

## DEPRESSION TENDENCY IN THE ADULT POPULATION

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**Abstract:** In the last decades, the psychological dysfunctions and diseases became widespread in the whole world, so that the maintenance of psychological health became a very important problem. This study is based on the application of a questionnaire among the adult population from Tîrgu-Mureş, Miercurea-Ciuc and Sfântu-Gheorghe towns, a representative sample stratified in more steps. Applying the Beck depression scale, our results show that 42,3% of the surveyed population has depressive signs. Women are more depressed than men. The depressive syndrome increases significantly with age, on the other hand the insufficient educational level is in direct relation with this psychological illness. Among the predisposing factors, we can enumerate unemployment and lack of family.

**Cuvinte cheie:** depresie, tendință, scala de depresie Beck, factori favorizanți

**Rezumat:** În ultimele decenii disfuncțiile și îmbolnăvirile psihice s-au răspândit în toată lumea, motiv pentru care menținerea sănătății psihice a devenit o problemă importantă. Cercetarea se bazează pe aplicarea unui chestionar în rândul populației adulte din municipiile Tîrgu-Mureş, Miercurea-Ciuc și Sfântu-Gheorghe, eșantion reprezentativ stratificat în mai multe trepte. Aplicând scala de depresie Beck, datele obținute arată că 42,3% din populația studiată relatează semne de depresie. Femeile sunt mai deprimare decât bărbații. Sindromul depresiv crește semnificativ cu vârsta, pe de altă parte școlarizarea insuficientă este în relație directă cu această boală psihică. Printre factorii favorizanți mai amintim lipsa locului de muncă și lipsa familiei.

## INTRODUCTION

Experts state that about every fifth person suffers from a mental disorder, while a third of us are at risk of having a mental problem throughout life. Recently, mental problems and the diseases caused by them have become increasingly common, depression often being the underlying cause. Its prevalence has increased over the past decades, worldwide and in our country.(1,2) It is the main cause of decreased work capacity, and it is among the first diseases that have the most pronounced social effects.(3) Because they primarily affect young people engaged in productive activity, mental illnesses have a long evolution and considerable potential of chronicity and defectivity; the degree of temporary inability to work or disability that these illnesses cause is relatively high. Thus, mental disorders rank fourth (following respiratory diseases, digestive diseases and accidents) in terms of mental illness severity index, and third in terms of disability index following cardiovascular and pulmonary diseases.(4) The causes of depression are not clearly defined. It is known that depression is correlated with highly significant changes in brain biochemistry, much information is known about the genetic load, some individuals are more prone to such depressions than others. Life events play a precipitant role, especially those occurring in the last three months, but they do not cause depression. Depressive adjustment disorders also imply a stress factor.(5)

Among the European countries, Romania ranks 5<sup>th</sup> in the World Health Organisation statistics regarding the incidence of mental illness. Most new cases reported by specialists are caused by depression, anxiety and neurotic disorders. Suicide rate is considered an important indicator of the mental health of a nation in all WHO statistics.(6)

Recently, several studies have been conducted on psychiatric epidemiology. These studies have focused mainly on the prevalence of mental illness according to gender, age, marital status, urban environment, migration, socio-cultural level etc. Studying the habits of different population groups, researchers from Tîrgu-Mureş observed the health status in relation to various physical, mental and social aspects.(7,8,9)

## PURPOSE

The purpose of this study is to analyse the frequency of the depressive syndrome, the relation between depression tendency of the adult population and the different social factors.

## METHODS

Our study was conducted between the years 2010-2011 on a representative group of three larger cities (county seats), using a very complex questionnaire. The questionnaires were completed voluntarily and anonymously as interviews at home. Some of the questions focused on the respondents' subjective complaints about their identified illnesses, among which mental diseases, as well as the date of their treatment. The questionnaires were aimed at those lifestyle characteristics that may be in relation to the complaints and identified illnesses. This paper aims to analyse the data on the frequency of the depressive syndrome in the population and the relationship between the status of depression of the adult population and various social factors.

To measure depression, we used the short form of the Beck Depression Inventory which comprises nine questions to which the answer is given on a scale of four possible answers. The Beck Depression Inventory is considered the best method

