STATE OF SOCIAL AND PSYCHOLOGICAL ADAPTATION IN PATIENTS WITH DEPRESSIVE DISORDERS, TAKING INTO ACCOUNT THE GENDER FACTOR

Oleksandr Belov

The aim: to establish the features of socio-psychological adaptation in patients with depressive disorders, taking into account age and gender factor.

Materials and methods. A clinical and psycho-diagnostic examination of 107 men and 138 women with depressive disorders using the method of diagnosis of socio-psychological adaptation of C. Rogers et R. F. Dymond was done.

Results. A low level of socio-psychological adaptation in patients with depressive disorders has been established. There is a tendency to deteriorate socio-psychological adaptation with age, the most pronounced in level of adaptability, emotional comfort, payroll, integrated indicators of adaptation, self-acceptance and emotional comfort in all patients, and in men also in maladaptation, self-acceptance, external control, and women – regarding internality. The rates of lying, acceptance of others and dominance in men and women were highest in the middle age group (30-44 years), and lowest – in the older (over 45 years); this trend is also found in men for internal control and an integrated indicator of acceptance of others, and in women – for the desire for dominance. Differences in the comparison of the older age group with the average were more significant than in the comparison of the younger group (up to 30 years) with the average.

Conclusions. Patients with depressive disorders are characterized by a low level of socio-psychological adaptation. In both men and women, the level of socio-psychological adaptation decreases with age, and in men this trend is more pronounced. The most significant deterioration in the state of socio-psychological adaptation in patients with depressive disorders occurs at the age of over 45 years; this trend is also more common in men.

Keywords: depressive disorders, socio-psychological adaptation, gender features, maladaptation, emotional discomfort

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1. Introduction

Depressive disorders are one of the most pressing problems in modern psychiatry. Their lifetime prevalence is estimated at 5–17% (average 12 %), and the annual probability of developing depression is about 7 % [1]. According to the WHO, major depressive disorder is the third largest cause of disease burden in the world, and, according to experts, by 2030 will come out on top [2, 3]. According to modern research, the estimated risk of developing depressive disorder during life is about 30% [4]; the treatment of depression and its consequences is considered as one of the main source of medical costs [5]. In the absence of adequate treatment, the duration of an episode of major depressive disorder can range from 6 to 12 months [1], with a recurrence rate after the first episode of depression is 50 %, after the second – 70 %, and after the third – 90 % [6].

Depression is a disease that is accompanied by severe socio-psychological maladaptation, significant deterioration of psychosocial functioning and reduced quality of life of patients [7, 8]. The most common manifestations of psychosocial maladaptation in depression are difficulties in planning and decision-making, which are manifested in both acute and subacute phases, and during remission [9]. Significant manifestations of psychosocial maladaptation in the macrosocial, mesosocial and microsocial spheres have been reported in women with depressive disorders; the genesis of depression also plays an important role in the severity of maladaptation [10–12]. The close association of psychosocial maladaptation with symptoms of depression, guilt, insomnia, anxiety and somatic-vegetative manifestations was revealed [13]. In depressive disorders there are pronounced disorders of microsocial functioning not only of the patients themselves, but also of their immediate environment, in particular, the deformation of homeostasis of the family system [14]. Depressive disorders are also accompanied by a significant deterioration in the quality of life of patients, and during the active depressive phase there is a tendency for patients to be more pessimistic about their functioning and quality of life in all key areas compared to their assessment by a specialist [15].

At the same time, despite the significant prevalence and significant efforts to study the features of various forms of depression, this disease remains underestimated and poorly managed; An important role in the final result of treatment is played by psychosocial adaptation of patients, which affects the quality and duration of
remission [16]. Psychosocial rehabilitation and readaptation and restoration of full psychosocial functioning of patients is also an important factor in reducing the therapeutic resistance of affective disorders [17]. Based on this, the study of the features of psychosocial adaptation of patients with depressive disorders at the present stage are of great theoretical and practical importance; the results of such research can be used in the development of prognostic models of depression and the improvement of measures for the diagnosis, treatment, rehabilitation and prevention of depressive disorders.

The aim of the study was to establish the features of socio-psychological adaptation in patients with depressive disorders, taking into account age and gender.

