PhD Thesis

DEPRESSION AND SUICIDAL BEHAVIOUR IN DOLJ COUNTY. EPIDEMIOLOGICAL STUDY

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Scientific coordinator:
Prof. Univ. Dr. Tudor UDRIŞTOIU

Ph.D student:
Dr. Luiza POPA

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Key words: suicide, depressive disorder, suicidal attempt, risk factors.

I. GENERAL PART

Literature regarding the clinical aspects, assistance and prevention of suicide has taken proportions in the last few years. Statistics clearly reveal certain aspects, widely known by now, as for example the fact that there is a higher suicide rate amongst males, while attempts are more frequent amongst females; the fact that there is a seasonal rise in frequency of the phenomenon or that men prefer as means of suicide hanging and self-aggression, while women resort to less aggressive means, as medicine overdose or asphyxia.

The criteria used to define mental disorder as well as those used for considering suicide or attempt differs and their approach is instable. It is an acknowledged fact that a relatively small number of suicidal acts is directly connected to obvious, proven mental disorders. For the most part, including a transitory reaction in the study, classified as a disorder or as a normal response to special circumstances, is left up to the person doing the research. Secondly, difficulties may occur related to the evaluation method used to determine the disorder’s existence at the moment when suicide was committed. On the other hand, data taken from patients who have committed suicide attempts cannot be correlated with the information obtained in cases of finalized suicides, because they form two different groups.

The present research, having a justifiable theoretical basis, starts from the hypothesis that suicidal behaviour surpasses pathological conditioning, expanding upon the individual’s system of moral values and personal manner of response to psycho-stressful factors. Furthermore, the approach on the ethiopathogenic study of suicide in depression finds motivation in the reality of the fact that depressive disorder represents the most widespread psychiatric syndrome in practice, with heterogeneous and multifactorial etiology and a multitude of clinical types.

Scientific acquisitions in the last decades generate new perspectives in the decipherment of the suicide phenomenon, defining it as a multi- and interdisciplinary issue, still remaining under a scientific question mark, despite ongoing efforts and its history.
II. OBJECTIVES AND METHOD OF THE STUDY

Objective
Establishing the dimensions and the characteristics of the suicide phenomenon in Dolj, between 2001-2005.

Research objectives
Main objectives
➢ Establishing the prevalence of suicidal behaviour in Dolj over a five year time span.
➢ Underlining the risk factors for suicidal behaviour.

Secondary objective
➢ The analysis of the relation between suicidal behaviour and depression.

Retrospective epidemiologic study, based on the existing data at The Institute Of Forensic Medicine in Craiova on subjects deceased by means of suicide in the above mentioned time span and on clinical data on subjects attempting suicide, using data from medical files on inpatients and outpatients with suicidal behaviour in the two Psychiatry Clinics.

The following indicators have been recorded:
➢ Gender;
➢ Age at the time of suicide: ≤ 20 years, 21 to 35 years, 36 to 50 years, 51 to 65 years, >65 years;
➢ Place of origin: rural, urban;
➢ Occupation: students, steady work place, unemployed, no occupation, retired;
➢ Marital status: married, unmarried, widowed, divorced;
➢ Means of suicide: hanging, medicine poisoning or overdose of other psychoactive substances, jumping from high places or other means (jumping in front of a train, self-aggression, submersion);
➢ Family history of mental disorders and suicidal behaviour, with the mention that this item could only be taken into consideration for patients in sample B, because this data has not been registered for sample A;
➢ Alcohol consumption.

Results have been processed separately for each sample, and some indicators resulted from the statistical analysis of the samples and subsample have ultimately been correlated.

Study samples
➢ Sample A=574 subjects with complete suicide (of which 405 men and 169 women) recorded at the Institute of Forensic Medicine Craiova between 2001 and 2005;
➢ Subsample A1=28 subjects (13 men and 15 women) belonging to sample A, diagnosed with depressive disorder;
➢ Sample B=314 subjects suffering from depressive disorder committed for suicide attempt to the two Psychiatry Clinics in the Neuropsychiatric Hospital in Craiova in the above mentioned time span (142 men and 172 women).

Criteria on which the subjects were included in the study
➢ Subjects with suicidal behaviour recorded between 2001-2005 with residence in Dolj.

Criteria on which subjects were excluded from the study
➢ Subjects for which there is insufficient, inaccessible data.
III. RESULTS AND DISCUSSIONS

Yearly evolution has underlined a peak of complete suicide in the first year of the period included in the study, with a registered linear drop in the following two years and a comeback tendency in 2004. The male/female ratio was improper in all the years included in the study, with a maximum of 2.80 in 2003 and a minimum of 1.90 in 2001, the average being 2.42.