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for the mathematical measurement of depression or tendency to depression. After calculating the score of the responses, the following are taken into account when interpreting the results: 0-9 points: minimum symptoms of depression, 10-18 points: minor symptoms of depression; 19-24 points: average levels of symptoms of depression, more than 25 points: severe form of depression.(10) Our study focussed on the representativeness in the adult population according to age, gender, and city. The participants were selected randomly by applying the multiple layering method. Stratification was done according to the following criteria: gender, age (three age groups: 18-39 years, 40-59 years, over 60), city, and occupation. The stages in the selection of the participants were: choosing the cities included in the study, choosing the address in the cities (district, street, house or apartment), selecting the respondent within each household. The study did not focus on the home, but on one person residing in the household chosen for the study, irreplaceable with another family member. In case of refusal, other participants were chosen from the list or others in neighbouring houses, taking into account the sampling criteria. The process of participant selection was based on the list of voters at the statistical department of the city halls included in the study. The statistics of the 2002 census were taken into account, along with the ratio of people according to gender, age, and nationality. Following the above criteria, we chose a representative group in the three cities. The three groups were: Țirgu-Mureș - 149 people (41.97%), Miercurea Ciuc - 106 people (29.86%) and Sfântu Gheorghe - 100 people (28.17%). Total respondents N = 355 people. SPSS software version 11.0 was used for the analysis of data, the iconography (tables, charts), and the statistical calculations. Calculation of significance was performed in the range of 95%; significant difference was considered for  $p < 0.05$ .

**RESULTS**

Respondent distribution according to gender was as follows: 175 men (49.3%) and 180 women (50.7%). Distribution by age in the entire group was: 129 respondents aged between 18-39 years (36.3%), 137 respondents aged between 40-59 years (38.6%), and 89 respondents over the age of 60 (25.1%). The group was distributed depending on the marital status, showing the following categories: 26.3% single, living alone, 51.1% living with a spouse, 1.4% not living with a spouse, not divorced, 3, 7% living in concubinage, 7.3% divorced, 10.2% widowed. Processing the data obtained from the short form of the Beck Depression Inventory, our study indicates that 42.3% of the adults surveyed have depression symptoms. Mild and average signs of clinical depression were recorded in the majority of cases (31.3%) and strong signs were also well represented (11.1%). On the other hand, in 57.7% of the population no signs of depression were recorded. Noting the prevalence of depression by gender, we found that women are more depressed than men ( $\chi^2=4.13$ ;  $p<0.05$ ). There are significant differences in the average depressive syndrome (12.4% in women and 6.3% in men). There are differences in a low susceptibility to mild depression or severe depression. The average of the Beck Depression Inventory exceeds 10 points in both genders, being higher in women:  $11.91 \pm 0.78$ . The results are shown in table no. 1.

**Table no. 1. Depressive syndrome according to gender**

Gender	No depression	Mild depression	Major depression	Severe depression	Beck score $\pm$ SE
Men	60.9%	21.8%	6.3%	10.9%	10,22 $\pm$ 0,79

Women	54.5%	21.9%	12.4%	11.2%	11,91 $\pm$ 0,78
Total	57.7%	21.9%	9.4%	11.1%	11,07 $\pm$ 0,56

Depressive syndrome depends largely on age, level of significance being high ( $\chi^2 = 18.75$ ,  $p < 0.001$ ). While weak signs of depression were found in nearly the same percentage in all three age groups, the prevalence of major depressive syndrome and severe depressive syndrome becomes more serious with age. Based on the results of severe depressive syndrome, it can be stated that the middle-aged generation has almost the same value as the elderly one, which is a sign of mental overload of people aged 40-59 years. It may be noted that the Beck score for this age is closer to the score in people over 60 years than to the score in the young generation (table no. 2).

**Table no. 2. Depressive syndrome according to age**

Age	No depression	Mild depression	Major depression	Severe depression	Beck score $\pm$ SE
18-39 years old	69.5%	21.9%	5.5%	3.1%	7,50 $\pm$ 0,63
40-59 years old	54.0%	21.2%	9.5%	15.3%	12,39 $\pm$ 0,95
Over 60 years old	46.0%	23.0%	14.9%	16.1%	14,27 $\pm$ 1,30
Total	57.7%	21.9%	9.4%	11.1%	11,07 $\pm$ 0,56

Differences were found in the tendency to depression according to cities. The adult population of Miercurea Ciuc and Sfântu-Gheorghe showed higher values than the adult population of Țirgu-Mureș. Differences between major and severe depressive syndrome could be even 2-3 times higher ( $\chi^2 = 6.61$ ,  $p < 0.01$ ). These data emphasise the fact that not only the urban environment itself is a predisposing factor to depression, but also the fact that small towns promote a tendency to depression as opposed to larger cities. The results are depicted in table no. 3.

