended the psychiatry outpatient clinic for suicide, 4 (9.8%) have repeated suicide attempt within a year after opening of outpatient psychiatry clinic.
Conclusions: The presence of a psychiatry oupatient clinic may a protective factor in terms of suicide attempts. A multidisciplinary study team to prevent suicide attempts is needed, as dictated by the multidimensional nature of the issue.

Key words: suicide, psychiatry, psychiatrist, outpatient psychiatry clinic

Journal of Mood Disorders 2013;3(4):150-5

[1]Assistant Professor, Department of Psychiatry, Süleyman Demirel University School of Medicine, Isparta-Turkey
[2]Physician in Psychiatry, Erzincan University Mengucek Gazi Education and Research Hospital, Erzincan-Turkey
[3]Assistant Professor, Department of Psychiatry, Kocatepe University School of Medicine, Afyon-Turkey
[4]Physician in Psychiatry, Bakirkoy Teaching and Research Hospital, Istanbul-Turkey

Yazışma Adresi / Address reprint requests to:
Abdullah Akpınar, MD,
Süleyman Demirel Üniversitesi, Araştırma ve Uygulama Hastanesi, Çünür, Isparta-Türkiye

Telefon / Phone: +90-246-211-2000

Elektronik posta adresi / E-mail address:
abdakpinar@hotmail.com

Kabul tarihi / Date of acceptance:
09 Eylül 2013 / September 09, 2013

Bağıntı beyanı:
A.A., H.Y., E.B., U.M.A.: Yazarlar bu makale ile ilgili olarak herhangi bir çıkar çatışması bildirmemiştir.

Declaration of interest:
A.A., H.Y., E.B., U.M.A.: The authors reported no conflict of interest related to this article.

INTRODUCTION

Suicide is a worldwide significant public health problem, causing high costs and suffering, for both the individual and the family and society (1). Suicide risk is higher for individuals who have experienced significant personal, academic, vocational or financial problems who have maladaptive coping skills who have become dependent on others, or have lost social or familial roles (2-3). Psychiatric disorders and specific psychiatric symptoms have been related with increased suicide risk (4-6). Therefore, suicide prevention has to be

comprehensive, multidisciplinary and involves in different aspects of life as well as different sectors of society (1-7). Focusing on the management of specific diseases (e.g. depression) is need to suicide prevention strategies. A sound suicide prevention strategy should definitely take comorbidity into consideration and include the treatment of at least schizophrenia, depression and alcohol-related disorders as its major components. To this end, increasing public awareness about the treatment of psychiatric illnesses relevant to suicide, contact with mental health services and psychiatric in-patient care and integrating the management and improved treatment effectiveness of these illnesses are equally important (6).

This research was carried out in a district area with a single hospital. There had never been a psychiatrist in the district hospital before September 2009, at which date the outpatient psychiatry clinic opened and began accepting. We aimed to determine whether having a newly served psychiatric outpatient clinic has a significant effect of suicides in a district. We compared the frequency of suicide rates and related factors in the first year before and after opening of psychiatric outpatient clinic. We also aimed to determine the rates of attended to this outpatient clinic in one year.

METHODS

Sample, Local Information and Measures:

The district has a population of 82.621 as of 2010 (8). There is only one hospital in the whole district. The Hospital's Emergency Department is open for 24 hours every day. All the emergency medical doctors were general practitioners. The main gateway to immediate treatment after a suicide attempt is the emergency department. There had never been a psychiatrist in the hospital before September 2009, at which date the outpatient psychiatry clinic opened and began accepting patients. No relevant professional personnel (psychologist, social worker) were available in the following two years. This study's datas were retrospectively obtained. Institutional board approved the study protocol. The emergency deparment and the outpatient clinic records were analyzed in this study. The frequency of attempted suicides per month were recorded. Distribution by age and gender groups, distibution by marital, educational and occupational status method of suicide attempt, and the number of previous attempts were also recorded. History of the psychiatric evaluation and intervention at the psychiatry outpatient clinic for each suicide attempter was noted as well. The number of repeated suicides in one year was determined. We compared the attempted suicide rates and related factors (emergency admissions) in the first year before (September 2008- August 2009) and after (September 2009- August 2010) opening of psychiatric outpatient clinic.