2. Materials and methods

In accordance with the principles of biomedical ethics (minutes No. 4 of 05.02.2019 meeting of the Commission on Bioethics of “Vinnytsia National Medical University named after M. I. Pirogov”), in accordance with the Declaration of Helsinki, on the basis of informed consent we examined 245 patients with depressive disorders (107 men and 138 women) who sought psychiatric care at the Municipal Institution “Vinnytsia Regional Psychoneurological Hospital named after acad. O. I. Yushchenko” and for counselling and treatment at the Department of Medical Psychology and Psychiatry of “Vinnytsia National Medical University named after M. I. Pirogov” during 2015–2019. The criterion for inclusion in the study was the diagnosis of depressive disorder in accordance with the criteria of ICD-10 (codes F 31.3, F 31.4, F 32.0, F 32.1, F 32.2, F 33.0, F 33.1, F 33.2). The average age of the examined patients was 33.6±11.2 years, men 34.2±11.1 years, women 33.2±11.4 years, p>0.05. The average duration of the disease at the time of the survey was 5.0 ± 5.6 years, men 5.7±5.8 years, women 4.5±5.4 years, p>0.05. All respondents were divided into three groups depending on age at the time of the survey: up to 30 years (numbering 38 men and 51 women) – respectively, M1 and W1, 30–44 years (46 men and 53 women) – respectively, M2 and W2, and 45 years and older (23 men and 34 women) – respectively, M3 and W3. The survey was conducted using the method of diagnosis of socio-psychological adaptation of C. Rogers et R.F. Dymond in the modification of A. K. Osnitsky [18]. Statistical analysis of the data was performed using the licensed application package Statistics 13 (StatSoftInc., USA). The nature of the distribution of quantitative signs was assessed using the Shapiro-Wilk test. Intergroup analysis of differences was performed using a nonparametric Mann-Whitney test. The level of statistical significance of differences p<0.05 was considered acceptable.

3. Research results

In general, men with depressive disorders are characterized by a low level of socio-psychological adaptation (Table 1).

| Indicator                             | The value of the indicator, M ± m | M1 vs M2 | M1 vs M3 | M2 vs M3 |
|---------------------------------------|-----------------------------------|----------|----------|----------|
| Adaptability                          | 50.0±15.4                         | 38.9±17.0| 24.5±16.1|<0.001    |<0.001    |<0.001    |
| Maladaptability                       | 143.3±31.8                        | 152.4±25.4| 172.0±12.0|<0.05     |<0.001    |<0.001    |
| Lying - no                            | 10.6±4.5                          | 12.3±4.7 | 10.6±5.7 |<0.05     |>0.05     |>0.05     |
| Lying - yes                           | 13.0±2.9                          | 13.5±3.1 | 11.7±3.7 |>0.05     |>0.05     |>0.05     |
| Accepting of yourself                 | 10.5±5.4                          | 8.0±5.6  | 5.1±3.6  |<0.05     |<0.001    |<0.001    |
| Non-acceptance of yourself            | 24.5±6.0                          | 26.4±5.7 | 29.6±4.7 |>0.05     |<0.001    |<0.001    |
| Acceptance of others                  | 9.8±3.3                           | 10.8±3.7 | 8.4±2.5  |>0.05     |>0.05     |>0.05     |
| Rejection of others                   | 29.7±7.0                          | 30.9±6.6 | 35.3±2.5 |>0.05     |<0.001    |<0.001    |
| Emotional comfort                     | 14.2±4.2                          | 8.8±4.0  | 4.9±4.5  |<0.001    |<0.001    |<0.001    |
| Emotional discomfort                  | 32.8±5.1                          | 33.9±4.3 | 36.8±2.6 |<0.05     |<0.01     |<0.01     |
| Internal control                      | 32.2±6.6                          | 32.6±7.0 | 29.2±8.0 |>0.05     |>0.05     |>0.05     |
| External control                      | 35.3±8.6                          | 39.3±4.7 | 43.4±2.9 |<0.05     |<0.001    |<0.001    |
| Domination                            | 2.8±2.3                           | 3.1±2.7  | 1.7±1.5  |>0.05     |>0.05     |>0.05     |
| Submissiveness                        | 22.5±7.0                          | 26.6±6.0 | 30.5±2.6 |<0.001    |<0.001    |<0.001    |
| Escapism                              | 19.3±5.3                          | 20.6±4.2 | 24.3±3.9 |>0.05     |<0.001    |<0.001    |
| Adaptation                            | 26.7±10.1                         | 20.4±8.6 | 12.2±7.3 |<0.001    |<0.001    |<0.001    |
| Self-acceptance                       | 21.8±10.3                         | 15.9±10.3| 10.0±7.7 |<0.01     |<0.001    |<0.001    |
| Acceptance of others                  | 28.8±10.6                         | 29.7±9.7 | 22.1±5.7 |>0.05     |<0.01     |<0.01     |
| Emotional comfort                     | 30.0±7.6                          | 20.2±8.0 | 11.2±9.3 |<0.001    |<0.001    |<0.001    |
| Internality                           | 40.0±7.6                          | 37.0±5.9 | 32.1±6.1 |>0.05     |<0.001    |<0.01     |
| Desire for dominance                  | 20.8±16.7                         | 17.9±15.2| 9.79±8.5 |>0.05     |<0.01     |<0.05     |