The layout of the subjects with complete suicide in order of gender and age groups, obtained from the data provided by the Institute Of Forensic Medicine in Craiova, underline the prevalence of men over 36-53.45% in the sample. Furthermore, men’s preeminence in all age groups is noticeable, with the mention that in higher age groups (over 65) this difference becomes reduced. Young age groups (21-35 and particularly under 20) have stood out through gusty suicide attempts, with minor motivations, explained by decreased tolerance to frustration and explosive reactions without understanding of the consequences of suicide.

However, I have noticed that there is no record of the below 20 age group in subsample A1, of patients with complete suicide and psychiatric diagnosis. Patients with ages over 35 represented 96.43% of cases in this subsample. In patients with depressive disorder and suicide attempt in sample B, the gender percentage is switched in favour of women, even if the sex ratio value per age segments is inferior to sample A, with the most notable difference recorded being in the 51 to 65 age group - gender ratio M/F=0.65.

In the complete suicide sample, rural - 60.98% is evidently predominant over urban - 39.02%. This phenomenon could be attributed to the reversed migration of urban population into rural areas after 2000, due to social imbalance, providing an opposite situation to that of the decade between 1990 and 1999. Sample A1 is in total contrast, as the majority of cases are recorded in the urban area - 78.57%, attributed to a certain cultural lever and access to professional care services, which are superior in urban areas compared to rural ones. Patients from urban areas are also predominant in sample B, in both genders - 57.75% men, 77.91% women.

The superior ratio of complete suicide and suicide attempts in patients with mental disorders in the urban area could, in our opinion, be attributed on the one hand to the increased access to toxic substances (in many cases procured during treatment in the psychiatric care center), and on the other hand to the existence of psycho-stressful conditions in this environment, a characteristic of modern life (unemployment, busy work schedule, conflict in the work place, financial difficulties), which are more present than in rural areas. However, I have noticed the frequency of complete suicide and suicide attempts by ingestion of toxic substances used in the home (especially in agriculture) in rural areas.

As for occupation, I have noticed that the profile of the subjects with complete suicide or attempt, besides the actual occupational status, has also been influenced by their real material means, by social and economic conditions, interactions within the family, premorbid personality features, thus making it difficult to appreciate that certain categories are prone to suicide, in essence suicidal behaviour being related to the structure of one’s personality and to the choice of the means of suicide based on one’s level of education. The correspondence between occupation and suicide can be established only on a psycho-traumatizing factors level, of which I have stressed the importance of busy work schedules, financial difficulties, conflict in the work place, possible alcohol consumption.

The distribution of complete suicide in sample A has shown that the students’ segment has been the least represented with 3.14%, followed by that of individuals with steady jobs-12.37%. High rates of complete suicide amongst unemployed individuals, including those that are retired, reflect their difficulties adapting to social and economic conditions. During this time span I have noticed a rising ratio of complete suicide in students, especially males, facilitated by alcohol abuse and even drugs.
In sample B, the gap between unemployed patients and those without occupation and retired patients is bigger than in sample A, as getting older in patients with depression apparently constitutes a certain protective degree related to committing suicide. The relative representation of students is clearly superior to that in sample A. The ratio of subjects without occupation has risen remarkably in both samples in the last few years of the researched time span, due to issues related to unemployment and slimming odds of finding a new job, paired with conflicts within the home generated by these difficulties.

As far as marital status is concerned, in sample A, the social and economic state of the researched time span apparently makes married, unmarried and separated individuals equally vulnerable to existential issues which, at a certain stage, seem unbearable. In sample A, most complete suicides have been encountered in married men, totaling 50.15% of the sample. Paradoxically, in the same sample, separation by partner’s death appears to give men a certain degree of protection. In sample B, significant values are noticeable for widowed patients, especially women- 9.55% of the total sample. The classification of individuals attempting suicide by place of origin indicates that the majority of subjects are married individuals within the urban area, mostly men- 37.26%. Patients suffering from depressive disorder, widowed or divorced, from rural areas, make up a low ratio. A more detailed discussion on the subject would stipulate the subdiagnosis of depressive disorder in these categories attributed to the addiction phenomenon, but an accurate evaluation is difficult to undergo.

The most common method used to commit complete suicide was hanging, representing 69.86% of the total number of cases, followed by intoxication - 15.68%. An allocation based on gender accents an increased share of deceased men through hanging, while values are more similar in gender when it comes to intoxication, jumping from high places and other ways such as slit wrists, jumping in front of a train, drowning, self-aggression, gas intoxication. The ratio of hanging cases is not surprising, taking into account the fact that the odds for complete suicide are higher by using this method.