Statistical Analysis

SPSS (13.0 version) for Windows and Minitab Program were used for the statistical analyses of data. Continuous variables were presented as mean (standard deviatinon [SD]). The distribution of numerical variables was analyzed separately in each group to establish parametric student t-test. We performed chi-square tests to compare categorical variables. Suicide rates (frequency of attempted suicides) for before and after psychiatry outpatient clinic were compared by two proportions test.

RESULTS

Of all attempted suicides between September 2008 and August 2010, the total number of suicides was 213 in two years. 54% (n=115) were admitted within the first year before the opening of the psychiatry outpatient clinic

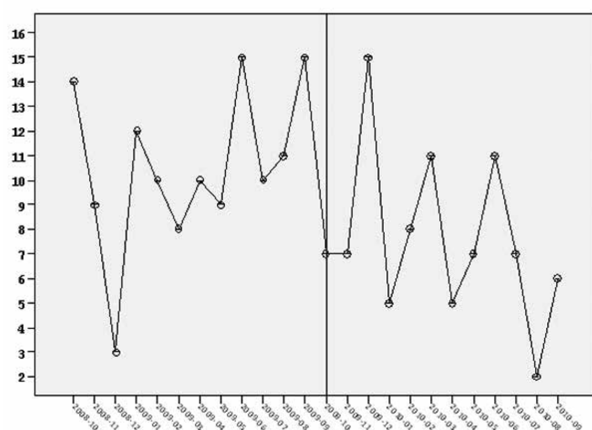

Figure 1: The frequency of attempted suicide before/after Psychiatry Outpatient Clinic

Table 1: Socio-demographic data, before and after the opening of the psychiatry outpatient clinic

	Total (n=213)		Before (n=115)		After (n=98)		p
	%	n	%	n	%	n	
Age	22.9±8.2		22.6±7.9		23.1±8.4		0.60
Teenage group	48	104	50	58	46	46	0.60
Gender							
Women	79	168	77	89	82	18	0.37
Men	21	45	23	26	80	18	
Marital Status							
Single	58	124	58	68	59	58	0.42
Married	36	77	38	44	32	31	
Divorced	6	12	4	5	9	9	
Education Status							
Uneducated	36	77	3	4	2	3	0.99
Primary school	56	119	57	66	55	56	
High school	36	77	35	40	35	36	
University	5	11	5	5	6	6	
Working Status							
Unemployed	24	52	23	26	25	24	0.62
Housewife	25	54	25	28	24	23	
Workmen	11	23	15	17	7	7	
Student	34	72	31	35	37	37	
Other	6	12	6	7	7	7	

Before; before the opening of the psychiatry outpatient clinic
After; after the opening of the psychiatry outpatient clinic.

(between September 2008 and August 2009), while 46% (n=98) were admitted in the second year of that period (between September 2009 and August 2010), namely the first year of the psychiatry outpatient clinic. There was an 8% (n=17) differences was determined between the two "one-year periods" in terms of suicide, which was marginally significant (p=0.084). The distribution of suicide attempts by month is shown in (Figure 1).

The mean age of all suicide attempters was 22.9±8.2 years (12-48). The mean age of the cases for one-year period prior and after the opening of the outpatient psychiatry clinic were 22.6±7.9 and 23.1±8.4 years respectively. There was no statistically differences between these groups (p=0.60) (Table 1).

Of those 104 (49.7%) were teenagers (ages of 12-19). The percentage of the teenage cases for one-year period prior and after the opening of the outpatient psychiatry clinic were 50.4% (n=58) and 46.9% (n=49) respectively. There was no statistically difference between these groups (p=0.60) (Table 1).

79% (n=165) of all suicide attempters were female and 21% (n=44) were male; 58% (n=124) were single, 36% (n=77) were married and 6% (n=12) were divorced or widowed; 36% (n=77) were uneducated, 56% (n=119) had finished primary school, 36% (n=77) had high school degree and 5% (n=11) were college graduates; 24% (n=52) were unemployed, 25% (n=54) were housewives, 11% (n=23) were workers, 34% (n=72) were students and 6% (n=12) had other occupations (Table 1). There was no statistically difference between groups.

