

THE TYPOLOGY OF SUICIDAL BEHAVIOR IN COVASNA COUNTY

CARMEN BARBU¹

Forensic Service of Covasna

Keywords: suicide, attempted suicide, suicidal profile

Abstract: The rate of suicide represents one of the indicators of the social pathology and mental health. The aim of this paper is to characterize the phenomenon of suicide in Covasna County to assess the need for developing and implementing a suicide prevention program. The working method used is the descriptive retrospective epidemiological investigation. The material used in this study is represented by the clinical and forensic documents relating to a number of 1192 cases, 710 completed suicides and 482 attempted suicide cases, representing the total number of cases in Covasna County in the period January 1, 1999 – December 31, 2008. During the analyzed period, suicide rates were consistently retained to a higher level, with values between 23.82 and 38.21 to 100,000 inhabitants, with an average rate of 31.91‰. The general profile of the people exposed to the risk of committing completed suicide and attempted suicide was identified as the result of study. This will help to establish guidelines for intervention in the development and implementation of suicide prevention strategies in the area.

Cuvinte cheie: suicid, tentativă de suicid, profil suicidar

Rezumat: Rata suicidului reprezintă unul dintre indicatorii de patologie mentală și socială a stării de sănătate. Scopul lucrării îl constituie caracterizarea fenomenului suicidar în jud. Covasna în vederea evaluării necesității elaborării și implementării unui program de prevenție a suicidului. Metoda de lucru utilizată este ancheta epidemiologică descriptivă retrospectivă. Materialul luat în studiu este reprezentat de documentele clinice și medico-legale privitoare la un număr de 1192 cazuri din care 710 cazuri de suicid realizat și 482 cazuri de tentativă de suicid, reprezentând numărul total de cazuri înregistrate în jud. Covasna în perioada 1 ian 1999– 31dec 2008. În perioada analizată ratele suicidare s-au menținut constant la un nivel foarte ridicat, cu valori între 23,82 și 38,21 la 100.000 locuitori, rata suicidară medie fiind de 31,91‰. În urma studiului a fost identificat profilul persoanelor cu risc pentru suicidul realizat și tentativă de suicid, urmând ca în funcție de acesta să se stabilească direcțiile de intervenție în vederea elaborării și implementării unor strategii de prevenție a suicidului în zonă.

INTRODUCTION

In the light of existentialism, suicide appears like a moral crisis of the individual, reflecting the conflicts between the individual and the society at mental level; when the conflicts tend to overcome the individual, he becomes unable to adapt to the existential conditions. (3). According to Professor G. Ionescu, the suicidal act is considered as "self-suppression act happened in a moment of emotional tension or disturbance of consciousness." (4)

The study of suicidal behavior, focused primarily on individual or social issues, faces three theories: the psychiatric theory, the sociological theory and the psychological one. The psychiatric theory, sketched in the same time as the delineation of mental disorders, considers suicide as a symptom of a psychopathological state. Psychological theory focuses on inner aspects of individual personality, considering that suicide betrays a weak personality. Emile Durkheim objected on the theories which explained the suicide based on psychological causes, insisting on the idea that this phenomenon is closely related to social structure and its branched functions; he developed the sociological theory of suicide. Relating the social events and suicide rates, he concluded that each society acts on suicidal conditions. (2). In fact, the suicidal behavior is based on

a variety of bio-psycho-social factors which, by their action, cause alteration and cancellation of individual links with its environment. Suicide can only be explained by a multidisciplinary theory, according to Deniker (1990, quoted in 10).

In the WHO Constitution, individual health is defined as "full of feeling good physically, mentally and socially, not just absence of disease or infirmity", population health status assessment being evaluated with the help of indicators. (1, 6).

The suicide rate represents one of the indicators of social pathology and mental health, along with drug addiction, alcoholism, use of tranquilizers, crime and juvenile delinquency, there is always a strong correlation between them. (6) According to the WHO data, the suicide is situated between the first 4-10 death causes which means an annual loss of 500,000 to 800,000 lives. In the EU, there are about 58,000 suicides per year of which 3/4 are committed by men. Eight Member States are amongst the fifteen countries with the highest male suicide rates in the world. (9)

The "Health for all in 21st century" policy, adopted worldwide in May 14, 1998, has in view as declared purpose for all inhabitants to be healthy, as it was agreed at the conference in Alma – Ata since 1978. Based on the idea that a close