As can be seen from Table 1, the general trend is the deterioration of socio-psychological adaptation with age; most clearly this tendency was manifested for adaptability, maladaptation, self-acceptance, emotional comfort, external control, payroll, integrated indicators of adaptation, self-acceptance and emotion-
al comfort. At the same time, lying, acceptance of others, internal control, dominance and an integrated indicator of acceptance of others are characterized by the highest rates in the middle age group (M2), and the lowest – in the senior (M3). In general, the differences in the indicators of socio-psychological adaptation when comparing the older age group (M3) with the average (M2) were more significant than when comparing the younger group (M1) with the average (M2).

This tendency is most pronounced in relation to lying, self-rejection, acceptance of others, rejection of others, emotional discomfort, dominance, escapism, acceptance of others, and internality.

In women, there is a general tendency to deteriorate indicators of socio-psychological adaptation with age, however, the quantitative values of indicators are higher than in men, and trends in the ratio of indicators between age groups are more complex (Table 2).

### Table 2

| Indicator                     | The value of the indicator, M±m | p         |
|-------------------------------|---------------------------------|-----------|
|                               | W1                              | W2        | W3        | W1 vs W2 | W1 vs W3 | W2 vs W3 |
| Adaptability                  | 58.2±12.8                       | 46.7±17.9 | 37.3±24.4 | <0.01    | <0.001   | <0.05    |
| Maladaptability               | 119.7±49.8                      | 138.0±40.8| 161.1±16.5| >0.05    | <0.001   | <0.01    |
| Lying – no                    | 10.1±4.1                        | 10.4±4.9  | 9.6±5.3   | >0.05    | >0.05    | >0.05    |
| Lying – yes                   | 14.1±2.6                        | 12.8±3.4  | 11.8±3.4  | >0.05    | <0.01    | >0.05    |
| Accepting of yourself         | 12.0±3.9                        | 10.7±6.2  | 8.1±7.3   | >0.05    | <0.001   | <0.05    |
| Non-acceptance of yourself    | 20.1±8.8                        | 23.2±7.8  | 26.8±5.8  | >0.05    | <0.01    | >0.05    |
| Acceptance of others          | 11.2±2.8                        | 12.1±3.5  | 10.6±4.4  | >0.05    | >0.05    | >0.05    |
| Rejection of others           | 24.2±11.3                       | 27.9±9.5  | 33.2±3.5  | >0.05    | <0.001   | <0.01    |
| Emotional comfort             | 16.4±3.8                        | 10.7±4.3  | 7.18±5.1  | <0.001   | <0.001   | <0.01    |
| Emotional discomfort           | 27.7±9.6                        | 30.6±7.6  | 35.0±3.3  | >0.05    | <0.01    | >0.05    |
| Internal control              | 33.1±7.5                        | 31.2±6.7  | 32.2±9.7  | >0.05    | >0.05    | >0.05    |
| External control              | 31.4±12.1                       | 34.8±10.5 | 39.9±6.1  | >0.05    | <0.001   | <0.05    |
| Dominance                     | 2.5±2.7                         | 3.0±2.5   | 2.4±2.2   | >0.05    | >0.05    | >0.05    |
| Submissiveness                | 21.2±9.0                        | 24.9±7.9  | 29.0±3.2  | >0.05    | <0.001   | <0.01    |
| Escapism                      | 15.9±8.0                        | 19.1±6.1  | 22.9±3.8  | >0.05    | <0.001   | <0.01    |
| Adaptation                    | 36.2±15.2                       | 27.2±15.3 | 18.1±10.1 | <0.001   | <0.001   | <0.01    |
| Self-acceptance               | 30.9±15.1                       | 24.5±17.8 | 15.4±11.7 | <0.05    | <0.001   | <0.05    |
| Acceptance of others          | 40.5±18.7                       | 36.5±16.7 | 27.0±9.2  | >0.05    | <0.001   | <0.01    |
| Emotional comfort             | 39.2±13.3                       | 26.6±12.5 | 16.2±10.3 | <0.001   | <0.001   | <0.001   |
| Internality                   | 45.7±11.5                       | 40.7±9.9  | 36.2±7.1  | <0.05    | <0.001   | <0.05    |
| Desire for dominance          | 16.8±15.2                       | 20.4±17.1 | 13.4±10.6 | >0.05    | >0.05    | >0.05    |