Methods of suicide varied with age groups, hanging being the most frequent with ages over 35. A relatively significant share of patients over 65 have opted for the ingestion of toxic substances. An allocation regarding the place of origin allows for the observation that suicide in the urban area is encountered in equal proportions through intoxication, jumping from high places or by other means, while intoxications have a significant ratio in rural areas. In subsample A1, hanging also represents the most frequent suicide method - 75%, with the mention that a second place, a great distance apart, is attributed to jumping from high places- 14.29%, while intoxication and self-aggression are low. This situation is reversed in sample B, where the ingestion of toxic substances has a 64.33% ratio, with similar gender allocation, reflecting the choice for a “lighter” method of suicide, with a not so seldom unconscious desire to not complete the lethal act. In this sample, hanging, more common amongst women, represented only 23.57%. In the place of residence category, ingestion of toxic substances was present only in 44.90% of individuals in the urban area and 19.24% in rural areas, and hanging in merely 6.31% in rural areas.

Family history of suicidal behaviour, analyzed in sample B, has been found to have a slightly superior ratio in women - 13.95% in comparison to that of men - 11.97%. Incomplete data did not allow for a more detailed discussion on the nature of first degree relatives’ disorders, although depressive disorder, bipolar disorder or even schizophrenia stand out in their psychiatric history almost without exception, as confirmed by the fact that they had repeatedly been committed to psychiatric institutions for chronic patients.
Depressive disorder has been outlined in the psychiatric history in 58.92% of sample B, which can be explained by the fact that this disorder’s pattern consists of self loathe, guilt, physical symptoms that are hard to bear and sometimes productive elements, potentially generating suicide. While recurrent depressive disorder has been traced in similar shares in both genders- 28.98% of men and 26.11% of women, the one-time episode was found to be more frequent in women- 28.66% compared to 16.24% of men. Recurrent depressive disorder as well as the one time episode had a significant representation in the urban area, a total of 68.79%.

In sample B, I have made evident 111 suicide attempts, representing 35.35% of the total, in which the basis of the action was the mental state induced by alcohol, a vulnerability factor in depressive disorder. It can be noted that addiction is more frequent in men than in women, clinical sheets often describing the presence of psychotic elements in men. According to the general pattern of alcohol consumption, it appears that for individuals who attempt to commit suicide rural areas are a favourable factor for associating depressive disorder with alcohol use, in a 42.86% ratio as opposed to 31.94% in urban areas.

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The determination and the relation between suicide risk factors are of noted importance in psychiatric practice. Furthermore, suicide attempt represents a genuine risk for complete suicide. The optimum prophylaxis of suicide is based mainly on knowing the degree of suicide risk, in the evaluation of which premorbid personality factors and circumstantial psychotraumas play a major part, with a prevailing role in the genesis of suicide.

IV. CONCLUSIONS

1. The increase of the suicidal phenomenon in Dolj - 15.73 ‰ has determined its placement from the minimum risk area to the IIIrd risk area.
2. Suicide affects mostly ages of over 36 - 77.71% of the sample, proving that the conception of suicide is a durable process, which requires the accumulation of vulnerability factors in time.
3. The complete suicide ratio is significantly superior in men for all age groups - 70.56%, whilst suicide attempt has a higher ratio in women - 54.78%.
4. In Dolj, complete suicide is more frequent in general population in patients from rural areas - 60.98%, as opposed to complete suicide and suicide attempt in patients with depressive disorder, where urban areas prevail.
5. As far as occupational status is concerned, high rates in complete suicide and suicide attempts are notably high in individuals without occupation - 84.49%, and 85.98%.
6. Married individuals have been represented in the suicide sample - 67.25% and in that of suicide attempts-56.37% in a smaller proportion than in general population, with a significant ratio in widowed women.
7. In the suicidal patients sample, with or without a psychiatric diagnosis, the most common method was hanging - 69.86%, while in the attempt sample, the ingestion of toxic substances hold a ratio of 64.33%. As a particular aspect, hanging was encountered more frequently in women in this last sample.
8. Family history has been accented by a slightly superior ratio in female patients - 7.64%. Personal history reveals the existence of depressive episodes in 58.92% of patients.
9. Within the relation between the evolution of depression and suicide attempts, female patients manifest early attempts, even from the first episode.
10. Alcohol consumption represents a risk factor for suicidal behaviour for both genders.

Underlined risk factors for complete suicide in the presented research are the male gender, age over 36, rural areas and lack of marital and occupational status.

For suicide attempt, guiding factors are the female gender, urban areas, the death of a partner, especially for women, the presence of family history and alcohol abuse and psychiatric background.

V. REFERENCES