Corresponding Author : Carmen Barbu, FS Covasna, 1-3 Stadionului street , Sf. Gheorghe, Covasna, Romania; e-mail: carmensml@yahoo.com; tel +40-0740048240

Article received on 18.06.2010 and accepted for publication on 21.09.2010

ACTA MEDICA TRANSILVANICA December 2010; 2(4) 194-197

relationship exists between health, poverty and social environment, the new policy for the European Region shows that efforts are needed to improve health, in order to achieve social uniformity between countries of the Region and between population groups within a country. (1, 6) The policy "Health for all in the 21st century" for the European region foresees at the Objective 6 - Improving mental health: "By the year 2020 the well-being of people in terms of psychosocial should be improved. [...] Suicide rates should be reduced by at least one third, particularly in those countries and population groups where rates show the highest values." (1, 6)

THE AIM OF THE STUDY

The aim of this study is to characterize the phenomenon of suicide in Covasna County to assess the need for developing and implementing a suicide prevention program.

MATERIAL AND METHOD

The working method used is the descriptive retrospective epidemiological investigation.

The material used in this study is represented by the clinical and forensic documents relating to a number of 1192 cases, 710 completed suicides and 482 attempted suicide cases, representing the total number of cases in Covasna County during the period January 1, 1999 – December 31, 2008.

The studied documents are:

- the forensic autopsy reports and death certificates for cases of completed suicides;
- the inpatient observation sheets for cases of attempted suicide.

The documentation was placed at our disposal and studied with the consent of the Department of Forensic Medicine of Covasna County and the Department of Psychiatry of District Hospital Covasna, in compliance with the Medical Ethics Commission rules regarding the privacy of personal data.

The studied period was 10 years (January 1, 1999 - 31dec 2008).

The reference population was the permanent population of Covasna County, estimated at 222,449 inhabitants, according to Census 2002. Sex ratio is M: F = 1.73.

The parameters followed were: sex, age, environment of origin, education level and employment status, marital status, nationality, suicidal method chosen, mental illness and suicidal motivation. After gathering all the information we proceeded to the obtained data. The results were expressed in tables and graphs and data were compared with national counterparts and literature.

RESULTS AND DISCUSSION

a. The suicide rate in Covasna County:

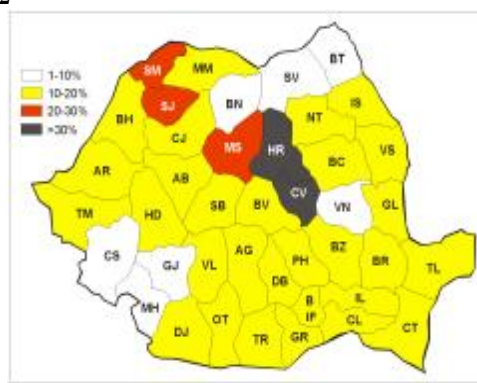
In Covasna County, during the studied period, 710 completed suicides and 482 attempted suicides were committed, their annual repartition is given in Table No.1.

In the period under review the average rate is 31.91‰. If we look over the suicide rates in the period 1999-2008 in Covasna County, it appears that over time the rates were consistently retained at high level, about 3 times higher than the national average, with a low regression in the last two years of period. Concordant with the National Institute of Forensic Medicine, in 2002, rates above the national average were found in the counties with compact Hungarian population: Harghita (38.71), Covasna (38.18), Mures (28.62), these appear as so-called "black area" of Romania. Average rates, below to the national rate, were found in counties as Vaslui 8.5‰, Alba 3.5‰.

The comparative analysis of the suicide rates from

Covasna County and those from the international literature put the local values next to the countries with the most alarming values of completed suicide, like: Lithuania, 44‰, Latvia, 27.3‰, Estonia, 26‰, Hungary, 25.4‰, Slovenia, 24.5‰, Finland, 19.9‰. Until 2002, Hungary was on top, with an average rate constant ciphered around 40‰, passed in recent years by countries of Eastern Europe. It is remarkable the low incidence of suicide in some countries in Europe, especially in the countries with predominant Latin origin of population (Spain 6.8‰, Italy 6‰) and Greece 3.6‰. (11)

Figure no. 1. Representation of the suicide rate in Romania in 2002



b. Analysis of the suicide risk factors

1. Sex

From the 710 completed suicides, 573 occurred in males (80.70%) and only 137 cases in women (19.29%), sex ratio M:F being 4:1. It appears that, with regard to male completed suicide, has a much higher share than females, the ratio M:F being 4:1, unlike the cases of attempted suicide in which the share is held by women (62%), aspects which confirm the literature data. (9, 12)