Thus, a clear tendency to decrease the indicators of socio-psychological adaptation with age was found in terms of adaptability, emotional comfort, submissiveness, integrated indicators of adaptation, self-acceptance, emotional comfort and dominance. The highest rates in the middle age group (W2), as in men, were found in terms of lying, acceptance of others, dominance, as well as an integral indicator of the desire for dominance. Also, in contrast to men, women have slightly less pronounced differences between age groups.

Significant differences in performance between men and women were found for adaptability – for groups M1 and W1 (p <0.01), M2 and W2 (p <0.05), M3 and W3 (p <0.05); maladaptability – for groups M2 and W2 (p <0.05), M3 and W3 (p <0.01); lying – for groups M2 and W2 (p <0.05); self-acceptance – for groups M1 and W1 (p <0.05), M2 and W2 (p <0.05); self-rejection – for groups M1 and W1 (p <0.05), M2 and W2 (p <0.05), M3 and W3 (p <0.05); acceptance of others – for groups M1 and W1 (p <0.05); rejection of others – for groups M1 and W1 (p <0.05), M2 and W2 (p <0.05), M3 and W3 (p <0.05); emotional comfort – for groups M1 and W1 (p <0.01), M2 and W2 (p <0.05) and internality – for groups M1 and W1 (p <0.05), M2 and W2 (p <0.05), M3 and W3 (p <0.05).

4. Discussion of research results

Thus, depressive disorders are accompanied by severe manifestations of disorders of socio-psychological adaptation. The revealed general tendency to deterioration of social and psychological adaptation is consistent with the tendency revealed in our researches to deterioration of a psychoemotional condition and severity of affective symptomatology with age; a more pronounced deterioration in adaptation when comparing the older age group with the middle (relative to the comparison of the middle age group with the younger one) is also consistent with patterns of more significant increase in the severity of affective disorders in the older age group [19]. Also natural, in our opinion, are worse indicators of socio-
psychological adaptation in men compared to women, as the latter are generally characterized by lower levels of severity of depressive symptoms [20]. At the same time, various components of socio-psychological adaptation revealed a nonlinear nature of changes in indicators with age, which indicates a more complex pattern of association of affective symptoms with manifestations of socio-psychological maladaptation.

The obtained data in our study are generally consistent with the data of the modern scientific literature on the presence of severe manifestations of psychosocial maladaptation in patients with depressive disorders. Thus, a number of studies indicate the presence of manifestations of psychosocial maladaptation in patients with depression and their relationship with the severity of depressive symptoms [21–23]. The data found in our study on the greater severity of depressive phenomena in the older age group (45 years and older) are consistent with the results of earlier studies by a number of authors [24–26] on the intensification of depressive symptoms with age. At the same time, our study revealed important patterns of gender characteristics, relating not only to the general tendency to higher rates of socio-psychological maladaptation in men, but also the characteristics of individual components of maladaptation, in particular, the presence of significantly worse indicators in men in terms of adaptability, self-acceptance, acceptance of others, adaptation, emotional comfort and internality, and higher rates of maladaptation, lying, self-rejection, rejection of others and external control. Our study also gave a quantitative comparative description of the individual components of socio-psychological maladaptation in gender and age aspects.

**Study limitations.** Method of clinical and psycho-diagnostic examination using a standardized method of diagnosis of socio-psychological adaptation C. Rogers et R. F. Dymond in the modification of A. K. Osnitsky, used in this study, is simple, can be performed in both inpatient and outpatient settings, does not require significant time from the subject, and provides an objective assessment of the state of socio-psychological adaptation. At the same time, the results of clinical and psychodiagnostic examination may depend on the subject’s knowledge of the structure and principle of diagnosis of this test technique, the availability of keys for interpretation of test data, and, provided simulation, aggravation or dissimulation settings can distort the test results.