**Table no. 3. Depressive syndrome according to cities**

City	No depression	Mild depression	Major depression	Severe depression	Beck score $\pm$ SE
M. Ciuc	48.6%	26.7%	9.5%	15.2%	12,80 $\pm$ 1,05
Sf. Gheorghe	58.2%	15.3%	16.3%	10.2%	11,79 $\pm$ 1,10
Tg. Mureș	63.8%	22.8%	4.7%	8.7%	9,39 $\pm$ 0,80
Total	57.7%	21.9%	9.4%	11.1%	11,07 $\pm$ 0,56

An extremely important factor for depression is education. The school provides the opportunity to acquire various communication possibilities, it allows the establishing of relationships. Symptoms of severe depression syndrome are higher in people having only completed the secondary school, a vocational school, people who do not hold a baccalaureate diploma. In people with higher education the average is below the average of the whole group, but still higher than in people who only graduated high school without further education ( $\chi^2 = 20.949$ ,  $p < 0.001$ ). Analysing the Beck score, it is clear that in

people who only completed the secondary school the average score is on the border between mild and major depressive syndrome ( $18.33 \pm 2.04$ ). In two-thirds of this group of poorly trained people, the average score exceeds the limit of mild depression. The lowest average values below the average of the group are encountered in high school and higher education graduates:  $8.46 \pm 0.79$  and  $9.91 \pm 1.03$ , respectively. The results are presented in table no. 4.

**Table no. 4. Depressive syndrome according to education**

Education	No depression	Mild depression	Major depression	Severe depression	Beck score $\pm$ SE
Secondary school	33.3%	22.2%	19.4%	25.0%	18,33 $\pm$ 2,04
Apprenticeship	47.5%	35.0%	2.5%	15.0%	13,00 $\pm$ 1,63
Vocational school	51.0%	30.6%	12.2%	6.1%	10,47 $\pm$ 1,47
High school	69.7%	17.2%	6.6%	6.6%	8,46 $\pm$ 0,79
Higher education	62.6%	18.7%	9.9%	8.8%	9,91 $\pm$ 1,03
Total	57.7%	21.9%	9.4%	11.1%	11,07 $\pm$ 0,56

Regarding marital status, we find that the Beck score is the lowest in the case of married subjects who are also less prone to major and severe depression. The highest scores are recorded in divorced or widowed subjects, the tendency to depression being higher; there is a likelihood of developing even more serious forms of the illness. Table no. 5 presents the statistical analysis with  $p < 0.05$  ( $\chi^2 = 5.04$ ).

**Table no. 5. Depressive syndrome according to marital status**

Marital status	No depression	Mild depression	Major depression	Severe depression	Beck score $\pm$ SE
Single	59.6%	23.6%	11.6%	5.2%	10,66 $\pm$ 1,65
Married	65.5%	25.1%	6.6%	2,8%	9,54 $\pm$ 1,06
Divorced	48.7%	28.4%	15.8%	9.1%	13,83 $\pm$ 1,87
Widowed	51.8%	23.4%	13.6%	11.2%	13,16 $\pm$ 1,69
Other	52.9%	22.7%	15.5%	8.9%	12,31 $\pm$ 1,33
Total	57.7%	21.9%	9.4%	11.1%	11,07 $\pm$ 0,56

The tendency to depression and the frequency of depressive symptoms have close links with other factors that are noteworthy (work, housing, financial status etc.). According to job and employment, 36.4% of the people prone to depression are economically inactive, 27.3% are civil servants, 27.3% have other types of jobs, and 9.1% are workers without stable jobs. The role of stress as a risk factor in causing depression is well-known. However, stressful situations as such are not harmful to health if we manage to overcome them. Thereby, further data and important information regarding the state and predisposition to depression can be drawn from the results of the stress assessment and conflict solving questionnaires. However, these analyses are beyond the scope of our study.

#### DISCUSSIONS

Lately, mental problems and the diseases caused by them have become increasingly common, depression often being an underlying cause. According to the findings and provisions of the World Health Organisation, the most serious medical problems in the next decade will be mental illnesses and their consequences, especially depression. It is estimated that in 2025 every fourth person in the world will suffer from a mental illness during their lifetime. Mental illness contributes greatly to reduced labour abilities, low quality of life, and may be a risk factor in the development of various diseases.(6,11) Nowadays,

depression represents an important cause of diseases in the population aged 15-44. About 30% of all losses caused by mental illness have a psychic cause, and various dysfunctions or mental illnesses are the underlying problems. The damaging effects are five times higher than in cases caused by cardiovascular diseases.(12) Most studies on the demographics of psychiatric epidemiology are mainly focused on the prevalence of mental illness by gender, age or marital status, providing data which have not been elucidated yet. Preventive activities, efforts to reduce the prevalence of depression are in the first plan.(13,14)

#### CONCLUSIONS

The incidence of depression has increased greatly in recent decades worldwide and in our country. However, the frequency of depressive syndrome in the population depends on various factors. Observing the incidence of depression by gender, we can note that women are more depressed than men. Predisposition to depressive syndrome greatly increases with age, poor education and poor family situation. It is higher in small towns, among the unemployed, and people without stable jobs. However other factors, such as lack of housing, personal and financial issues, socio-cultural affiliation to inferior groups, poor communication skills and difficulties in reducing stress, are closely linked to the occurrence and intensity of symptoms and depressive syndrome.

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