2. Age

Analyzing the incidence of suicide developed in relation to age, there is an increasing trend with chronological age, with a peak around the age of 50 years. In males, the increased incidence is between 41-50 years and 51-60 years (around 21, 64%), the difference is without statistical significance. These age groups are the most vulnerable from the socio-economical point of view, achieving a rate of 43.10% of all cases of suicide in men. Analyzing woman suicide cases we notice a high rate of suicide in elderly women, over 50 years, representing 69.34% of all suicide in women. By contrast, in attempted suicide cases is remarked an upward curve of incidence, a peak at age decade 20-30 years, followed by a downward slope. These aspects allow the correlation of attempted suicide incidence with emotional problems, characteristic of this age; it is possible that some of these attempted suicide cases are for illustration only.

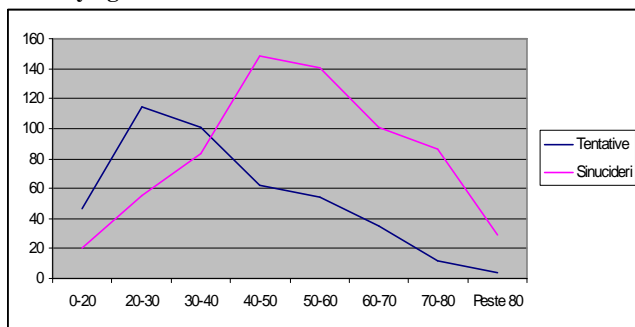
3. Environment of origin

For completed suicide it was found that more people coming from rural areas commit suicide, this may be related to a lower standard of living and a higher degree of isolation comparing with urban areas, especially in the elderly (many of those over 70 years with completed suicide come from rural areas). In attempted cases it was revealed the reversal of the situation, within the meaning of prevalence in urban areas. This situation is explained by the existence, next to the real attempted suicide, of the demonstration cases, "the blackmail" cases, when the victim acts in order to impress her entourage, knowing, at the same time, that she has the conditions reach hospital in time.

Table no. 1. The cases of suicide and attempted suicide during 1999-2008

No.	Parameter	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
1	Suicide	81	85	68	80	72	55	83	76	53	57	710
2	Attempted suicide	18	40	58	67	38	57	77	42	44	41	482

Figure no. 2. The incidence of suicide and attempted suicide made by age



4. Educational level

Regarding the correlation between the suicidal act and the education, for completed suicide cases it was remarked that the rate is inversely related with the studies: suicide is most common in people with elementary education (primary school 57%) and very low at those with higher education (3%). A similar issue regarding higher education was noted for attempted suicide (4%), but here they hold the share of high school and professional (aggregating 70% of cases).

5. Professional status

It appears that the highest rate of suicide was found among people not engaged socially and low income (pensioners, unemployed people, different categories of workers), accounting for 90% of these cases. The same groups are dominant, also, for the attempted suicide cases, with decreasing percentage of pensioners (24% for attempted suicide vs. 40% for completed suicide) on account of increase in the other two social categories, the cumulative percentage remaining close (92%).

6. Marital status

Analyzing the marital status of persons with completed suicide it is surprising that those engaged in a relationship and singles (unmarried, widowed, divorced) are in equal proportions (50%), knowing that the literature describes loneliness as a suicidal risk factor. For attempted suicide, married people are even in a higher percentage (65%) than singles. This situation contests, for the studied cases, the role as protector of the family. It is usually considered that the loneliness is a major risk factor for suicide, and marriage has a protective role. It is possible that this axiom is not valid in the area. Another explanation could be the change of moral norms over time with the degradation of interpersonal relationships, increased violence inside of family and the change of classic pattern of "family" by strong growth in the number of divorces and single parent families.