**Prospects for further researches** are to develop on the basis of the obtained data modern methods of early diagnosis and elimination of socio-psychological maladaptation in depressive disorders, as well as to find ways to prevent depression and related negative socio-psychological phenomena.

**6. Conclusions**

1. Patients with depressive disorders are characterized by a low level of socio-psychological adaptation, accompanied by a decrease in quantitative indicators in all its areas.
2. In both men and women, the level of socio-psychological adaptation decreases with age, which is most clearly manifested by a decrease in adaptability, emotional comfort, payroll, integrated indicators of adaptation, self-acceptance and emotional comfort (men and women), maladaptation, self-acceptance, external control (men only), and internality (women only).
3. The most significant deterioration of socio-psychological adaptation in patients with depressive disorders occurs at the age of over 45 years; this trend is also more common in men.

**Conflict of interests**

The authors declare that they have no conflicts of interest.

**References**

1. Vos, T., Barber, R. M., Bell, B., Bertozzi-Villa, A., Biryukov, S., Bolliger, I. et. al. (2015). Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. The Lancet, 386 (9995), 743–800. doi: http://doi.org/10.1016/s0140-6736(15)60692-4
2. Malhi, G. S., Mann, J. J. (2018). Depression. The Lancet, 392 (10161), 2299–2312. doi: http://doi.org/10.1016/s0140-6736(18)31948-2
3. James, S. L., Abate, D., Abate, K. H., Abay, S. M., Abbafati, C., Abbasi, N. et. al. (2018). Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries in 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. The Lancet, 392 (10159), 1789–1858. doi: http://doi.org/10.1016/s0140-6736(18)32279-7
4. Park, L. T., Zarate, C. A. (2019). Depression in the Primary Care Setting. New England Journal of Medicine, 380 (23), 2278–2280. doi: http://doi.org/10.1056/nejmc1903259
5. Hockenberry, J. M., Joski, P., Yarbrough, C., Druss, B. G. (2019). Trends in Treatment and Spending for Patients Receiving Outpatient Treatment of Depression in the United States, 1998–2015. JAMA Psychiatry, 76 (8), 810–817. doi: http://doi.org/10.1001/jamapsychiatry.2019.0633
6. Bains, N., Abdijadid, S. (2020). Major Depressive Disorder. StatPearls. Treasure Island (FL). StatPearls Publishing. Available at: https://www.ncbi.nlm.nih.gov/books/NBK559078/ Last accessed: 23.02.2021
7. Hammer-Helmich, L., Haro, J. M., Jönsson, B., Tanguy Melac, A., Di Nicola, S., Chollet, J. et. al. (2018). Functional impairment in patients with major depressive disorder: the 2-year PERFORM study. Neuropsychiatric Disease and Treatment, 14, 239–249. doi: http://doi.org/10.2147/ndt.s146098
8. Saragoussi, D., Christensen, M. C., Hammer-Helmich, L., Rive, B., Touya, M., Haro, J. M. (2018). Long-term follow-up on health-related quality of life in major depressive disorder: a 2-year European cohort study. Neuropsychiatric Disease and Treatment, 14, 1339–1350. doi: http://doi.org/10.2147/ndt.s159276
9. Christensen, M. C., Wong, C. M. J., Baune, B. T. (2020). Symptoms of Major Depressive Disorder and Their Impact on Psychosocial Functioning in the Different Phases of the Disease: Do the Perspectives of Patients and Healthcare Providers Differ? Frontiers in Psychiatry, 11. doi: http://doi.org/10.3389/fpsyg.2020.00280
10. Isakov, R. I. (2018). Psychosocial deadaptation in women with depressive disorders of different genesis: peculiarities of diagnostics, diseases and structure. Psychiatry Neurology and Medical Psychology, 9, 82–92. doi: http://doi.org/10.26565/2312-5675-2018-9-12

11. Isakov, R. I. (2018). Comparative analysis of psychosocial disadaptation and efficient symptoms in women with depressive disorders of different geneses. Ukraïns'kyi Visnyk Psykhonevrolohi, 26 (3 (96)), 20–26.

