**Statistical profile of suicide attempts**

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**Abstract:** General aspects. Due to stigma and lack of codification for attempted suicide, no country in the world has a rigorous statistics of attempted suicide.

The purpose of this paper is to evaluate the statistic profile of attempted suicide in Bihor County.

**Material and method.** All the attempted suicide cases that were directed to the psychiatric units in Oradea, Bihor County, Romania for the first 6 months of 2012, different deliberate self-harm cases by different methods and self-poisoning which arrived at the emergency care unit (ECU) at the county hospital, as well as suicide cases in the same geographical area, in the same time frame were analyzed.

**Results.** The suicide rate was of 23.16 cases in 100,000 inhabitants (estimated of being of 46.16 in 100,000 inhabitants yearly). Compared to complete suicide this means a 2.57 lower rate than the one suggested by the WHO (of 10-20 times suicide rate), with certain specific features: a peak of attempted suicide rate in the month of June. The profile of the majority suicidal tendencies is described as follows: women aged 15-24, unemployed, desperately resorting to drug overdose.

**Key Words:** suicide, attempted suicid, statistical profile, occurrence.

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Epidemiological measurements are significant only when related to the health data in the general population or correlated to other well-defined groups of population. All epidemiologic data make sense only when compared. The more complex the comparison becomes, the more the causative synthesis aims more risk causing factors [1]. From this point of view, human behavior has a maximum of complexity, with genetic, biological, social and cultural roots [2]. Attempted suicide or non-lethal suicidal behavior is a branch of the suicidal behavior. Its occurrence was estimated by WHO [3] by comparison with complete suicide as being 10-20 times more frequent. Due to stigma, to the lack of a code classification system for diseases, but also to other factors, there are huge obstacles in the collection of rigorous data about attempted suicide. Actually, there is no country which has rigorous data which were directly gathered. The American or European studies (continental studies) were conducted on samples from different towns or areas, then conclusions were drawn which were globally generalized [3-10]. That is why there is such a vast estimation range: 10-20 times higher than that of complete suicide. De facto, suicidal behavior, i.e. non-lethal suicide (attempted suicide or parasuicide) has a highly variable occurrence depending on geography, time, culture or specific population groups.

**Purpose**

The purpose of the paper is to evaluate the attempted suicides and their statistic profile in Bihor County.

**MATERIAL AND METHOD**

For the present paper, for six months (01.01.2012-30.06.2013) all emergency calls for medical help for attempted suicide named as such, deliberate self-
harm, self-poisoning and other similar violent behaviors addressed to the emergency medical unit in Oradea, where all emergency cases in the county arrive were monitored. The information sets gathered were: social, demographic (age, sex), seasonal data, toxicological data, ontogenic data, suicidal information, information about the methods used, momentary emotional state, chronic stressors and acute pre-suicidal stressors. We also gathered information about complete suicide from the same geographical area, within the same time interval, in order to compare the data.

RESULTS AND DISCUSSION

The first graph presents the suicidal rate over the first 6 months in Bihor, which was 9.78 in 100,000 inhabitants, with an estimation of over 18 cases in 100,000 inhabitants yearly. The suicidal rate was higher in rural areas than in urban areas, with the rate of 7.33 cases/100,000 inhabitants in the administrative center of the county. In the Bihor County, the suicidal rate was 21 cases/100,000 inhabitants in 2011, compared to a national average of 14.01 cases in 100,000 inhabitants [11]. As the suicidal behavior is generally regarded as violent behavior, we requested data about such behavior from the most violent population group - the inmate population.

Comparing the suicide rate in the general population, the study lot in Bihor County and the data from prison units, we notice (Graph 2) that the suicide rate in convicts is 3.33 times higher (32.5796/100,000 inhabitants over 6 months which would give an annual rate of 65.1592/100,000 inhabitants) and the ratio non-lethal suicidal behavior to lethal suicidal behavior is over 100, which is 5-10 times higher than in the general population, according to literature (WHO calculates the attempted suicide to suicide ratio as 10-20 to 1) [10]. Violent behavior with suicidal risk for convicts was 687.2278/100,000 over 6 months and deliberate self-harm actions were 2602.343/100,000 over 6 months. There is an obvious correlation between suicidal behavior and violence, aggressiveness.

