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War, Mental Disorder and Suicide

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A B S T R A C T

War as a human disaster of major significance has led to an increase in the number of suicides committed by people suffering from mental disorders. Considering the results of similar research, we were particularly interested in the effect that war has on the incidence of suicide among of people with mental disorders. The research included 16,362 patients with mental disorders, treated at the Clinic for Psychiatry at the Clinical Hospital Split during the nine-year timeframe which were divided into pre-war (April 6th 1988 – April 7th 1991), wartime (April 6th 1991 – April 7th 1994) and post-war (April 6th 1997 – April 7th 2000) periods. We studied the effects of how wartime events upon people with mental disorders in terms of their suicide rates, taking into account gender, age group, and the diagnosis under which they were treated. In our research, we found a statistically significant difference in suicide incidence between three observed periods (prewar April 6th 1988 – April 7th 1991; wartime April 6th 1991 – April 7th 1994; and postwar April 6th 1997 – April 7th 2000) with the incidence being the highest during the wartime period (χ^2=9.98: p=0.007). Out of 16,362 patients treated at the clinic during the observed timeframe, a total of 78 people committed suicide. Twenty-two patients committed suicide during the first three year pre-war period; 36, during the three year wartime period; and 20, during the third three year post-war period. With this research we intended to offer a better understanding of the complexity of the suicide problem of mental patients as a phenomenon.

Key words: *war, mental disorder, suicide*

Introduction

Suicide is an anthropological-cultural phenomenon determined by bio-psychological-social factors. In line with this, suicide can be considered to be an unfor-

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givable sin, a psychotic act, a human right, a ritual obligation, or an irrational act. Why do people with mental disorders kill themselves more often than the rest of the population and what affects the frequency and other characteristics of their suicide?

Taking into consideration the characteristics of the suicides of people suffering from mental disorders and differences in the results of similar research, it was important to conduct research on the influence of war events on suicides of people with mental disorders.

In prior research it was reported that the suicide rate is lower during war times[1–5], while some similar research done in Croatia has shown an increase in the frequency of suicide during times of war[6,7]. Several studies indicate that the suicide risk of mental patients is 20 times higher than with the rest of the population[8–10].

The relationship between mental disorder and suicide depends on the type and number of disorder[8], co morbidity, the disease duration, prescribed psycho pharmaceutical drugs and social factors[9–12].

In the Appelby (1992) research conducted on 7,921 mental patients through an 18-year-monitoring period, it was found that the suicide rate for men is 11.4 and for women is 13.7.

The most threatened groups of patients were those suffering from: schizophrenia, affective disorders, personality disorders and drug addiction[13]. The risk of suicide is greater in patients with functional rather than organic psychosis[13].

In conducting this study, we aimed to achieve a better understanding of the complexity of suicide among mental patients within the atmosphere of war. In line with this aim, our hope is to help prevent suicide among people with mental disorders.

Respondents and Methods

We used a specially devised questionnaire for this research.

All the patients treated during the three observed periods were included in the study; 10,713 men and 5,649 women took part, for a total of 16,362 patients. During this period (9 years) suicide was committed by 78 patients in the hospital, including 43 men and 35 women. In the overall population of the country, 590 people committed suicide during this period.

The research was conducted in the territory of the 17th county of the Republic of Croatia, namely Split-Dalmatia County. This geographical area covers 4,501 km^2, which is 8% of the territory of the Republic. According to the 1991 population census, the County has a population of 474,019 inhabitants (9.9% of the population of Croatia), out of which 233,195 (49.2%) are males and 240,824 (50.8%) are females[14–16].

Autopsy reports of the Department of Pathology and Forensic Medicine of the Clinical Hospital Split and the materials of the Provincial Court and State Attorney's Office in Split were used in this research [17].

In addition, for all suicides committed in the territory of Split-Dalmatia County during this nine year period, the Statistical yearbook of Croatian National Institute of Public Health of Split-Dalmatia County (for population census and incidence of particular diseases)[14,15], data from the Croatian Bureau of Statistics[18], statistical reports of the Split-Dalmatia County Office of Statistics, and data from the Office for Displaced Persons and Refugees of the Government of the Republic of Croatia and of its Regional Office in Split[19] were used.

All patients who were treated during the three observed periods, according to MKB-10, and who committed suicide were

analyzed. The date to mark the beginning of war on the territory of the Republic of Croatia was April 6th 1991 (when the first open large-scale conflict took place at Plitvice). April 7th 1994 marked the date when the war ended (the time of the signing of the Zagreb peace agreement). Although the war did not come to an end when this agreement was signed and a big part of Croatia was still occupied, after this agreement the attacks and territorial gains ceased.

Results

Out of the total number of 78 mental patients who committed suicide during the three observed periods: pre-war (April 6th 1988 – April 7th 1991), war time (April 6th 1991 – April 7th 1994) and post-war (April 6th 1997 – April 7th 2000) period there were 43 (55%) men and 35 (45%) women. There was not a statistically significant difference in terms of gender in the structure of mental patients who committed suicide during the observed periods of time (χ^2=0.94; df=2; p=0.63). (Figure 1).

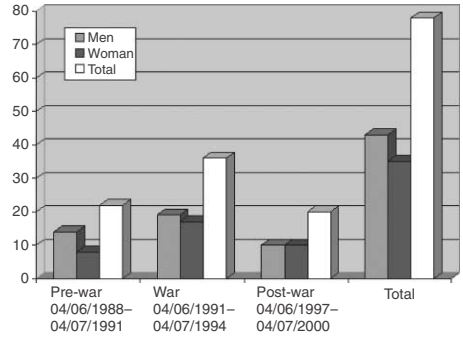

Fig. 1. An overview of mental patients who committed suicide during the observed periods, according to gender.

During the pre-war period, 4,681 patients were treated in hospital, out of which 2,670 (57%) were men and 2,011 (43%) were women. During the war period 5,250 patients were treated, out of which 3,592 (68%) were men and 1,658 (32%) were women. Finally, during the post-war period 6,431 patients were treated, out of which 4,451 (69%) were men and 1,980 (31%) were women. The suicide incidence in the group of treated patients for all three periods taken together was 4.6 per 1,000 treated patients. This incidence was 4.2 among men and 5.3 among women. Given these differences, we conclude that the incidence of suicides among women being treated at the hospital. For all three periods combined, we can conclude that the incidence of suicides among women treated at the hospital was higher than that of men (χ^2=7.6: p=0.006)

In examining the differences across these three time periods, we found that the incidence of suicide per 1,000 treated patients during the pre-war period was 4.7; during the war time period, 6.8; and during the post-war period, 2.9. This difference is statistically significant (χ^2=9.9: p=0.007), with the incidence of suicide being highest in the war time period.

In comparing only two specific time periods, however, we did not find a significant difference in the incidence of suicides between the pre-war and war time periods (χ^2=1.56: p=0.21), nor between the pre-war and the post-war periods (χ^2= 2.0: p=0.16). However, there is a statistically significant greater incidence of suicides during the war time period as compared to the post-war period (χ^2=9.2: p= 0.0021).

The suicide incidence among women per 1,000 treated patients in the hospital during the pre-war period is 3.9; during the war period, 7.5; and during the post-war period, 4.3. This is not a statistically significant difference (χ^2=3.3: p=0.19).

The suicide incidence among men per 1,000 treated patients in the hospital du-

TABLE 1
COMMITTED SUICIDE DURING THE PERIODS OF OBSERVATION WITH REGARD TO THE DIAGNOSIS FOR WHICH THEY WERE TREATED

Diagnosis (according to MKB-10)	1st period	2nd period	3rd period	Total
F00-09	4	3	0	7
F10-11	2	1	1	4
F20-29	6	14	15	35
F30-39	9	7	3	19
F40-49	0	11	0	11
F 60	1	0	1	2
Total	22	36	20	78

ring the pre-war period was 5.3; during the war period, 6.2; and during the post-war period, 2.2. There is a statistically significant difference in the incidence of suicides between the three observed periods with women in the sense that it was the biggest incidence during the war period (χ^2=8.2: p=0.016)

We did not find a significant difference between the pre-war and war periods (χ^2= 0.11: p=0.74), but we did find a significant difference proved it between the pre-war and post-war periods (χ^2=3.86: p=0.05) and between the war as compared to the post-war period (χ^2=6.9: p=0.008), to all patients.

Table 1 presents an overview of mental patients who committed suicide during the periods of observation, according to the diagnosis under which they were treated at the clinic

The suicide incidence according to the disease code F20–29 [Shizophrenia and shizotipical disorders] for 1,000 treated patients at the Clinical Hospital Split who were being treated for the same illness was 3.2 (6*1,000/1,865) before the war, 4.9 (14*1,000/2,837) during the war, and 4.9 (15*1,000/3,033) after the war. There was not a statistical difference (χ^2= 0.93; p=0.63) between the three observed periods. For code F30–39 [afective disordrs] the suicide incidence before the war was 14.6 (10*1,000/683); during the war, 7.5 (6*1,000/800); and after the war, 7.5 (6*1,000/800). This was not a statistically significant difference (χ^2= 2.55; p= 0.28).

During the pre-war period 4,681 patients were treated at the Clinic. 2,670 (57%) of these patients were men and 1,658 (43%) were women (Tables 1 and 2). Suicide was committed by 22 patients, 14 (64%) men and 8 (36%) women. The average age of men who committed suicide was 42.2; the average age of women was 48.5.

During this period there were 165 suicides in the general population.

During the war period 5,250 patients were treated at the Clinic, out of which there were 3,592 (68%) men and 1,658 (32%) women (Tables 1 and 3). Suicide was committed by 36 patients, 19 (52.8%) men and 17 (47.2%) women. The average age of patients who committed suicide was 45.4 men and 49.4 for women. During this period there were 254 suicides in the general population.

During the post-war period 6,431 patients were treated at the Clinic, out of which 4,451 (69%) were men and 1,980 (31%) were women. Suicide was committed by 20 patients, 10 (50%) were men and 10 (50%) women.

TABLE 2
NUMBER OF PATIENTS TREATED DURING THE PRE-WAR PERIOD ACCORDING TO THE DIAGNOSIS AND GENDER

Diagnosis (according to MKB-10)	N
F00-09	316
F10-11	1,141
F20-29	1,888
F30-39	670
F40-49	543
F 60	123
Total	4,681
Men	2,670
Women	2,011

TABLE 3
NUMBER OF PATIENTS TREATED DURING THE WAR PERIOD ACCORDING TO THE DIAGNOSIS AND GENDER

Diagnosis (according to MKB-10)	N
F00-09	320
F10-11	627
F20-29	2,837
F30-39	782
F40-49	531
F 60	153
Total	5,240
Men	3,592
Women	1,658

The average age of men was 40.3, and the average age of women was 47.0 (Tables 4 and 5). During this period there were 171 suicides in the general population.

TABLE 4
NUMBER OF PATIENTS TREATED DURING THE POST-WAR PERIOD ACCORDING TO THE DIAGNOSIS

Diagnosis (according to MKB-10)	N
F00-09	381
F10-11	873
F20-29	2,917
F30-39	760
F40-49	1,150
F 60	350
Total	6,431

TABLE 5
NUMBER OF TREATED PATIENTS IN THE POST-WAR PERIOD AND THEIR AVERAGE AGE, ACCORDING TO GENDER

Gender	N	Average age (in years)
Men	4,451	40.3
Women	1,980	47.0

Discussion

Some social scientists have hypothesized that during the conditions of war, societies experience a mobilization of inner forces, a strengthening of social integration and social regulation, and the possibility of abreaction of aggressiveness increases; given these changes, it is further hypothesized that fewer suicides occur[20]. For example, in Great Britain there was a decline in the number of suicides during both World Wars[2]. In his research on suicide, Durkheim notes the decline in the number of suicides in the general population during times of national political crisis and war, as well as during other types of crisis[3].

Similarly, research shows that the suicide rate in the USA was lower during the Second World War, the Korean War, and the Vietnam War[20,21].

In contrast, however, statistics point to the fact that mental patients kill themselves more often that the rest of population. A study which included 7,921 mentally ill patients during an 18-year-monitoring period showed that the suicide rate among men was 11.4, and among, women 13.7[12].

The results of our research show that there is not a significant difference in the frequency of suicide according to gender during war time and post-war periods. Hospitalized men commit suicide more often (Figure 1 and Table 1).

Age was not a significant factor in distinguishing among people with mental disorders who committed suicide (Table 5).

In referenced works regarding an increase in the suicide rate among young people (15–24 years of age), researchers point out that this typically occurs because of unrecognized and untreated depression (55.5%), personality disorders (29.6%), or feeling lost and not communicating enough with one's family[22–24].