7. Nationality

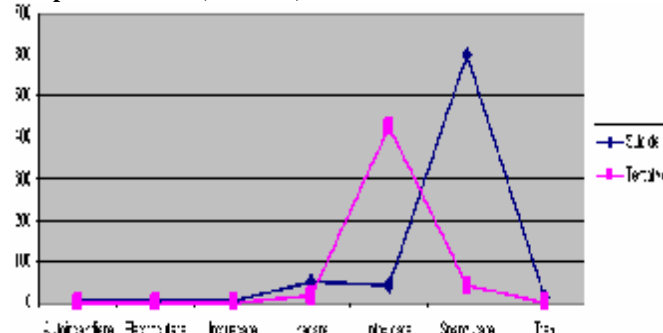
Analyzing the victim ethnicity in Covasna County, there is a significantly higher incidence of suicide among the Hungarian population (86%). In interpreting of this result should be considered the specific ethnic composition of the population in this area, comprising 73.79% Hungarians and 23.28% Romanian. Relative to the population for each ethnic group, there is a specific suicide rate of 36.73‰ among the Hungarian population and 17.18‰ in Romanian population. Communicated national average recorded variable values between 13-15‰. It requires observation, the suicidal rate lower than the national average recorded in the counties of

Vaslui 8.58‰ and Alba 3.5‰, exclusively or predominantly populated by ethnic Romanian. These correlations indicate that the behavioral pattern of the Romanian living in Covasna County is going become closer to Hungarian ethnic pattern. Percentage of Roma is irrelevant and difficult to assess accurately because often they randomly declare their ethnicity. A similar distribution by ethnicity was found in attempted suicide.

8. Methods to perform suicide

The most frequently self-destruction used method in the region is hanging (84.08%). Other used methods, in their decreasing order of frequency, were: 6% poisoning, 4% drowning, 2% jumping, 1% railway events, 1% cut wounds and 2% other methods (shooting, burning and electrocution in similar proportions). It appears that the chosen suicide methods are violent, with definite ending. Reported by sex, hanging is preferred by male. The most violent ways of achieving suicidal act (railway event, shooting, burning) were found only in males. In the cases of attempted suicide, 78% are drugs poisoning, as single method (69%) or in combination (9%) with other toxic or other methods; this option is preferred by women.

Figure no. 3. The used methods in case of attempted and completed suicide (no. cases)



9. Psychiatric disorders and motivators

Correlating the attempted suicide with the existence of psychiatric disorders, for a group of 482 patients admitted in the Psychiatry Department of District Hospital of Covasna County after a failed suicide, it usually appears that the background is a depressive disorder. The most frequently is psychogenic depression, appeared following the intervention of external factors, mainly socio-economic and family: loss of employment, poverty, separation or death of a loved person, divorce, marital conflict and family violence, overload intellectual and professional failure. A relatively high rate is found, also, in the case of endogenous depression; both diseases appear predominantly in female cases. In a single situation there is a reversal of gender ratio, when the attempted suicide occurs to persons with chronic alcoholism; they are predominantly male. The main factor triggering for completed suicide was the poor socio-economic situation following to the loss or absence of a job. Other incriminated factors are, in the order of frequency: alcoholism, loneliness and isolation in the elderly, mental diseases, incurable somatic diseases (tumors). For a number of 37 completed suicides cases (5.21%), the common causes are apparently undetectable, suicidal gesture appeared as incomprehensible to family and loved ones. An exact analysis of motivation in these cases could not be performed because, in the

absence of a letter of farewell, information was gathered through hetero-history from their relatives.

CONCLUSIONS

The analysis of various aspects related to the phenomenon of suicide in Covasna County, in the period January 1, 1999 – December 31, 2008 reveals, for completed suicide, this criminological profile:

- *male person,
- Hungarian,
- aged between 41 and 60 years,
- with elementary education level,
- unemployed (unemployed, retired or retired because of disease),
- social isolation
- low living standards,
- chronic ethanol consumer,
- living in rural.

For attempted suicide the following risk factors are more relevant:

- female,
- Hungarian,
- age group 20-30 years,
- average educational level,
- poor socio-economic conditions,
- the existence of a depressive mental illness
- conflicting family circumstances
- living in urban.

An interesting aspect, contrary to literature data, is the percentage of people engaged in a relationship equal to those of single people in the case of completed suicide, and even higher for attempted suicide, fact which contests the role of marriage as protective factor.

After analyzing and interpreting data for a period of 10 years it must be concluded that suicide is a serious public health problem in Covasna County, which requires a prompt and appropriate intervention by public health authorities. The suicide, as a way to suppress the life, it is not just an act of self-destruction, with repercussions on the person, but generates a series of devastating side-effects with emotional, moral, social and economical nature, for the family firstly, but also for close circle of people, and, also, for the entire society, representing a failure in achieving the physical, mental and social well-being status of its members.

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