There were 115 cases of attempted suicide in the one-year period, prior to the opening of the outpatient psychiatry clinic. When the outpatient psychiatry clinic opened, only 21% (n=24) of these 115 suicide attempters attended outpatient psychiatry clinic in one year. There were 98 cases of attempted suicide during the first year of the outpatient psychiatry clinic. 18% (n=17) of these 98 suicide attempters attended to the outpatient psychiatry clinic after opening. There was no statistically difference between these groups (p= 0.6). Thus, 19.3% (n=41) of all suicide attempters attended to the outpatient psychiatry clinic. 36% (n=15) of these suicide attempters attended only once, while 64% (n=26) has attended regularly (Table 2).

24 patients had attempted suicide in the first year of the study and visited the psychiatry clinic in the second year (i.e. the first year of the psychiatry clinic). 4.2% (n=1) of these patients and 17.7% (n=3) of the 17 patients who

Table 2: Attended Psychiatry Outpatient Clinic and suicide within a year after opening of outpatient psychiatry clinic

	Total (n=213)		Before (n=115)		After (n=98)		p
	%	n	%	n	%	n	
Attended Psychiatry Outpatient Clinic by suicide attempters	19.3	41	21	24	18	17	0.60

Before; before the opening of the psychiatry outpatient clinic
After; after the opening of the psychiatry outpatient clinic

Table 3: Attended Psychiatry Outpatient Clinic by suicide attempters only ones or repetition

	Total (n=213)		Once (n=147)		Recurrent (n=66)		p
	%	n	%	n	%	n	
Attended Psychiatry Outpatient Clinic by suicide attempters	19.3	41	15	22	29	19	0.036

Once; the first suicide by attempters
Recurrent: more than one suicide by attempters

attempted suicide and visited the psychiatry clinic during its first year, attempted suicide again during the second year of the study period. There was no statistically difference between these groups (p=0.16). Of the 41 total suicide attempters who attended the psychiatry outpatient clinic for suicide, 9.8% (n=4) have attempted suicide within a year after opening of outpatient psychiatry clinic.

69% (n=147) of all suicide attempters, attempted suicide once; while 31% (n=66) had repeated suicide attempts. Of the 41 total suicide attempters who attended the psychiatry outpatient clinic for suicide 54% (n=22) of attempted suicide once; while 46% (n=19) had repeated suicide attempts. Among the people attended to outpatient psychiatry clinic after the suicide, the ratio of repeated and once suicide attempts were 29% (n=19/66) and 15% (n=22/147) respectively. There was a statistically difference for groups (p= 0.036) (Table 3).

97.2% (n=207) of the patients had overdosed on prescribed drugs and 2.8% (n=6) had employed other methods (eg. wrist cutting, hanging, drowning in the sea).

DISCUSSION

The multidimensional nature of suicide prevention is obvious, however only one dimension of the issue is discussed in this study (i.e. presence of a psychiatry clinic and a psychiatry specialist). Our reference was a newly served psychiatry outpatient clinic of 2009. Our results showed that 54% of the cases had attempted suicide in the one-year period prior to the opening of psychiatry outpatient clinic and 46% of the cases had attempted suicide in the one-year period after begining of the outpatient psychiatric clinic. The number of suicides (17 cases/year) decreased by 8% in one-year period beginning with the opening of the psychiatric outpatient clinic which was marginally significant (p=0.084). Decreasing in the rate of attempted suicides indicated that the presence of the psychiatric outpatient clinic may a protective factor for suicide attempts. According to some researchers, up to 98% of patients who committed suicide might suffer from at least one major psychiatric disorder (9-11).

Recognizing and treating psychiatric disorders has special importance. The most frequently reported suicide motive was the situation was so unbearable that suicide attempters could not think of any other alternative. Presence of a psychiatry clinic in the district can allows patients to seek treatment of psychiatric disorders and stimulate patients to learn to cope with unbearable psychological pains such as guilt, defeat, loneliness, hopelessness, frustrated love (12-13). It is also observed that presence of a psychiatrist (by itself) did not only provide a sufficient solution to the problem. A commision to prevent suicide is needed, as dictated by the multidimensional nature of the issue.

