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

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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 ilçede hastanesinde Eylül 2009 tarihinden önce psikiyatrinin bulunmamaktaydı. Bu tarihte psikiyatri polikliniğinin açılışına bir yıl ve psikiyatri polikliniğinin birinci yılında intihar sıkılığı ve ilişkili etmenler karşılaştırılmaktadır.

BULGULAR: Psikiyatri polikliniğinin açılışındaki bir yılda 115 (%54%) ve psikiyatri polikliniğinin sonrası bir yılda 98 (%46%) intihar vakası saptanmıştır ve istatistiksel olarak sınırda önemlilige sahiptir (p=0.084). Psikiyatri polikliniğinin açılışına bir yıl ve sonrası bir yıllık intiharlar; yaş, cinsiyet, medeni durum, eğitim durumu ve çalışma durumu açısından benzerdir. Psikiyatri polikliniğinin ilk yılında teklerləyan intihar teşebbüsüleri olan ilk intihar teşebbüsüleri olanlara göre istatistiksel olarak daha yüksek oranında psikiyatri polikliniğine başvurular (p=0.036). İlk yıl sırasındaki intihar teşebbüsü arımdan psikiyatri polikliniğine başvurular toplamda %19.3 (n=41) oranında saptanmıştır. Bunlardan %36’sı sadece bir defa ve %64’unun de tekrarlayan teşebbüslarda bulunduğunu saptanmıştır. Psikiyatri polikliniğine başvurulan 41 intihar vakasından %41’inde (%9.8) psikiyatri polikliniğinin ilk yılında teklerləyan intihar girişimleri olduğu saptanmıştır.

SONUÇ: Psikiyatri polikliniğinin varlığı intihar girişimlerini önlemede koruyucu bir etmen olabilir. Konunun çok boylu olduğu intihar girişimleri önlemede çok disiplinli çalışma ekbir gerektirildi.

Anahtar sözcükler: intihar, psikiyatri, psikiyatrist, psikiyatri polikliniği


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 department 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, distribution 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 deviation [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.
The effects of the presence of a psychiatric outpatient clinic in a district on suicides (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 after opening. There was no statistically difference between groups.

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

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

Before; before the opening of the psychiatry outpatient clinic
After; after the opening of the psychiatry outpatient clinic.
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=22/147) 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).

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

<table>
<thead>
<tr>
<th>Total (n=213)</th>
<th>Before (n=115)</th>
<th>After (n=98)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attended Psychiatry Outpatient Clinic by suicide attempters</td>
<td>19.3 41</td>
<td>21 24</td>
<td>18 17</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Total (n=213)</th>
<th>Once (n=147)</th>
<th>Recurrent (n=66)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attended Psychiatry Outpatient Clinic by suicide attempters</td>
<td>19.3 41</td>
<td>15 22</td>
<td>29 19</td>
</tr>
</tbody>
</table>

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 beginning 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 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, psychologist or supportive contact for both the individual and non-psychologic care, for example, with a school counsellor, social welfare officer or a general practitioner (15).

In conclusions, presence of psychiatry outpatient 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:


