

The Methods of Committing and Alcohol Intoxication of Suicides in Southwestern Croatia from 1996 to 2005

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ABSTRACT

Alcohol is the psychoactive substance most frequently associated with suicidal behavior. We hypothesized that the level of alcohol intoxication and the choice of specific methods of committing suicide are related. Suicides in the Southwestern Croatia in a 10-year period, especially regarding the method of committing and alcohol intoxication, were analyzed. Ten various methods of committing suicide were recorded. The average blood alcohol concentration at the moment of suicide was 0.68 g/kg with male, and 0.29 g/kg with female victims. The highest blood alcohol levels at the moment of suicide were recorded with suicides by explosive device (with the average blood alcohol concentration of 1.71 g/kg). This especially drastic method of suicide was rare in Croatia in a period prior to the Croatian Independence War (1991–1995), but its incidence significantly increased during the war and in a post-war period. These victims were not chronic alcoholics, but the excessive alcohol consumption occurred as a result of psychiatric disorders as a consequence of war stress they suffered.

Key words: suicide, manner, alcohol intoxication, Croatia

Introduction

Suicides are the problem of the society that experts in various fields of science are trying to resolve with more or less success being aware that every suicide committed is the result of a failure of an individual and its community¹. Because of this fact, suicides represent a final and the most drastic result of patho-sociological relations within modern society².

Two crucial causes of suicide are genetic predisposition and social impact^{3,4}. Recent molecular genetic studies have shown an association between intronic tryptophan hydroxylase (TPH) polymorphism and suicidality, the gravity of suicide attempt and alcoholism⁵. Alcohol is the psychoactive substance most frequently associated with suicidal behavior^{6,7}. One can hardly think of a single emotional distress or crisis situation when someone will not propose alcohol as a solution⁸.

We hypothesized that the level of alcohol intoxication and the choice of specific methods of committing suicide are related.

Materials and Methods

Suicides in the Southwestern Croatia in a 10-year period, especially regarding the method of committing and alcohol intoxication, were analyzed. The examined region has an area of 7,993 km² with the population of 322,964 people mostly living in the city of Rijeka, as a regional center.

In the examined period, 521 suicides were recorded, with 367 male and 154 female victims. The average age of male victims was 50.81 years, while female victims were older with the average age of 56.02 years.

Results

Ten various methods of committing suicide were recorded, with hanging as the most frequent (34%), followed by jumping from height (17%), firearms (15%), poisoning (14%), drowning (10%), jumping under/in front of a train (4%), explosive devices (4%), cutting/stabbing

(1.2%), electrocution (0.4%) and self-immolation (0.4%) as the least frequent method of committing suicide.

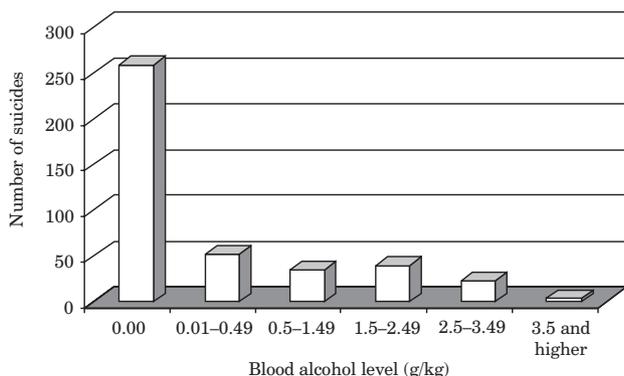


Fig. 1. Suicides by the level of alcohol intoxication.

Alcohol intoxication of suicides is shown in Figure 1. The average blood alcohol concentration at the moment of suicide was 0.68 g/kg with male, and 0.29 g/kg with female victims. The highest blood alcohol levels at the moment of suicide were recorded with suicides by explosive device (with the average blood alcohol concentration of 1.71 g/kg) (Figure 2), while the lowest concentrations were recorded with female hanging suicides (with the average blood alcohol concentration of 0.0153 g/kg) and male cutting/stabbing suicides (with the average blood alcohol concentration of 0.103 g/kg).

Discussion and Conclusion

Our findings point to the fact that the problem of alcohol consuming before committing suicide is more significant in cases of suicide with a hand grenade (or other explosive device) than in the other methods of suicide.

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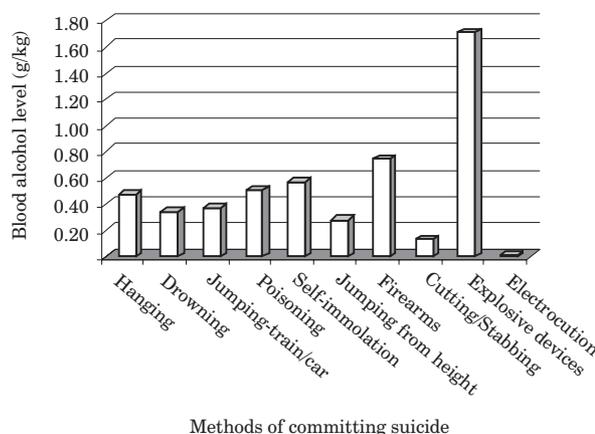


Fig. 2. Methods of committing suicide by level of alcohol intoxication.

This especially drastic method of suicide was rare in Croatia in a period prior to the Croatian Independence War (1991–1995), but its incidence significantly increased during the war and in a post-war period⁹. These victims were not chronic alcoholics, but the excessive alcohol consumption occurred as a result of psychiatric disorders as a consequence of war stress they suffered^{10–13}.

Alcohol consumption, beside its social unacceptability as a behavior, is obviously becoming more and more dangerous as a motivating suicidogene in realization of various specific ways of committing suicides, especially in younger population^{14–17}.

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METODE POČINJENJA I ALKOHOLIZIRANOST SAMOUBOJICA U JUGOZAPADNOJ HRVATSKOJ OD 1996. DO 2005. GODINE

S A Ž E T A K

Alkohol je psihoaktivna tvar koja se najčešće povezuje sa suicidalnim ponašanjem. Postavili smo hipotezu povezanosti nivoa alkoholiziranosti i metode počinjenja samoubojstva. U ovom istraživanju analizirali smo samoubojstva u jugozapadnoj Hrvatskoj u desetogodišnjem periodu, s naglaskom na metodu počinjenja i alkoholiziranost samoubojica. Prosječna koncentracija alkohola u krvi u trenutku smrti muških počinitelja bila je 0,68 g/kg, a kod ženskih počinitelja je iznosila 0,29 g/kg. Najviše koncentracije alkohola u krvi zabilježene su kod samoubojica eksplozivnim napravama (s prosječnom koncentracijom od 1,71 g/kg). Ova posebno drastična metoda samoubojstva bila je rijetka u Hrvatskoj prije Domovinskog rata (1991–1995), ali je njezina incidencija značajno porasla za vrijeme i nakon rata. U konkretnim slučajevima nije se radilo o kroničnim alkoholičarima, već je prekomjerna konzumacija alkohola bila rezultat psihijatrijskih poremećaja kao posljedica ratnog stresa koji su preživjeli.