Patients with non-lethal suicidal behavior arrive either at an emergency care unit, having different degrees of medical severity, or directly at the psychiatry units. Out of the patients who end up at emergency care units (ECU), some had to be taken to intensive care units. Others, after a somatic assistance, depending on their medical severity, were sent to psychiatry. Only some of the cases arrived in a psychiatry care unit, as many refused any other medical treatment and went home.

The attempted suicide rate for the first 6 months of 2012 in Bihor County was of 23.16/ 100,000. Compared to the suicide rate, this is only 2.57 times higher or 3.89-7.78 times smaller than the data advanced by WHO. Bearing in mind that the attempted suicide is the most important risk factor for suicide, this aspect is positive. Out of the cases which end up in ECU, only 22.72% are sent to psychiatry and accept this course of action. Only 7.19% of all cases with attempted suicide are checked in a psychiatry unit following a recommendation from the ECU, which is a worrying small percentage, although, according to most studies, these are the very cases with high predisposition to repetition and lethal suicidal behavior.

Some cases were sent to ICU (intensive care units) due to the medical seriousness of their non-lethal suicidal action, as presented in the following graph.
In graph 5 one notices that only 43.88% of attempted suicide cases are treated in psychiatry units (less than one in two cases). Out of the patients who are sent directly to psychiatry units, only 53.68% accept hospitalization and treatment. All these data point to the stigma which burdens these patients, although the hospitalization conditions in psychiatry units in Oradea are above average.

From Graph 6 one can see that the peak of non-lethal suicidal behavior is between the ages of 15 and 24, after this age the rate gradually decreases. Although the attempted suicide rate is fairly low in Bihor, only 2.57 times higher than the suicide rate, the worrying fact is that the highest risk is between 15 and 24 years of age. As a remark, the women to men ratio is only 1.7 to 1. In case of suicide, the ratio is reversed, men to women ratio being of 17 to 1.

From table 1 one can notice that almost 1 in 2 cases have resorted to medication to attempt their non-lethal suicidal act, especially women, where 4 in 10 chose this method. In men, resorting to other substances different from medication is massive (18.6), almost 1 in 5 cases. What is striking is the large proportion of rough methods chosen to carry out the suicidal attempt.

In terms of peak times, a maximum of 23.02% in the month of June is noticed (Graph 6), which is comparable with the data forwarded by other researchers and it corresponds with the wave of relapse for schizo-affective and bipolar disorders, suggesting the importance of the neurobiological factor in this type of behavior.

In terms of occupation, graph 8 shows a large proportion of unemployed people, people without a profession, or retired (more than 1 in 2 cases) and also a small proportion of students and pupils (5.55%). De facto, the students represent the majority of those who refused hospitalization in a psychiatry unit, which is a worrying aspect of the non-lethal suicidal phenomenon.

### CONCLUSIONS

1. Attempted suicide represents the main risk factor for suicide. In the current organization of medical assistance, 56.12% of attempted suicide cases are not treated and psychiatrically monitored. There is need for a new medical assistance approach for these cases so that as it happens in other countries as well- they are directed to a psychiatry unit to be monitored for suicidal risk.

2. The attempted suicide rate in Bihor for the first 6 months of 2012 was 23.16/100,000 which leads to an annual estimation of 46.32/100,000. Compared to complete suicide (9/100,000 over 6 months), it is 2.57 times higher. The figures are lower than those forwarded by the WHO, which points out that for the population in Bihor County the attempted suicide is an existentially devalued solution.
3. In women, the non-lethal suicidal act through medicine ingestion represented almost 40% of the cases. In men, the same method was used by 7.75% of cases.

4. The peak of non-lethal suicide rate was in June.

5. From the social point of view, 51.86% of patients were without job.

6. Careful monitoring of psychotropic drug prescriptions for unemployed, young women, especially in the months of May and June is needed.

References