Repetition is one of the core characteristics of suicidal behaviour (14). In this study; among the people attended to the psychiatry clinic for suicide, the ratio of repeated

and single suicide attempts were 29% and 15% respectively and there was a significant difference between the two groups. In most centers, attempted suicide patients who made one or more prior attempts before the index suicide attempt (repeaters) were more often recommended aftercare, compared to those who had never made an attempt prior to the index attempt (first evers) (15-16). These results may show that emergency physicians or patients and relatives take into account when suicide is repeated and suicide attempters can attend to the outpatient psychiatry clinic.

The mean age, gender, marital, educational and occupational statues of the suicide attempters were similar for both years in the study. It was seemed whether having a psychiatric outpatient clinic has not a significant effect of suicides of basic sociodemografic factors.

Further 49.7% of all suicides were committed by teenagers. The percentages of the teenage cases for both years were similar. Due to this high rate of teenage of suicide rate, suicide prevention for teenage group has to be more comprehensive, multidisciplinary and involve different aspects of life as well as different sectors of society, and national strategies and policies should be developed (17,18). Also emergency physicians who are increasingly given the responsibility of triaging adolescents with mental health problems to crisis intervention and appropriate follow-up treatments.

It was anticipated that the presence of a psychiatry clinic at the hospital could encourage the emergency care physicians to be more attentive about suicide cases and consequently refer more patients to psychiatry. Despite that, the percentage of visited the outpatient psychiatry clinic for one-year period prior and after the opening of the clinic groups were 21% and 18% respectively and there were similar between groups in this study. Suicide prevention is of particular relevance for emergency physicians (19, 20). Unrecognized suicidality in the emergency department is associated with substantial morbidity, mortality and increased healthcare utilization (21, 22). There is no way to predict which individuals are going to commit suicide, but suicide attempt is one of the most important predictor for repetition in the future (23-25). Emergency physicians are responsible for determining the short-term procedures to reduce the risk of suicide, including referring the patient to a psychiatry outpatient clinic or consulting for a possible decision of psychiatric hospitalization.

In this study 19.2% of all suicide attempters attended to our outpatient clinic during the first year. 36% of these attended only once, while 64% of them attended regularly. We know that having a history of suicide attempt is one of the strongest predictors of repetition in the future (24, 25). From 30% to 60% of suicide attempters had made suicide attempts previous to the index attempt (26). Therefore, it is important to provide adequate aftercare, directly following a suicide attempt, in order to reduce the risk of repetition. The types of aftercare include inpatient or outpatient psychiatric care with a psychiatrist, pscyhologist or supportive contact for both the individual and non-psychologic care, for example, with a school counsellor, social wellfare officer or a general practitioner (15).

In conclusions, presence of psychiatry oupatient clinic might be a protective factor in terms of suicide attempts. It is also observed that presence of a psychiatrist (by itself) does not provide a sufficient solution of the problem. A commision to prevent suicide is needed, as dictated by the multidimensional nature of the issue.

References:

1. De Leo D,Brahe UB, Kerkhof AD, Schmidtke A. Suicidal Behaviour, Theories and research findings. Hogrefe-Huber 2004; p:3-4.
2. Phillips MR, Yang G, Zhang Y, Wang L, Ji H, Zhou M. Risk factors for suicide in China: a national case-control psychological autopsy study. Lancet. 2002;360:1728-36.
3. Johnson JG, Cohen P, Gould MS, Kasen S, Brown J, Brook JS. Childhood adversities, interpersonal difficulties, and risk for suicide attempts during late adolescence and early adulthood. Arch Gen Psychiatry. 2002;59:741-9.
4. Bertolote JM, Fleischmann A, De Leo D, Wasserman D. Psychiatric diagnoses and suicide: revisiting the evidence. Crisis. 2004;25:147-55.
5. Cheng ATA, Chen THH, Chen CC, Jenkins R. Psychosocial and psychiatric risk factors for suicide. Br J Psychiatry. 2000;177:360-5.
6. Bertolote J, Fleischmann A, De Leo D, Wassserman D. Suicide and mental disorders: do we know enough? Br J Psychiatry. 2003;183:382-3.