12. Isakov, R. I. (2020). The socio-psychological adjustment/maladjustment in the structure of depressive disorders of different genesis in women with different levels of affliction due to the action of macrosocial level of maladaptive factors. Achievements of Clinical and Experimental Medicine, 1, 89–96. doi: http://doi.org/10.11603/1811-2471.2020.v11.11075

13. Isakov, R. I. (2019). Features of the relationship between severity of macrosocial maladaptation and anxiety-depressive symptoms in women with different genesis depressive disorders. Archives of Psychiatry, 25 (3 (98)), 136–141. doi: http://doi.org/10.37822/2410-7484.2019.25.3.136-141

14. Pshuk, N. G., Stukan, L. V., Kaminska, A. O. (2018). Introducing system of psychotherapeutic intervention for family caregivers of patients with endogenous mental disorders. Wiadomosci Lekarskie, 71 (5), 980–985.

15. Mysula, Yu. I. (2020). Some features of quality of life in the primary episode of bipolar affective disorder. Bulletin of Social Hygiene and Health Protection Organization of Ukraine, 1 (83), 24–30. doi: http://doi.org/10.11603/1681-2786.2020.1.11201

16. Kraus, C., Kadriu, B., Lanzenberger, R., Zarate, C. A., Kasper, S. (2019). Prognosis and improved outcomes in major depression: a review. Translational Psychiatry, 9 (1). doi: http://doi.org/10.1038/s41398-019-0460-3

17. Markova, M., Rezunenko, O., Kozhyna, H. (2017). Contents and efficiency measures of psychoeducation in rehabilitation system of patients with bipolar affective disorder. Journal of Education, Health end Sport formerly Journal of Health Sciences, 7, 711–715. doi: http://dx.doi.org/10.5281/zenodo.830020

18. Osintsii, A. K. (2004). Opredelelenie karakteristik sotsialnoi adaptatsii. Psihhologiya i shkola, 1, 43–56.

19. Belov, O. O., Pshuk, N. G. (2020). Age and gender features of depressive and anxiety symptoms of depressive disorders. Wiadomosci Lekarskie, 73 (7), 1476–1479. doi: http://doi.org/10.36740/wlek202007130

20. Belov, O., Pshuk, N. (2020). Some trends of clinical phenomenology of modern depressive disorders. Psychiatry, psychotherapy and clinical psychology, 1, 98–104. doi: http://doi.org/10.34883/Pl.2020.11.1.009

21. Fiskin, G., Kaydirak, M. M., Oskay, U. Y. (2016). Psychosocial Adaptation and Depressive Manifestations in High-Risk Pregnant Women: Implications for Clinical Practice. Worldviews on Evidence-Based Nursing, 14 (1), 55–64. doi: http://doi.org/10.1111/wvn.12186

22. Gvozdetskii, A. N., Petrova, N. N., Akulin, I. M. (2019). Cognitive deficit predict social performance in remitted patients with major depressive disorder. Sotsialnaiia i klinicheskaiia psikhiatriia, 29 (1), 5–9.

23. Herasymenko, L. O., Skrypnikov, A. M., Isakov, R. I. (2019). Diagnosis of psychosocial maladaptation in women with depressive disorders. World of Medicine and Biology, 15 (67), 34–38. doi: http://doi.org/10.26724/2079-8334-2019-1-67-34

24. Bruin, M. C., Comijs, H. C., Kok, R. M., Van der Mast, R. C., Van den Berg, J. F. (2018). Lifestyle factors and the course of depression in older adults: A NESDO study. International Journal of Geriatric Psychiatry, 33 (7), 1000–1008. doi: http://doi.org/10.1002/gps.4889

25. Dao, A. T. M., Nguyen, V. T., Nguyen, H. V., Nguyen, L. T. K. (2018). Factors Associated with Depression among the Elderly Living in Urban Vietnam. BioMed Research International, 2018, 1–9. doi: http://doi.org/10.1155/2018/2370284

26. Laird, K. T., Krause, B., Funes, C., Lavretska, H. (2019). Psychobiological factors of resilience and depression in late life. Translational Psychiatry, 9 (1). doi: http://doi.org/10.1038/s41398-019-0424-7

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Oleksandr Belov, PhD, Associate Professor, Department of Medical Psychology and Psychiatry with Course of Postgraduate Education, National Pirogov Memorial Medical University, Pirogova str., 56. Vinnitsya, Ukraine, 21018
E-mail: oleksbelov@gmail.com