The suicide rate among elderly people (over 65 years of age) is also reportedly on a significant rise. The main risk factors are mental or somatic diseases, social isolation, the loss of a spouse and increasing hopelessness, and increasing difficulty functioning, both socially and emotionally[25].

While in unnatural causes of death addiction and eating disorders prevail, in the case of mental disorders functional disorders and major depression are predominant[26]. The most threatened groups are patients suffering from schizophrenia, affective disorders, personality disorders, and alcohol and drug addiction[9]. Research conducted on 187 schizophrenic patients during a 19-year period showed that 40% of patients verbalized their suicidal ideas, 23% of them had an urge to commit suicide, and 4.6% actually committed suicide[12].

At the same time, the results of research on the frequency of suicide with mental patients is highly variable. For example, Caldwel and Gottesman found in the research conducted in 1990 that 9–13% of schizophrenic people commit suicide[27]. In 1995 Meltzer and Fatemi wrote that al least 40% of schizophrenics commit suicide[28]. According to a study published in 2001 by Lopez et al., the biggest suicide risk factors of people suffering from mental conditions are depressive episodes, drug addiction and positive legacy[29].

Our research confirms that schizophrenic and affective disorders are the highest risk suicide factors for people suffering from mental disorders. It is important to note that during war and post-war periods more schizophrenic patients committed suicide, which again confirms that in terms of the suicide of schizophrenics a significant role is played not only by factors of psychopathological changes but also by socio-cultural-anthropological factors (Table 1).

We noticed a smaller proportion of alcohol-abuse patients among the people who committed suicide, but during war and post-war periods there was an increase in the number of suicides of people with neurotic disorders, which can be explained by significantly adverse social conditions (Table 1).

Conclusion

In this research we have tried to analyze why the mentally ill patients we observed committed suicide. We looked for answers based upon our results, and we came to the conclusion that the decisive role of the suicides of people with mental disorders is not explained only to the mental disease itself. What might be of relevance when making the decision to commit suicide and then committing suicide might be: a kind of resignation to one's fate, escape from pain or withdrawal from unbearable suffering, loss of hope that things can get better, refusing to be a burden to people around them, a revenge on the people around them who are emotionally exhausted and are keeping an increasing distance from the per-

son suffering from the mental disorder, choice and dose of psycho pharmaceutical drugs and the quality and frequency of hospital treatments.

War as a natural disaster of high significance has led to an increase in the number of suicides of people suffering from mental disorders, which once again indicates to the multidimensionality of the problem (Table 1).

This research might help towards developing a better understanding of the suicides of people suffering from mental disorders and should at the same time be a support to the imperative set up by E. Shneidman, the founder of modern suicidology: »The prevention of suicide is the task of all people«[30].

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RAT, DUŠEVNI POREMEĆAJ I SUICID

S A Ž E T A K

Rat kao izvor stresa povećava broj suicida kod osoba s duševnim poremećajima. Pregledavajući slična istraživanja kod opće populacije nametnula se potreba vidjeti kako rat utječe na suicide osoba s duševnim poremećajima. U istraživanje je uključeno 16,362 bolesnika s duševnim poremećajima, koji su liječeni na Klinici za psihijatriju KB Split kroz devetogodišnje razdoblje, koje smo podijelili u prijeratno (6. travanj 1988. – 7. travnja 1991.), ratno (6. travnja 1991. – 7. travnja 1994.) i poslijeratno razdoblje (6. travnja 1997. – 7. travnja 2000.). Istraživali smo utjecaj rata na suicide osoba s duševnim poremećajima obzirom na spol, starosnu dob i dijagnoze pod kojim su liječene. U našem istraživanju našli smo statistički značajnu razliku suicida u tri promatrana razdoblja: prijeratno (6. travanj 1988. – 7. travnja 1991.), ratno (6. travnja 1991. – 7. travnja 1994.) i poslijeratno razdoblje (6. travnja 1997. – 7. travnja 2000.), tako da je najveća incidencija bila u ratnom razdoblju (χ^2= 9.98: p=0.007). Od 16,362 bolesnika liječena u promatranim razdobljima, njih 78 je počinilo suicid. U prijeratnom razdoblju suicid je počinio 22 bolesnik, u ratnom 36 i poslijeratnom razdoblju 20. Ovim istraživanjem namjera nam je bila ponuditi bolje razumjevanje složenosti problema suicida kod osoba s duševnim poremećajima.