7. Palmieri G, Forghieri M, Ferrari S, Pingani L, Coppola P, Colombini N, Rigatelli M, Neimeyer RA. Suicide intervention skills in health professionals: a multidisciplinary comparison. Arch Suicide Res. 2008;12:232-7.

8. Information About to Terme: avaliable: http:// www. Terme.bel.tr/ilce_tanitim.asp Accessed 20 November 2012.

9. Suominen K, Henrikson M, Suokas J, Isometsa E, Ostamo A, Lönnqvist J. Mental disorders and comorbidity in attempted suicide. Acta Psychiatr Scand. 1996;94:234-40.

10. J, Bitter I, Lecrubier Y, Csiszer N, Ostorharics G. Prevalence of subthreshold forms of psychiatric disorders in persons making suicide attempts in Hungary. Eur Psychiatry. 2000;15:354-61.

11. Baxter AJ, Charlson FJ, Somerville AJ, Whiteford HA. Mental disorders as risk factors: assessing the evidence for the global burden of disease study. BMC Med. 2011;9:134.

12. Shneidman ES. Perspectives on suicidology. Further reflections on suicide and psychache. Suicide Life Threat Behav. 1998;28:245-50.

13. Shneidman ES. Suicide as psychache. J Nerv Ment Dis. 1993;181:145-7.

14. Scoliers G, Portzky G, Van Heeringen K, Audenaert K. Sociodemographic and psychopathological risk factors for repetition of attempted suicide: a 5-year follow-up study. Arch Suicide Res. 2009;13:201-13.

15. Hulten A, Wasserman D, Hawton K, Jiang GX, Salander-Renberg E, Schmidtke A, Bille-Brahe U, Bjerke T, Kerkhkof A, Michel K, Querejeta I. Recommended care for young people (15-19 years) after suicide attempts in certain European countries. Eur Child Adolesc Psychiatry. 2000;9:100-8.

16. Bille-Brahe U, Kerkhof A, De Leo D, Schmidtke A, Crepet P, Lonnqvist J, Michel K, Salander-Renberg E, Stiles TC, Wasserman D, Aagaard B, Egebo H, Jensen B. A repetition-prediction study of European parasicide populations: a summary of the first report from part II of the WHO/EURO Multicentre Study on Parasuicide in co-operation with the EC concerted action on attempted suicide. Acta Psychiatr Scand. 1997;95:81-6.

17. Coskun M, Zoroglu S, Ghaziuddin N. Suicide rates among Turkish and American youth: a cross-cultural comparison. Arch Suicide Res. 2012;16:59-72.

18. Yasan A, Danis R, Tamam L, Ozmen S, Ozkan M. Socio-cultural features and sex profile of the individuals with serious suicide attempts in southeastern Turkey: a one-year survey. Suicide Life Threat Behav. 2008;38:467-80.

19. Johnson RM, Frank EM, Cİocca M, Barber CW. Training mental healthcare providers to reduce at-risk patients' access to lethal means of suicide: evaluation of the CALM Project. Arch Suicide Res. 2011;15:259-64.

20. Palmieri G, Forghieri M, Ferrari S, Pingani L, Coppola P, Colombini N, Rigatelli M, Neimeye RA. Suicide intervention skills in health professionals: a multidisciplinary comparison. Arch Suicide Res. 2008;12:232-7.

21. Rhodes AE, Bethell J. Suicidal ideators without major depression-whom are we not reaching. Can J Psychiatry. 2008;53:125-30.

22. Spirito A, Valeri S, Boergers J, Donaldson D. Predictors of continued suicidal behavior in adolescents following a suicide attempt. J Clin Child Adolesc Psychol. 2003;32:284-9.

23. Kutcher S, Chehil S. Suicide Risk Management, A Manual for Health Professionals. Blackwell Publishing 2007 p:1-73.

24. Bertolote JM, Mello-Santos C, Botega NJ. Detecting suicide risk at psychiatric emergency services. Rev Bras Psiquiatr. 2010;32:87-95.

25. Bridge S. Suicide prevention–targeting the patient at risk. Aust Fam Physician. 2006; 35:335-8.

26. Sakinoski I. Repetition of Suicidal Behaviour. In K. Hawton, K.Van Heeringen (Eds), The international handbook of suicide and attempted suicide. Chichester: Wiley. 2000 p.385-404.